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PREFACE

This volume of the Economic Survey-a historic first because it is the second to appear within a year-needs explanation, especially for an audience that might be Survey-addled.

Prior to 2014-15, the Economic Survey had a more analytical/policy chapter attributable to the Chief Economic Adviser (CEA). The Survey was tabled, and hence became public, on the day before the Union Budget presented by the Minister of Finance.

In the last two years, the pattern changed. There were two volumes that were released on the day before the Budget. While Volume 1 was analytical, and policy and ideas-oriented, the second volume featured a backward-looking review and included historic data tables.

This year, the pattern has changed yet again but forced by the advancement of the Budget calendar from early March to early February. The backward-looking review of past years was always a little awkward because data availability limited the review to the first three quarters of the year gone by. Accordingly, this time it was decided to split the Economic Survey into two volumes: Volume 1 as in the previous two years continued to be analytical/policy-oriented and was released just before the Budget. Volume 2 could come out at a time when data for the full year gone by became available (also in the process replacing the Mid-Year Economic Analysis that used to come out in December). That data availability largely dictated the timing of the tabling of Volume 2 in Parliament.

However, since Volume 2 appears almost half a year (an event-rich period with GST implementation, demonetization impacts, farm stress etc.) after Volume 1, a fresh macro-economic update with an analytical review of the pressing issues seemed necessary. This update-contained in Chapter 1 ("State of the Economy") in this volume-like its counterparts in the years before 2014-15 can be attributed to the CEA, with the Economic Division taking the lead for the other chapters. It is in this respect that this volume of the Survey is more akin to the Surveys prior to 2014-15. Whether this practice of issuing two volumes continues will depend in part on the future timing of the Budget calendar.

Another innovation this year is that along with the Economic Survey, electronic versions of the data-going back to the 1950s in some cases-will also be released. This should greatly facilitate teaching, analysis, and research by the public at large.

A final point to note is that, in response to strong demand from a wide cross-section of users, the Hindi version of Volume 1 is being re-issued in a fresh translation by Professor Bagla of Delhi University.

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ABBREVIATIONS

| | | | |
|----------|--|----------|--|
| AAS | Agrometeorological Advisory Services | DII | Domestic Institutional Investors |
| AAV | Antyodaya Anna Yojana | DIPP | Department of Industrial Policy & Promotion |
| ABP | Area Based Projects | DISCOMs | Distribution Companies |
| AE | Advance Estimates | DISE | District Information System for Education |
| AEPS | Aadhar Enabled Payment System | ECA | Essential Commodities Act |
| AFB | Adaptation Fund Board | ECB | External Commercial Borrowing |
| AIDIS | All India Debt and Investment Survey | EHR | Electronic Health Record |
| APL | Above Poverty Line | EMDEs | Emerging Market and Developing Economies |
| APMC | Agricultural Produce Marketing Committee | EMEs | Emerging Market Economies |
| APY | Atal Pension Yojana | e-NAM | Electronic National Agriculture Market |
| ARM | Additional Resource Mobilization | EO | Earth Observation |
| ARPU | Average Revenue per User | EPFO | Employees' Provident Fund Organisation |
| ASEAN | Association of South East Asian Nations | ESA | European Space Agency |
| ASER | Annual Status of Education Report | ESIC | Employees' State Insurance Corporation |
| ASI | Annual Survey of Industries | EUS | Employment and Unemployment Survey |
| AUM | Asset Under Management | FAITH | Federation of Associations in Indian Tourism & Hospitality |
| BC | Benefit Cost | FAO | Food and Agriculture Organization |
| BCD | Basic Custom Duty | FCCB | Foreign currency Convertible Bonds |
| BCM | Billion Cubic Meter | FCI | Food Corporation of India |
| BE | Budget Estimates | FCNR (B) | Foreign Currency Non-Resident (Banks) |
| BHIM | Bharat Interface for Money | FDI | Foreign Direct Investment |
| BPL | Below Poverty Line | FEEs | Foreign Exchange Earnings |
| BRICS | Brazil, Russia, India, China and South Africa | FIG | Farmer Interest Group |
| BSBD | Basic Savings Bank Deposit Account | FII | Foreign Institutional Investor |
| BUR | Biennial Update Report | FIPB | Foreign Investment Promotion Board |
| BVS | Biodegradable Vascular Scaffolds | FIR | First Information Report |
| CAA&A | Controller of Aid Accounts and Audit | FPO | Farmer Producer Organisation |
| CACP | Commission for Agricultural Costs and Prices | FRBM | Fiscal Responsibility and Budget Management |
| CAD | Coronary Artery Disease | FRL | Fiscal Responsibility Legislation |
| CBDR-RC | Common but Differentiated Responsibilities and Respective Capabilities | FTA | Free Trade Agreement |
| CBR | Crude Birth Rate | FY | Financial Year |
| CDR | Crude Death Rate | GCCA | Grants for creation of capital assets |
| CECA | Comprehensive Economic Cooperation Agreement | GDI | Gender Development Index |
| CFPI | Consumer Food Price Index | GDP | Gross Direct Premium |
| CGA | Controller General of Accounts | GDP | Gross Domestic Product |
| CGST | Central Goods and Services Tax | GEC | Green Energy Corridor |
| CHE | Current Health Expenditure | GEF | Global Environment Facility |
| CIC | Currency in circulation | GER | Gross Enrolment Ratio |
| CIN | Corporate Identity Number | GFCF | Gross Fixed Capital Formation |
| CIP | Central Issue Price | GHI | Global Hunger Index |
| CIPHET | Central Institute of Post-Harvest Engineering and Technology | GLC | Ground Level Credit |
| CKM | Circuit Kilometer | GM | Genetically Modified |
| COP 21 | 21st Conference of Parties | GM | Geometric Mean |
| CPI (AL) | Consumer Price Index (Agricultural Labourers) | GNI | Gross National Income |
| CPI (C) | Consumer Price Index (Combined) | GNPA | Gross Non-Performing Advances |
| CPI (IW) | Consumer Price Index (Industrial Workers) | GPI | Gender Parity Index |
| CPI (RL) | Consumer Price Index (Rural Labourers) | GSDP | Gross State Domestic Product |
| CPI TC | Consumer Price Index True Core | GSLV | Geo-Synchronous Satellite Launch Vehicle |
| CPI | Consumer Price Index | GST | Goods and Services Tax |
| CPSE | Central Public Sector Enterprises | GSVA | Gross State Value Added |
| CRAR | Capital to Risk-Weighted Assets Ratio | GVA | Gross Value Added |
| CSO | Central Statistical Office | GW | Gigawatt |
| CV | Coefficient of Variation | HDI | Human Development Index |
| CVDs | Cardiovascular Diseases | HDR | Human Development Report |
| CWP | Currency with Public | HFCs | Housing Finance Companies |
| DAC&FW | Department of Agriculture, Cooperation & Farmers Welfare | HYVs | High Yielding Varieties |
| DAE | Direct Access Entity | IaaS | Infrastructure as a Service |
| DAY-NRLM | Deendayal Antyodaya Yojana - National Rural Livelihoods Mission | IBBI | Insolvency and Bankruptcy Board of India |
| DAY-NULM | Deendayal Antyodaya Yojana - National Urban Livelihoods Mission | IBC | Insolvency and Bankruptcy Code |
| DBT | Direct Benefit Transfer | IC | Interest Coverage |
| DCP | Decentralised Procurement | ICTs | Information and Communication Technologies |
| DDUGJY | Deendayal Upadhyaya Gram Jyoti Yojana | IEA | International Energy Agency |
| DES | Directorate of Economics & Statistics | IEC | Importer Exporter Code |
| | | IGS | International Ground Stations |
| | | IGST | Integrated Goods and Services Tax |
| | | IIP | Index of Industrial Production |
| | | IIPS | International Institute for Population Sciences |

| | | | |
|---------|---|--------|--|
| IMF | International Monetary Fund | NER | North Eastern Region |
| IMR | Infant Mortality Rate | NFHS | National Family Health Survey |
| InvITs | Infrastructure Investment Trusts | NFSA | National Food Security Act |
| IOI | Incidence of Indebtedness | NGCP | National Green Corridor Programme |
| IoT | Internet of Things | NHA | National Health Accounts |
| IPC | Indian Penal Code | NIC | National Industrial Classification |
| IQR | Interquartile Range | NITI | National Institution for Transforming India |
| IRENA | International Renewable Energy Agency | NLEM | National List of Essential Medicines |
| ISS | Interest Subvention Scheme | NPA | Non-Performing Assets |
| IT | Information Technology | NPISH | Non-Profit Institutions Serving Households |
| ITA | International Tourist Arrivals | NPK | Nitrogen, Phosphorus, Potassium |
| IT-BPM | Information Technology-Business Process Management | NPPA | National Pharmaceutical Pricing Authority |
| ITC | Input Tax Credit | NPS | National Pension Scheme/System |
| ITIs | Industrial Training Institutes | NRI | Non-Resident Indian |
| ITR | International Tourism Receipts | NSDC | National Skill Development Corporation |
| JLF | Joint Lenders Forum | NSQF | National Skills Qualifications Framework |
| KMS | Kharif Marketing Season | NSS | National Sample Survey |
| KW | Kilowatt | NSS/O | National Sample Survey/Office |
| KWH | Kilowatt-Hour | NSSF | National Small Savings Fund |
| LEB | Life Expectancy at Birth | NSSO | National Sample Survey Office |
| LEO | Low Earth Orbit | NTBs | Non-Tariff Barriers |
| LTRCF | Long Term Rural Credit Fund | OBCs | Other Backward Classes |
| LULUCF | Land use, Land Use Change and Forestry | ODF | Open Defecation Free |
| M0 | Reserve Money | OECD | Organisation for Economic Co-Operation and Development |
| M3 | Broad Money | OFCB | Overseas Foreign Currency Borrowings |
| MBPS | Megabits per Second | OMO | Open Market Operations |
| MDDS | Metadata and Data Standards | OMSS | Open Market Sale Scheme |
| MDM | Mid-Day Meal | OOI | Other Operating Income |
| MEIS | Merchandise Exports from India Scheme | OoP | Out of Pocket |
| MEP | Minimum Export Price | OPEC | Organization of Petroleum Exporting Countries |
| MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Act | P/E | Price/Earnings |
| MGNREGS | Mahatma Gandhi National Rural Employment Guarantee Scheme | PA | Provisional Actuals |
| MHRD | Ministry of Human Resource Development | PaaS | Platform-as-a-Service |
| MI | Micro Irrigation | PAED | Publicly Available Environmental Data |
| MIDH | Mission for Integrated Development of Horticulture | PAHAL | PratyakshHanstantritLabh |
| MMR | Maternal Mortality Ratio | PAT | Perform Achieve Trade |
| MMT | Million Metric Tonne | PAT | Profit After Tax |
| MNREGA | Mahatma Gandhi National Rural Employment Guarantee Act | PCA | Prompt Corrective Action |
| MOSPI | Ministry of Statistics and Programme Implementation | PDS | Public Distribution System |
| MPC | Monetary Policy Committee | PE | Provisional Estimates |
| MSDE | Ministry of Skill Development and Entrepreneurship | PG | Post Graduate |
| MSF | Marginal Standing Facility | PGCIL | Power Grid Corporation of India Ltd. |
| MSME | Ministry of Micro, Small and Medium Enterprises | PLF | Plant Load Factor |
| MSP | Minimum Support Price | PMAY | Pradhan MantriAwasYojana |
| MT | Metric Tonne | PMJDY | Pradhan Mantri Jan DhanYojana |
| MVA | Mega Volt Amp | PMJJBY | Pradhan MantriJeevanJyotiBimaYojana |
| MW | Megawatt | PMKSY | Prime Minister's KrishiSinchaiYojana |
| NABARD | National Bank for Agriculture & Rural Development | PMKVY | Pradhan MantriKaushalVikasYojana |
| NAFCC | National Adaptation Fund for Climate Change | PMSBY | Pradhan Mantri Suraksha BimaYojana |
| NAM | National Agriculture Market | POL | Petroleum Oil and Lubricant |
| NAPCC | National Action Plan on Climate Change | PPA | Purchasing Power Agreement |
| NAR | Net Attendance Ratio | PPP | Purchasing Power Parity |
| NAREDCO | National Real Estate Development Council | PROBE | Public Report on Basic Education |
| NASSCOM | National Association of Software and Services Companies | PSBs | Public Sector Banks |
| NBFS | Non-Banking Financial Sector | PSLV | Polar Satellite Launch Vehicle |
| NCEEF | National Clean Energy and Environment Fund | PTR | Pupil Teacher Ratio |
| NCRB | National Crime Records Bureau | PVBs | Private Sector Banks |
| NCT | National Capital Territory | QE | Quantitative Easing |
| NCTF | National Committee on Trade Facilitation | QES | Quarterly Employment Survey |
| NDC | Nationally Determined Contribution | RBI | Reserve Bank of India |
| NDDB | National Dairy Development Board | RCEP | Regional Comprehensive Economic Partnership |
| NDHA | National Digital Health Authority | RCS | Regional Air Connectivity Scheme |
| NDTL | Net Demand & Time Liabilities | RE | Revised Estimates |
| NEER | Nominal Effective Exchange Rate | REER | Real Effective Exchange Rate |
| NEFT | National Electronic Funds Transfer | REITs | Real Estate Investment Trust |
| NER | Net Enrolment Ratio | RES | Renewable Energy Sources |
| | | RGI | Registrar General of India |
| | | RHS | Right Hand Side |
| | | RKM | Route Kilometer |
| | | RMS | Rabi Marketing Season |

| | | | |
|-------|--|---------|--|
| RMSA | RashtriyaMadhyamikShikshaAbhiyan | STRI | Services Trade Restrictiveness Index |
| ROA | Return on Assets | STs | Scheduled Tribes |
| ROE | Return on Equity | Sub-GTO | Sub-Geo Transfer Orbit |
| RRB | Regional Rural Banks | SUUTI | Specified Undertaking for Unit Trust of India |
| RTE | Right To Education | TBS | Twin Balance Sheet |
| RTGS | Real Time Gross Settlement | TFR | Total Fertility Rate |
| S4A | Sustainable Structuring of Stressed Assets | TFS | Trade Facilitation in Services |
| SaaS | Software as a Service | TIES | Trade Infrastructure for Export Scheme |
| SAD | Special Additional Duty | TISA | Trade in Services Agreement |
| SAP | Swachhta Action Plan | TPDS | Targeted Public Distribution System |
| SAPCC | State Action Plans on Climate Change | TPP | Trans-Pacific Partnership |
| SBM-G | Swachh Bharat Mission-Gramin | TRAI | Telecom Regulatory Authority of India |
| SBNs | Specified Bank Notes | UDAN | UdeDeshKaAamNaagrik |
| SCB | Scheduled Commercial Bank | UDAY | Ujwal DISCOM Assurance Yojana |
| SCs | Scheduled Castes | UN | United Nations |
| SDGs | Sustainable Development Goals | UNESCO | United Nations Educational, Scientific and Cultural Organization |
| SDL | State Development Loans | UNFCCC | United Nations Framework Convention on Climate Change |
| SDR | Special Drawing Right | UNWTO | United Nation's World Tourism Organization |
| SDR | Strategic Debt Restructure | USD | United States Dollar |
| SEBI | Securities and Exchange Board of India | USEIA | United States Energy Information Administration |
| SECC | Socio Economic Caste Census | UTs | Union Territories |
| SEIS | Services Exports from India Scheme | VAT | Value Added Tax |
| SEQI | Social Education Quality Index | VNR | Voluntary National Review |
| SGST | State Goods and Services Tax | WPI | Wholesale Price Index |
| SHGs | Self Help Groups | WTO | World Trade Organization |
| SMBs | Server Message Block | WTTC | World Travel and Tourism Council |
| SPV | Solar Photo Voltaic | | |
| SSA | SarvaShikshaAbhiyan | | |
| STaaS | Storage as a Service | | |

NOTES

The following figures/units are used in the Economic Survey:

| | | | |
|---------|----------------------|----------|-----------------------------|
| BCM | billion cubic metres | kg | kilogram |
| BU | billion units | ha | hectare |
| MT | million tonnes | Bbl | billion barrels per litre |
| lakh | 1,00,000 | billion | 1,000 million/100 crore |
| million | 10 lakh | trillion | 1,000 billion/100,000 crore |
| crore | 10 million | | |

State of the Economy: An Analytical Overview and Outlook for Policy

01 CHAPTER

Optimism about the medium term and gathering anxiety about near-term deflationary impulses simultaneously reign over the Indian economy. Optimism stems from the launch of the historic Goods and Services Tax (GST), the decision in principle to privatize Air India; actions to address the Twin Balance Sheet (TBS) challenge; and growing confidence that macro-economic stability has become entrenched. Optimism, even exuberance, is manifested in financial markets' high and rising valuations of bonds, and especially stocks. At the same time, anxiety reigns because a series of deflationary impulses are weighing on an economy yet to gather its full momentum and still away from its potential. These include: stressed farm revenues, as non-cereal food prices have declined; farm loan waivers and the fiscal tightening they will entail; and declining profitability in the power and telecommunication sectors, further exacerbating the TBS problem. For the year ahead, the structural reform agenda will be one of implementing actual and promised actions—GST, Air-India, and critically the TBS. The macro-economic challenge will be to counter the deflationary impulses through key monetary, fiscal, and agricultural policies. The opportunities created by the “sweet spot” that recent Economic Surveys have highlighted must be seized and not allowed to recede.

I. INTRODUCTION

1.1 At this juncture, the Indian economy elicits reactions that span the continuum: from fundamental optimism (and its frothy variant, exuberance) about the medium term to gathering anxiety about near-term deflationary impulses. So, there is:

- rekindled optimism on structural reforms with the launch of the Goods and Services Tax (GST), which has been in the making for nearly a decade and a half; the decision in principle to privatize Air India; further rationalisation of energy subsidies and actions to address the Twin Balance Sheet (TBS) challenge;
- growing confidence that macro-economic stability has become entrenched, partly because of a series of government and RBI actions, and partly because structural changes in the oil market have reduced the risk of sustained price increases that would destabilize inflation and the balance of payments;
- extraordinary financial market confidence, reflected in high and rising bond, and especially stock, valuations;
- demonetization's long-term positive consequences combined with recognition of its short-term costs;
- rising concern that state government

finances will be disrupted because of farm loan waivers; and

- a sense that deflationary tendencies are weighing on an economy yet to gather its full growth momentum and still away from its potential. These include: (i) stressed farm revenues, as non-cereal foodgrain prices have fallen sharply; (ii) fiscal tightening by the states to keep budget deficits on track—a recent illustration is Uttar Pradesh which has slashed capital expenditure by 13 per cent (excluding UDAY) to accommodate the loan waiver; (iii) declining profitability in the power and telecommunication sectors, further exacerbating the TBS problem; and (iv) transitional frictions from implementation of the GST.

1.2 The Indian economy's longer term economic challenges and priorities were discussed in the Economic Survey 2016-17, Volume I. For the year ahead, the structural and macro-economic agenda is clearer. The structural reform agenda will be one of implementing promised actions (GST, TBS, and Air-India) and decisions taken.

1.3 Cross-country evidence abounds that structural reforms are more successful the healthier the macro-economic context; indeed, the latter may be a pre-requisite. Macro-economic dynamism provides the lubrication and resources to minimize unavoidable disruptions and finance structural reforms. That is why overcoming the near-term demand shortfalls will be critical. Here, important policy choices may need to be considered: the timing and magnitude of monetary easing, the magnitude and composition of fiscal consolidation in the context of commitments made, and actions to deal with the non-cereal farm sector where conditions this year—good monsoon and soft demand—may resemble last year's.

1.4 This chapter is organized in three

sections: an analytical discussion of key recent macro-economic developments in Section A is followed by an assessment of the economic outlook for 2017-18, and the appropriate macro-economic policy stance in Section B. Recent economic developments are described in Section C.

A. ANALYTICAL REVIEW OF RECENT DEVELOPMENTS

1.5 Optimism about the medium-term prospects for the Indian economy has been engendered by a number of structural reform actions and developments, and manifested, above all, in financial market confidence.

II. HISTORIC TAX REFORM: THE GOODS AND SERVICES TAX (GST)

1.6 The launch of the GST represents an historic economic and political achievement, unprecedented in Indian tax and economic reforms, summarized in Table 1 below and elaborated in Chapter 2. Here the way ahead is outlined, misconceptions are clarified, and some relatively unnoticed benefits are highlighted.

1. Increased complexity of tax structure?

1.7 Much of the commentary has suggested that the GST has a complicated tax structure, implicitly comparing the new system with an ideal GST tax structure while implying that the comparison is with the past. It is inaccurate to suggest that the GST is more complicated than the system it replaced, for two related reasons.

1.8 Previously, every good faced an excise tax levied by the Centre and a state VAT. There were at least 8-10 rates of excises and 3-4 rates of state VATs, the latter potentially different across states. So, a structure of multiple rates (as much as 10 times 4 times 29 states) has been reduced to a structure of 6 rates.

1.9 More important, uniformity or the

Table 1. Key Benefits of the GST

| | |
|--|---|
| 1. Furthering cooperative federalism | <ul style="list-style-type: none"> Nearly all domestic indirect tax decisions to be taken jointly by Centre and states |
| 2. Reducing corruption and leakage | <ul style="list-style-type: none"> Self-policing: invoice matching to claim input tax credit will deter non-compliance and foster compliance. Previously invoice matching existed only for intra-state VAT transactions and not for excise and service tax nor for imports |
| 3. Simplifying complex tax structure and unifying tax rates across the country | <ul style="list-style-type: none"> 8-10 central excise duty rates times 3-4 state VAT rates itself applied differentially across states to be consolidated into the GST's 6 rates, applied uniformly across states (one good, one Indian tax) Other taxes and cesses of the states and the Centre subsumed in the GST |
| 4. Creating a common market | <ul style="list-style-type: none"> Will eliminate most physical restrictions and all taxes on inter-state trade |
| 5. Furthering 'Make in India' by eliminating bias in favour of imports ("negative protection") | <ul style="list-style-type: none"> Will make more effective and less leaky the domestic tax levied on imports (IGST, previously the sum of the countervailing duty and special additional duty), which will make domestic goods more competitive |
| 6. Eliminating tax bias against manufacturing/reducing consumer tax burden | <ul style="list-style-type: none"> By rectifying breaks in the supply chain and allowing easier flow of input tax credits, GST will substantially eliminate cascading (paying taxes at each stage on value added and taxes at all previous stages, such as with the Central Sales Tax) |
| 7. Boosting revenues, investment, and medium-term economic growth | <ul style="list-style-type: none"> Investment will be stimulated, because scope of input tax credit for capital purchases will increase Tax base will expand through better compliance Embedded taxes in exports will be neutralized |

principle of "one good, one tax" all over India is now a reality. Previously, different states could impose different taxes on any given product and these could be different from that levied by the Centre.

1.10 So, relative to the past, there is now uniformity rather than multiplicity as well as considerably less complexity.

2. Additional compliance burden?

Goods

1.11 It is true that there will be additional documentation requirements on all those who are now part of the GST net. But the filing requirements will comprise filling one

set of forms per month (not three as has been alleged because filling the first automatically fills the two others). This will not be an additional burden because similar, sometimes more onerous, requirements existed under the previous state VAT and central excise regimes (Table 2). For example, as the Table below shows, under the pre-GST regime, three separate returns to three different authorities had to be filed in respect of the three major taxes that are now subsumed under the GST.

Services

1.12 Previously, since only the Centre

imposed the service tax, agents had to register with, and hence file to, only one authority. Now, agents will have to register in all states that they operate in and file in each of them. In the discussions in the GST Council, attempts were made to preserve the previous, simpler system, but states were nearly unanimous in insisting for multiple registration as a way to ensure that they receive their due share of revenues. That said, the increased compliance requirements will be faced only by a small number of agents with a pan-India presence whose ability to comply will be commensurately greater. Going forward, there is scope for more centralized procedures to minimize the compliance burden.

Table 2. Number and Frequency of Returns to be Filed: Before and After GST

| Before GST | | GST structure |
|----------------|---------------------------|---------------------------|
| State VAT | 1 per month plus 1 annual | 1 per month plus 1 annual |
| Service Tax | 2 half yearly | |
| Central Excise | 1 per month plus 1 annual | |

Small Traders

1.13 Much has been made of the additional compliance burden on small traders and agents. This overlooks some important changes in the other direction. The GST has significantly raised turnover thresholds for inclusion in the tax net, as Table 3 shows. As a result, out of about 87 lakh agents that were previously in the tax net (states VAT, central excise and service tax) about 70 lakh remain in the GST net. A significant number of small traders with turnover less than 20 lakh may have opted out. Moreover, even though the new threshold is 20 lakh, agents with a turnover of up to 75 lakh can choose to pay a small tax on their turnover

(not valued added), which they can file every quarter instead of every month with fewer documents having to be submitted.

Table 3: Turnover Threshold for Inclusion in the Tax Net: Before and After GST (in Rs.)

| Before GST | | GST structure |
|----------------|---------------|--|
| State VAT | Rs. 5-10 lakh | <ul style="list-style-type: none"> • Minimum Rs. 20 lakh • Rs. 20-75 lakh subject to lower compliance burden |
| Service Tax | Rs. 10 lakh | |
| Central Excise | Rs. 1.5 crore | |

1.14 On the concerns that the anti-profiteering provisions might lead to over-zealous administration, the Government has indicated that they will be sparingly used. In any case, a sunset clause was introduced to ensure that the provisions will expire no later than two years.

3. Hidden benefits

1.15 One important hidden benefit of the GST is that the textile and clothing sector is now fully part of the tax net. Previously, some parts of the value chain, especially fabrics, were outside the tax net, leading to informalisation and evasion. Some anomalies favoring imports of fabrics over domestic production will need to be rectified but overall the tax base has expanded.

1.16 Similarly, one segment of land and real estate transactions has been brought into the tax net: “work contracts”, referring to housing that is being built. This in turn would allow for greater transparency and formalization of cement, steel, and other sales, which tended to be outside the tax net. The formalization will occur because builders will need documentation of these input purchases to claim tax credit.

1.17 Third, the GST will rectify the inadequacies of the previous system of domestic taxes levied on imports—the countervailing duty to offset the excise tax

and the Special Additional Duty (SAD) to offset the state VAT. For example, the SAD was levied at 4 percent, even though the standard VAT was 12.5 percent in most states; while in principle firms that paid VAT on inputs could reclaim the tax, in practice there were difficulties getting the tax credits. Under the GST, the full taxes on domestic sales levied by the Centre and the states (the IGST) will be levied when imported goods first arrive into the country with full tax credits available down the chain to a greater extent than previously. This will lead to more transparent and more effective taxation of imports.

1.18 There are early signs of tax base expansion. Between June and July 2017, 6.6 lakh new agents previously outside the tax net have sought GST registration. This is expected to rise consistently as the incentives for formalization increase. Preliminary estimates point to potentially large increases in the tax base as a consequence.

1.19 Another benefit will be the impact of GST and the information it throws up on direct tax collections. This could be substantial. In the past, the Centre had little data on small manufacturers and consumption (because the excise was imposed at the manufacturing stage), while states had little data on the activities of local firms outside their borders. Under the GST, there will be seamless flow and availability of a common set of data to both the Centre and states, making direct tax collections more effective.

1.20 The longer-term benefits include the GST's impact on financial inclusion. Small businesses can build up a real time track record of tax payments digitally, and this can be used by lending institutions for credit rating and lending purposes. Currently, small

businesses are credit-constrained because they cannot credibly demonstrate their financial capability.

1.21 Finally, even within the first few days of the GST's launch there are reports of elimination of inter-state check-posts. So far, 24 states have abolished these check-posts while others are in the process of eliminating them. If this trend continues, the reduction in transport costs, fuel use, and corruption could be significant.

1.22 There is ample evidence to suggest that logistical costs within India are high. For example, one study suggests that trucks in India drive just one-third of the daily distance of trucks in the US (280 km vs 800 km). This raises direct costs (especially in terms of time to delivery), indirect costs (firms keeping larger inventory), and location choices (locating closer to suppliers/customers instead of the best place to produce). Further, only about 40 per cent of total travel time is spent driving; while one quarter is taken up by check points and other official stoppages. Eliminating check point delays could keep trucks moving almost 6 hours more per day, equivalent to additional 164 kms per day – pulling India above global average and to the level of Brazil.

1.23 Overall, logistics costs (broadly defined, and including firms' estimates of lost sales) are 3-4 times the international benchmarks. Studies show that inter-state trade costs exceed intra-state trade costs by a factor of 7-16, thus pointing to clear existence of border barriers to inter-state movement of goods¹. The implementation of GST will dramatically reduce these costs and give a boost to inter-state trade in the country.

4. Challenges ahead

1.24 Table 4 shows the structure of GST

¹ Report of the Committee on Revenue Neutral Rate and Structure of Goods and Services Tax: <http://www.cbec.gov.in/resources//htdocs-cbec/gst/cea-rpt-rnr-new.pdf>

Table 4. GST Rates and Exclusions from GST Base

| IGST (%) | | | Number of Goods categories* | Major Goods/Sector excluded |
|-------------------|----------|-----------|-----------------------------|---|
| CGST (%) | SGST (%) | Total (%) | | <ul style="list-style-type: none"> • Alcohol • Petroleum and energy • Electricity • Land and real estate • Education • Healthcare |
| 0 | 0 | 0 | 88 | |
| 1.5 | 1.5 | 3 | Gold and jewelry | |
| 2.5 | 2.5 | 5 | 173 | |
| 6 | 6 | 12 | 200 | |
| 9 | 9 | 18 | 521 | |
| 14 | 14 | 28 | 229 | |
| Cesses (multiple) | | | | |

IGST is the sum of the GST levied by the Centre (CGST) and the states (SGST).

*Measured as number of Harmonized System (HS) lines defined under the tariff code

rates and goods/sectors that are outside the GST net. The rate structure and exclusion from the base, shown in Table 4, have scope for improvement. Alcohol, petroleum and energy products, electricity, and some of land and real estate transactions are outside the GST base but are taxed by the Centre and/or states outside the GST. Health and education are outside the tax net altogether, exempted under the GST and not otherwise taxed by the Centre and states.

1.25 Bringing electricity into the GST framework would improve the competitiveness of Indian industry because taxes on power get embedded in manufacturers' costs, and can be claimed back as input tax credit. Inclusion of land and real estate and alcohol in GST will improve transparency and reduce corruption; keeping health and education completely out is inconsistent with equity because these are services consumed disproportionately by the rich. Moreover, the tax on gold and jewellery products—items that are disproportionately consumed by the very rich—at 3 percent is still low.

1.26 The multiplicity of rates was a response to meeting a variety of objectives, including

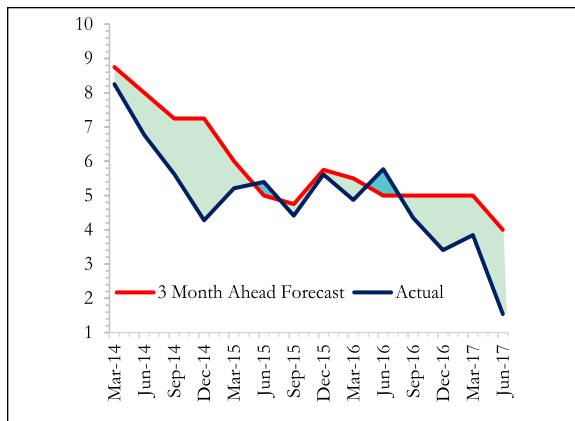
the need to keep rates down for a number of essential items to protect poorer sections from price rises.

1.27 The GST Council—a remarkable institutional innovation in the governance of cooperative federalism, and one that has proven to be so already in its first ten months of existence—will need to take up these challenges in the months ahead to take India from a good GST to an even better one.

III. PARADIGM SHIFT TO LOW INFLATION?

1.28 Is India undergoing a structural shift in the inflationary process toward low inflation?

1.29 Research indicates that consumer price inflation has undershot professional forecasts fairly consistently over the last 5 years or so, globally as well as in the advance economies. In the Indian context, evidence seems to be pointing to same conclusion—though the errors have been on both side over longer time horizon. More recently such shifts seem to have been missed (Figure 1 and Figure 2, respectively); for example, in the last 14 quarters, inflation has been overestimated by more than 100 basis points in six quarters

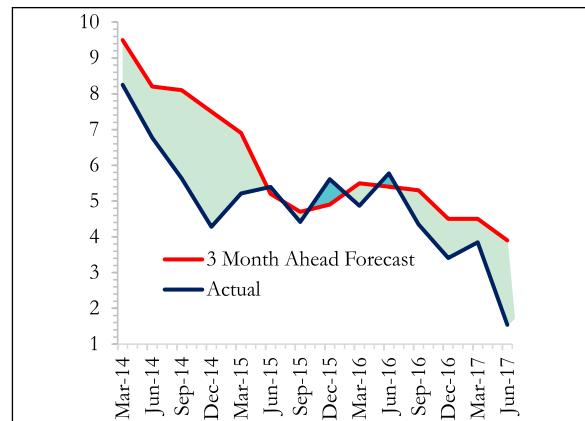
Figure 1. CPI Inflation - RBI Forecast² and Actual

Sources: RBI and Survey Calculations

(three in 2014 and three in the most recent period) with an average error of 180 basis points (and that too for a very short-term forecast, just three months ahead) (Figure 1). It must also be noted that during this period the forecast was within 50 bps of the outcome in 4 out of 14 quarters (March 2014, June, September and December 2015) and within 25 bps in 1 out of 14 quarters (December 2015). The record of professional forecasters is similar (Figure 2). Actual lesser inflation than forecast could well reflect the extraordinary developments such as the durable collapse of international oil prices.

1.30 The question going forward is whether there is a paradigm shift in inflation and what it implies for monetary management.

1.31 Consider first a long term perspective on inflation in India shown in Figure 3. Over the last four decades (beginning 1977), there have been broadly four phases: high inflation, averaging 9 percent, for about 23 years; low inflation of about 4 percent for 5 years between 2000 and 2005; a resurgence

Figure 2. CPI Inflation -Professional Forecast and Actual

of inflation back to about 9 percent during the period 2006-2014; and now a new phase of relatively low, possibly very low, inflation.³

1.32 Figure 3 helps identify the drivers of inflation. Broadly, high inflation, and especially inflation peaks, coincide with surges in commodity prices, especially for oil and food; in some cases, they are caused by one-off factors such as sharp exchange rate depreciation.

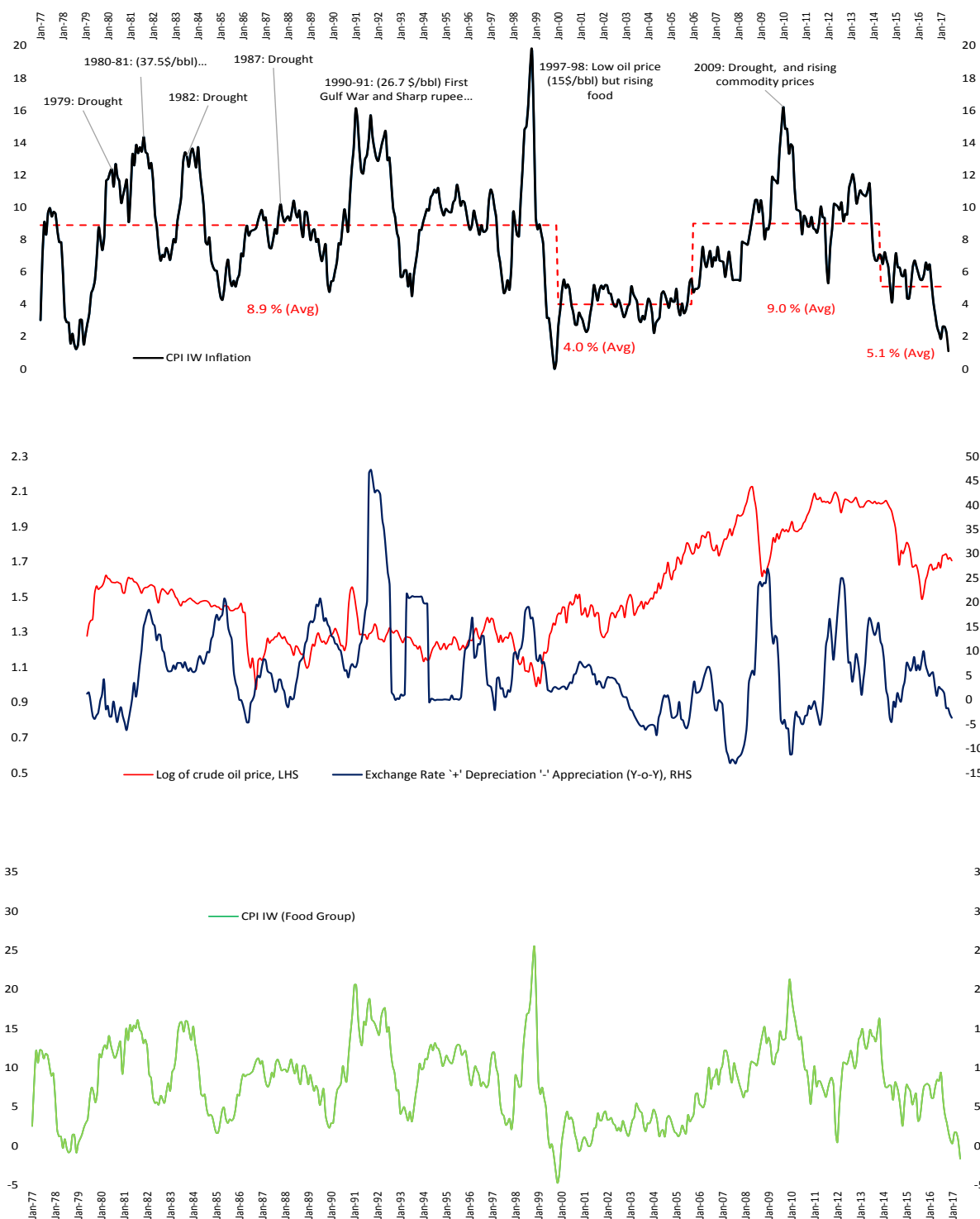
1.33 So, if there are structural changes in the oil market and in domestic agriculture, the inflationary process could also experience structural shifts. As elaborated below, there are reasons to believe that both changes are underway.

Oil

1.34 It has become almost an involuntary reflex to cite geopolitics in the list of risks to oil prices, and hence to domestic inflation. But these risks may well be diminishing substantially. The oil market is very different today than a few years ago in a way that

² In Figure 1, the inflation forecast is estimated as the mid-point of the confidence bands in the fan charts of respective monetary policy statements. Figures 1 and 2 start in March 2014 because 3-months ahead projections (embodied in the "fan charts") are not available for previous periods.

³ Headline CPI inflation is now below 2 percent but even refined core (which strips out all the volatile food and fuel components), has now gone below 4 percent. This compares very favorably with India's long-run inflation performance of close to 9 percent and with the average of refined core inflation of 6.8 percent in the CPI-New Series from January 2011 onwards.

Figure 3. Long term Inflation⁴ (1977-2017)

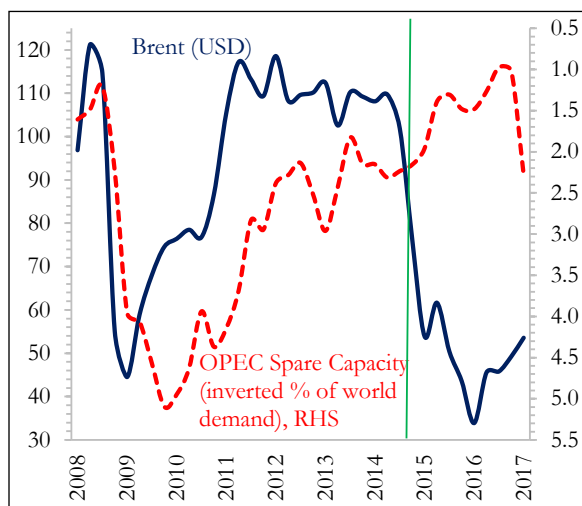
Sources: Labour Bureau, Reserve Bank of India and World Bank.

⁴ Inflation based on the Consumer Price index for Industrial Workers (CPI-IW) released by the Labour Bureau is used since it is available for a longer period. The new series of Consumer Price Index – Combined (CPI-C) released by the Central Statistics Office (CSO) is only available since 2012-13. However, the two series move very closely with a correlation coefficient of 0.94 (for 2012-13 to 2016-17, the period when both the series are available).

imparts a downward bias to oil prices, or at least has capped the upside risks to oil prices.

1.35 The exploitation of shale oil and gas—courtesy of sophisticated new technologies such as hydraulic fracturing—have increased the supply of oil from non-OPEC countries, especially from North America. Moreover, this supply has two significant properties. It is profitable at prices close to \$50 per barrel and supply responds more quickly to price changes because of much lower capital costs than for conventional oil. As a result, OPEC has less control over oil prices than it used to. Figure 4 plots OPEC's swing capacity and oil prices. Before 2014, the two moved closely together but since then, the two have completely decoupled.

Figure 4. OPEC's Fading Market Power?

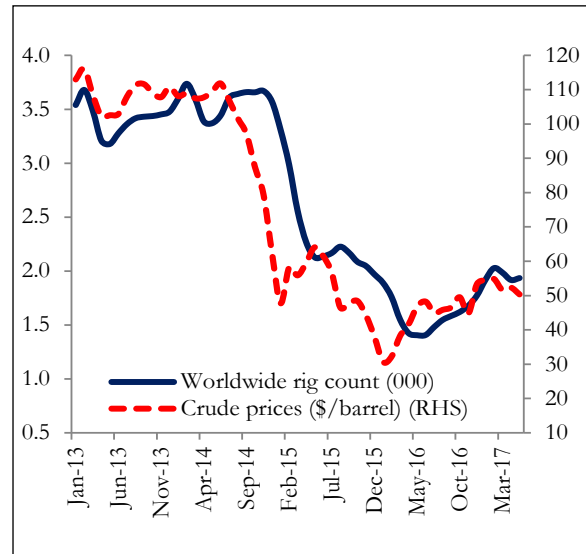


Source: US Energy Information Administration (EIA)

1.36 Figure 5 plots the worldwide count of rigs and oil prices. Here too the relationship is striking, with rig capacity declining in response to lower oil prices and quickly expanding as oil prices rise.⁵ This accordion-like quality of shale oil and gas combined with estimates that viability is achieved close to \$50 per barrel means that oil prices are broadly capped.

⁵ A broadly similar relationship holds between the flow of rigs and oil prices.

Figure 5. The Shale “Accordion”



Source: Baker Hughes

1.37 Going forward, therefore, it is not that oil prices will not be volatile nor is it the case that they will never rise above the \$50 “ceiling.” Rather, shale technology will ensure that prices cannot remain above this ceiling for any prolonged period of time because of rapid supply responses which will take the prices toward the marginal cost of production of shale. The dramatic decline in the cost and prices of renewables will only re-inforce this tendency.

1.38 In sum, geopolitical risks are simply not as risky as earlier. Technology has rendered India less susceptible to the vicissitudes of geo-economics (OPEC) and geo-politics (Middle East). If, and to the extent that, changes prove permanent, the consequences for the inflationary process need to be taken into account.

Agriculture

1.39 Assessed over longer spells of time (decades), Indian agricultural performance has been moderately successful. One achievement is that production, especially of

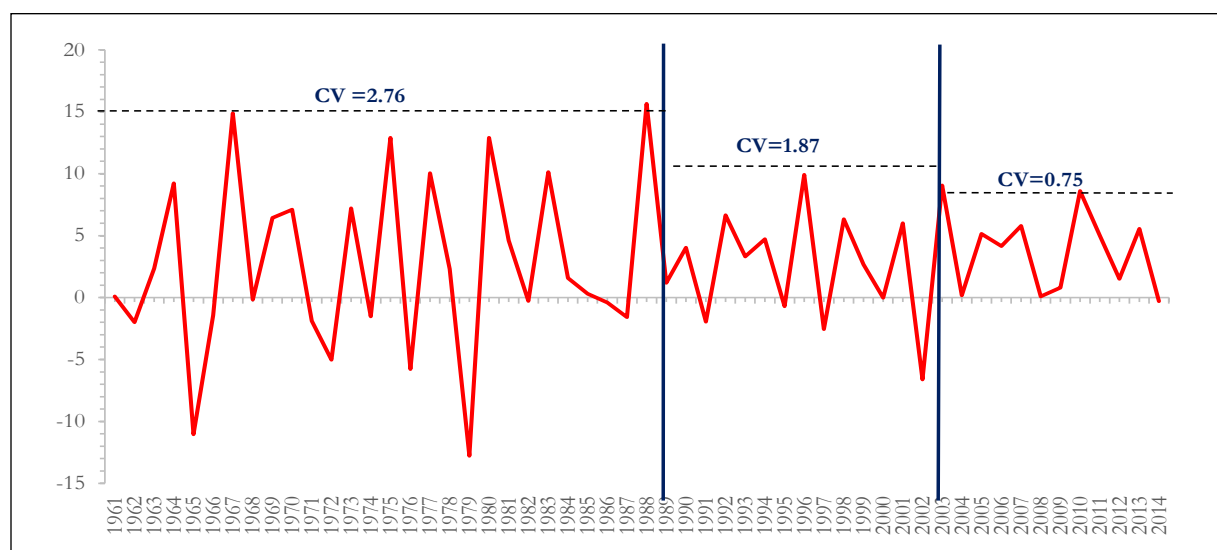
cereals—the major item of consumption—has become less volatile and more resilient to poor monsoons.

1.40 Figure 6 plots real growth in agricultural GDP. Average growth has remained in the 3 percent range but the volatility of output growth as measured by the coefficient of variation has declined from 1.87 percent in the period 1988-2004 to 0.75 since.

1.41 Figures 7 & 8 plot the growth of cereals and pulses production respectively. Here too, the remarkable decline in volatility

is evident for pulses and especially for cereals (Table-5). The coefficient of variation has declined dramatically in the last decade. What is striking about Figures 6 to 8 is that there are fewer troughs (growth rates of 1 percent or less)—in the key periods of inflation threat. Reasonably high support prices combined with effective procurement in the high-production, irrigation-intensive states (Punjab, Haryana, Uttar Pradesh, and recently also Madhya Pradesh) have contributed to stability in cereal production.

Figure 6. Agriculture GDP Growth in India (per cent)



Source: CSO

Note: CV – Coefficient of Variation

Figure 7. Annual growth of Cereal Production (per cent)

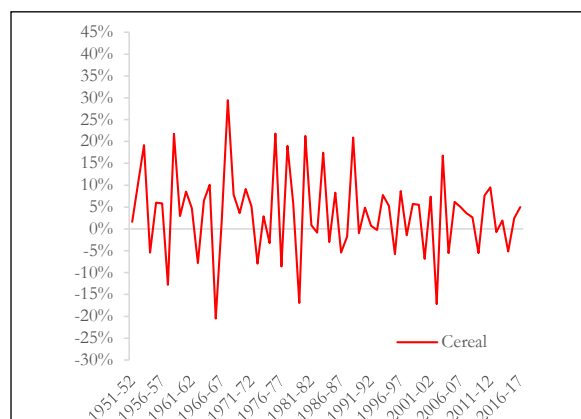
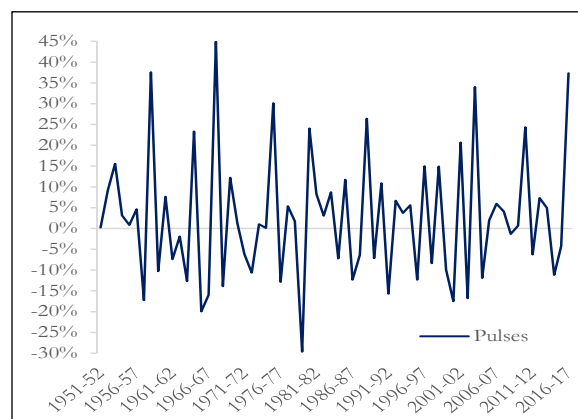


Figure 8. Annual growth of Pulses Production (per cent)



Source: Directorate of Economics & Statistics, Ministry of Agriculture

Table 5. Variability in Pulses and Cereal Production

| | Mean | | Coefficient of variation | |
|-----------|--------|--------|--------------------------|--------|
| | Pulses | Cereal | Pulses | Cereal |
| 1951-2017 | 2.6% | 3.6% | 5.88 | 2.69 |
| 1951-1965 | 2.2% | 3.4% | 6.86 | 3.19 |
| 1966-1989 | 2.8% | 5.6% | 6.03 | 2.04 |
| 1990-2004 | 0.7% | 1.5% | 20.35 | 5.01 |
| 2005-2016 | 5.3% | 2.7% | 2.42 | 1.64 |

Source: Directorate of Economics & Statistics, Ministry of Agriculture

1.42 What then explains the burst of food inflation during 2007-2011? That episode owed to a combination of a surge in global oil and agricultural prices combined with domestic agriculture policy. On the latter, the current government has responded by changing the framework in which agricultural prices are determined. It has rationalized Minimum Support Price (MSP) awards, liberalized agricultural marketing arrangements, and institutionalized the inflation targeting-cum-Monetary Policy Committee framework.

1.43 In recent months, falling food prices have driven inflation down to historically low levels, reaching 1.5 percent in June. This situation is surely temporary; soon, food prices will normalize. But even when this normalization occurs, inflation is unlikely to go back to its pre-2014 levels. To the contrary, the deep, technology-driven shifts in international energy markets and improvements in domestic policy and agricultural markets may be heralding a new era of low inflation in India.

IV. CONFIDENCE/EXUBERANCE: THE WEDGE BETWEEN ASSET PRICES AND REAL ECONOMY

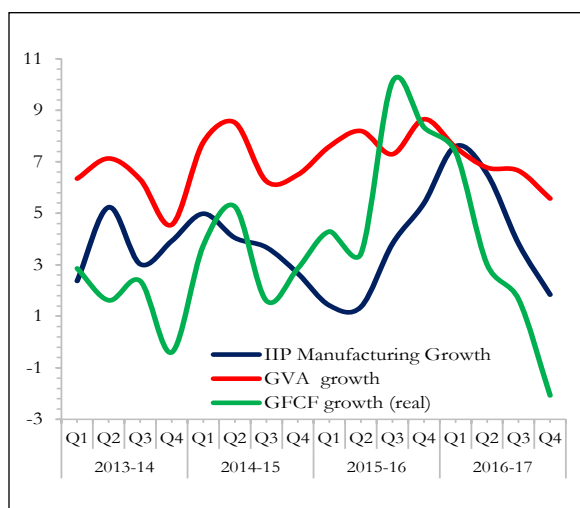
1.44 As described in detail in Section C later,

a variety of indicators—Gross Value Added (GVA), Index of Industrial Production (IIP), credit, prices, capacity utilization and investment—all commonly point to a possibly short-run deceleration of economic activity over the course of 2016-17 (Figure 9). Yet, during this period, especially since February 2017, asset prices have risen. For example, the decline in G-sec yields from a high of 7.12 percent to 6.5 percent implies higher bond valuations.

1.45 More strikingly, over the same period, stock prices have risen to record levels, with the Sensex climbing from 28,743 to 32,020, a gain of 11 percent (Figure 10), equivalent to 15 percent in US dollar terms.

1.46 Moreover, the price-earnings (P/E) ratio of the Indian stock market reached a level of 23 in May 2017, and is estimated to have reached about 25 by mid-July. This is substantially greater than the long-run average of 18, and not far from the frothy levels reached in 2007. It is well known from the finance literature that a key condition for sustaining unusually high P/E levels is for future economic and, especially profit, growth to be rapid, and/or for investors to be willing to accept a lower return for holding stocks over other less risky assets (the so-called equity risk premium). Failing these, there is a strong tendency for mean reversion all over the world, illustrated for India in the aftermath of the boom of the mid-2000s (Figure 10).

1.47 Whether profits and growth surge—because the recent deceleration proves transitory, or asset valuations adjust—in other words, rational confidence or over-exuberance—remains to be seen. Historical evidence suggests that there is mean reversion towards more realistic valuations, especially when global excess liquidity is driving high valuation in the first place.

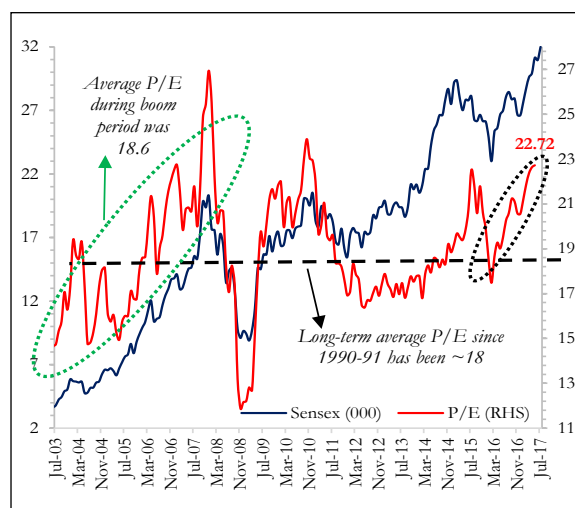
Figure 9. GVA, IIP and Investment growth (per cent)

Source: CSO

V. FARM LOAN WAIVERS: MACRO-ECONOMIC IMPACT⁶

1.48 Recently, announcements or promises of farm loan waivers have been made in some form by Uttar Pradesh, Karnataka, Maharashtra, Punjab, and Tamil Nadu. The Supreme Court of India has stayed the decision of the Madras High Court to provide loan waivers to all farmers instead of only to small and marginal farmers. There is the possibility of a contagious spread to other states. This is in contrast to the previous episode in 2007-08 when farm loan waivers were awarded India-wide by the Centre.

1.49 Proponents have seen waivers as a means of helping farmers who have been subject to stress from successive shocks to agriculture: two years of inadequate rain followed by a year of large price declines. Others, including the Governor of the RBI, have pointed out that these waivers will have a long-term impact on the culture of loan repayments and induce moral hazard: waivers favor those who have borrowed relative to those who have been more thrifty, and those who have borrowed relative to those who

Figure 10. Sensex & Price-Earnings Ratio (P/E)

Sources: RBI & BSE

have repaid their loans; and they also favor those who have borrowed from formal sources relative to those who have borrowed, often at more usurious terms, from informal sources. Some have also suggested that there are more efficient and targeted ways of helping farmers.

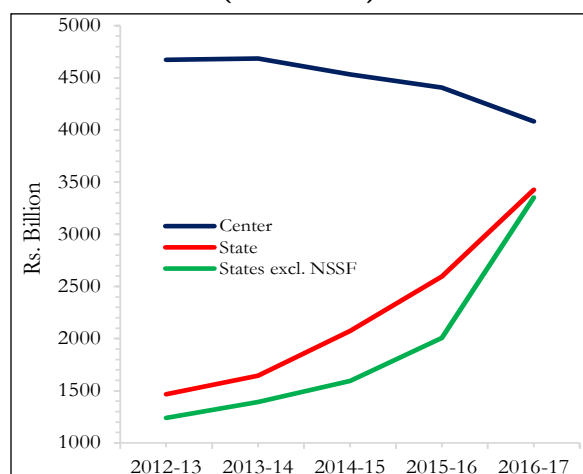
1.50 This section does not assess the normative dimensions of farm waivers. Instead, it undertakes a macro-economic analysis to understand their immediate consequences for an economy yet to gather full momentum. To the extent that the cyclical impact has been discussed, it has been presumed to be inflationary. But in fact, the analysis below shows that the short-term consequences are likely to be quite deflationary.

1. Potential magnitudes of loan waivers

1.51 Demands for farm loan waivers have emerged at a time when state finances have been deteriorating. The UDAY scheme has led to rising market borrowings by the states (Figure 11), expected soon to overtake central government borrowings. As a result, spreads on state government bonds relative to g-secs have steadily risen by about 60 basis points

⁶ The basic facts on farm indebtedness are provided in Appendix 1.

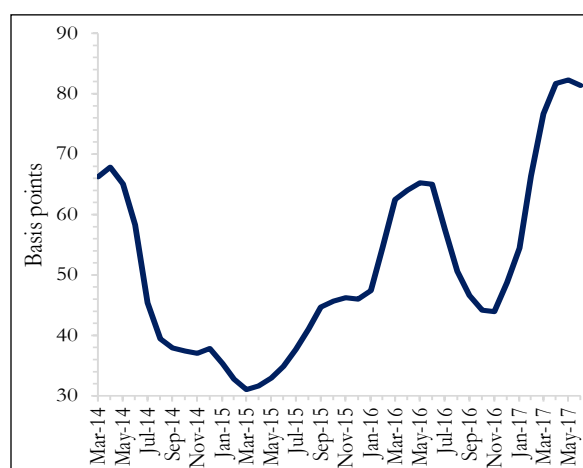
**Figure 11. Net Market Borrowing
(Rs billion)**



Sources: RBI, JP Morgan

Note: NSSF refers to National Small Savings Fund that represents non-market borrowings.

**Figure 12. State Development Loans
(SDL)-Gsec Spread (5-month rolling
average, bps)⁷**



Sources: RBI and HSBC.

in the last six months (Figure 12). In turn, spreads on corporate bonds are estimated by J.P. Morgan to have risen by about 40 basis points, which could lead to reductions in corporate spending.

1.52 Estimating the macro-economic impact requires assumptions about the magnitudes of waivers. Three states have

been specific about the waiver schemes: UP has announced waivers of up to Rs. 1 lakh for all small and marginal farmers; Punjab's limit is Rs. 2 lakh for small farmers without defining who these are; and Karnataka has limited the waiver amount to Rs. 50,000 (Maharashtra's waiver terms are still unclear). The waiver announcements also do not make clear whether the amounts will apply to households or loans: typically, a household will have more than one loan.

1.53 It is assumed that waivers will apply at the loan rather than household level, since it will be administratively difficult to aggregate loans across households. It is also assumed that other states will follow the UP model. On this basis, an upper bound of loan waivers at the All-India level would be between Rs. 2.2 and Rs. 2.7 lakh crore (Appendix 1, Table 1). A state-wise assessment of the loan waivers is in Box 1⁸.

2. Macro-economic impacts

1.54 At its most basic, farm loan waivers simply transfer liabilities from private sector to public sector balance sheets. The impact on aggregate demand will then depend on which sector has the greater propensity to consume out of wealth. Of course, states don't actually have a propensity to consume out of wealth, but there is a link between the two because their spending is influenced by their need to respect their Fiscal Responsibility Legislation (FRL) targets. So, if they assume higher debt, they will in many cases need to cut other spending (or increase taxes). Once these spending changes take place, there will be second-round effects.

1.55 The analysis below assumes that the farm loan waivers spread throughout the country, along the lines of the discussion

⁷ Average SDL yield is the monthly average of yields of all states that issued state paper in that month.

⁸ Even if only the five states that have made the announcement to implement it, the estimated impact will be Rs.1-1.25 lakh crore.

Box 1. State-wise Fiscal Assessment of Loan Waivers

What is the fiscal ability of states to implement the farm loan waivers? Assessing this requires estimating the potential cost of the waivers, quantifying the fiscal space for the states relative to their FRL limits, and comparing the two. The analysis is shown in Table below.

States are ranked by the extent of fiscal space. The fiscal limit for most states is 3 percent of GSDP. However, six states (Odisha, Chhattisgarh, Telangana, Madhya Pradesh, Karnataka, and Bihar) have higher limits of 3.5 percent of GSDP because they have strong overall fiscal positions, as deemed by the Fourteenth Finance Commission's (FFC's) criteria.

Comparing limits with the BE estimates for 2017-18, only seven states have fiscal space exceeding 0.5 percent of GSDP. The states with the most space in rupee terms are Maharashtra, Gujarat, West Bengal, Karnataka and Madhya Pradesh. In relative terms, Jharkhand also has considerable space, amounting to 0.7 percent of GSDP. States with no additional deficit capacity include Uttar Pradesh, Telangana, Rajasthan, Andhra Pradesh, and Odisha.

State-Specific Fiscal Space for Farm Loan Waiver

| | GSDP current MP (2017-18) | FD without UDAY in 2017-18 (BE) | Fiscal Ceiling post FFC | Fiscal Space | FD without UDAY in 2017-18 (BE) | Fiscal Ceiling post FFC | Fiscal Space |
|------------------|---------------------------------|---------------------------------------|-------------------------------|-----------------|--|-------------------------------|-----------------|
| State | Lakh crore | In Rupee Thousand Crore | | | Per cent of GSDP | | |
| Andhra Pradesh | 7.7 | 23.1 | 23.1 | 0.0 | 3.0 | 3.0 | 0.0 |
| Uttar Pradesh | 14.2 | 42.6 | 42.6 | 0.0 | 3.0 | 3.0 | 0.0 |
| Rajasthan | 8.3 | 24.8 | 24.8 | 0.0 | 3.0 | 3.0 | 0.0 |
| Kerala | 7.5 | 25.8 | 22.4 | 0.0 | 3.4 | 3.0 | -0.4 |
| Himachal Pradesh | 1.4 | 4.9 | 4.2 | 0.0 | 3.5 | 3.0 | -0.5 |
| Odisha | 4.1 | 14.4 | 14.4 | 0.0 | 3.5 | 3.5 | 0.0 |
| Chhattisgarh | 2.8 | 9.7 | 9.7 | 0.0 | 3.5 | 3.5 | 0.0 |
| Maharashtra | 25.4 | 38.8 | 76.2 | 37.4 | 1.5 | 3.0 | 1.5 |
| West Bengal | 10.8 | 19.4 | 32.4 | 13.1 | 1.8 | 3.0 | 1.2 |
| Gujarat | 12.8 | 23.2 | 38.3 | 15.1 | 1.8 | 3.0 | 1.2 |
| Jharkhand | 3.0 | 6.9 | 9.1 | 2.2 | 2.3 | 3.0 | 0.7 |
| Haryana | 6.2 | 16.2 | 18.6 | 2.4 | 2.6 | 3.0 | 0.4 |
| Karnataka | 12.8 | 33.4 | 44.8 | 11.5 | 2.6 | 3.5 | 0.9 |
| Tamilnadu | 15.0 | 42.0 | 45.1 | 3.2 | 2.8 | 3.0 | 0.2 |
| Uttarakhand | 2.3 | 6.6 | 6.8 | 0.2 | 2.9 | 3.0 | 0.1 |
| Punjab | 5.0 | 14.6 | 15.1 | 0.5 | 2.9 | 3.0 | 0.1 |
| Bihar | 6.3 | 18.1 | 22.1 | 4.0 | 2.9 | 3.5 | 0.6 |
| Madhya Pradesh | 7.4 | 21.1 | 25.7 | 4.7 | 2.9 | 3.5 | 0.6 |
| Telangana | 7.6 | 26.1 | 26.6 | 0.5 | 3.5 | 3.5 | 0.0 |
| TOTAL | 160.6 | 411.6 | 502.2 | 94.6 | 2.6 | 3.1 | 0.6 |

Notes: Fiscal ceiling is calculated based on the 14th Finance Commission (FFC) recommendations. The necessary condition for being allowed to use additional fiscal space is a zero revenue deficit in the current and preceding years. Then, 0.25% of GSDP worth of fiscal space is available if the interest payment to revenue receipt ratio is less than or equal to 10 %; and an additional 0.25% of GSDP if the debt to GDP ratio is less than 25% of GSDP. The fiscal deficit number for Uttar Pradesh, Punjab and Uttarakhand is for 2016-17 BE.

above. In that case, total loan waivers could reach Rs. 2.7 lakh crore. At the same time, it is assumed that the Centre will not—as emphasized by the Finance Minister—assume any responsibility for the waivers. So the state governments will have to finance the waivers on their own.

1.56 The waivers will have four effects on aggregate demand:

- Private consumption impact via increases in private sector net wealth
- Public sector impact via changes in government expenditure/taxes
- Crowding out impact via higher borrowings by state governments
- Crowding in impact via higher credit availability as bank NPAs fall

1.57 Consider each in turn.

1.58 *Private consumption impact:* Loan waivers will increase the net wealth of farm households. Wealth data is not available, it is assumed that net income will increase by the amount of loans waived off (whereas in fact this year's disposable income rises by only the debt service forgiven). Using cross-sectional data on farm households, a consumption elasticity out of (temporary) income of about 0.25 is estimated.⁹ Since loan waivers are assumed to increase aggregate income by 28 percent, consumption is estimated to increase by 7 percent or about Rs. 55,000 crore. This estimated consumption impact is on the higher side because a World Bank study on the “Agricultural Debt Waiver and Debt Relief Scheme” of 2008-09 found that consumption did not rise after the loan waivers.¹⁰

⁹ This might seem a low number because marginal propensities to consume are, typically, high. But behavioral economics suggests that a reaction to an actual increase in income might be very different from a notional increase based on an expenditure avoided.

¹⁰ Giné, X and M. Kanz, 2014, “The Economic Effects of a Borrower Bailout Evidence from an Emerging Market,” World Bank Policy Research Paper, WPS7109.

1.59 *Public sector impact:* This impact will in turn depend upon the extent of fiscal space that state governments have under their respective FRLs. Box 2 elaborates on the public sector impact methodology. The key intuition is that loan waivers involve spending that does not add to demand (because these are liability transfers to the states' balance sheets) but the actions taken to meet FRL targets (higher taxes and/or lower expenditure) will reduce demand. It is estimated that for states with fiscal space, loan waivers would add about Rs. 6,350 crore to demand via the additional interest costs. For states without space, waivers could reduce demand by about Rs. 1.9 lakh crore. The net effect of aggregating over the two cases state by state yields a reduction in aggregate demand of close to Rs. 1.9 lakh crore.

1.60 Now, for the second round effects.

1.61 *Crowding out impact:* Loan waivers will result in higher borrowing by the states with fiscal space. This could squeeze out private spending by firms. Analysis by J.P Morgan suggests that yields on corporate bonds have already risen by about 40 basis points post UDAY.

1.62 *Crowding in impact:* Bank balance sheets will improve to the extent that non-performing farm loans are taken off their books. So they might be able to provide additional financial resources to the private sector, leading to greater spending. The World Bank study found that lending increased following the 2008-09 waiver even if not in the districts with greater exposure to the waiver.

1.63 It is estimated that these two effects would almost cancel each other.

Box 2. The Macro-Economic Accounting of Loan Waivers

Consider loan waivers for two polar cases: where states have no space and have some space. In both cases,

$$FD = E - R \quad (1)$$

Where FD is a state's fiscal deficit, E and R are its total expenditures and non-debt revenues, respectively. Suppose states grant loan waivers to the extent of LW.

$$\text{Now } FD = E - R + LW \quad (2)$$

If before the waiver states were at their deficit limits, then in equation 2, they will either need to reduce E (by cutting expenditures) or increase R in order to accommodate higher LW for an unchanged FD.

The key insight is this: while the measured fiscal deficit might not change, aggregate demand will change significantly. From the perspective of the economy, LW is just an asset transaction (in macro-accounting parlance "below-the line") in which states effectively make payments to the banks on behalf of the farmer. At the same time, the increase in R or reduction in E necessary to respect the FRL target will have a real macro impact, reducing aggregate demand. So in this case, granting loan waivers would reduce aggregate public sector demand, potentially by large amounts.

Now the second case: If states had fiscal room before the waiver, then an increase in LW will not require changes in R or E, except to the extent that the higher borrowing will entail additional interest costs. So in this case the macro impact will be minor, comprising not the increase in LW (which has no impact) but the extra interest arising from the additional borrowing.

1.64 *Total impact:* Adding up these effects yields an impact on aggregate demand of minus Rs 1.1 lakh crore¹¹. In other words, loan waivers could reduce aggregate demand by as much as 0.7 percent of GDP, imparting a significant deflationary shock to an economy yet to gain full momentum. Note, however, that this is an upper bound. The actual impact will depend on the number of states that actually decide to grant waivers, and how they distribute them over time.

VI. AGRARIAN STRESS AMIDST SURFEIT?

1.65 What explains the sudden demand for loan waivers? Is it possible that farm stress has actually intensified when weather conditions are the best they've been in years? After all, incomes and weather conditions are normally highly correlated. When weather was good and international demand was booming during 2006-12, farm incomes soared. Then, when rainfall proved severely deficient, harvests were poor and hardship emerged. But last two years have received

adequate rains and good crops, raising the puzzle of why there is stress at a time of plenty.

1.66 Agrarian stress is difficult to measure objectively. The manifestations are easy to see—demands for loan relief and restiveness in a number of states—but it is difficult to disentangle their political and economic origins. For example, the widespread demand for loan waivers could simply be a demonstration effect from the UP loan waiver.

1.67 Nevertheless, there seem to be proximate economic causes for stress, reflected in lower prices and lower farm revenues.¹²

1.68 To assess the situation, the Ministry of Agriculture's Agmarknet database was used. This contains daily data on the arrivals of farm produce in the major mandis and the prices received by suppliers. For a number of major commodities—wheat, arhar, moong, tomatoes, potatoes, and onions—estimates

¹¹ This impact is estimated to be around Rs. 57,900 crore for the states who have already announced farm loan waivers.

¹² Farm income cannot be estimated because of lack of detailed data on costs; instead revenues as the product of quantities and prices are measured.

are provided for prices, quantities, revenues, and, where relevant (wheat and pulses), the percentage of crop that was sold at prices below the Minimum Support Price (MSP). The database has information on an all-India basis, as well as for the individual states. All the calculations are for the agricultural year (July-June).¹³

1.69 Some broad patterns are discernible. Economic distress—as measured by real revenues (prices times the quantity of arrivals deflated by the rural CPI)—is not a generalized phenomenon.¹⁴ For example, it does not afflict wheat and Bengal gram (“chana”), where market quantities and prices have risen, resulting in rising real revenues.

1.70 But there does seem to be a decline in real farm revenues in pulses and some vegetables like potato (Figure 13). In the agricultural year ending in June 2017, relative to the previous year, real revenues have declined most in the case of moong (30 percent) and least in the case of potatoes (4 percent) with arhar and moong posting declines of around 10 and 28 percent, respectively. However the prices of onion and tomato started rising recently.

1.71 There have also been interesting regional variations. Uttar Pradesh appears to have done reasonably well in most crops, including wheat and potatoes. In the case of wheat, there was a substantial increase in procurement, reflected in a decline in the magnitudes sold at prices below MSP. In contrast, Madhya Pradesh, which had recently been favoring wheat, saw an increase in the amount of sale at prices below MSP. Pulses witnessed large reductions in prices over the previous year, especially moong, although the price declines were steeper in

some states (Rajasthan in moong and arhar in Karnataka and Madhya Pradesh).

1.72 Clearly, increased supply led to large declines in prices. The puzzle is why it reduced prices so much that it depressed farm revenues. After all, in 2014 output surged in a number of crops including arhar, potatoes, and onions without yielding revenue declines. This year appears to have been atypical in the magnitude of price decline.

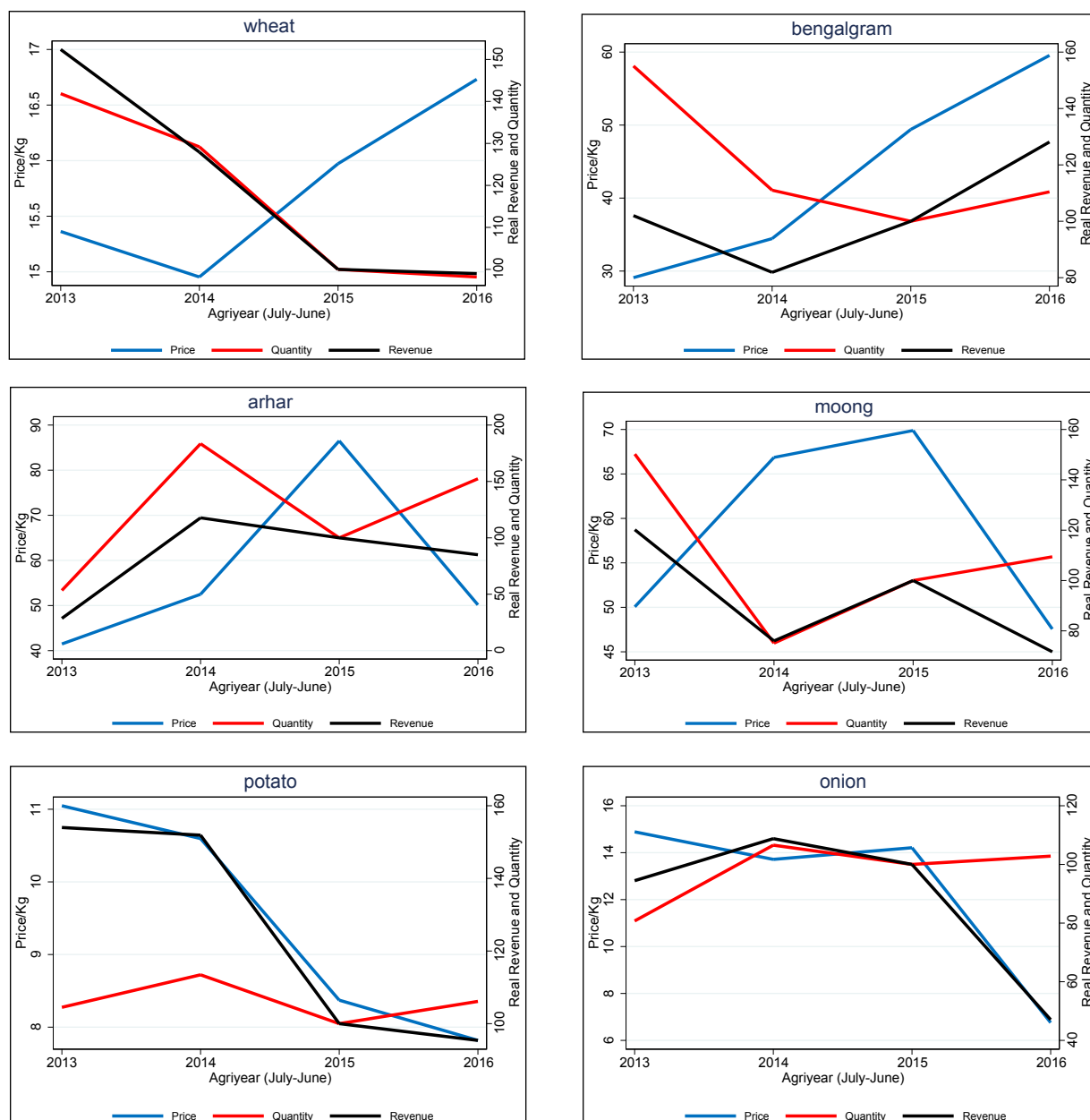
1.73 Two possible explanations suggest themselves. First, outlets for farmers were narrow on account of stock limits on wholesalers and retailers and there were restrictions on exports whereas imports were more liberal on some commodities. Suggestive evidence comes from the contrasting experiences of Bengal gram, on the one hand, and arhar and moong on the other. Fewer restrictions for the former may have helped shore up market prices received by farmers. Second, weaker demand than in previous years could have weighed on prices.

1.74 In contrast to expectations of some observers, demonetization did not reduce supply of the rabi crop. The cash shortages were particularly pronounced in the rural areas, and they were reinforced by a credit squeeze, which saw loan growth (the blue line in Figure 14) slowing from 16 percent in September to 8-9 percent in the first quarter of this year and further until end-May.

1.75 This cash and credit squeeze could have reduced acreage and the use of fertilizer. Yet rabi plantings last year—which coincided with the peak period of demonetization—and output were unscathed (growth of 5.7 percent in area

¹³ Data on arrivals do not account for all of production. Agmarknet covers 48.7 per cent of the regulated markets and covers unregulated markets as well. The coverage is, however, representative at both state and All-India levels. The estimates are based on a common sample of states across time.

¹⁴ If there is money illusion, nominal incomes would be the right measure to monitor. Since rural CPI inflation was lower in 2016-17 compared to 2015-16, declining real revenues would signal larger declines in nominal revenues.

Figure 13. Selected Agricultural Commodities: Real Revenues, Quantities and Prices

Sources: Agmarknet and Survey estimates

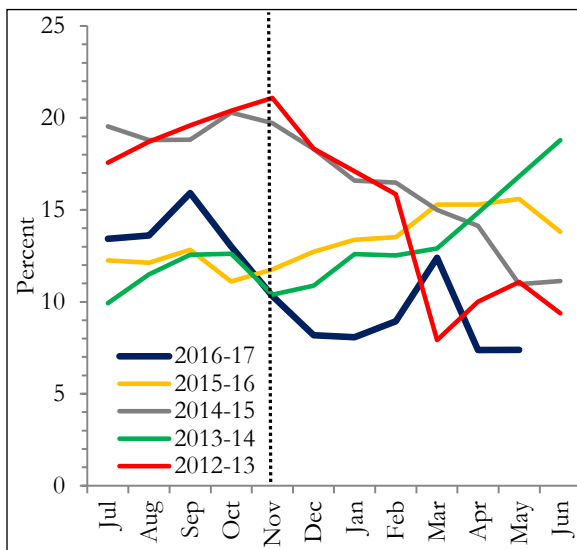
Notes: Agriculture year 2016 stands for 2016-17 and like wise others too. Prices are weighted averages. Real revenue and quantity are indexed with base agriculture year 2015-16=100

sown and 7 percent in production).

1.76 Finally, there may also be some behavioral factors at play. Increased planting of pulses last year was a response both to record high market prices as well as large increases in MSP with promises by the government of more effective procurement.

But prices at the time of marketing have been well below those last year. Despite record increases in procurement (the procurement of Kharif pulses increased from negligible levels in 2015-16 to 1.5 million tonnes on 2016-17), a significant fraction of sales of some pulses has been below MSP. Thus, the distress could have been because received

Figure 14. Credit Growth (%) - Agriculture (Scheduled Commercial Banks)



Source: RBI and Survey Calculations

prices were lower than those last year, and mostly lower than MSP prices.

VII. LONG-TERM BENEFITS AND SHORT-TERM COSTS OF DEMONETIZATION: AN UPDATE

1.77 The Economic Survey 2016-17, Volume I had discussed the potential consequences of demonetization, mostly in theoretical terms because data available at the time was limited. Six months on, there is more data to add to the discussion. The discussion is organized around a few indicators that were highlighted in Volume I.

1. Cash and Digitalization

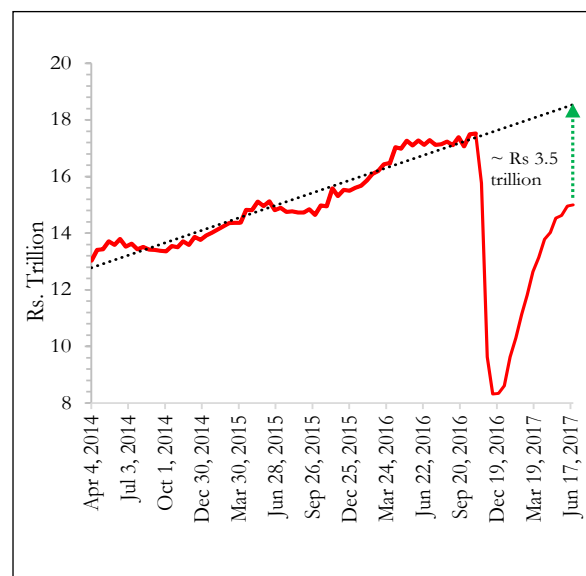
1.78 Reducing the use of cash and increasing the use of digital modes of payment were major aims of demonetization. What has been the progress so far?

1.79 As shown in the Economic Survey 2016-17, Volume-I, India relied to a greater extent on cash than comparator countries, reflected in a high cash-GDP ratio of about 12 percent and a rising cash-GDP ratio over time (Figures 2 and 3 in Chapter 3 of

Economic Survey 2016-17, Volume I). It has been nine months since demonetization went into effect. Assuming—and this is a critical assumption—that remonetization has happened fully and that the supply of cash is now fully reflective of demand, then today's level of cash can be compared with pre-demonetization levels.

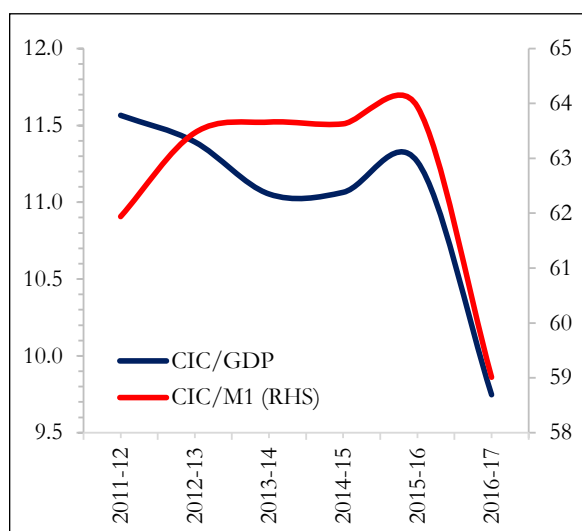
1.80 Figure 15 plots the level of cash since 2014 and also shows a trend line, pointing to where cash might have been in the absence of demonetization (it is not accurate to compare levels today with levels prevailing on Demonetization day). In levels, and as a share of GDP and money, there seems to have been a sharp and equilibrium decline in the use of cash: as of July, the holding of cash is about Rs. 3.5 lakh crore (20 percent) less than what might have been the case had pre-demonetization trends prevailed, consistent with the calculations presented in Volume I. This reduced cash holding is illustrated in Figure 16 which plots cash as a share of GDP and money (M1). The former has declined by about 1.6 percentage points down from 11.3

Figure 15. Demonetization and Cash Holdings (Rs. Trillion)



Source: RBI and Survey Calculations

Figure 16. Currency in Circulation to GDP and M1 (per cent)



Source: RBI and Survey Calculations

percent of GDP to 9.7 percent, and the latter by 5 percentage points.

1.81 Of course, a definitive judgment can only be passed if current levels of cash relative to GDP persist over time but so far, reliance on cash appears to have declined sharply. This decline suggests that a considerable portion of cash holdings was used for savings, which has now been transferred to the banking system. In addition, post-demonetization a new enforcement and compliance regime and increased digitalization have reduced the use of cash for transactions.

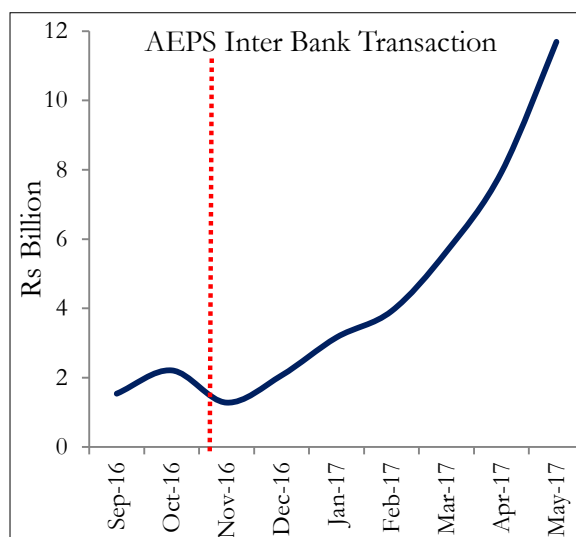
1.82 What about digitalization? Digitalization can broadly impact three sections of society: the poor, who are largely outside the digital economy; the less affluent sections, who are becoming part of the digital economy, having acquired Jan Dhan accounts and RuPay cards; and the affluent, who are fully digitally integrated via debit and credit cards. Different indicators capture the impact on each of these categories: Aadhaar enabled payments (AEPS) for the ‘digitally excluded’;

Rupay cards for the intermediate category; and credit and debit cards for the digitally connected. These Figures are presented in Figures 17-20.

1.83 It is clear that there has been a substantial increase in digitalization across all categories. And even though the immediate post-demonetization surge has moderated in some cases, the level and pace of digitalization are still substantially greater than before demonetization. This is also true for a category of large customers whose transactions are captured in Figure 20.¹⁵

1.84 Demonetization was expected to reduce black market transactions in real estate which would be manifested in reduced real estate prices (Figure 21, which depicts the weighted average price in India’s seven major cities). Even prior to demonetization, there was a deceleration in house price inflation, and there was a further reduction in prices post-demonetization. The decline has since been reversed, and prices appear to be rising again.

Figure 17. AEPS Digital Transactions (Rs Billion) for “Digitally Excluded”



Source: NPCI

Note: AEPS – Aadhaar Enabled Payment System

¹⁵ Data based on the number of digital transactions (as opposed to their value) conveys a similar picture to that shown in Figures 17-20.

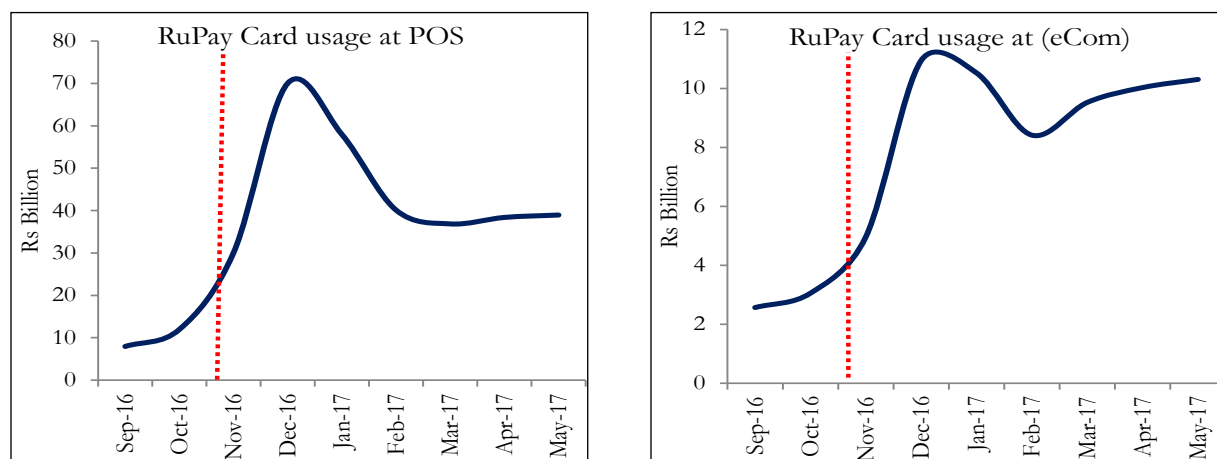
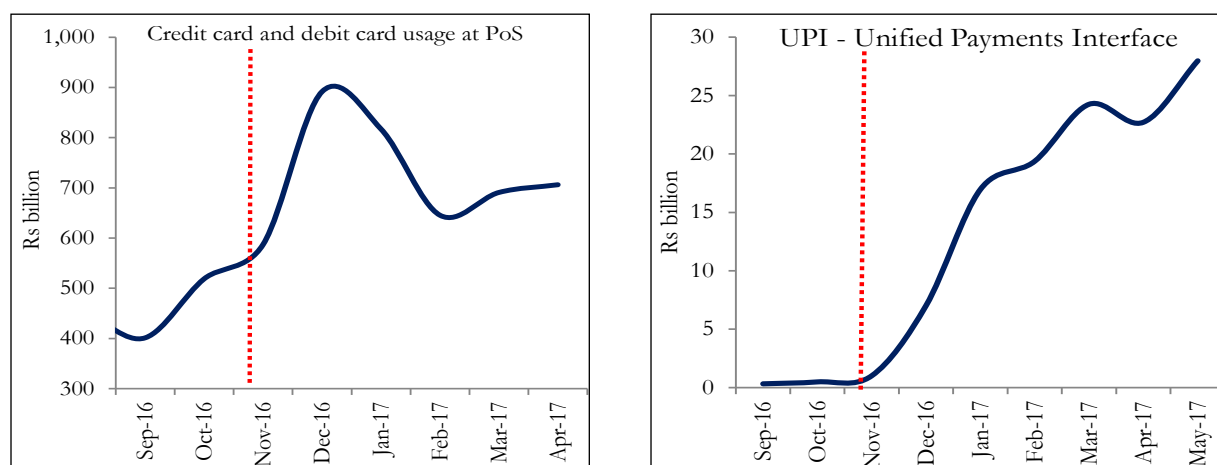
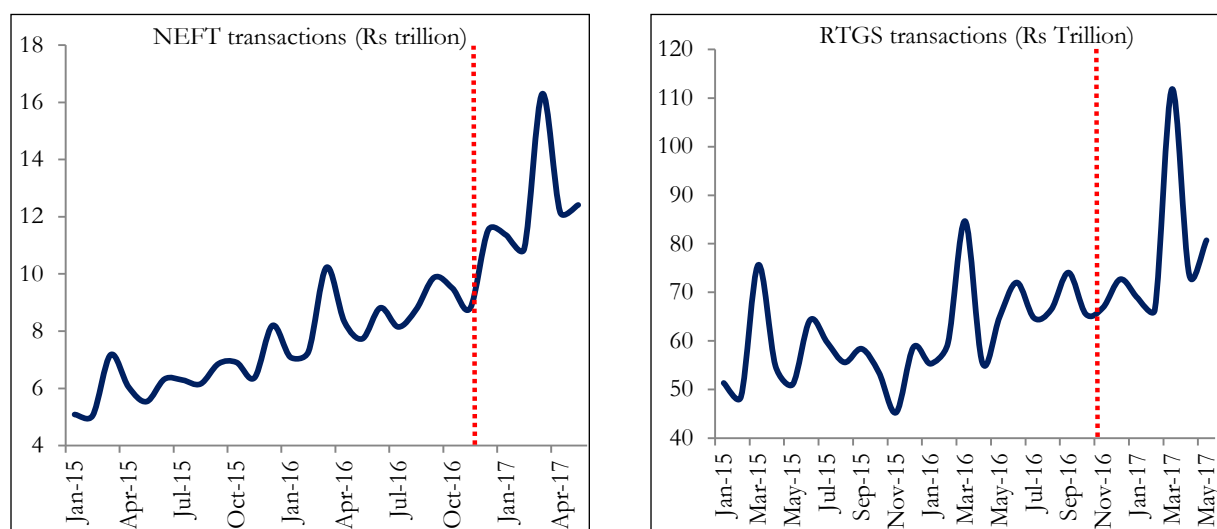
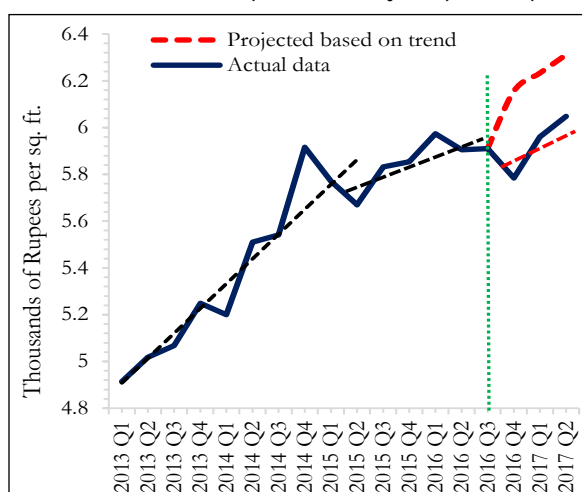
Figure 18. Digital Transactions for the Less Affluent Consumers (Rs Billion)**Figure 19. Digital Transactions for Affluent Consumers (Rs Billion)****Figure 20. Digital Transactions for Large Customers (Rs Trillion)****Source:** NPCI**Note:** NEFT – National Electronic Funds Transfer; RTGS –Real Time Gross Settlement, BHIM- Bharat Interface for Money

Figure 21. Real Estate Prices¹⁶ in Major Indian Cities (Seasonally adjusted)

Source: Knight Frank

It remains to be seen whether the impact of demonetization on the housing market will be permanent.

2. Income Tax Compliance

1.85 Did the signaling effect of demonetization—namely that there would be decreased tolerance of tax non-compliance highlighted in the Union Budget for 2017-18—have an impact on tax compliance? According to the tax data, the number of new individual tax payers (based on returns filed) increased from 63.5 lakh in 2015-16

to 80.7 lakh in 2016-17. But all this increase cannot be attributed to demonetization because there is some natural trend increase in new taxpayers. Instead, this impact by measuring the increase in taxpayers in the post-demonetization period (Nov. 9, 2016-end-March 2017) relative to the increase in the same period the previous year is estimated.

1.86 As the Table 6 shows, the growth of taxpayers post-demonetization was significantly greater than in the previous year (45 percent versus 25 percent). The addition amounted to about 5.4 lakh taxpayers or 1 percent of all individual taxpayers in just a few months. The addition to the reported taxable income (of these new payers) was about Rs.10,600 crore. So, the tax base did expand after demonetization. It is, however, interesting that the average income reported of the new taxpayers-Rs. 2.7 lakh- was not far above the tax threshold of Rs. 2.5 lakh, so the immediate impact on tax collections was muted. The full effect on collections will materialize gradually as reported income of these taxpayers grows.

1.87 Overall, demonetization should continue to pay dividends over time, as the

Table 6. Estimate of Additional Tax Payers Post-Demonetization (Nov. 9-Mar. 31)

| | FY 2015-16 | FY 2016-17 |
|---|---------------|---------------|
| Growth in New Tax Payer (%) | 25.1 | 45.3 |
| Possible additional taxpayers due to Demonetisation (in Lakh) (calculated as excess over previous year's growth) | | 5.4 |
| Growth in Returned Income (%) | 38.6 | 54.3 |
| Possible addition of Returned Income (in Crore) | | 10,587 |
| Average Taxable Income (in lakh) | 2.5 | 2.7 |

¹⁶ The forecast trend has been derived from a triple exponential smoothing (i.e. Holt-Winters) approach applied to pre-demonetization seasonally adjusted data. The seasonal adjustment is performed using the 'seas' package in R; The data on prices is an average of real estate prices of NCR, Mumbai, Pune, Chennai, Bengaluru, Kolkata, and Ahmedabad, weighted by the value of property sales in each city.

impetus toward formalizing the economy and expanding the tax base that it has set in motion continues.

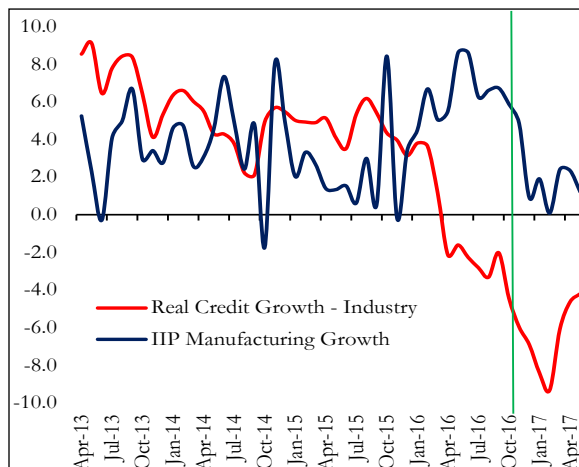
3. GDP

1.88 Real GDP growth declined from 8 percent in 2015-16 to 7.1 percent in 2016-17, as momentum slowed over the course of the fiscal year. Real GDP growth slipped from 7.7 percent in the first half of 2016-17 to 6.5 percent in the second half. Quarterly real GDP growth also shows a deceleration in the third and fourth quarters relative to the first two quarters. The slowdown in these indicators predated demonetization but intensified in the post-demonetization period.

1.89 High frequency monthly indicators—e.g., real credit growth to industry and IIP manufacturing—suggest a similar pattern. The figure also shows that in the last few months the impact seems to have bottomed out, reflected in the bounce-back of these indicators (Figure 22).

1.90 But a demonetisation puzzle is raised by the GDP estimates. While real growth decelerated, the slowdown was much smaller than expected: growth for the year as a whole was much higher than range of 6.5-6.75

Figure 22. High Frequency Macro Economic Indicators



Source: CSO

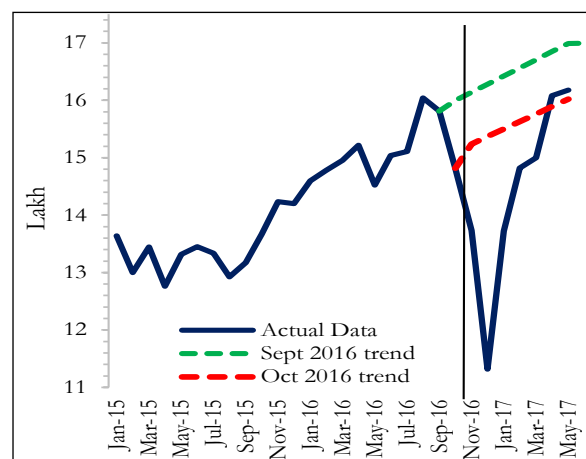
percent estimated in the Economic Survey 2016-17 Volume I. Even more striking as explained in Box 3, nominal GDP growth actually accelerated after demonetization.

4. Informal sector impact: MGNREGS

1.91 The Survey Volume I had pointed out that demonetization would impose short-term costs. Volume I also pointed out that conventional economic indicators—which source data from formal sector firms that might be more insulated from demonetization—were unlikely to capture these costs. A proxy for informal sector effects is two-wheeler sales which showed a rapid decline following demonetization but has, after more than six months, almost returned to pre-demonetization levels (Figure 23). The cumulative shortfall between actual sales and the trend lines is a proxy for the short-run informal costs.

1.92 An alternative way of capturing costs on the informal sector is to analyze data on the demand for insurance. Negatively affected households may have demanded insurance—either informal insurance from family and friends, or more formal social insurance such as that provided by government employment

Figure 23. Number of Two Wheelers Sold in the Domestic Market (Seasonally Adjusted)



Source: Society for Indian Automobile Manufacturers

Box 3. The Demonetization and Nominal GDP Puzzle

Volume I of the Economic Survey in February had argued that in assessing the short-term impact of demonetization on GDP growth, the better indicator would be nominal rather than real GDP growth: “After all, demonetization is mostly a nominal demand shock, so its effect in the first instance will be on nominal magnitudes.”

Nominal magnitudes paint an entirely different picture from real ones. Whether the comparison is annual or quarterly, the numbers suggest an acceleration in nominal GDP growth after demonetization. Annual nominal GDP growth in 2016-17 was about 1.1 percentage points greater than in 2015-16; and growth in the second half of 2016-17 was also 1.1 percentage points greater than in the second half relative to the first.

To understand how big a puzzle this is, it is worthwhile recalling the corresponding monetary shocks: on an annual basis cash growth declined from 12 percent to (-) 4 percent. So, a nearly 16 percentage point swing in cash growth led to an increase in nominal GDP growth of 1 percentage point.

Figure: Annual CIC & Nominal GDP growth (per cent)

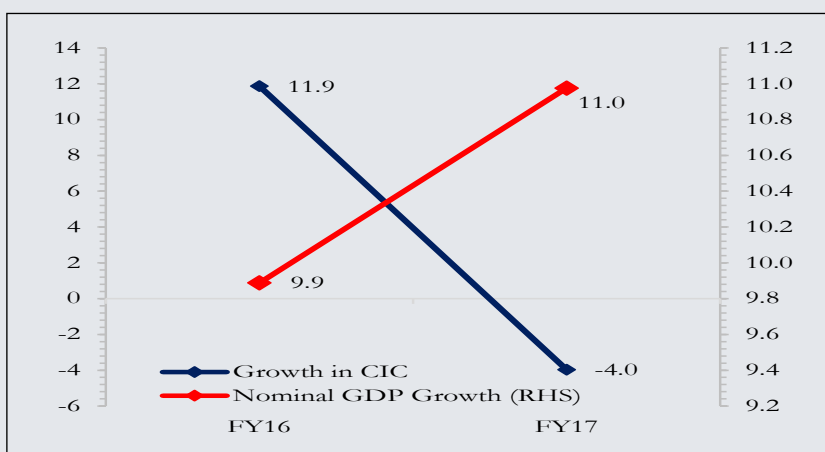


Figure : Quarterly CIC & Nominal GDP growth (per cent)

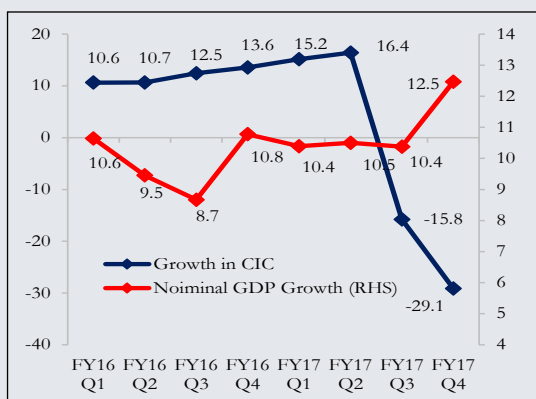
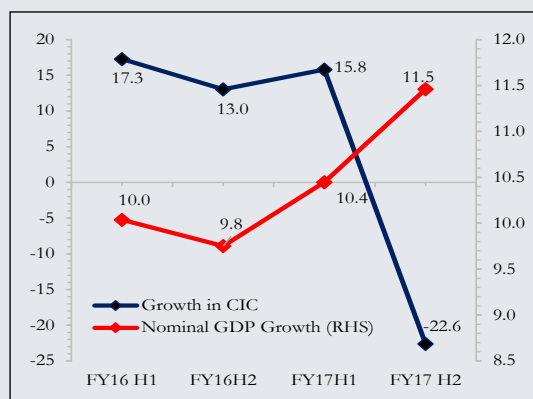


Figure : Half-Yearly CIC & Nominal GDP growth (per cent)



This acceleration sits oddly with the explanation in the previous section that demonetization depressed agricultural prices. More fundamentally, it sits oddly with monetary theory. Cash growth declined from 16 percent in H1 2016-17 to (-) 23 percent in H2 2016-17, a 39 percentage point deceleration. Even allowing for the fact that some of the cash was “idle”, any plausible version of the quantity theory of money would have predicted a reasonable decline in nominal GDP growth, even after factoring in a plausible rise in velocity. Instead, there was an acceleration. (Appendix 3 contains a detailed description of how real and nominal magnitudes are estimated in the National Income Accounts).

guarantee schemes like MGNREGS. Indeed, demand for MGNREGS work typically spikes in drought years, suggesting that it acts like a type of social insurance (Fetzer 2014)¹⁷.

1.93 So, the question is whether data on MGNREGS shows some evidence that demonetization induced greater demand for social insurance. To assess this, district-level data on MGNREGS employment in each week over the last 5 years was compiled. This data was made available by the Ministry of Rural Development.

1.94 Of interest here is whether there was increased MGNREGS employment in the weeks after November 8 relative to the weeks before November 8 – and whether this effect was particularly pronounced in 2016 (the demonetization year) relative to previous years. This is a commonly used empirical methodology known as differences-in-differences (Bertrand et. al. 2004, Appendix 4). The data was subjected to statistical analysis, controlling for factors that could have affected MGNREGS differentially this year and previous years. Details are presented in Appendix 4.

1.95 The main findings—depicted in Figures 24-27 and based on the statistical analysis—are the following. There is suggestive evidence of increased demand for insurance over the demonetization period (early November 2016-March 2017). This is especially strong for the less developed states, comprising Bihar, Chattisgarh, Rajasthan, Jharkhand, West Bengal, and Odisha (Figure 25) which witnessed about a 30 percent increase in mandays worked. These results are sensitive to the time windows used for comparison purposes and to the comparison years.

1.96 Interestingly, there were four phases

in the demonetization-MGNREGS relationship: (a) For about 4 weeks after demonetization, there was a decline in the demand for MGNREGS work; (b) this was followed by a 4-week period of recovery, and then (c) a 10-week period where demand increased substantially; and finally, (d) since the middle of March, there was once again no differential impact on MGNREGS relative to previous years.

1.97 This broad pattern is especially noticeable in the less developed states, which saw a much greater surge in the third phase (“acceleration”), with Bihar showing a particularly large increase in MGNREGS demand. In contrast, there seems to have been no such pattern in Uttar Pradesh. (Figure 27).

1.98 Two patterns are especially noteworthy. The striking absence of any demonetization effect in Uttar Pradesh seems to have been related to what happened in the beginning of the year when MGNREGS employment surged relative to previous years (Figure 27). This differential pattern is less striking elsewhere (Figures 24, 25, and 26). One explanation is that if people came close to their maximum MGNREGS allowances in the early part of the year, mechanically there would be less of a surge in employment in the latter part, including during the demonetization period. Uttar Pradesh is perhaps less suitable to a post-pre analysis because the assumption that the pre-periods are broadly similar in all years does not hold.

1.99 Second, the pattern of reduced demand in the first four weeks following demonetization is puzzling. One interpretation is that demonetization increased demand for MGNREGS employment, but this was initially offset by

¹⁷ Fetzer, T. (2014), "Social Insurance and Conflict: Evidence from India", available at www.trfetter.com/wp-content/uploads/JMP.pdf

Figure 24. All India

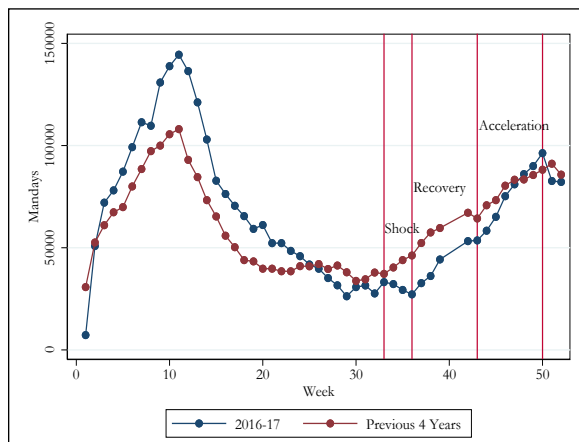


Figure 25. Less developed states

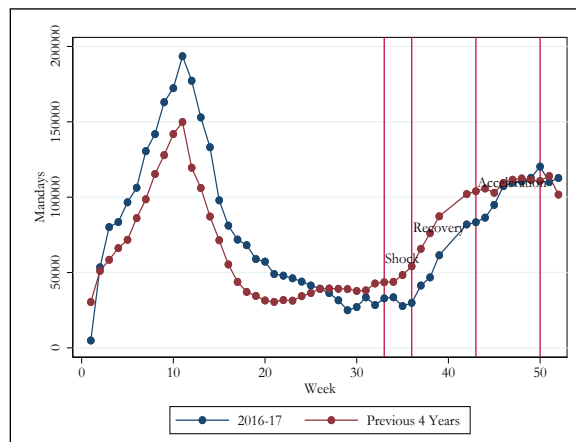


Figure 26. Bihar

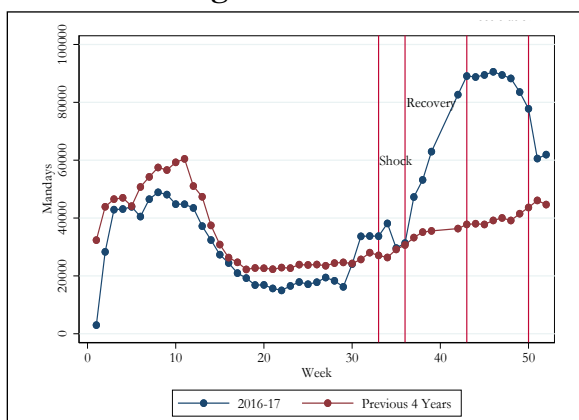
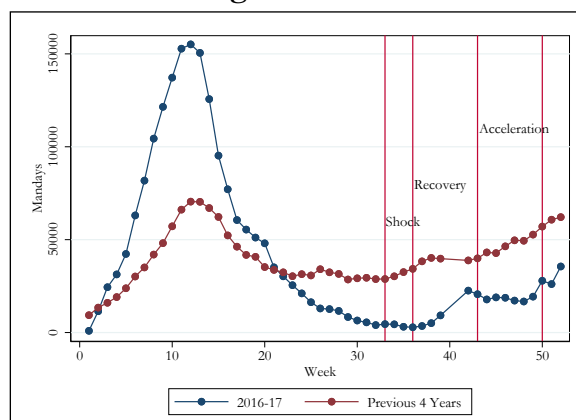


Figure 27. UP



Sources: Ministry of Rural Development and Survey Calculations.

constraints on the ability of local government to supply MGNREGS work. In this view, demonetization affected both the supply and demand for insurance, and in the first few weeks, the decrease in supply overwhelmed the increase in demand. Over time, as cash began to flow and financing constraints lifted, the demand for insurance was more clearly identifiable in the data.

1.100 Alternatively, it is possible that better agricultural performance in 2016-17, which was especially marked in those four peak-harvest weeks after demonetization, offset any demonetization impact.

1.101 In sum, three tentative conclusions suggest themselves. First, demonetization's impact on the informal economy increased demand for social insurance, particularly

in less developed states with the striking exception of Uttar Pradesh. Second, this impact peaked between December and March, and has since disappeared, consistent with the evidence on 2-wheeler sales shown in Figure 24. And, finally, that MGNREGS and its implementation by the Government have met the programme's stated role of being a social safety net during times of need.

1.102 It needs to be stressed that results are not conclusive. For example, the longer the window of pre-demonetization weeks used to measure the post-pre difference, the weaker the results become. More research is needed to disentangle all the rich and complex interactions between demonetization and its impact on the informal sector.

5. Can the current growth configuration be maintained?

1.103 In the last 2 years, real GDP growth has averaged about 7.5 percent. But this has been achieved against the context of weak investment, export volume and credit growth. This wedge between steady growth and its underlying (relatively weak) drivers raises a question and also poses a puzzle. To shed light on this a cross-country comparison was undertaken to investigate whether in the last 25 years there have been similar experiences in other emerging market countries (that is, of successive two-year periods where Indian levels of growth were achieved with such a combination of factors, i.e. Indian levels of real investment, export volume, and credit growth witnessed in 2015-16 and 2016-17). The focus is on the last 25 years because of data availability.

1.104 First, Indian performance on real investment (gross fixed capital formation), export volume and credit during the last two years (2015-16 and 2016-17) is identified.¹⁸ These were 4.5 percent (real) growth in investment, 2 percent growth in export volumes, and decline in credit-to-GDP ratio of 2 percentage points (all averages over the two years). A sample of 23 other comparable countries (listed in Appendix 5) is then considered to infer how many times this combination of investment, export volume, and credit has led to growth of at least 7 percent. The results are shown in Table 7.

1.105 Since there are three criteria, there are seven possibilities: three cases where any one of the criteria are met, three cases where any two combinations are met, and one case where all the three criteria are met. The Table shows that never in the last 25 years has there been another case of 7 percent growth with investment, exports and credit corresponding

to the current Indian combination. In fact, there have also been no cases when two of the three criteria have been met. Only in a very few cases, has 7 percent been consistent with only one of the three criteria having been met.

1.106 The next question is whether the Indian combination of investment, export volume, and credit is consistent with a weaker growth performance of 5 percent (Table 7). Again the answer is never. In fact, 5 percent real GDP growth has been consistent with two of the three criteria having been met only four percent of the time.

1.107 Therefore, the Indian experience of the last two years has been exceptional. Another way of seeing this is to note that the average investment and export volume growth in the 7 per cent sample is 13.8 and 12 percent respectively, well above India's. From a strictly accounting perspective, there is no difficulty in explaining Indian exceptionalism. By definition, consumption and, to a lesser extent, Government investment have powered the economy. But the purpose of the cross-country comparison is to move from accounting to plausible economic explanations.

1.108 One lesson is the following. While the current configuration is certainly unprecedented in cross-country experience, sustaining current growth trajectory will require action on more normal drivers of growth such as investment and exports and cleaning up of balance sheets to facilitate credit growth.

6. Banking: Declining Profitability in Power and Telecom and the Twin Balance Sheet Challenge

1.109 Significant developments have taken place in two sectors that cloud the outlook for resolving the TBS problem and hence for credit, investment and economic growth.

¹⁸ The focus is on the last two years because of the sharp divergence between WPI and CPI series that has complicated GDP estimation.

Table 7. Cross-Country Record of Current Indian Growth Configuration (1991-2015)

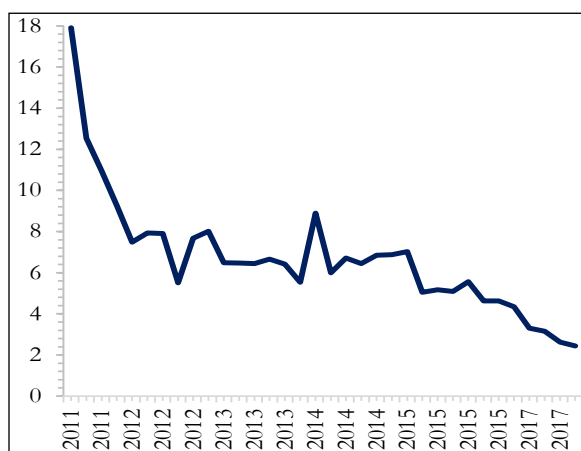
| Criteria | Number of instances of real GDP growth $\geq 7\%$ | Number of instances of real GDP growth $\geq 5\%$ |
|---|--|--|
| | 108 | 285 |
| A. Percent of growth instances attained with any one criterion satisfied | 16 | 29 |
| B. Percent of growth instances attained with any two criteria satisfied | 0 | 4 |
| C. Percent of growth instances attained with all three criteria satisfied | 0 | 0 |

***Note:** The criteria are (for every 2-year period over 1991 to 2016): (i) Real investment growth $\leq 4.5\%$, (ii) Export volume growth $\leq 2\%$, and (iii) Fall in the credit to GDP ratio by at least 2 percentage points. The threshold for export volume growth has been assumed to be 2% even though the average growth in the same for India over FY 16 and FY 17 has been below 1%. Credit to GDP ratio data is from the World Bank and includes non-bank sources of credit.

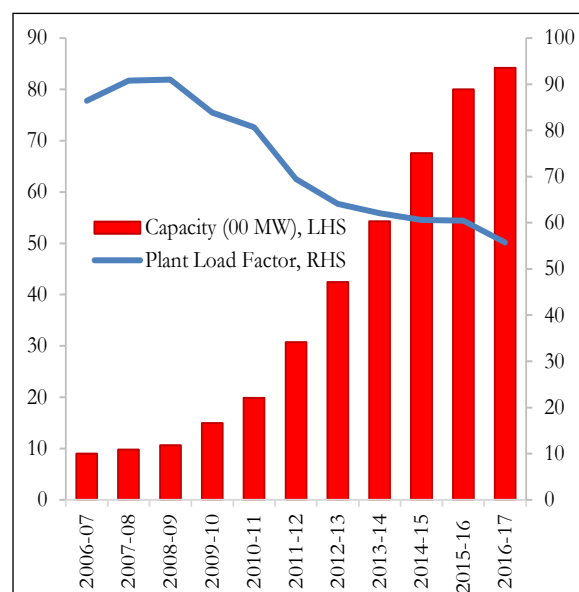
1.110 In the power sector, a number of significant developments are affecting the short and medium term outlook. As shown in Figure 28, the price of renewables has been declining significantly. This is a positive long run development for India and the global effort to combat climate change. But it will pose a number of short-term challenges.

1.111 Figure 29 shows a rapid increase in private thermal capacity of 833 percent which accounts for 57 percent of the total increase in thermal capacity. A predominant share has been tied up via long-term power purchase

agreements (PPAs) between generators and discoms. However, demand has not kept up in part, due to the over-exuberance in building capacity and reduced demand owing to the health of discoms. Reduced demand for thermal-based power is increasingly also a result of renewables becoming more competitive. As a result, average plant load factors have declined steadily to around 60 percent (Figure 29).

Figure 28. Per Unit Electricity Prices for Solar Energy in India (Rs per KWh)

Source: Solardae.com

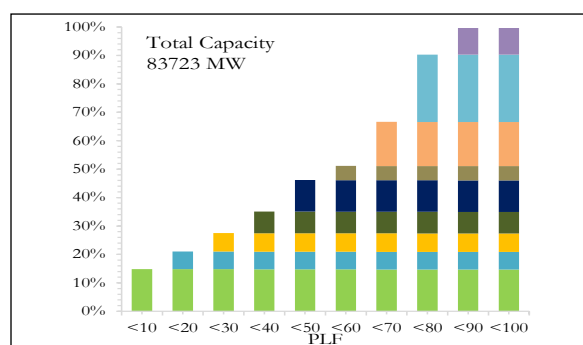
Figure 29. Private Sector Thermal Generation Capacity & Plant Load Factor (RHS)

Source: Central Electricity Authority

1.112 This implies that in the current distribution of private sector thermal generation capacity, a number of plants are operating at well below viable levels of capacity utilization. If a rough benchmark of 60 percent and above is deemed viable, then Figure 30 shows that nearly 50 percent of current capacity is unviable.

1.113 Reflecting this, Credit Suisse estimates that the ratio of stressed companies in the power sector (defined as the share of debt owed by companies with an interest coverage (IC) ratio of less than 1) has been steadily rising this year, reaching 70 percent, with an associated vulnerable debt of over Rs. 3.6 lakh crore (Figure 32).

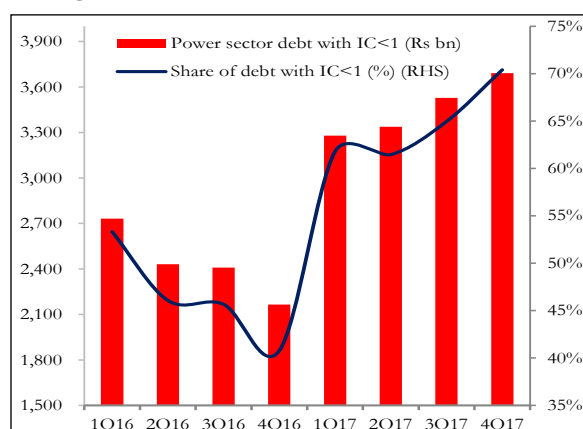
Figure 30. Private Sector Coal and Gas Generation Capacity-PLF Distribution



Source: Central Electricity Authority

Note: The different colours represent incremental additions to capacity

Figure 32. Power sector Debt with IC* <1

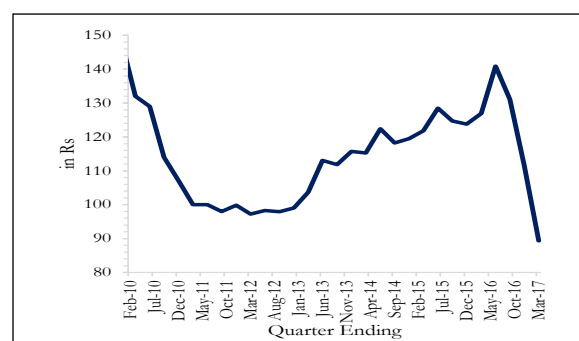


Source: Credit Suisse estimates.

Note: IC refers to interest coverage. If IC < 1, earnings are not sufficient to cover interest obligations.

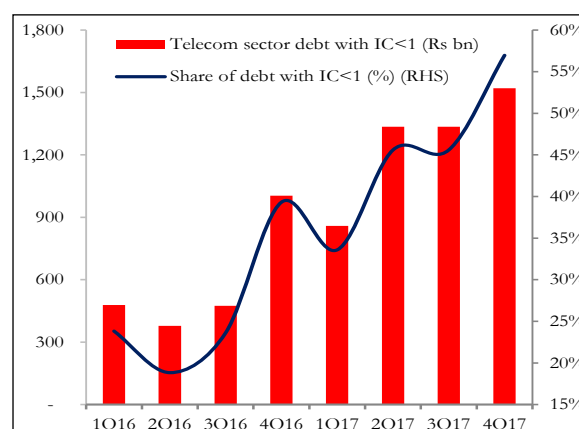
1.114 But there is also a less understood medium-term problem. As discoms realize that there are cheaper, alternative sources of power than their current PPA rates with generators, there will be a growing rush to seek to renegotiate tariffs downwards. Nascent signs are evident already as Uttar Pradesh and Rajasthan have announced that they might want to renegotiate some of their existing contracts. This makes matters more complicated especially in the context of the Supreme Court of India's recent ruling that contracts are sacrosanct (the irony being that in this case, it was the private sector that sought to abrogate the contract and seek its renegotiation). Quite apart from the fact that India does not quite have a workable

Figure 31. Average Revenue Per User (ARPU)



Source: TRAI

Figure 33. Telecom sector Debt with IC* <1



framework for contract renegotiations, future workouts—in the direction of lower prices—might render more capacity unviable and hence more debt to be unsustainable.

1.115 The telecommunications sector has experienced its own version of the “renewables shock” in the form of a new entrant that has dramatically reduced prices for, and increased access to, data, thereby benefitting—at least in the short run—consumers¹⁹. But like with the renewables shock, the near term implications for the viability of incumbents are serious: their profitability has come down dramatically. As Figure 31 shows, after launching of services by the new entrant in September 2016, the average revenue per user (ARPU) for the industry on aggregate has come down by 22 percent vis-à-vis the long term (December 2009-June 2016) ARPU, and by about 32 percent since September 2016.

1.116 For this reason, Credit Suisse estimates that the share of telecom debt owed by companies with interest coverage (IC) < 1 has more than doubled since late 2016, climbing above 55 percent, with an associated vulnerable debt of Rs. 1.5 lakh crore (Figure 33). In the telecommunications case, not only is the banking system exposed but so too is the government to whom the companies owe a variety of fees and taxes.

1.117 The Mid-Year Economic Analysis of December 2014 first highlighted India’s Twin Balance Sheet (TBS) challenge while the Economic Survey 2016-17, Volume I examined it in great detail. Successive Surveys have emphasized that tackling this challenge will require 4 Rs: *Recognition*, *Resolution (which targets corporate balance sheets)*, *Recapitalization (which targets bank balance sheets)*, and *Reform*.

1.118 Over the past few years, the

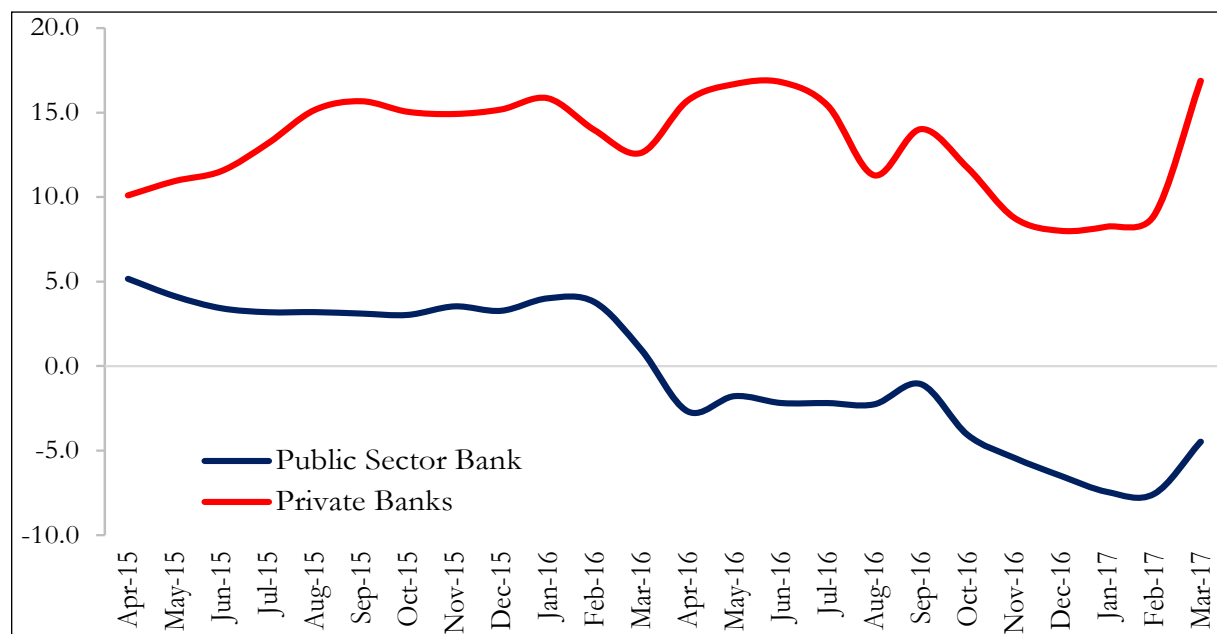
Government and RBI have moved decisively on recognition and most recently on resolution. In May 2017 the Government passed an ordinance to promote resolution. The RBI followed up decisively by identifying on June 13, 2017, 12 loan accounts to be taken up under India’s new Bankruptcy Law. Meanwhile, to facilitate reform, the RBI has placed 6 weak banks under the Prompt Corrective Action (PCA) framework, forcing these banks to start reducing the scale of their banking operations, amongst other measures.

1.119 It is to be hoped that these actions will decisively address the TBS challenge. Some doubts have been expressed by observers on the scope for delay in, and stymieing of, the resolution process because of the relatively untested procedures and the inherent difficulty in writing off debts to the private sector. Early and prominent successes will help quell these doubts and policy-makers are closely monitoring progress.

1.120 Even as the new measures aimed at resolution unfold, it is worth thinking about the other ‘R’s in the context of a strategic approach to the banking sector. Burdened by stressed assets and the atmosphere of uncertainty that has existed for some considerable time, banks, especially those in the public sector, have had to focus on their NPA problem than on new lending. The Figure 34 shows inadequate demand cannot be the full explanation for the credit slowdown because the growth in lending by private sector banks is robust and much greater than for the PSBs.

1.121 The problem is that public sector banks are in damage limitation mode rather than seeking out new clients and opportunities. So, how can they regain their true function

¹⁹ Average mobile data usage has increased 6.5 fold from 154 MB to 2000 MB between June 2016 and March 2017. The price per GB has fallen from Rs. 121 to Rs. 17.

Figure 34. Growth in Corporate Lending* Across Bank Groups

Source: Estimated based on extrapolating Rajan (2015) - https://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=1013.

End- March 2017 numbers need to be viewed with caution because of surge in all monetary aggregates for that date.

of providing credit to support economic growth? What actions will be necessary to ensure that problems will not recur?

1.122 The most important element, surely, is the 4th R: reform. Three elements will be key to any reform package. First, rescues can be selective. The PCA framework can be invoked to ensure the worst performing banks are winnowed out of future lending and shrunk in size over time. Rescues could then be extended solely to the group of viable and near-viable banks. Second, the role of private sector discipline could be expanded, including by allowing, in some cases, majority private sector ownership. Third, these measures should be coupled with specific actions, for example recapitalizing banks and strengthening their lending procedures and risk management frameworks.

1.123 The Government and the RBI have taken important actions to address the Twin Balance Sheet challenge. It is to be hoped

that they will work expeditiously. But even as they play out, thinking about a strategy—of complementing resolution with reform and recapitalization—to create a banking sector that can help revive credit, investment, and growth must be an ongoing priority.

B. OUTLOOK AND POLICIES FOR 2017-18

1.124 This critical review has highlighted a few important points that affect the economic outlook for the rest of 2017-18, and influence the stance of macroeconomic and other policies.

1. Outlook for real activity for 2017-18

1.125 Any growth outlook must be informed by an understanding of the broader context. The latter implies a moderation of expectations about the growth recovery.

1.126 For some time now, India has been in the throes of what Carmen Reinhart

and Kenneth Rogoff have called balance sheet “recessions” (“weaker than potential growth” rather than “recessions” is a more appropriate characterization for India).

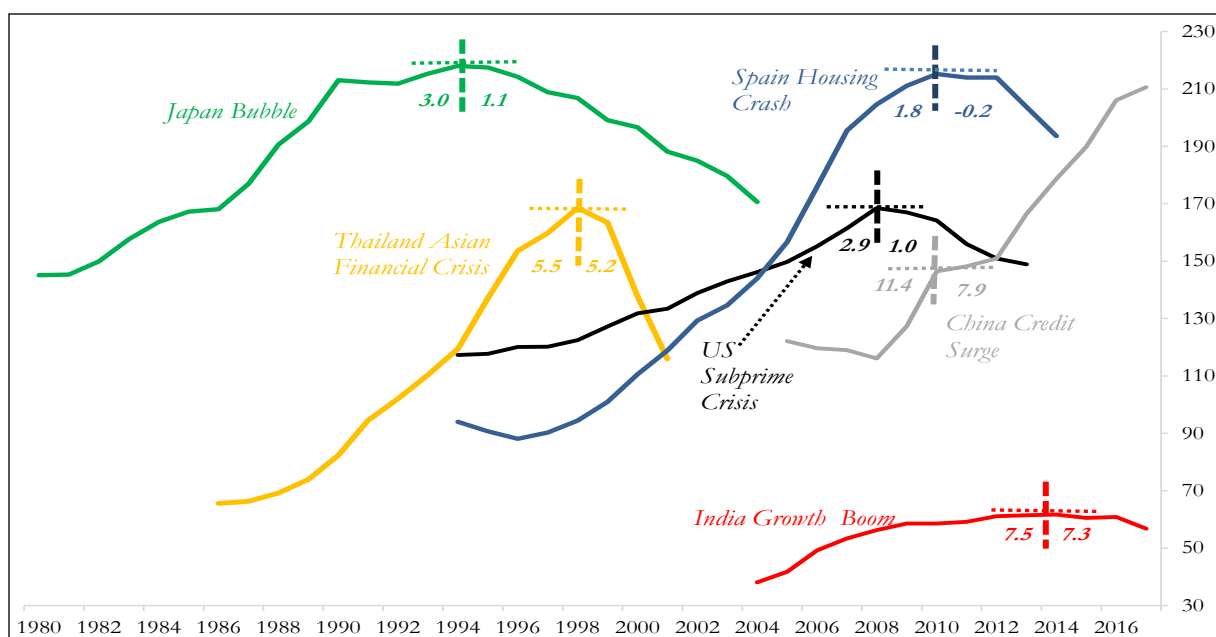
1.127 The legacy of the credit and investment part-boom-part-bubble of the mid-2000s lingers. Figure 35 provides a cross-country context. In most countries, booms are accompanied by rapid increases in credit growth, followed by deleveraging (or credit decline) after which growth can—not necessarily will—pick up. Thailand, the US, and Spain have followed this pattern to varying degrees. China has followed a different path: it has chosen to re-leverage with a vengeance in order to stave off a growth slowdown. This works in the short run, although at the expense of decreasing capital efficiency and building up financial sector vulnerabilities that could lead to dramatic growth slowdowns in the future. Interestingly, the Indian boom of the mid-2000s has not been followed by serious deleveraging. While the slow growth of bank-credit in the last two years has been a

source of concern, the question may well be not the slowdown but whether there has been enough of it. If deleveraging is a necessary condition for the resumption of rapid growth perhaps India needs less credit growth—or to be precise more debt resolution and reduction—in the short run.

1.128 As described earlier, and illustrated in Figures 43-49 in Section C, a number of indicators—GDP, core GVA (GVA excluding agriculture and Government), IIP, credit, investment and capacity utilization—point to a deceleration in real activity since the first quarter of 2016-17, and a further deceleration since the third quarter. Real GVA growth for Q4 2016-17 was 5.6 per cent. Unless potential output growth is much lower than is commonly assumed (around 7 percent or more), output gaps are expected to widen.

1.129 Looking ahead, the question is how the outlook has changed relative to that outlined in the Volume I of the Survey published nearly six months ago. Volume I had predicted a

Figure 35. Credit Peaks and Real GDP Growth



Sources: Bank for International Settlements (BIS) and International Monetary Fund.

The Figure plots the credit-GDP ratio over time; numbers in the chart refer to real GDP growth 5 years before and after the credit to GDP ratio peak, except for China and India

range for GDP growth of between 6.75 and 7.5 percent, factoring in more buoyant exports as global recovery gathered steam, a post-demonetization catch-up in consumption, and a relaxation of monetary conditions consequent upon demonetization.

1.130 Since then, all the new factors—real exchange rate appreciation, farm loan waivers, increasing stress to balance sheets in power, telecommunications, agricultural stress, and the transitional challenges from implementing the GST—impart a deflationary bias to activity.

1.131 Since February 2017, the rupee has appreciated by about 1.5 percent in real effective terms according to the RBI's 36-currency basket— and by more against a basket with higher weights for China and Asian currencies. The reason is that the Chinese Yuan has declined broadly, including against the rupee by 2.7 percent (Figure 57 & 58 in Section C).

1.132 The deflationary impact of farm loan waivers will obviously depend upon how many states imitate the actions of UP, Maharashtra, Madhya Pradesh, and Karnataka, how much relief they provide, and how this relief is phased in. On some reasonable assumptions, the deflationary impact this year could be as much as 0.35 percent of GDP (assuming that the magnitudes estimated in earlier Section are distributed over two years).

1.133 In addition, the real policy rate was tighter than anticipated in Volume I of the Survey. Under such circumstances, and assuming that the current broad (repo rate was reduced by 25 bps on August 2, 2017) stance of monetary and fiscal policies is maintained, the forecast for GDP reflects the greater risks to the downside.

1.134 On the upside, since the previous Economic Survey, the government and the RBI have taken prominent steps to address

the Twin Balance Sheet challenge. This has boosted market confidence in the short run. Deleveraging of corporate balance sheets will be necessary to restore investment and credit demand. Deleveraging of bank balance sheets will be essential to unblock the choked channels of the supply of credit. However, the substantive growth impact of the steps taken will depend on the scope, effectiveness, and timeliness of resolution of stressed assets.

1.135 There is also some upside from the GST. The removal of checkpoints and the consequent easing of transport constraints can provide some short-term fillip to economic activity.

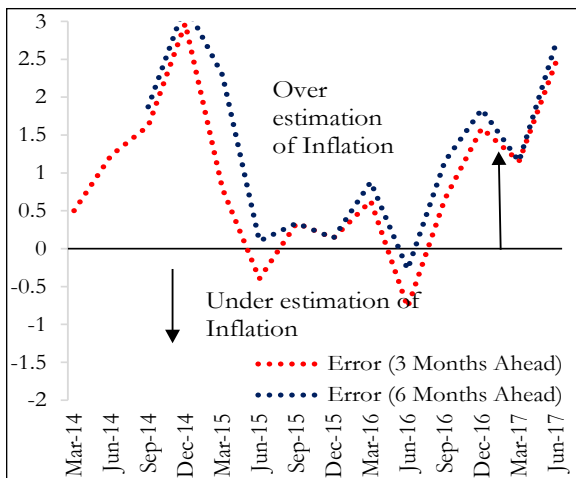
1.136 In February, the Survey (Volume I) had forecast a range for real GDP growth of 6.75 percent to 7.5 percent for FY 2018. The preceding discussion indicates that the balance of risks seem to have shifted to the downside. The balance of probabilities has changed accordingly, with outcomes closer to the upper end having much less weight than previously.

2. Outlook for prices and inflation for 2017-18

1.137 The section on 'Paradigm Shift to Low Inflation' argued that India might already be in the throes of a structural disinflationary shift, driven by more permanent developments in both the international oil market and domestic agriculture reflected in unanticipated inflation developments (Figure 36a).

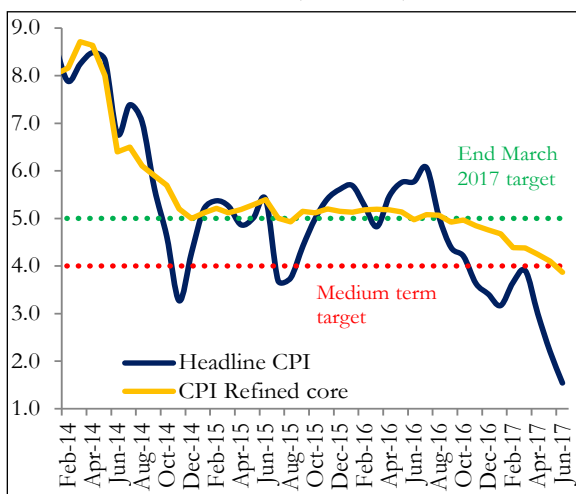
1.138 Turning to the near term, headline CPI inflation number has come down dramatically, posting a low of 1.5 per cent in June 2017, well below the medium term target of 4 per cent (Figure 36b). It was below the March 2017 target for seven months from September 2016 to March 2017 at an average of 124 bps. It is running below the March 2018 target for all 3 months of 2017-18 at

Figure 36a. CPI Inflation: Forecast Error (per cent)



Sources: RBI and Survey Calculations

Figure 36b. Headline and Refined core CPI Inflation (per cent)



Sources: MOSPI and Survey Calculations

an average of 175 bps, with the June number being 246 bps. Refined core—a measure of underlying inflationary trends stripped of the volatile oil and food components and mentioned in the February meeting of the MPC—has also declined steadily and is now at 3.9 percent, below the medium term target of 4 percent.

1.139 Against this background, the outlook for inflation in the near-term will be determined by a number of proximate factors, including:

- the outlook for capital flows and the

exchange rate which in turn will be influenced by the outlook and policy in advanced economies, especially the US;

- the recent nominal exchange rate appreciation;
- the monsoon;
- the introduction of the GST;
- the 7th Pay Commission awards;
- likely farm loan waivers; and
- the output gap

1.140 The IMF and others institutions have noted that a broad-based global recovery is under way. But the implications for policies in advanced economies—and hence for capital outflows from India and for the rupee—are unclear.

1.141 The dilemma for advanced country monetary policy is that while economic activity has picked up and volatility indicators are unusually low—portending looming financial sector risks, which calls for monetary policy normalization, inflation remains well below target (except in the UK), as it has been for a considerable period of time since the global financial crisis. Moreover, long-run yields are declining and the yield curve is flattening, signaling recessionary possibilities. So it looks for now that any monetary tightening will be modest, implying that the risks of capital flows out of India are not as pronounced as earlier this year.

1.142 Reflecting these developments, the nominal exchange rate appreciated by 2.6 percent in nominal effective terms since Volume I of the Economic Survey was published (i.e., between February and June 2017). Estimates for India suggest that a 10 percent exchange rate appreciation will reduce CPI inflation by 0.8 percent ('What is Responsible for India's Sharp Disinflation?' by Sajjid Chinoy, Pankaj Kumar & Prachi Mishra, IMF Working Paper No. WP/16/166). The downward momentum imparted to inflation

will accordingly be about 0.25 percentage points.

1.143 With respect to food prices, rainfall this year is expected to be at or above the long period average and as of July 12, both the level and its regional distribution are reassuring. Sowing data until July 21 is very encouraging. With the exception of arhar, the acreage under production is up over last year for all major crops, including rice (4.6 percent), pulses (3.4 percent), sugar cane (8.7 percent), and cotton (20.1 percent).

1.144 The GST is expected, on balance, to reduce prices because of the lower incidence of taxation compared to the combined incidence of central and state taxes previously. The Ministry of Statistics and Programme Implementation estimates that the 7th Pay Commission housing award is expected to increase inflation on average by between 0.4 and 1.2 percentage points, depending on whether just the Centre or the Centre and all the states implement the award. Moreover, this average impact will be phased over time, peaking six months after the actual award itself.²⁰ Apart from the fact that the GST and Pay Commission impacts might broadly neutralize each other in the short run, they are both one-off events affecting the price level not inflation. Monetary policy is normally expected to see through—rather than respond to—these temporary price level impacts, except to the extent that there are second-order effects on wealth and inflation expectations.²¹

1.145 As described earlier, farm loan waivers are more likely to be deflationary than inflationary and hence impart a downward

not upward bias to prices.

1.146 Output gaps are important for inflation and the earlier discussion points to a weakening economy and widening output gaps.

1.147 This assessment of the outlook, combined with the previous analysis pointing to a structural shift in the underlying inflation dynamics, in addition to the fact that current inflation is running well below the 4 percent target, suggests that inflation by March 2018 is likely to be below the RBI's medium term target of 4 percent.

3. Policy Stance

1.148 These GDP and inflation forecasts are, of course, conditional, and conditional especially on monetary and fiscal policies. The question is their appropriate stance given the economic outlook.

Monetary Policy

1.149 Three key features have characterized monetary policy since the Survey Volume I was released. Real policy interest rates are currently high, there has been unusual volatility in G-sec rates, and a glut of liquidity in banks has persisted for about nine months. The latter two are discussed in greater detail in Chapter 3.

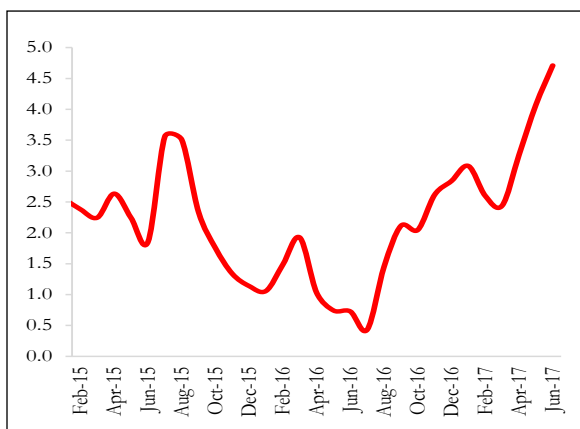
1.150 Figures 37a and 37b provide two indicators of the monetary policy stance. Real interest rates (based on current inflation) at 4.7 percent are high, the highest they've been in the recent past (Figure 37a).²² Rates are also substantially higher than in comparable emerging market countries (Figure 38).

²⁰ These inflation impacts are purely statistical, rather than economic

²¹ This differential response to transient versus permanent factors has been expressed recently by several members of the Monetary Policy Committee.

²² Real interest rates can be computed based on both current and expected inflation rates. In the current circumstance (Figure 37a), it is appropriate to use current inflation rates.

Figure 37a. Real Interest Rate (per cent)



Source: RBI and Survey Calculations

Note: Real interest rate is obtained by subtracting inflation from the nominal repo rate;

*- MCI for every month is plotted by adding the percentage change in the Real Effective Exchange Rate (one-third weightage) as calculated by the RBI and the percentage point change in the real policy rate (two-third weightage) with April 2014 as the base.

Figure 37b. Real Monetary Conditions Index (MCI)*

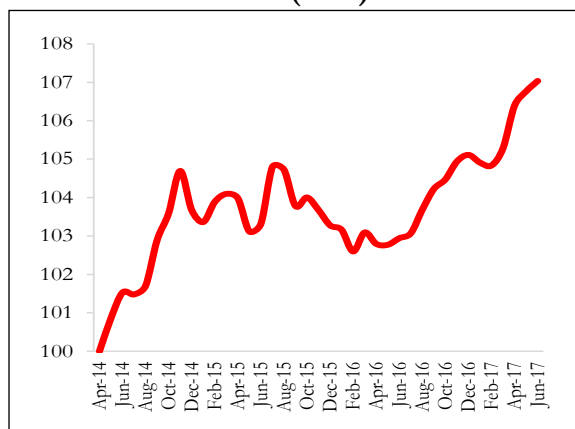
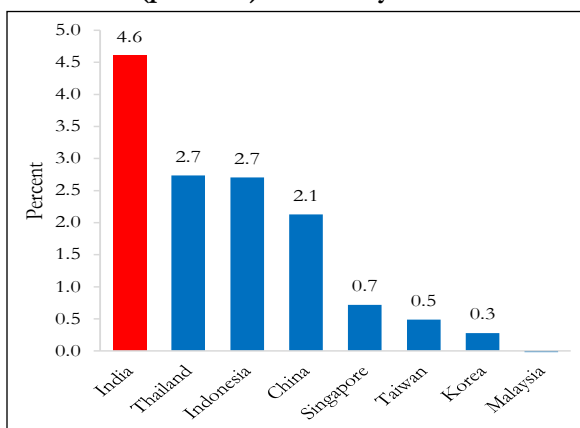
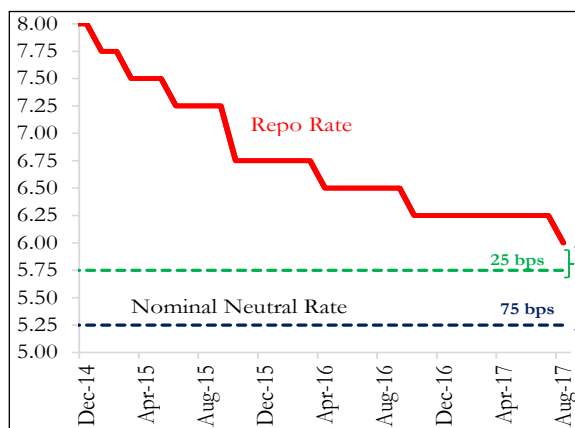


Figure 38. Cross-country Real Bond Yield (per cent) as of May 2017



Source: Bloomberg

Figure 39. Repo Rate and Nominal Neutral Rate



Source: RBI, Survey Calculations

1.151 Another indicator, real monetary conditions²³—which also factors in exchange rate developments, because they impact foreign demand for domestic goods and services—have also been steadily rising and stand at their highest level for a long time (Figure 37b).

1.152 High real interest rates do not per se imply an excessively tight policy stance.

After all, the inflation targeting-cum-MPC framework is new, and establishing credibility for it is imperative. So, it is important that inflation be kept close to its target level. The question, then, is whether the current level of interest rates are truly needed to ensure that this occurs. Economic theory suggests that the answer to this question depends on the economic outlook. Broadly, if cyclical

²³ For example, Monthly Bulletin (June 2002) of the European Central Bank (page 23 at the link www.ecb.europa.eu/pub/pdf/other/mb200206_focus03.en.pdf?fa62fae8f6b163749307cfa99ff6c824d) argues for the relevance of using such a real Monetary Conditions Index.

conditions are strong, real interest rates should be higher than “normal”, while if conditions are weak, they should be lower. But what is “normal” and are current conditions weak or strong?

1.153 Normal or neutral interest rates are those that prevail when inflation is close to target and real GDP close to potential. Neutral rates are not easy to measure but for India there are several estimates of neutral real interest rates from the RBI. These are shown in Table 8. Broadly, real neutral interest rates hover around 1.25-1.75 percent. That implies neutral nominal rates (assuming a target inflation of 4 percent) of 5.25-5.75 percent. Today’s rate is 6.00 percent or about 25-75 basis points above neutral rates (Figure 39).

1.154 How should cyclical conditions be factored in? According to the so-called Taylor rule, the key indicators of the cycle is the inflation gap, or how far away current inflation is from target and the output gap, how far current GDP growth is from

potential. If expected inflation and growth are greater than their equilibrium levels, nominal interest rates should be higher than normal, and vice versa.

1.155 The discussion of the outlook suggested that in fact both expected inflation and GDP are subdued relative to their equilibrium levels. Current inflation, at 1.5 percent, is running well below the 4 percent target, with the domestic economy lacking the dynamism to push this back toward the target. For example, average capacity utilization for the economy as a whole at 72.7 percent in Q3 2016-17 is indicative of sizable slack in the economy.

1.156 Cyclical conditions, then, suggest that the policy rate should actually be below—not 50-100 basis points or so above—the neutral rate. The conclusion is inescapable that the scope for monetary easing is considerable, more than that suggested by comparison with neutral interest rates. Also, the earlier the easing, complemented with other reform actions especially to address the

Table 8. Estimates of Neutral Interest Rates for India

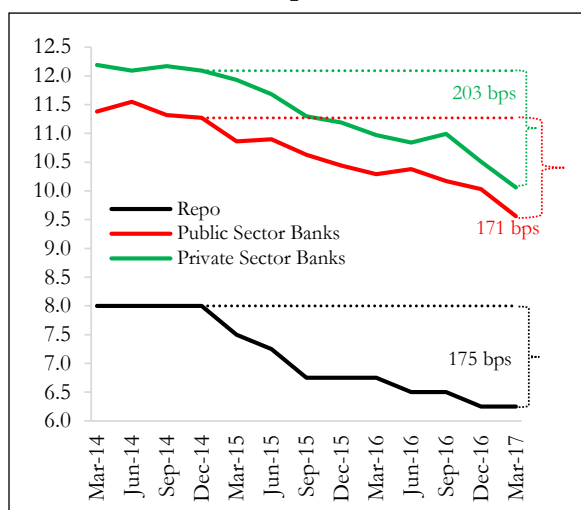
| Study | Type of Monetary Policy Rule | Period | Real ‘Neutral’ rate | ‘Neutral’ nominal rate with inflation target of 4% | Space for cut vis-à-vis current policy rate (6%) |
|---|---|-----------|-----------------------------------|--|--|
| 1. Speech by Executive Director, RBI (2013) | Standard Taylor Rule & Taylor Rule with smoothing | 2012-13Q3 | 0.5-0.9 per cent | 4.5-4.9 percent | 110-150 bps |
| 2. RBI Working Paper No. 05/2015 (2015) | Standard Taylor Rule & Structural Taylor Rule | 2014-15Q4 | 1.6-1.8 per cent (core estimates) | 5.6-5.8 percent | 20-40 bps |
| 3. RBI Post Policy Conference Call with Media (February 2015) | --- | 2014-15 | 1.5-2 per cent | 5.5-6.0 percent | 0-50 bps |
| 4. MPC: RBI Post-Policy Conference Call with Media (October 2016) | --- | 2016-17Q3 | ~1.25 per cent | ~5.25 percent | ~75 bps |

TBS challenge, the quicker the economy can approach its full potential.

1.157 Moreover, it is worth remembering that the real rates that affect decisions for consumers and investors are yearly averages not those prevailing at certain points in time. In 2016-17, the average real policy interest rate was 1.8 percent. Even if inflation reaches 4 percent by end-March 2018, the average inflation for 2017-18 will likely be around 3 percent. The resulting average real policy rate would then be substantially greater than suggested by the target inflation rate.

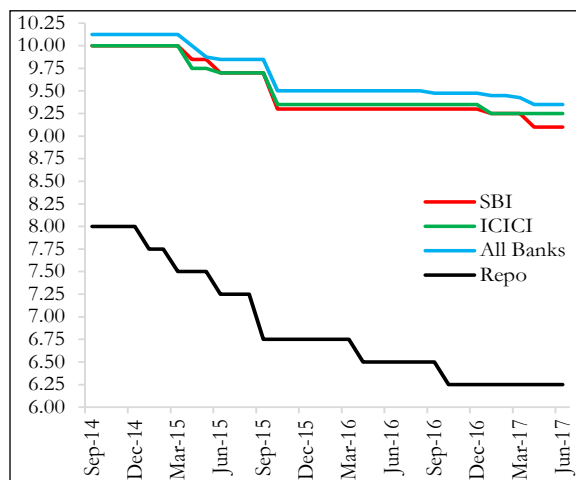
1.158 One argument against monetary easing is weak passthrough: why should policy rates be cut if lending rates are not going to decline? It is true that base rates have not declined commensurately with policy rate reductions (80 versus 175 basis points, Figure 40) but passthrough at private banks has been much higher than at public ones, conferring a competitive advantage that should be encouraged. Also, for all banks passthrough has been high for new loans (Since April 1, 2016 all rupee loans are Marginal Cost of Funds based Lending Rate linked). Figure 41 shows that for these loans

Figure 40. Repo Rate and Bank Group-wise Weighted Average Lending Rates on Fresh Rupee Loans



Source: RBI, Survey Calculations

Figure 41. Repo Rate and Base Rate (per cent)



Source: RBI, Survey Calculations

lending rates have declined by as much as policy rates and these reductions have been greater for private (200 bps) than public sector banks (175 bps). These reductions benefit all borrowers, including small and medium enterprises (SMEs).

1.159 Moreover, even if passthrough is inadequate as some argue, there are financial stability benefits from cutting policy rates, since the reduction in the cost of funds without a commensurate decline in lending rates will help restore banks' profitability. Lower rates will also facilitate the TBS problem resolution process.

Fiscal policies

1.160 The budget for 2017-18 targeted a fiscal deficit of 3.2 percent of GDP which represented a steady rather than sharp fiscal consolidation. This choice was in the spirit of the alternative not majority view proposed in the FRBM Review Committee report (Box 2 in Chapter 2 provides a comparison of the majority and alternative views).

1.161 The fiscal outlook for this year is uncertain. Downside risks (beyond those expected at the time of the Budget) include:

- Reduced tax revenues from slower nominal growth than anticipated;

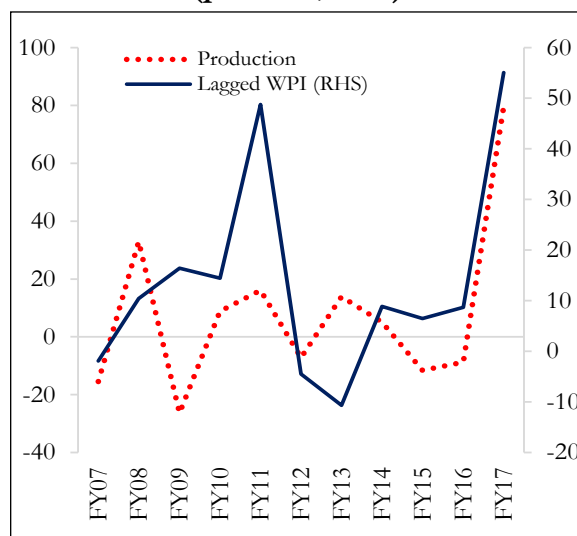
- reduced GST collections on account of the lower GST rates compared with the pre-GST taxes, and transitional challenges from GST implementation;
- reduced spectrum receipts on account of the structural jolt to the viability of incumbent firms; and
- higher expenditures from the 7th Pay Commission estimated at Rs. 30,000 crore.

1.162 There is also upside potential to revenues both from the compliance benefits of the GST and the compliance possibilities opened up by demonetization. Accordingly, the magnitude and pace of final consolidation relative to the commitments made may need to be assessed going forward.

Other policies

1.163 Agricultural stress will need appropriate policy responses. Given that 2017 will also be a year of surplus rather than scarcity, and to the extent that firming up prices will be essential to boost agricultural incomes, it is imperative to learn the lessons from the experience of 2016. One such lesson—highlighted in the Pulses Report²⁴ of September 2016 — is that farmers respond to prices. Lower prices in one year affect sowing and prices in the next, which creates a cobweb cycle. Figure 42 highlights this for the case of tur, where production is highly correlated with prices received in the previous year. Policy must be driven by the recognition that, over longer horizons, there is no necessary opposition between farmer and consumer interests: remunerative and stable minimum support prices (and the procurement to back them), as well as access to export markets, that help farmers can obviate the risks of production swings and price spikes that are painful for consumers.

Figure 42. The Cobweb: Arhar Production and Lagged Inflation (per cent, YoY)



Sources: CSO, Ministry of Agriculture.

1.164 Hence, all the impediments that come in the way of realizing better prices for farmers—stock limits imposed under the Essential Commodities Act, export restrictions, impediments to the implementation of e-NAM—need to be removed.

1.165 Conditions of continuing surplus may well be an opportune moment to revisit the archaic Essential Commodities Act that was enacted decades ago to cope with conditions of severe scarcity when markets were less well developed. The time is also ripe to consider whether direct support to farmers can be a more effective way to boost farm incomes over current indirect, ineffective, and inefficient forms of support.

C. REVIEW OF DEVELOPMENTS IN 2016-17

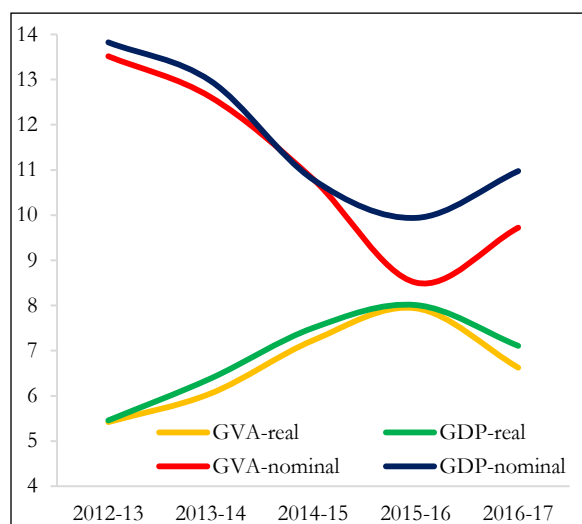
1. GDP

1.166 According to the Central Statistics Office (CSO) May 2017 estimates, real GDP

²⁴ “Incentivising Pulses Production Through Minimum Support Price (MSP) and Related Policies”, September 16, 2016 - http://finmin.nic.in/sites/default/files/Pulses_report_16th_sep_2016.pdf

grew by 7.1 per cent in 2016-17 compared with 8 percent the previous year. This performance was higher than the range predicted in the Economic Survey (Volume I) in February (Figure 43). This growth suggested that the economy was relatively resilient to the large liquidity shock of demonetization which

Figure 43. Annual growth in real and nominal GVA and GDP



Source: CSO

reduced cash in circulation by 22.6 percent in the second half of 2016-17. The apparent resilience was even more marked in nominal growth magnitudes because both nominal GVA and GDP growth accelerated by over 1 percentage point in 2016-17 compared with 2015-16.

1.167 Apart from the favorable monsoon which propelled agricultural growth, government also made a significant contribution, registering growth of 11.3 percent (Table 9), reflecting the impact of salary increases awarded by the Seventh Pay Commission (Table 9). These sectors contributed nearly one-third of the total GVA growth as against their contribution of about one-sixth of the GVA growth in the period FY 2013 to FY 2016.

1.168 While suggesting resilience, the latest GDP figures—in addition to a number of other indicators—also raised concerns about the growth trajectory during the course of FY2017. Real GDP and GVA growth

Table 9. Growth in value added and GDP (per cent, constant prices)

| Sector | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|--|---------|---------|---------|---------|
| Agriculture, forestry & fishing | 5.6 | -0.2 | 0.7 | 4.9 |
| Mining & quarrying | 0.2 | 11.7 | 10.5 | 1.8 |
| Manufacturing | 5.0 | 8.3 | 10.8 | 7.9 |
| Electricity, gas and water supply | 4.2 | 7.1 | 5.0 | 7.2 |
| Trade, hotel, transport, communication etc | 6.5 | 9.0 | 10.5 | 7.8 |
| Financial, real estate and prof. services | 11.2 | 11.1 | 10.8 | 5.7 |
| Public Administration, defence and others | 3.8 | 8.1 | 6.9 | 11.3 |
| GVA | 6.1 | 7.2 | 7.9 | 6.6 |
| Core GVA | 6.6 | 9.0 | 9.8 | 6.2 |
| GDP | 6.4 | 7.5 | 8.0 | 7.1 |

Source: CSO and Survey Calculations

Note: Core GVA=Aggregate GVA - GVA of agriculture & allied, and, public administration, defence and other services

declined for four consecutive quarters. The growth in core GVA—total GVA excluding agriculture and allied sectors and public administration, defence and other services—decelerated by 3.6 percentage points from FY 2016 to FY 2017 (Table 9) and by 6.8 percentage points between Q4 FY 2016 to Q4 FY 2017 (Figure 44 & 45). Manufacturing GVA growth started declining from Q4 FY 2016 and the new and revised IIP numbers showed a similar decelerating trend (Figure 46).

1.169 The growth in real fixed investment

Figure 44. GVA and GDP growth (per cent in constant prices)

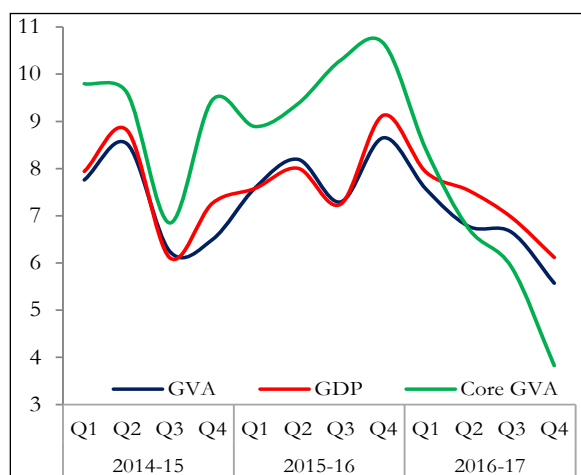
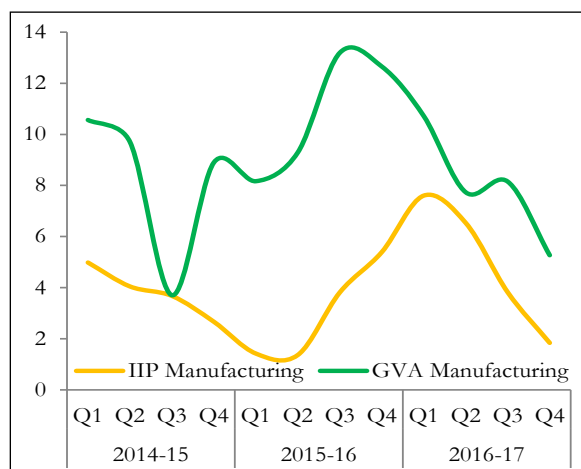


Figure 46. Growth in manufacturing (in per cent)- GVA and IIP



Sources for Figures: CSO and Survey Calculations

was low since the second half of FY 2013 and declined steeply after a temporary spurt in the second half of FY 2016, shored up to some extent by public investment (Figures 47, & 48). As per Survey calculations private investment growth is estimated to be negative in 2016-17. The only demand boost came from consumption, which accounted for about 96 per cent of GDP growth in FY 2017.

2. Inflation

1.170 The economy has undergone a dramatic

Figure 45. GVA and GDP growth (per cent in current prices)

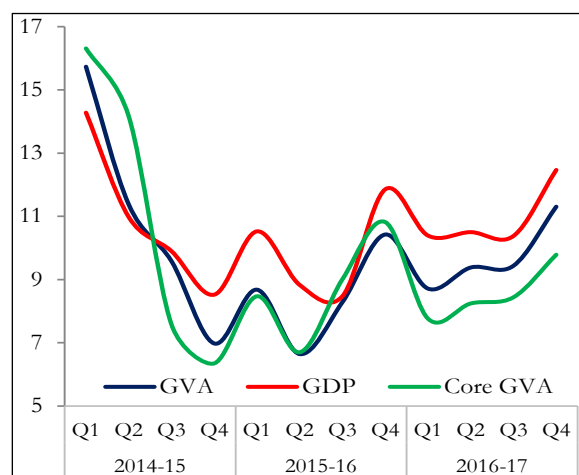


Figure 47. GFCF growth at constant prices

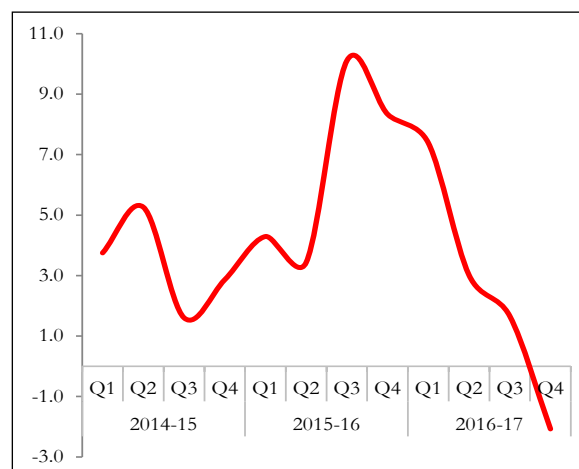
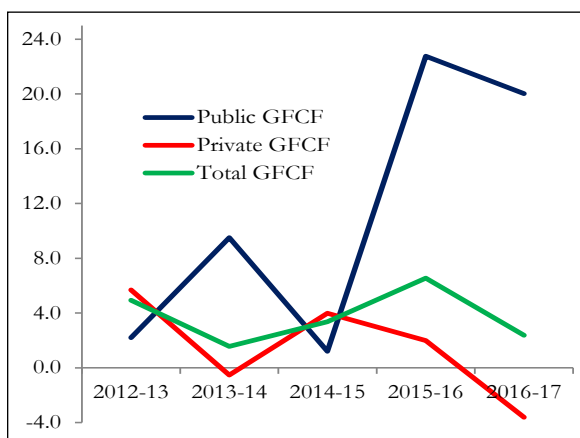
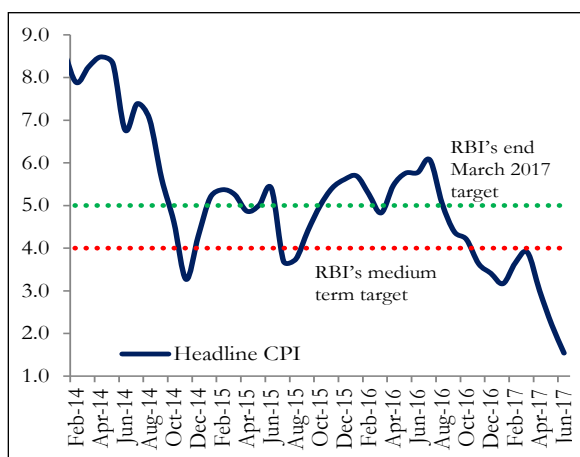
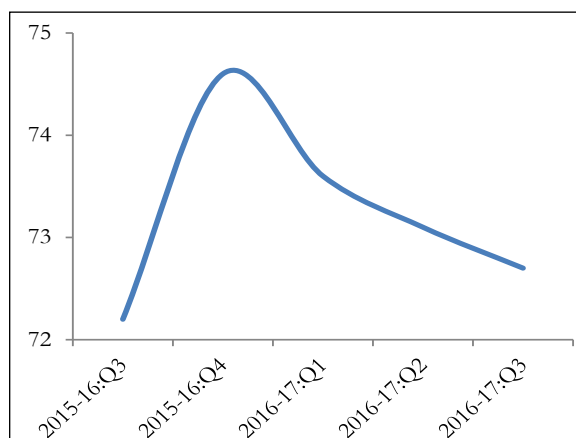


Figure 48. Growth in fixed capital formation (per cent, constant prices)

Sources for Figures: CSO, RBI and Survey Calculations

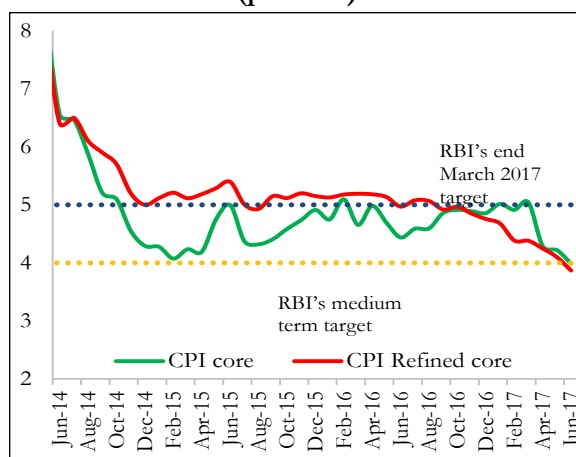
transition from high to low inflation (Section below); Annual inflation averaged 5.9 per cent in 2014-15 and has since declined to 4.5 per cent in FY 2017. More dramatic have been developments during 2016-17. Perhaps reflecting in part the growth deceleration, inflation declined sharply from 6.1 percent in July 2016 to 1.5 percent in June 2017. Food inflation had hardened during the first few months of FY 2017 due to upward pressure on prices, mainly of pulses and vegetables, but softened subsequently with improvement in seasonal availability and particularly after demonetization.

1.171 Headline CPI inflation has now

Figure 50. Headline CPI inflation (per cent)**Figure 49. Capacity Utilisation in manufacturing (per cent)**

been below the RBI's 2017 target for ten consecutive months by about 1.7 percentage points on average (Figure 50). Not only headline but refined core inflation—which strips out agriculture and oil as well as the oil-component in transportation services—declined steadily from over 5 percent in June 2016 to 3.9 percent in June 2017 (Figure 51).

1.172 The sharp dip in WPI inflation in late FY 2015 and throughout FY 2016 owed to the deceleration in global commodities prices, especially crude oil prices. With global commodity prices recovering and the 'base effect' (low inflation in the previous year) giving an upward push, wholesale

Figure 51. Core and Refined core CPI inflation (per cent)

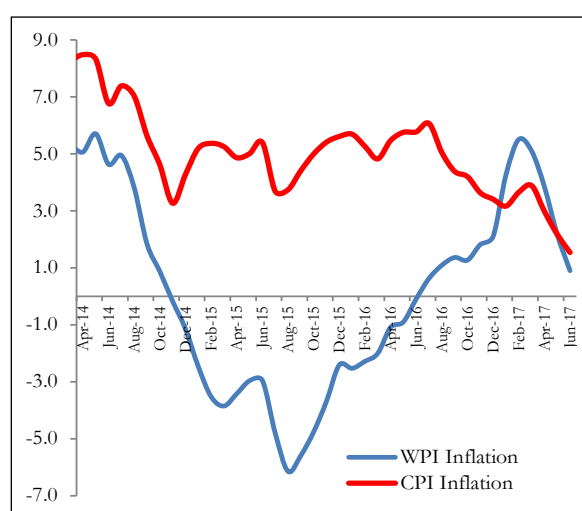
inflation perked up during FY 2017. The vast divergence between the retail and wholesale inflation that, *inter alia*, led to serious measurement challenges in the national accounts, especially in FY 2016, has now been eliminated (Figure 52). (Appendix 3 summarizes how national income estimates are constructed in each of the major sub-sectors, clarifying the indicators and deflators used as well as procedures for nominal and real calculations).

3. External Sector

1.173 With the green shoots slowly becoming visible in merchandise trade, and robust capital flows, the external position appears robust, reflected *inter alia* in rising reserves and a strengthening exchange rate.

1.174 The current account deficit narrowed in 2016-17 to 0.7 percent of GDP, down from 1.1 percent of GDP the previous year, led by the sharp contraction in trade deficit which more than outweighed the decline in net invisibles (Figures 53 and 54). With both net services and net private transfers declining, net invisibles receipts at US\$ 97.1 billion fell by 10.0 per cent in FY 2017. Subdued activity in source countries, particularly in the Gulf

Figure 52. WPI and CPI inflation (per cent)



Source: MOSPI

Figure 53. Exports and Imports (US \$ billion) & trade balance (US \$ billion and per cent of GDP)

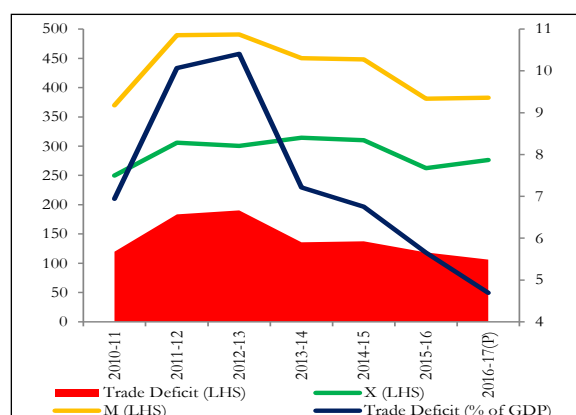
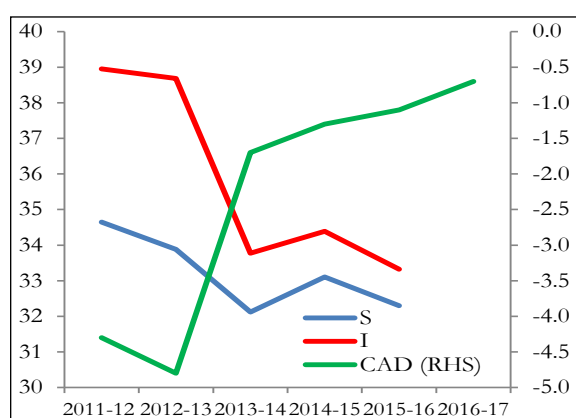


Figure 54. Saving (S) and Investment (I) rates and Current Account Balance (CAD) as per cent of GDP



region, reduced the flow of net remittances to India substantially, from US\$ 63.1 billion in 2015-16 to US\$ 56.6 billion in 2016-17.

1.175 Export growth turned positive after a gap of two years and imports contracted marginally, so that India's trade deficit narrowed to 5.0 per cent of GDP (US\$ 112.4 billion) in FY 2017 as compared to 6.2 per cent (US\$ 130.1 billion) in the previous year. After many quarters, volume growth in exports remained consistently positive since February 2016, while import volume growth became positive in October 2016. Gold imports have been surging since August 2016, possibly representing a shifting forward of purchases by jewelers ahead of expected

increases in the tax on gold and jewelry under the GST (Figure 60).

1.176 Net capital inflows were slightly lower at 1.6 per cent of GDP (US\$ 36.8 billion) in FY 2017 compared to 1.9 per cent of GDP (US\$ 40.1 billion) in the previous year, mainly due to decline in NRI deposits, reflecting the sizeable redemption of FCNR (B) deposits in late 2016 (Figure 55). Net FDI, however, remained strong at US\$35.6 billion in FY2017 and comfortably financed the current account deficit.

1.177 The capital account surplus exceeding the current account deficit led to reserve accumulation (on BoP basis) to the extent of US\$ 21.6 billion in 2016-17 which was

higher than the increase of US\$ 17.9 billion in FY 2016. Spot foreign exchange reserves stood at US\$ 370 billion at the end of March 2017 as compared to 360.2 billion as at end March, 2016 (Figure 56). As on July 7, 2017 the foreign exchange reserve reached US\$ 386.4 billion. As a result, most reserve-based external sector vulnerability indicators have improved. Extensive forward market intervention (which is effectively sterilized) reflected the RBI's attempt to manage excess liquidity in the wake of demonetization (Figure 61).

1.178 There was a transitory downward pressure on the Indian rupee following the uncertainty related to US presidential election

Figure 55. Trends in Major Components of Capital Inflows (US\$ billion)

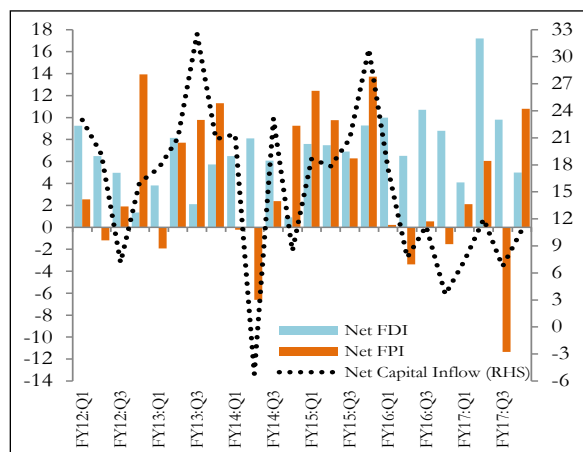


Figure 57. Exchange Rate: Rupee Dollar & Rupee Yuan

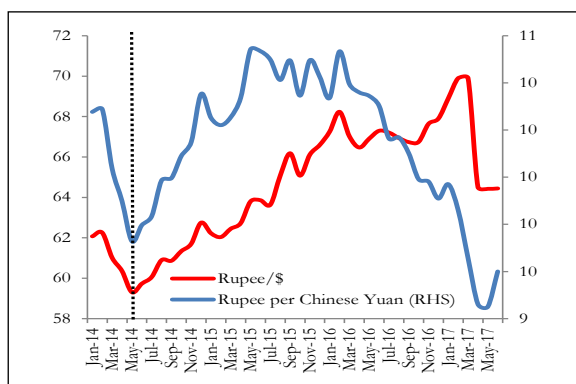


Figure 56. Foreign Exchange Reserves (US \$ billion)

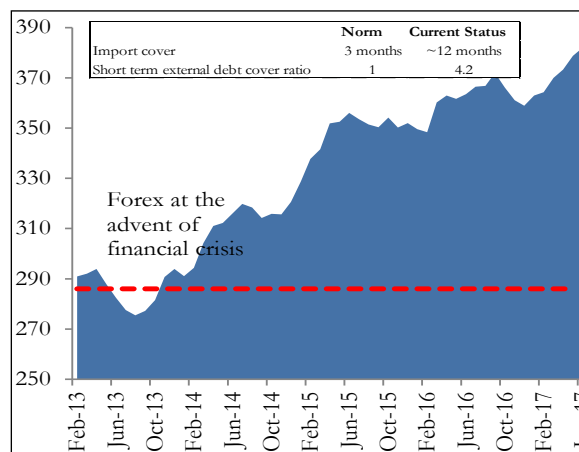


Figure 58. Nominal Effective Exchange Rate & Real Effective Exchange Rate: (2014=100)

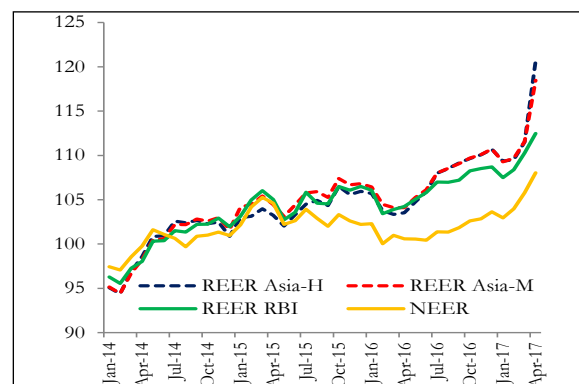
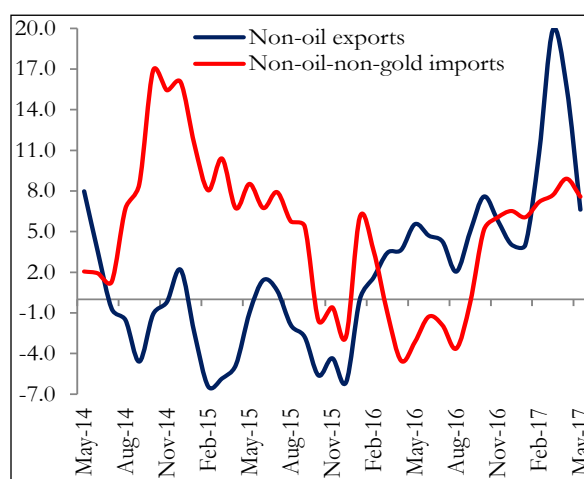
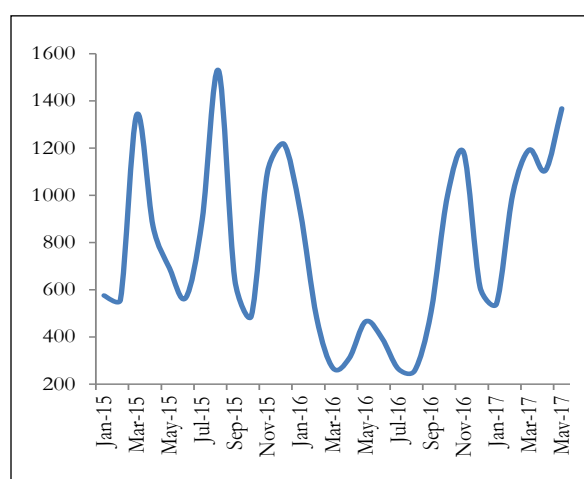
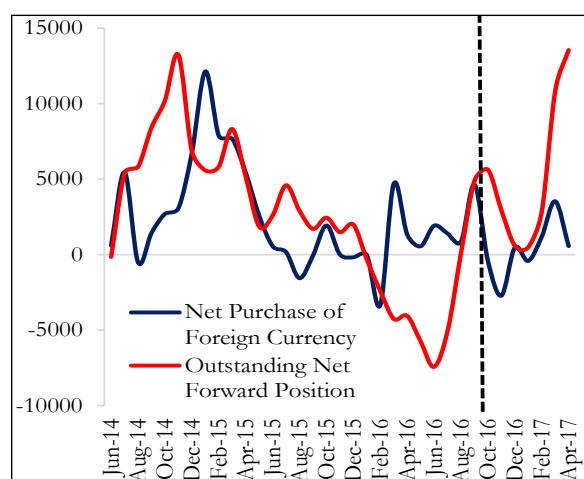


Figure 59. Export and Import Growth (per cent) (3 month moving average)**Figure 60. Gold imports ('00 kg)**

Sources for Charts: RBI, CSO, DGCIS and Survey Calculations

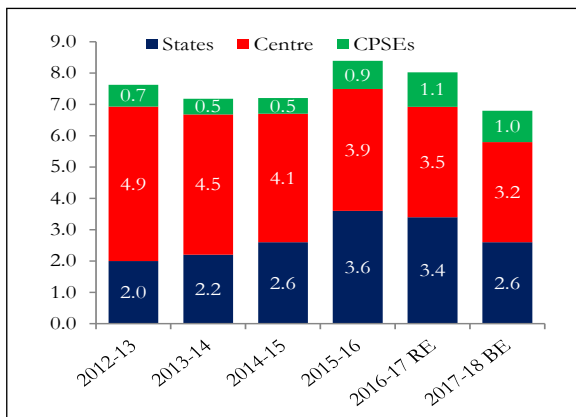
Figure 61. Sales and Purchase of Foreign Currency by the RBI (US \$ million, thousands)

results that triggered sizable depreciation in currencies around the world. The rupee recovered quickly since December 2016 and strengthened further since February 2017 as portfolio inflows turned positive with receding global risk aversion, changed perception of US policies, and confidence in government policies and political stability in the wake of the Uttar Pradesh (UP) elections. The rupee remained in a range of Rs. 65.9 to Rs. 68.1 per US dollar during FY 2017, and on an average depreciated by 2.4 per cent between 2015-16 and 2016-17. In terms of real effective exchange rate, the rupee appreciated indicating that exports became slightly less competitive (Figure 58). The magnitude of this appreciation is greater relative to Asian currencies on account of the decline in the Chinese yuan (Figure 57).

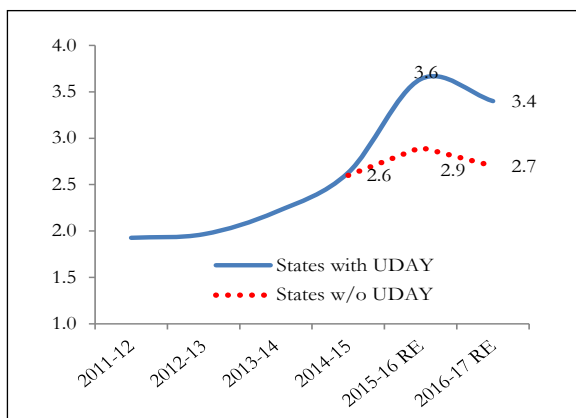
IV. Fiscal Developments

1.179 Despite the expenditure compulsions on account of implementation of the Seventh Pay Commission and the Defence One Rank One Pension Scheme, the Union Budget 2017-18 aimed to consolidate its fiscal position. At the end of the year, the government adhered to its fiscal deficit target (Figure 62), despite spectrum auction and disinvestment receipts falling short of the targets.

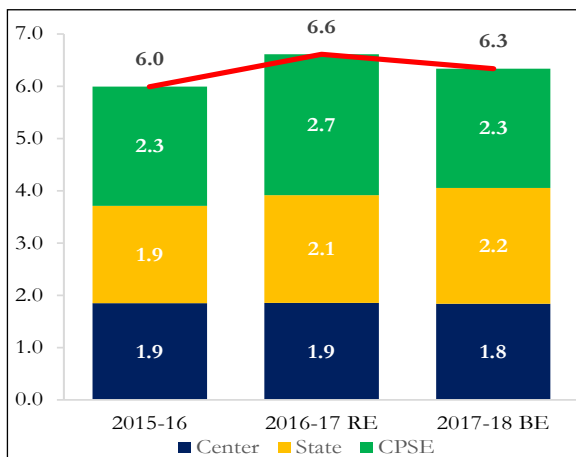
1.180 Overall, the fiscal outcome of the Central Government in FY 2017 was marked by robust growth in tax revenue—stemming largely from excise taxes on petroleum—and consolidation of non-salary/pension revenue expenditure and of borrowing. The efforts of mobilizing additional tax resources from excise duty and service tax considerably helped buoyant collections in the last two years. The collections from Swachh Bharat Cess and Krishi Kalyan Cess accounted for more than one-third of the growth in service tax collections. The growth in collections from petroleum products contributed more

Figure 62. Borrowings by the Centre, States and CPSEs (per cent of GDP)

Source: Budgets of Centre and States, RBI

Figure 63. Fiscal deficit of States (per cent of GDP)

Source: RBI

Figure 64. Capital spending by Centre, States and CPSEs (per cent of GDP)

Source: Survey Calculations

than two-thirds of the growth in total excise collections.

1.181 The deficit position of the States deteriorated, reflecting their assuming the DISCOM liabilities under the UDAY program in the last two years. During FY 2016, the consolidated fiscal deficit of the States increased by about 1 percentage point (Figure 63). However, including UDAY, consolidated state fiscal deficit moderated by 0.2 percentage points, from 3.6 per cent in FY 2016 to 3.4 per cent of GDP in FY 2017. UDAY bonds approximately accounted for 0.7 per cent of GDP in FY 2016 and FY 2017.

1.182 Public investment—approximated by investment by Centre, States plus CPSEs—improved on the back of accelerated efforts by CPSEs in 2016-17 (Figure 64). The Survey calculations show that, but for relatively high level of public investment growth, the decline in the fixed investment rate would have been steeper (Figure 48). The investment spending of the general government, relative to GDP, is likely to decline in 2017-18 as per available Budget information.

1.183 The Union Budget for 2017-18 introduced a number of procedural reforms. First, discontinuing the practice since 1924, the Railway Budget was integrated with the Union Budget, bringing railway finances into mainstream budgeting. Second the date of the Union Budget was advanced to February 1, almost by a month, to help Central ministries and State governments plan and spend their full budget from the beginning of the financial year, whereas previously they had to wait till well into the financial year (typically end-May) for the Budget to secure legislative passage. Third, the classification of expenditure into ‘plan’ and ‘non-plan’ was eliminated to allow focus on the more economically meaningful capital-revenue distinction. Fourth, the Medium Term

Expenditure Framework Statement was restructured to give projected expenditures (revenue and capital) for each demand for the next two financial years.

1.184 The Union Budget for 2017-18 opted for a steady consolidation path. Thus, the fiscal deficit is expected to decline to 3.2 percent of GDP in FY2018 compared with the outcome of 3.5 percent of GDP in FY2017. The consolidation path adopted by

the Central Government prudently balanced competing objectives. On the one hand, there were the requirements of a cyclically weakening economy, afflicted by the 'Twin Balance Sheet problem and manifested in declining investment and credit growth, arguing for counter-cyclical policy. And, on the other, the imperatives of maintaining credibility, especially in the wake of potential disruptions to state government finances, warranted continuing consolidation.

APPENDIX 1. FARMER INDEBTEDNESS: BASIC FACTS

What is known about the magnitude and distribution of farm loans?

To answer this question the 2012-13 Situation Assessment Survey of Agricultural Households of the National Sample Survey Office which provides detailed estimates of the composition of outstanding loans in agriculture is used.²⁵

An agricultural household is defined as a household receiving an annual value of produce greater than Rs.3000 from agricultural activities—including allied activities—and having at least one member self-employed in agriculture either in the principal status or in subsidiary status during the last 365 days.

Tables 1 and 2 below summarize the estimates for farm loans by state and land holding for 2016-17. The 2012-13 numbers are inflated by CPI inflation for the period 2012-13 to 2016-17. A few facts stand out.

For India as a whole, total farm loans amount to about Rs. 5.5 lakh crore, of which Rs. 3.25 lakh crore (60 percent) is owed to formal institutions and the rest to informal ones. About Rs. 2.4 lakh crore or nearly 75 percent of all formal loans are owed by small farmers (holdings less than 2.5 hectares). But nearly 85 percent of all informal loans are also owed by small farmers. In other words, small farmers depend much more on the informal sector than the larger farmers for whom informal loans account for only 25 percent of total loans.

The states with the largest formal sector farm loans (in absolute terms) are Uttar Pradesh, Maharashtra, Kerala, Tamil Nadu, Karnataka, and Rajasthan. Perhaps surprisingly, Punjab and Haryana are not amongst the states with the highest farm loans. Punjab, however, does have high farm debt levels relative to GSDP, along with Kerala and Andhra Pradesh.

The states with the highest informal lending operations in farming are Andhra Pradesh, Rajasthan, Uttar Pradesh, and Telangana. On average, less developed states tend to have a higher volume of informal sector lending. For example, for these four states, informal loans, at close to 1 lakh crore, account for 56% of overall indebtedness of farmers: official farm loan waivers will still leave them with a lot of debt.

²⁵ There is an alternative and more current source of data from the RBI, but it does not disaggregate by farm size or capture informal sector lending. The RBI numbers on agricultural loans are higher than those from the NSSO study because the latter is sample-based. However, as discussed in the Economic Survey 2014-15, Chapter 5, Box 5.2, a substantial share of RBI-defined agricultural loans do not appear to go to the agricultural sector.

Appendix Table 1

Estimated Outstanding Loans by Land Holding Size and Source of Loan for 2016-17 (Rs Crore)

| | No land and Small Farmer | | | Medium | | | Large | | | Grand Total | | |
|------------------|--------------------------|----------|--------|--------|----------|--------|--------|----------|--------|-------------|----------|---------|
| | Formal | Informal | Total | Formal | Informal | Total | Formal | Informal | Total | Formal | Informal | Total |
| Uttar Pradesh | 32,246 | 24,061 | 56,308 | 5,376 | 356 | 5,732 | 1,662 | 111 | 1,773 | 39,284 | 24,529 | 63,813 |
| Andhra Pradesh | 18,727 | 25,872 | 44,599 | 3,439 | 3,949 | 7,388 | 2,986 | 2,556 | 5,542 | 25,152 | 32,377 | 57,529 |
| Tamilnadu | 26,649 | 16,619 | 43,269 | 3,144 | 682 | 3,826 | 1,380 | 250 | 1,631 | 31,174 | 17,552 | 48,726 |
| Rajasthan | 14,948 | 27,597 | 42,544 | 6,221 | 2,649 | 8,870 | 4,626 | 3,215 | 7,841 | 25,795 | 33,461 | 59,255 |
| Karnataka | 24,949 | 16,230 | 41,179 | 4,943 | 2,773 | 7,716 | 3,815 | 737 | 4,552 | 33,706 | 19,740 | 53,447 |
| Kerala | 32,529 | 3,901 | 36,429 | 1,900 | 32 | 1,932 | 407 | 53 | 461 | 34,835 | 3,986 | 38,821 |
| Maharashtra | 22,292 | 8,352 | 30,645 | 8,426 | 2,129 | 10,554 | 7,777 | 1,372 | 9,149 | 38,495 | 11,853 | 50,348 |
| Telangana | 9,075 | 17,925 | 27,000 | 991 | 1,565 | 2,556 | 555 | 642 | 1,197 | 10,620 | 20,133 | 30,753 |
| Madhya Pradesh | 9,094 | 7,627 | 16,720 | 4,064 | 1,693 | 5,756 | 1,951 | 528 | 2,480 | 15,109 | 9,848 | 24,957 |
| Odisha | 4,811 | 10,020 | 14,830 | 1,009 | 22 | 1,030 | 419 | 161 | 579 | 6,238 | 10,202 | 16,440 |
| Bihar | 3,912 | 10,511 | 14,423 | 295 | 63 | 358 | 129 | 100 | 229 | 4,336 | 10,675 | 15,010 |
| West Bengal | 8,295 | 6,034 | 14,329 | 116 | 50 | 166 | 107 | 41 | 148 | 8,518 | 6,125 | 14,643 |
| Punjab | 8,167 | 4,480 | 12,647 | 5,643 | 1,183 | 6,825 | 1,829 | 522 | 2,351 | 15,638 | 6,185 | 21,823 |
| Haryana | 9,023 | 3,588 | 12,611 | 1,526 | 1,192 | 2,718 | 605 | 141 | 746 | 11,154 | 4,922 | 16,075 |
| Gujarat | 8,707 | 3,586 | 12,293 | 3,766 | 438 | 4,204 | 2,905 | 19 | 2,925 | 15,378 | 4,044 | 19,422 |
| Uttarakhand | 3,522 | 639 | 4,161 | 331 | 4 | 335 | 228 | 165 | 393 | 4,081 | 808 | 4,889 |
| Himachal Pradesh | 2,548 | 485 | 3,033 | 74 | 8 | 83 | 58 | 28 | 87 | 2,681 | 522 | 3,202 |
| Chhattisgarh | 1,762 | 1,242 | 3,004 | 284 | 35 | 319 | 71 | 2 | 73 | 2,116 | 1,280 | 3,396 |
| Jharkhand | 416 | 1,173 | 1,588 | 37 | 6 | 43 | 5 | - | 5 | 458 | 1,178 | 1,636 |
| TOTAL | 41,670 | 189,942 | 31,612 | 51,583 | 18,829 | 70,412 | 31,515 | 10,645 | 42,160 | 324,768 | 219,417 | 544,185 |

Source: Estimated from Unit level data on Situation Assessment Survey of Agriculture Households 2012-13.

Note: (1) Land holding categories are based on "Land Owned" and includes homestead land.

(2) Estimates for 2016-17 is based on 2012-13 number. The 2012-13 number are inflated by CPI inflation.

(3) Formal loans includes loans from Bank, Cooperative societies and Government.

Definition of Land Size:

No land and Small - upto 2.5 hectare

Medium - 2.5-5.5 hectare

Large - >5.5 hectare

Appendix Table 2

Estimated Outstanding Loans by Land Holding Size and Source of
Loan for 2016-17 (% of 2017-18 GSDP)

| | No land and Small Farmer | | | Medium | | | Large | | | Grand Total | | |
|------------------|--------------------------|----------|-------|--------|----------|-------|--------|----------|-------|-------------|----------|-------|
| | Formal | Informal | Total | Formal | Informal | Total | Formal | Informal | Total | Formal | Informal | Total |
| Uttar Pradesh | 2.3 | 1.7 | 4.0 | 0.4 | 0.0 | 0.4 | 0.1 | 0.0 | 0.1 | 2.8 | 1.7 | 4.5 |
| Andhra Pradesh | 2.4 | 3.4 | 5.8 | 0.4 | 0.5 | 1.0 | 0.4 | 0.3 | 0.7 | 3.3 | 4.2 | 7.5 |
| Tamilnadu | 1.8 | 1.1 | 2.9 | 0.2 | 0.0 | 0.3 | 0.1 | 0.0 | 0.1 | 2.1 | 1.2 | 3.2 |
| Rajasthan | 1.8 | 3.3 | 5.1 | 0.8 | 0.3 | 1.1 | 0.6 | 0.4 | 0.9 | 3.1 | 4.0 | 7.2 |
| Karnataka | 1.9 | 1.3 | 3.2 | 0.4 | 0.2 | 0.6 | 0.3 | 0.1 | 0.4 | 2.6 | 1.5 | 4.2 |
| Kerala | 4.3 | 0.5 | 4.9 | 0.3 | 0.0 | 0.3 | 0.1 | 0.0 | 0.1 | 4.7 | 0.5 | 5.2 |
| Maharashtra | 0.9 | 0.3 | 1.2 | 0.3 | 0.1 | 0.4 | 0.3 | 0.1 | 0.4 | 1.5 | 0.5 | 2.0 |
| Telangana | 1.2 | 2.4 | 3.6 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 | 1.4 | 2.7 | 4.1 |
| Madhya Pradesh | 1.2 | 1.0 | 2.3 | 0.6 | 0.2 | 0.8 | 0.3 | 0.1 | 0.3 | 2.1 | 1.3 | 3.4 |
| Odisha | 1.2 | 2.4 | 3.6 | 0.2 | 0.0 | 0.2 | 0.1 | 0.0 | 0.1 | 1.5 | 2.5 | 4.0 |
| Bihar | 0.6 | 1.7 | 2.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.7 | 1.7 | 2.4 |
| West Bengal | 0.8 | 0.6 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.6 | 1.4 |
| Punjab | 1.6 | 0.9 | 2.5 | 1.1 | 0.2 | 1.4 | 0.4 | 0.1 | 0.5 | 3.1 | 1.2 | 4.3 |
| Haryana | 1.5 | 0.6 | 2.0 | 0.2 | 0.2 | 0.4 | 0.1 | 0.0 | 0.1 | 1.8 | 0.8 | 2.6 |
| Gujarat | 0.7 | 0.3 | 1.0 | 0.3 | 0.0 | 0.3 | 0.2 | 0.0 | 0.2 | 1.2 | 0.3 | 1.5 |
| Uttarakhand | 1.6 | 0.3 | 1.8 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 1.8 | 0.4 | 2.2 |
| Himachal Pradesh | 1.8 | 0.3 | 2.2 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 1.9 | 0.4 | 2.3 |
| Chhattisgarh | 0.6 | 0.4 | 1.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.8 | 0.5 | 1.2 |
| Jharkhand | 0.1 | 0.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.2 | 0.4 | 0.5 |
| TOTAL | 1.5 | 1.2 | 2.7 | 0.3 | 0.1 | 0.4 | 0.2 | 0.1 | 0.3 | 2.0 | 1.4 | 3.4 |

Source: Estimated from Unit level data on Situation Assessment Survey of Agriculture Households 2012-13.

Note: (1) Land holding categories are based on "Land Owned" and includes homestead land.

(2) Estimates for 2016-17 is based on 2012-13 number. The 2012-13 number are inflated by CPI inflation.

(3) Formal loans includes loans from Bank, Cooperative societies and Government.

Definition of Land Size:

No land and Small - upto 2.5 hectare

Medium - 2.5-5.5 hectare

Large - >5.5 hectare

APPENDIX 2. DETAILS OF DATA USED FOR ESTIMATING PRICES, QUANTITIES, AND REVENUES FOR SELECTED CROPS

The data for Figure 13 in the section on agrarian stress has been obtained from the Ministry of Agriculture and Farmers' Welfare's Agricultural Marketing Information Network (AGMARKNET). The data links important agricultural produce markets spread all over the country and the State Agriculture Marketing Boards and Directorates and provides different price and arrivals trend analysis for important markets in respect of major agricultural commodities transacted. The coverage is representative at both state and All-India levels.

Price and arrival data for Indian states and union territories are used. To maintain a balanced panel of states, those states for which data are available for all the years are included. States for which arrival data for a product are missing for even one year are dropped from the sample of that product. Table 1 lists the states that are excluded from each product.

| Product | States Excluded |
|---------|---|
| Onion | Andaman and Nicobar, Arunachal Pradesh, Dadra and Nagar Haveli, Daman and Diu, Lakshadweep, Meghalaya, Sikkim, Tamil Nadu, Tripura. |
| Potato | Andaman and Nicobar, Arunachal Pradesh, Bihar, Chandigarh, Goa, Lakshadweep, Nagaland, Puducherry, Sikkim, Tamil Nadu. |
| Moong | Andaman and Nicobar, Arunachal Pradesh, Bihar, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, National Capital Territory of Delhi, Goa, Haryana, Himachal Pradesh, Jammu and Kashmir, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Sikkim, Tamil Nadu, Tripura, West Bengal. |
| Tur | Andaman and Nicobar, Andhra Pradesh, Arunachal Pradesh, Bihar, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Goa, Haryana, Himachal Pradesh, Jammu and Kashmir, Kerala, Lakshadweep, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Sikkim, Tamil Nadu, Telangana, Tripura. |
| Wheat | Andaman and Nicobar, Andhra Pradesh, Arunachal Pradesh, Bihar, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Goa, Tamil Nadu, Himachal Pradesh, Jammu & Kashmir, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Puducherry, Sikkim, Tamil Nadu, Tripura. |

The requirement of a balanced panel does not distort results due to missing data. The states excluded from the sample constitute only a negligible portion of the total arrivals in each product. For example, Bihar has been dropped from the sample for wheat as there is no data for Bihar for two years. However, even for the year 2013, for which data for Bihar is available for wheat, the percentage of total arrivals in Bihar for that year only account for 0.009% of the total. Similarly, Bihar has also been dropped from the sample for potatoes but arrivals in Bihar only account for 0.027% of the total arrivals for the year 2014 for which the data was available.

APPENDIX 3. METHODOLOGY FOR ESTIMATING QUARTERLY AND ANNUAL ADVANCE ESTIMATES OF GVA AND GDP

The table below lists the methodology of estimation of Quarterly and Advanced Annual Estimates of National Accounts, with the indicators and deflators or reflators used for sectors/ subsectors.

| Sector | GVA share | Key Indicator used | Whether indicator is nominal or real? | Deflator for converting nominal to real/Reflator for converting real to nominal |
|---------------------------|-----------|--|---|--|
| Agriculture | 13.3 | Production data -crops and livestock (egg, milk and meat) | Real | WPI - crops and WPI -livestock products |
| Forestry | 1.3 | Past growth trends | Real | WPI - Industrial wood, Fodder |
| Fishing | 0.8 | Production of inland and marine fish | Real | WPI - Fish (Inland and Marine) |
| Mining & quarrying | 3.1 | Coal production , Production of crude and natural gas, IIP-mining | Real | Weighted average WPI of Coal, crude petroleum and Natural Gas, metallic & other minerals, mineral oils |
| | | Private corporate growth from listed companies (BSE/NSE) | Nominal | |
| Manufacturing | 13.7 | Private corporate growth from listed companies (BSE/NSE) | Nominal | WPI-manufactured products (compilation category wise) |
| | 4.1 | IIP-Manufacturing for quasi corporate and unorganised Sector | Real | WPI-manufactured products |
| Electricity | 1.6 | IIP-Electricity | Real | WPI - Electricity |
| Gas and water supply | 0.4 | Past growth trends | Real | |
| Construction | 8.4 | For pucca construction: Production of cement , consumption of steel, IIP -other non- metallic mineral products; For kuccha construction, past growth trends | Real | Aggregate WPI |
| Trade and Repair services | 10.9 | Indicators used for annual estimates are (a) Private corporate growth from listed companies (BSE/ NSE) for the private corporate sector (b) sale of motor vehicles and service tax (for repair services) and sales tax (for whole sale and retail trade) for the unorganized sector. Indicators used for quarterly estimates are private corporate growth from listed companies (BSE/ NSE) and sales tax. | Nominal (corporate growth, taxes) and Real (sale of motor vehicles) | WPI of traded commodities |

| Sector | GVA share | Key Indicator used | Whether indicator is nominal or real? | Deflator for converting nominal to real/Reflator for converting real to nominal |
|-----------------------------------|-----------|--|---|---|
| Hotels & Restaurants | 1.1 | Private corporate growth from listed companies (BSE/NSE) | Nominal | WPI of traded commodities |
| Rail Transport | 0.8 | Net tonne km and passenger km | Real | CPI Transport and Communication (CPI-TC) |
| Other transport | 4.2 | Cargo handled (for water transport), passenger traffic and cargo handled (air transport) and number of commercial vehicles on road estimated using data on sale of commercial vehicles (road transport) | Real | CPI-TC |
| Communication & broadcasting | 2.0 | Indicators use for compiling Annual estimates are Private corporate growth from listed companies (BSE/NSE), Minutes of usage(for telecommunication) and service tax (courier and cable services). The annual estimates are quarterized using growth in number of subscribers. | Nominal (corporate growth, taxes) and Real (Minutes of usage) | CPI-TC |
| Banking | 5.5 | Growth in Aggregate credits and deposits at the end of quarter | Nominal | Non-financial sector GVA deflator |
| Insurance | 0.9 | Net premiums collected for life/ non-life policies | Nominal | Non-financial sector GVA deflator |
| Real estate | 0.9 | Private corporate growth from listed companies (BSE/NSE) | Nominal | CPI (Misc)/Aggregate WPI (Private corporate sector) |
| Ownership of dwellings | 6.5 | Annual estimates are compiled using growth in number of rural and urban dwellings; distributed equally in the four quarters | Real | Relevant CPI |
| Professional services | 8.1 | Private corporate growth from listed companies (BSE/NSE) | Nominal | CPI (Misc)/ Aggregate WPI (Private corporate sector) |
| Public administration and defence | 5.4 | Union and State Government Expenditure net of interest payments and subsidies | Nominal | CPI General Index (Combined) |

| Sector | GVA share | Key Indicator used | Whether indicator is nominal or real? | Deflator for converting nominal to real/Reflator for converting real to nominal |
|----------------|-----------|--|---------------------------------------|---|
| Other services | 6.8 | (a) For the Private sector, annual estimate is compiled using inter-survey growth in consumer expenditure on education, health and non-food items from NSS Consumer Expenditure Surveys and service tax. This annual estimate is distributed equally in four quarters (b) For public sector the indicator is same as that used for Public Administration and Defence. | Nominal | Relevant CPI |
| Indirect Taxes | | Monthly data on tax revenue of centre and states. | Nominal | Constant price estimates of taxes on products are compiled by volume extrapolation. Volume extrapolation is done separately for different product taxes. Indicators used for extrapolation are growth in volume of output of manufacturing, services (excluding public administration and defence) and imports. |
| Subsidies | | Expenditure on major subsidies available from Union Government accounts is used as an indicator. | Nominal | GVA deflator |

Note: 1. MCA (Ministry of Corporate Affairs) database is used for First Revised estimates and not for Advance and quarterly estimates.

APPENDIX 4. METHODOLOGY FOR ESTIMATING THE IMPACT OF DEMONETIZATION ON MGNREGA AND REGRESSION RESULTS

The impact of demonetization on man-days generated under the MGNREGS is being measured as a test of the hypothesis that demonetization led to increased demand for social insurance. To do so, a difference-in-difference strategy is used.²⁶ The MGNREGS man-days in weeks before vs after Nov 8 is compared, and whether this difference was especially large in 2016-17 as compared to previous years is studied. Any competing explanation for the change in man-days pre- and post-demonetization in 2016-2017 should explain why this occurred differentially in 2016-17 compared to previous years. These regressions also control for confounding factors that differentially affect districts across months and years.

Formally, the regression run is:

$$\text{Log}(\text{Man-days})_{d,w} = \alpha_1(\text{Post}) + \alpha_2(\text{Post} * \text{Demonetization}) + \alpha_3 FE_{d,m} + \alpha_4 FE_{d,y} \quad (1)$$

Where Log(Man-days) indicates the log value of man-days generated in any given week in a district; d, w, m, and y subscripts refer respectively to district, weeks, months, and years. Post is a dummy that takes the value of 1 for all weeks after week 33 (irrespective of year). Demonetization is a dummy that takes the value of 1 for all weeks after week 33 (when demonetization occurred) in 2016-17 and 0 otherwise. FE_{d,m} indicates district-month fixed effects. FE_{d,y} indicates district-year fixed effects. The standard errors are clustered at the district-month level to control for errors being correlated.

The coefficient of interest is 2α which is the average effect across the demonetization period.

The pre-window includes the 8 weeks prior to demonetization. This was chosen because man-days generated in week 25 in 2016-17 is exactly equal to the man-days generated across the previous four years. Intuitively, this research design relies on what is known as the parallel trends assumption. This says that in the absence of demonetization, trends would have looked similar in 2016-17 compared to previous years. The 8-week cut-off appears to meet this criterion. But the results where this window is both expanded and compressed is also presented. Further, visual inspection of Figures 24-27 suggest that the parallel trends assumption does not seem to hold for Uttar Pradesh, where there was much more use of MGNREGA in the early part of the year in 2016-17 compared to previous years. So robustness is checked for with and without UP.

The following regression is also run:

$$\text{Log}(\text{Man-days})_{d,w} = \alpha_1(\text{Post}) + \alpha_{21}(4 \text{ weeks-Post} * \text{Demonetization}) + \alpha_{22}(5-10 \text{ weeks-Post} * \text{Demonetization}) + \alpha_{23}(\text{Beyond 10 weeks-Post} * \text{Demonetization}) + \alpha_3 FE_{d,m} + \alpha_4 FE_{d,y} \quad (2)$$

In this specification, the post-demonetization period is broken down into three windows to assess whether there were different impacts over time.

Tables 1 and 2 formally present the results of our regressions for specifications 1 and 2, respectively.

²⁶ Bertrand, M., Duflo, E., Mullainathan, S., "How much should we trust in difference-in-difference estimates?", Quarterly Journal of Economics (2004), 249-275. http://www.utdallas.edu/~d.sul/Econo2/Marianne_etal_QJE_04.pdf

In the baseline, which covers the entire country, it is found that demonetization increased the demand for MGNREGS employment by 10 percent (Column 1). Restricting the sample to the less developed states (Column 2), shows a larger impact of demonetization on MGNREGS of 39 percent. In Column (3), the sample is restricted to Uttar Pradesh and no effect is found. In columns (4) and (5), the pre-window is changed, narrowing it to 4 weeks in Column (4) and expanding it to 12 weeks in Column (5). The results become stronger and weaker respectively. In Column (6), the observations for the first weeks after demonetization are dropped and it is found that the result of a positive impact holds. In Column (7), the two drought years from the sample are dropped to restrict the comparison to similar agricultural years and the effects become statistically insignificant.

Table 2 is similar to Table 1 except for breaking down the demonetization period. There is evidence of three distinct periods: the "shock" period featuring the first 4 weeks when demand for MGNREGS declines (by 25 percent in the baseline), the "recovery" phase covering the following six weeks in which there is no discernible demand for MGNREGS; and the final "acceleration" phase covering the subsequent 10 weeks when there is a surge in demand for MGNREGS by 27 percent.

Table 1. Possible Impact of Demonetization on MGNREGS Employment

| | (1) Baseline | (2) Less developed States | (3) UP only | (4) Week 29 onwards | (5) Week 21 onwards | (6) Dropping weeks 33-36 | (7) Dropping drought years |
|--------------------------|-------------------|------------------------------------|----------------|---------------------------|---------------------------|-----------------------------------|-------------------------------------|
| Demonetization Effect | 0.10*** (0.02) | 0.39*** (0.03) | 0.04 (0.07) | 0.23*** (0.03) | -0.05** (0.02) | 0.20*** (0.02) | 0.02 (0.02) |
| R-Squared | 0.81 | 0.81 | 0.77 | 0.83 | 0.8 | 0.82 | 0.84 |
| # Observations | 82607 | 28631 | 9688 | 69844 | 95397 | 69874 | 49425 |

Table 2. Possible impact of Demonetization on MGNREGS Employment: Across Demonetization Windows

| | (1) Baseline | (2) Less developed States | (3) UP only | (4) Week 29 onwards | (5) Week 21 onwards | (6) Dropping drought years |
|--|--------------------|------------------------------------|--------------------|---------------------------|---------------------------|-------------------------------------|
| First 4 weeks Demonetization effect | -0.25*** (0.03) | -0.09** (0.04) | -1.11*** (0.10) | -0.12*** (0.03) | -0.39*** (0.03) | -0.28*** (0.03) |
| Weeks 5-10 Demonetization effect | 0.00 (0.03) | 0.25*** (0.04) | -0.27*** (0.09) | 0.13*** (0.03) | -0.14*** (0.03) | -0.06** (0.03) |
| Beyond 10 weeks Demonetization effect | 0.27*** (0.02) | 0.63*** (0.04) | 0.60*** (0.07) | 0.41*** (0.03) | 0.13*** (0.02) | 0.19*** (0.03) |
| R-Squared | 0.81 | 0.82 | 0.8 | 0.83 | 0.8 | 0.85 |
| # Observations | 82607 | 28631 | 9688 | 69844 | 95397 | 49425 |

The results are suggestive not dispositive. But the broad results are both interesting and complex, warranting further research to disentangle the demonetization-MGNREGS links.

Notes to Tables 1 & 2: Outcome measured is the log of man-days per week per district. All regressions are run for all districts. Standard errors are in brackets. Weeks 25-52 of every financial year are the only ones considered in the baseline specification in column (1). This is done because in week 25, the average spending in current year and the average across past years was exactly the same. Weeks 40 and 41 are dropped from all the regressions because they feature an inexplicable dip in mandays for all pre-2016 years. Demonetization occurred on week 33. Hence the Post-demonetization variable indicates the differential impact on log of mandays for the period during and after week 33 in year 2016. Column (2) includes only districts in the states of Bihar, Madhya Pradesh, Chattisgarh, Jharkhand, Odisha, West Bengal and Rajasthan. Column (3) runs the regressions for districts in U.P. alone. Column (4) includes all weeks between 29-52. Column (5) includes all weeks between 21-52. Column (6) in Table 1 drops weeks 33-36 to account for the unusual dip in mandays in the 4 weeks after demonetization. Column (7) in Table 1 and Column (6) in Table 2 drop the two drought years of 2014-15 and 2015-16 so that the comparison is restricted to good monsoon years. All regressions include district-year and district-month fixed effects. All standard errors are clustered at the district-month level to control for errors being correlated.

** $p < 0.01$, ** $p < 0.05$, *** $p < 0.01$*

APPENDIX 5. SAMPLE OF EMERGING MARKET ECONOMIES FOR THE GROWTH CONFIGURATION EXERCISE IN SECTION VI.5

| | |
|-----|--------------|
| 1. | Argentina |
| 2. | Korea |
| 3. | Bolivia |
| 4. | Chile |
| 5. | India |
| 6. | Brazil |
| 7. | Indonesia |
| 8. | Malaysia |
| 9. | Mexico |
| 10. | Philippines |
| 11. | South Africa |
| 12. | Thailand |
| 13. | Turkey |
| 14. | Vietnam |
| 15. | Colombia |
| 16. | China |
| 17. | Poland |
| 18. | Romania |
| 19. | Peru |
| 20. | Bangladesh |
| 21. | Egypt |
| 22. | Israel |
| 23. | Mauritius |
| 24. | Singapore |

Fiscal Developments

The Central Government finances went through considerable degree of consolidation in the last three years, aided by buoyant tax revenues that largely sprang from additional revenue measures and subsidy reduction related to reduced petroleum prices. The quality of spending improved with a gradual tilt towards capital expenditure. The fiscal outcome in 2016-17 was marked by robust growth in tax revenue—stemming largely from excise taxes on petroleum-- and consolidation of non-salary/pension revenue expenditure and of borrowing. The Union Budget for 2017-18 opted for a gradual rather than the sharp consolidation path recommended by the FRBM Review Committee, prudently balancing the requirements of a cyclically weakening economy and the imperative of maintaining credibility, especially in the wake of disruptions to state government finances, reflecting their absorption of the DISCOM liabilities under the UDAY programme. The Centre is watchful about its finances in the first year of GST. State finances now face stresses from potential farm loan waivers. And with public sector enterprises tending to consolidate, public investment growth in 2017-18 may moderate.

2.1 The Union Budget 2016-17 was presented against the background of constrained global demand conditions, yet an improving external current account, flagging inflation and stable domestic macro-economic prospects. The Budget recognized the need to rely on domestic demand to firewall against the global demand slowdown, while maintaining macro-economic stability and adhering to prudent fiscal management. Affected by the twin balance sheet challenges, private investment was sluggish. Specific to the year were the concerns to raise resources to implement the recommendations of the 7th Central Pay Commission and the Defence One-Rank-One-Pension. The higher tax devolution to the States, mandated under the

Fourteenth Finance Commission, was to be sustained as well. The fiscal policy for 2016-17 had, thus, to confront a mixed bag of objectives, amidst guarded optimism about the economy.

2.2 This chapter, reviewing the fiscal developments in India with a focus on the year 2016-17, is organized in four sections—Central Government finances, State finances, the General Government, and the Outlook for 2017-18 and beyond.

CENTRAL GOVERNMENT FINANCES

2.3 Despite pressing expenditure concerns and conflicting views about the FRBM roadmap, the Budget for 2016-17 decided to consolidate fiscal, revenue and primary

deficits from the levels of the previous year (Table 1). Overall, the fiscal outcome of the Central Government in 2016-17 was marked by strong growth in tax revenue, sustenance of the pace of capital spending and a consolidation of non-salary/pension revenue expenditure. This combination allowed the Government to contain the fiscal

deficit from 3.9 percent of GDP in 2015-16 to 3.5 per cent of GDP in 2016-17, despite shortfall in non-tax revenue and non-debt capital receipts relative to its budgeted level. The fiscal consolidation that started in 2012-13 from the unacceptably high levels of 2011-12, continued in 2016-17.

2.4 The most important changes that

Table 1. Central Government's Fiscal Indicators

| Indicators | 2014-15 | 2015-16 | 2016-17BE | 2016-17 PA | 2017-18 BE |
|------------------------------|---------|---------|-----------|------------|------------|
| (₹ in lakh crores) | | | | | |
| Revenue receipts | 11.01 | 11.95 | 13.77 | 13.76 | 15.16 |
| Gross tax revenue | 12.45 | 14.50 | 16.31 | 17.17 | 19.12 |
| Net tax revenue | 9.04 | 9.44 | 10.54 | 11.02 | 12.27 |
| Non-tax revenue | 1.98 | 2.51 | 3.23 | 2.74 | 2.89 |
| Non-debt capital receipts(*) | 0.51 | 0.63 | 0.67 | 0.64 | 0.84 |
| Non-debt receipts | 11.53 | 12.58 | 14.44 | 14.40 | 16.00 |
| Total expenditure | 16.64 | 17.91 | 19.78 | 19.75 | 21.47 |
| Revenue expenditure | 14.67 | 15.38 | 17.31 | 16.85 | 18.37 |
| Capital expenditure | 1.97 | 2.53 | 2.47 | 2.90 | 3.10 |
| Fiscal deficit | 5.11 | 5.33 | 5.34 | 5.35 | 5.47 |
| Revenue deficit | 3.66 | 3.43 | 3.54 | 3.08 | 3.21 |
| Primary deficit | 1.08 | 0.91 | 0.41 | 0.55 | 0.23 |
| <i>Memo Item</i> | | | | | |
| GDP at current prices | 124.45 | 136.82 | 150.65 | 151.84 | 168.47 |
| (as per cent of GDP) | | | | | |
| Revenue receipts | 8.9 | 8.7 | 9.1 | 9.1 | 9.0 |
| Gross tax revenue | 10.0 | 10.6 | 10.8 | 11.3 | 11.3 |
| Net tax revenue | 7.3 | 6.9 | 7.0 | 7.3 | 7.3 |
| Non-tax revenue | 1.6 | 1.8 | 2.1 | 1.8 | 1.7 |
| Non-debt capital receipts(*) | 0.4 | 0.5 | 0.4 | 0.4 | 0.5 |
| Non-debt receipts | 9.3 | 9.2 | 9.6 | 9.5 | 9.5 |
| Total expenditure | 13.4 | 13.1 | 13.1 | 13.0 | 12.7 |
| Revenue expenditure | 11.8 | 11.2 | 11.5 | 11.1 | 10.9 |
| Capital expenditure | 1.6 | 1.8 | 1.6 | 1.9 | 1.8 |
| Fiscal deficit | 4.1 | 3.9 | 3.5 | 3.5 | 3.2 |
| Revenue deficit | 2.9 | 2.5 | 2.3 | 2.0 | 1.9 |
| Primary deficit | 0.9 | 0.7 | 0.3 | 0.4 | 0.1 |

Source: Union Budget Documents and CGA

PA=Provisional Actual ; BE=Budget Estimates;

* includes disinvestment proceeds

occurred in the Central finances during the past three years include:

- Significant improvement in the tax to GDP ratio, aided by efforts at additional resources mobilization (detailed later);
- Gradual tilt in expenditure towards investment spending and consolidation of revenue expenditure that led to the progressive reduction in revenue and fiscal deficits, relative to GDP (Table 1).

2.5 The growth rates of fiscal parameters are presented in Table 2. The steady improvement in non-debt receipts vis-à-vis expenditure is reflected in the table.

A. Revenue generation plans and outcomes

2.6 The non-debt receipts (NDR) of the Central Government consist of its tax revenue net of devolution (net tax revenue), non-tax revenue consisting *inter alia* of receipts from spectrum auction and dividends and profits, and non-debt capital receipts, predominantly the proceeds from disinvestment in public sector enterprises. The Budget 2016-17 targeted a significant growth in non-debt receipts of the Government with improved growth in net

tax revenue and robust growth in non-tax revenue that was to be driven by proceeds of spectrum auction, and an optimistic target of disinvestment. The aggregate outcome in NDR more or less conformed to the target, but with its components contributing substantially differently from the corresponding budgeted targets. The growth in tax revenue outstripped the target and compensated for the shortfalls in non-tax revenue and disinvestment proceeds.

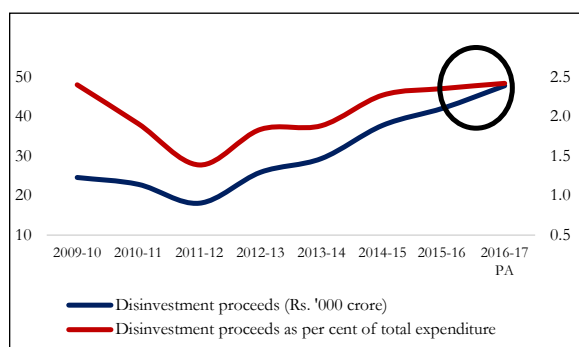
2.7 The non-tax revenue fell much short of budgeted targets, mostly on account of the shortfall of proceeds from spectrum auction. Likewise, the non-debt capital receipts were lower than the budgeted figures, because the proceeds from disinvestment (including divestment of strategic holdings and income from management of SUUTI investment) was ₹46,247 crore during the period 2016-17, as opposed to the budget target of ₹56,500 crore and the revised estimate of ₹45,500 crore. Though the disinvestment proceeds trailed behind the budgetary targets, both the absolute amount realized from disinvestment and its ability to finance Central Government expenditure--reached a historic high in 2016-17 (Figure 1). As percentage of total non-debt receipts, it stood at 3.2 per cent, more

Table 2. Growth Rate of Fiscal Indicators (in per cent)

| Indicators | 2014-15 | 2015-16 | 2016-17 PA | 2017-18 BE |
|-------------------------------|---------|---------|------------|------------|
| Revenue receipts | 8.5 | 8.5 | 15.2 | 10.1 |
| Net tax revenue | 10.8 | 4.4 | 16.8 | 11.3 |
| Non-tax revenue | -0.5 | 27.0 | 9.1 | 5.3 |
| Non-debt capital receipts (*) | 23.0 | 22.3 | 0.9 | 33.0 |
| Non-debt receipts | 9.1 | 9.1 | 14.5 | 11.1 |
| Total expenditure | 6.7 | 7.6 | 10.3 | 8.7 |
| Revenue expenditure | 6.9 | 4.8 | 9.5 | 9.0 |
| Capital expenditure | 4.8 | 28.6 | 14.7 | 6.7 |

Source: Union Budget Documents and CGA

PA: Provisional Actual ; **BE:** Budget Estimates (*) includes disinvestment proceeds

Figure 1. Disinvestment proceeds

Source: Union Budget

than a percentage point higher than the corresponding average of previous five years.

2.8 The growth in gross tax revenue in 2016-17 was the highest in the last six years mainly on account of buoyant revenue collection from excise duty. The major tax measures taken during 2016-17 are appended to this Chapter. On the direct tax front, the implementation of the recommendations of the Seventh Pay Commission contributed to collections from personal income tax (Table 3) and, most likely continue to do so in the current fiscal too.

2.9 The efforts of mobilizing additional tax resources (ARM) from excise duty and

service tax considerably helped buoyant collections in the last two years (Table 3). Two specific initiatives, i.e., Swachh Bharat Cess, a collection introduced with effect from November 2015 to contribute to Swachh Bharat initiatives, and Krishi Kalyan Cess, introduced with effect from June 2016 to finance improvements in agriculture and farmer's welfare, accounted for more than one-third of the robust growth in service tax collections in 2016-17. Likewise, the growth in excise collections from petroleum products contributed more than two-thirds of the growth in total excise collections. As noted in the Volume I of the Economic Survey, the consumption of petroleum products stood largely unaffected by demonetization because of special payment arrangements for these products during the period of cash crunch. The increase in consumption of petroleum products coupled with efforts at additional resource mobilization explained the 40 per cent increase in excise collections from petroleum products in 2016-17. Reflecting the buoyancy in excise and service tax collections in the last two years, the ratio of

Table 3. Major Tax Revenues of the Centre

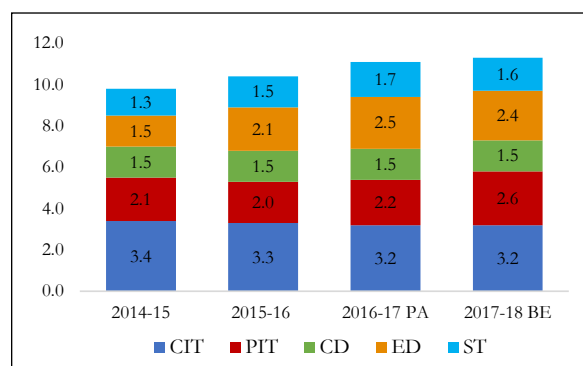
| Taxes | 2014-15 | 2015-16 | 2016-17 PA | 2017-18 BE | 2014-15 | 2015-16 | 2016-17 PA | 2017-18 BE |
|---------------------|-------------------|---------|---------------|---------------|----------------------|---------|---------------|---------------|
| | (₹ in lakh crore) | | | | (growth in per cent) | | | |
| Gross tax revenue | 12.45 | 14.50 | 17.17 | 19.12 | 9.8 | 16.5 | 18.4 | 11.3 |
| Corporation tax | 4.29 | 4.53 | 4.85 | 5.39 | 8.7 | 5.7 | 7.0 | 11.1 |
| Personal income tax | 2.58 | 2.80 | 3.41 | 4.41 | 8.6 | 8.5 | 21.5 | 29.6 |
| Customs duty | 1.88 | 2.10 | 2.26 | 2.45 | 9.3 | 11.9 | 7.4 | 8.4 |
| Excise duty | 1.90 | 2.87 | 3.81 | 4.07 | 12.1 | 51.2 | 32.7 | 6.8 |
| Service tax | 1.68 | 2.11 | 2.55 | 2.75 | 8.5 | 25.9 | 20.4 | 8.0 |

Source: Union Budget Documents and CGA

PA=Provisional Actual ; BE=Budget Estimates

indirect taxes to GDP increased significantly (Figure 2).

Figure 2. Taxes as per cent of GDP

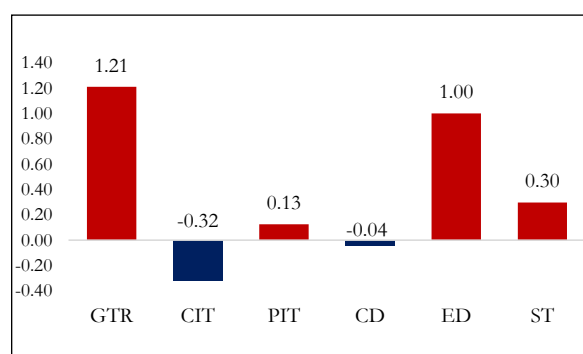


Source: CGA

CIT=Corporation tax; PIT=Personal income tax; CD=Custom duty; ED=Excise duty; ST=Service tax

2.10 Most of the fiscal space created by improvement in tax collections during 2013-14 to 2016-17 was on account of excise duties, service tax and personal income tax, in that order of importance (Figure 3). The indirect taxes—excise and custom duties and service tax—together improved by 1.3 percentage points of GDP during the last three years. The tax gain on account of cumulative tax policy changes amounted to more than 0.8 per cent of GDP during the last three years. Going forward, hence,

Figure 3. Change during 2013-14 to 2016-17 in tax collections as per cent of GDP



Source: CGA

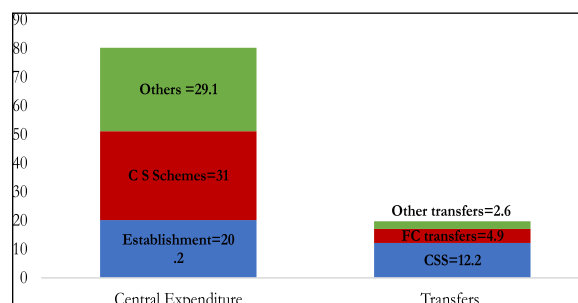
GTR=Gross tax revenue; CIT=Corporation tax; PIT=Personal income tax; CD=Custom duty; ED=Excise duty; ST=Service tax

sustaining improvement in tax collections will depend on the revenue buoyancy of GST which will subsume both excise duties and service tax apart from other cesses and taxes (details in Box 1). On the contrary, the corporate tax collection has declined by 0.3 percentage point, perhaps on account for current balance sheet stress in companies across the board.

B. Expenditure trends

2.11 The aggregate budgetary expenditure of the Central Government can be broadly divided into Central Government expenditure and transfers. In 2016-17 (RE), the Central Government expenditure accounted for 80.3 per cent of the total budgetary expenditure and the remaining 19.7 per cent were transfers (Figure 4).

Figure 4. Aggregate shares in budgetary expenditure in 2016-17 RE (per cent)



Source: Union Budget 2017-18

RE=Revised Estimates

C S schemes=Central Sector Schemes; FC transfers=Finance Commission transfers;

CSS=Centrally Sponsored Scheme

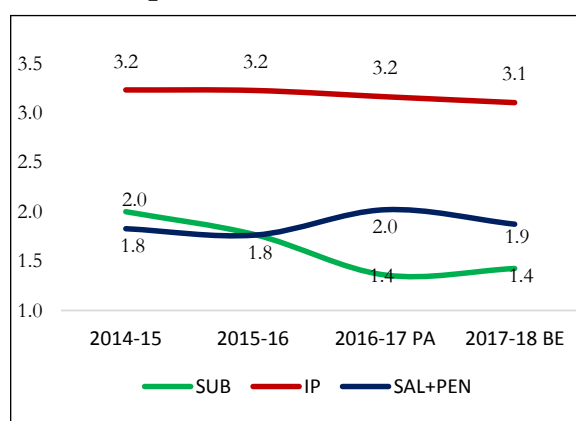
2.12 Faced with the liabilities of the 7th Pay Commission on the revenue expenditure front and constrained by FRBM commitments, the Budget 2016-17 targeted modest capital spending (Table 1). However, the additional tax resources generated the room for sustaining capital expenditure and in implementing recommendations of the Seventh Pay Commission on salaries and pensions, without an expansionary borrowing programme.

2.13 Two important factors drove the growth of revenue expenditure in 2016-17. The first was the increase in expenses on salaries and pensions in the last year that largely reflected the increase in the incomes of employees and pensioners during the year on account of the Pay Commission. Stripped of the spending on salaries and pensions, the growth in revenue expenditure was much lower in 2016-17 (Tables 4 & 5 and Figure 5).

2.14 Major subsidies, including those on food, petroleum and fertilizers, as percentage of the GDP has been consistently declining from 2012-13 (Figure 5). This happened despite the food subsidy remaining high following the implementation of the National Food Security Act.

2.15 The second reason for the increase in revenue expenditure in 2016-17 is the increase of 26.4 per cent in the grants for creation of capital assets (GCCA). All grants given to the State Governments and Union Territories are treated as revenue expenditure, but a part of

Figure 5. Major items of revenue expenditure as % of GDP



Source: CGA

PA=Provisional Actual ; BE=Budget Estimates

IP=Interest payment; SUB=major subsidies; SAL=Pay & allowances; PEN=Pensions

these grants are used for creation of capital assets. The investment push that the Central Government expenditure provides to the economy can be approximated by subtracting GCCA from revenue expenditure and adding it to the capital expenditure. This adjustment

Table 4. Major Items of Revenue Expenditure (₹ in lakh crore)

| Items | 2014-15 | 2015-16 | 2016-17 PA | 2017-18 BE |
|-------------------|---------|---------|------------|------------|
| Interest payments | 4.0 | 4.4 | 4.8 | 5.2 |
| Major subsidies | 2.5 | 2.4 | 2.1 | 2.4 |
| Pensions | 0.9 | 1.0 | 1.3 | 1.3 |
| Salaries | 1.3 | 1.4 | 1.8 | 1.8 |

Source: Union Budget Documents and CGA

PA=Provisional Actual ; BE=Budget Estimates

Table 5. Growth in major components of revenue expenditure (in per cent)

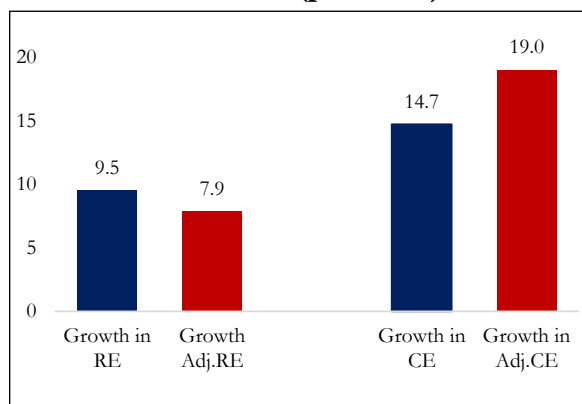
| | 2015-16 | 2016-17 BE | 2016-17 PA |
|-----------------------|---------|------------|------------|
| Revenue expenditure | 4.8 | 12.6 | 9.5 |
| Interest payments | 9.7 | 11.5 | 8.8 |
| Major subsidies | -2.9 | -4.2 | -14.6 |
| Pensions | 3.4 | 27.5 | 33.4 |
| Salaries & allowances | 7.9 | 27.2 | 23.1 |
| NSP-RE | 4.6 | 9.8 | 6.3 |

Source: Union Budget and CGA

NSP-RE=Non-salary/non-Pensions Revenue Expenditure

increases the growth in capital expenditures in the year significantly (Figure 6).

Figure 6. Growth in revenue expenditure (RE) and capital expenditure (CE) in 2016-17 (per cent)

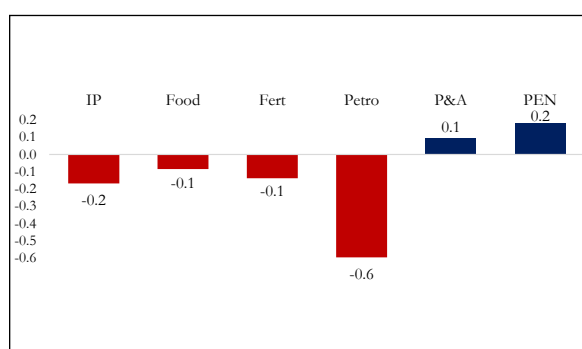


Source: CGA

Adj.=Adjusted

2.16 During 2013-14 to 2016-17, the total budgetary expenditure of the Central Government declined by 0.9 percentage points of the GDP—revenue expenditure by 1.1 percentage points, while capital expenditure increased by 0.1 percentage point. The recent expenditure trends show improved expenditure quality, with the gradual tilt towards capital expenditure (Tables 1&2). Figure 7 shows that more than half of the

Figure 7. Changes from 2013-14 to 2016-17 in selected components of revenue expenditure as per cent of GDP



Source: Union Budget

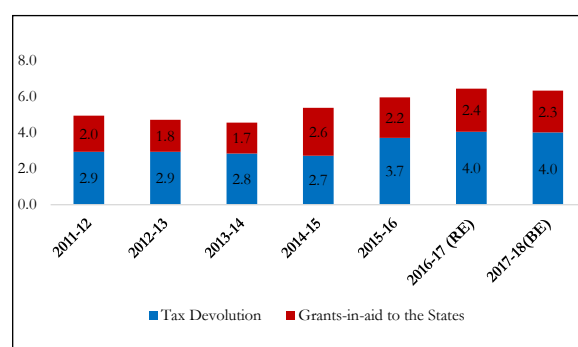
IP=Interest payment; Food=Food subsidy; Fert=Fertiliser subsidy; Petro=Petroleum subsidy; P&A=Pay & allowances; PEN=Pensions

fiscal space created by the compression of revenue expenditure owes to the reduction in petroleum subsidy. This represents a confluence of decline in international crude prices, decontrol of prices and avoidance of leakages through direct benefit transfer of subsidies.

C. Devolution

2.17 The devolution from the Centre to the States consists of tax devolution and grants. Till 2013-14, the funds for centrally sponsored schemes (CSS) were routed through two channels—the Consolidated Funds of the States and directly to the State implementing agencies. In 2014-15, direct transfers to State implementing agencies was discontinued and all transfers to States including for the CSS were started to be routed through the Consolidated Funds of the States (Table 6). Hence, the spike in total devolution to the States seen in 2014-15 (Figure 8) was largely the result of the shift in the pattern of devolution.

Figure 8. Transfers to States as percentage of GDP



Source: Department of Expenditure, Ministry of Finance

RE=Revised Estimates ; BE=Budget Estimates

2.18 Tax devolution to the States increased by 1 percentage point of GDP in 2015-16, following the implementation of the recommendation of the Fourteenth Finance Commission to devolve 42 per cent of the divisible pool of taxes to the States, up

Table 6. Central Transfers to States (₹ in lakh crore)

| | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18(BE) |
|----------------|---------|---------|--------------|-------------|
| Tax devolution | 3.38 | 5.06 | 6.08 | 6.75 |
| Grants-in-aid | 3.30 | 3.06 | 3.59 | 3.88 |
| Total | 6.68 | 8.12 | 9.67 | 10.63 |

Source: Department of Expenditure, Ministry of Finance

RE=Revised Estimates ; BE=Budget Estimates

from 32 per cent thereto. The total transfers to States also increased, but by a lesser proportion—by 0.5 percentage points of the GDP—because the increase in untied tax devolution was also associated with some reduction in tied transfers (Figure 8). The tax devolution as percentage of GDP increased in 2016-17 (Figure 8) reflecting the corresponding change in gross tax revenue of the Centre, relative to the GDP (Table 1).

D. Central Government Debt

2.19 With steady fiscal consolidation, the ratio of Central Government liabilities to GDP has been declining, but for a marginal increase in 2015-16 (Table 7). In the last 14 years, there are only two years when the Central liabilities grew faster than nominal GDP—2011-12 and 2015-16. Of this, the first was a year of unusual fiscal expansion—

the fiscal deficit as percentage of GDP climbing by 1.1 percentage points from the previous year. In 2015-16, the Government reduced fiscal deficit from the previous year. Yet, the growth in liabilities at 10.6 per cent outstripped the nominal GDP growth of 9.9 per cent, because the latter was dragged down by almost a percentage point from the previous year, because of the steep decline in inflation (Figure 9). The trend got reversed conspicuously in 2016-17.

2.20 The other distinct trends on the debt front are the increasing reliance on fixed interest rate market borrowings and the declining importance of external borrowings on the debt portfolio of the Government of India. The steady decline in external debt as percentage of the GDP (Table 7) also indicates lower currency risk of India's debt

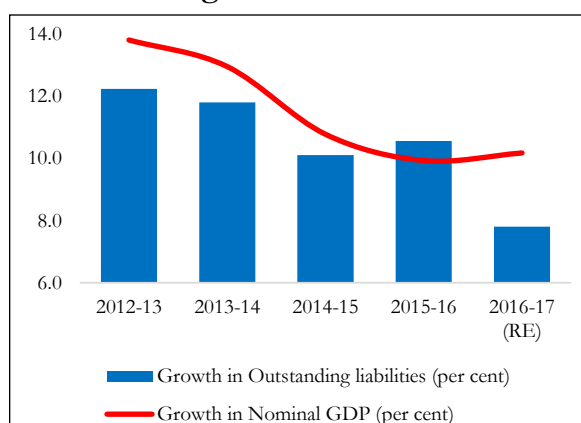
Table 7. Outstanding liabilities of the Central Government as per cent of GDP

| (As per cent of GDP) | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 RE | 2017-18 BE |
|----------------------------------|---------|---------|---------|---------|---------|------------|------------|
| Internal liabilities | 49.8 | 49.2 | 48.8 | 48.6 | 48.9 | 47.9 | 45.8 |
| Internal debt | 37.0 | 37.9 | 37.8 | 38.1 | 38.8 | 38.0 | 36.7 |
| Market borrowings | 28.8 | 30.0 | 30.6 | 31.3 | 31.4 | 30.8 | 29.7 |
| Others | 8.2 | 7.8 | 7.1 | 6.8 | 7.4 | 7.2 | 7.0 |
| Other internal liabilities | 12.8 | 11.4 | 11.1 | 10.5 | 10.1 | 9.8 | 9.2 |
| External debt (outstanding)* | 1.9 | 1.8 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 |
| Total outstanding liabilities | 51.7 | 51.0 | 50.5 | 50.2 | 50.4 | 49.4 | 47.3 |

Source: Union Budget

* external debt is expressed in historical exchange rates

Figure 9. GDP growth and growth in the Outstanding liabilities of the Centre

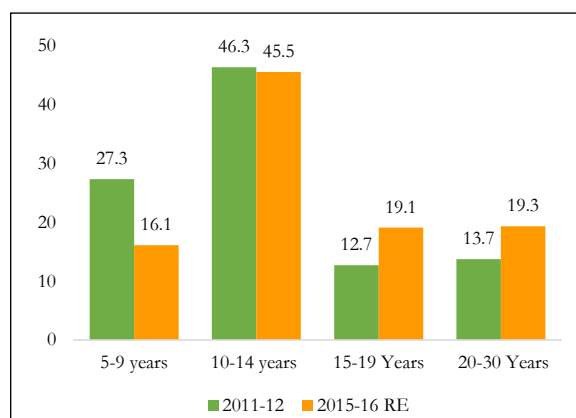


Source: Union Budget

stock and waning impact of Government's borrowing programme on the balance of payments situation. The Central Government does not borrow directly from international capital markets; more than two-thirds of its external debt stock is from multilateral institutions, largely on concessional terms.

2.21 The gradual elongation of the maturity profile of the Government's debt (Figure 10) has reduced the rollover risk. The weighted residual average maturity of outstanding dated securities of the Government of India increased from 9.7 years at end-March 2010 to 10.5 years at end-March 2016.

Figure 10. Maturity Profile of Central Government Dated Securities issued in 2011-12 and 2015-16 (as % of Total)

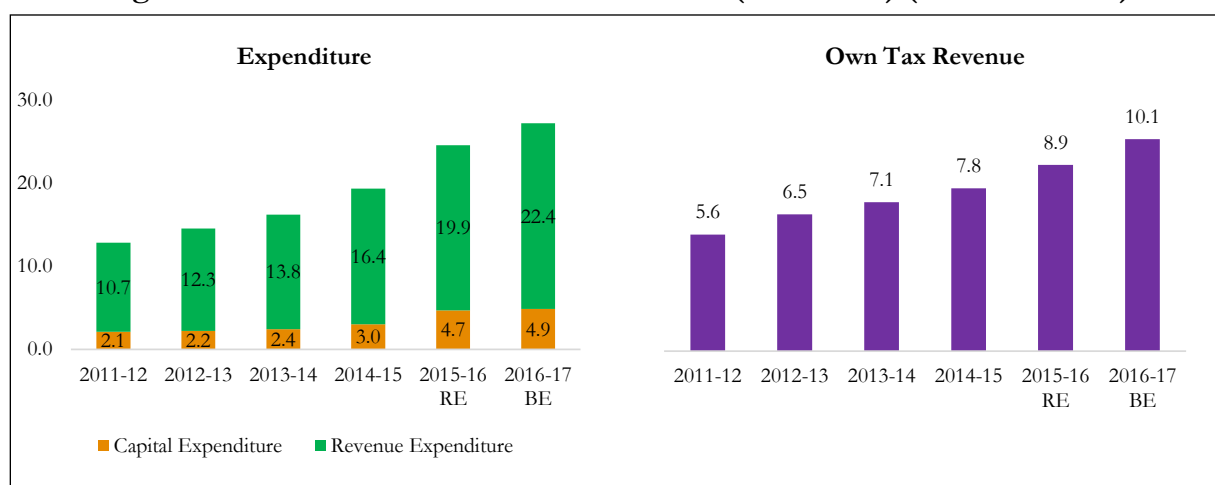


Source: Status Paper on Debt, Ministry of Finance

STATE FINANCES

2.22 The State budgets expanded considerably in 2015-16, both on account of increase in current and capital spending (Figures 11 A & B and Table 8). Capital expenditure consists of capital outlay and loans and advances by the State Governments. The loans and advances increased sharply in 2015-16. The capital expenditure of the States (combined) increased by 56.1 per cent in 2015-16, but net of UDAY, this growth was only about 23 per cent.

Figures 11 A & B. Fiscal indicators of States (combined) (₹ in lakh crore)



Source: State Finances: A Study of Budgets, RBI

RE=Revised Estimates ; BE=Budget Estimates

Table 8. Fiscal indicators of States (combined) as per cent of GDP

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 RE | 2016-17 BE |
|----------------------|---------|---------|---------|------------|------------|
| Own tax revenue | 6.6 | 6.3 | 6.3 | 6.6 | 6.7 |
| Own non tax revenue | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 |
| Capital expenditure* | 2.2 | 2.2 | 2.4 | 3.5 | 3.2 |
| Revenue expenditure | 12.4 | 12.3 | 13.2 | 14.7 | 14.8 |
| Total expenditure | 14.6 | 14.5 | 15.6 | 18.1 | 18.1 |

Source: State Finances: A Study of Budgets, RBI

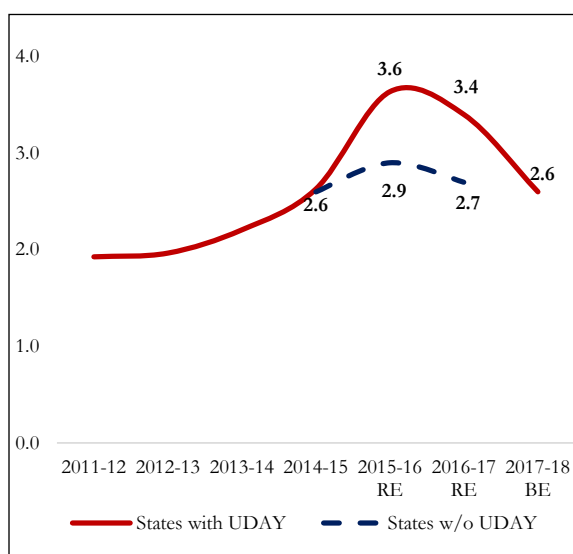
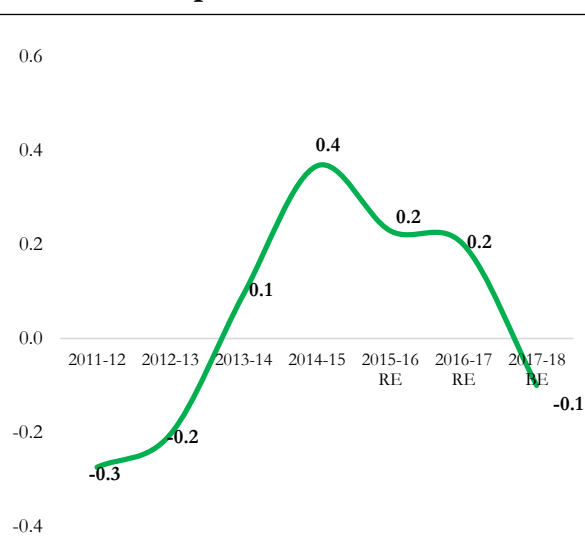
RE=Revised Estimates ; BE=Budget Estimates

* Capital expenditure does not include repayment of internal debt/loans to Centre, which are included in Capital disbursements

2.23 The UDAY-related borrowings raised by the State Governments have been exempted from the fiscal deficit targets during 2015-16 and 2016-17. While this could be the case with individual States, it would be important to understand the combined fiscal deficit of all States including the UDAY liabilities, as these liabilities add to the debt of the States.

2.24 The RBI Study on State Finances points to the worsening of the fiscal deficit

to GDP ratio on account of the increase in capital outlay and loans and advances to power projects-around ₹98960 crore was borrowed under UDAY by eight states during 2015-16. Net of UDAY bonds, consolidated state fiscal deficit moderates by 0.7 percentage point to 2.9 per cent (Figure 12). Thus with UDAY, as per the available information, the combined fiscal deficit of States crossed the FRBM benchmark of 3.0 per cent. Based on information on 25

Figure 12. Fiscal Deficit of States as per cent of GDP**Figure 13. Revenue Deficit of States as per cent of GDP**

Source: State Finances: A Study of Budgets, RBI

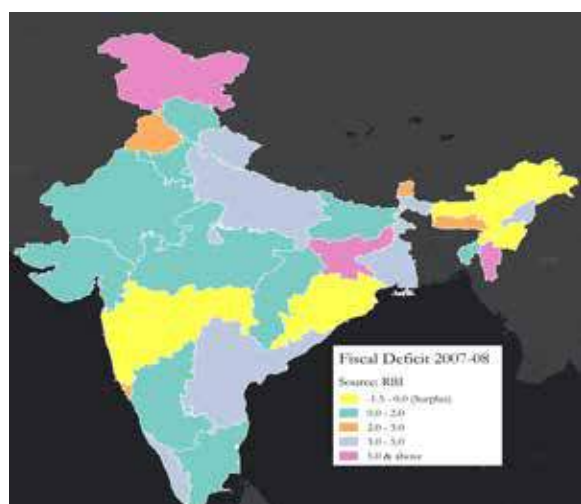
RE=Revised Estimates; BE=Budget Estimates; " - " indicates surplus

Note: The numbers for 2016-17 RE and 2017-18 BE are based on data available for 25 states

States, the combined fiscal deficit of States in 2016-17 (RE) would be 3.4 per cent after including the UDAY liabilities while it would be 2.7 per cent without the UDAY liabilities (Figure 12). As per information from the RBI, in 2015-16, eight States (Uttar Pradesh, Rajasthan, Chhattisgarh, Punjab, Jammu & Kashmir, Bihar, Jharkhand, Haryana) borrowed under UDAY, while in 2016-17, thirteen States (Uttar Pradesh, Maharashtra, Haryana, Punjab, Rajasthan, Bihar, Jammu & Kashmir, Andhra Pradesh, Tamil Nadu, Himachal Pradesh, Telangana, Madhya Pradesh, Meghalaya) borrowed under UDAY.

2.25 Figures 14 and 15 present two snapshots of the fiscal deficits of the State—2007-08 when the combined fiscal deficit to GDP ratio reached its lowest since the FRBM and 2015-16 when the ratio became the highest.

Figure 14. Distribution of States according to Fiscal deficit / GDP ratio: 2007-08



Source: State Finances: A Study of Budgets, RBI

Five States ran fiscal surpluses in 2007-08 and none in 2015-16.

2.26 There was an uptick in State fiscal deficit during 2013-14 and 2014-15 without any worsening of the combined debt position of the States, relative to the GDP (Figures 12 & 16). However, in 2015-16, the liabilities to GDP ratio of States steeply increased owing to the combined effect of a considerable increase in deficits and the reduction in nominal GDP growth (Table 9).

GENERAL GOVERNMENT

2.27 From 2011-12 to 2014-15, the outstanding liabilities of the Central and state governments, relative to the GDP, declined steadily (Table 10). With the State Government's position of deficit and outstanding liabilities worsening in 2015-

Figure 15. Distribution of States according to Fiscal deficit/GDP ratio: 2015-16 (RE)

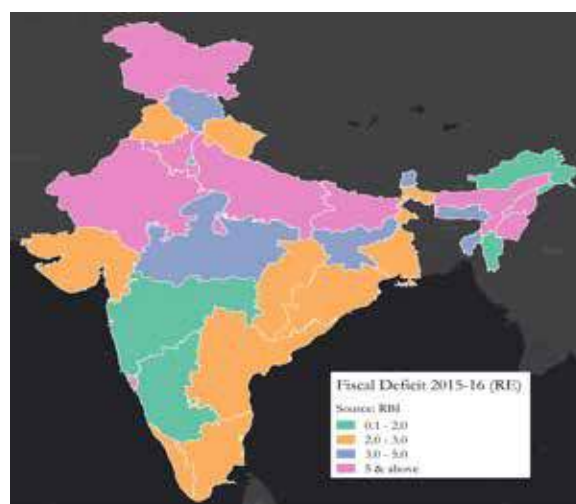


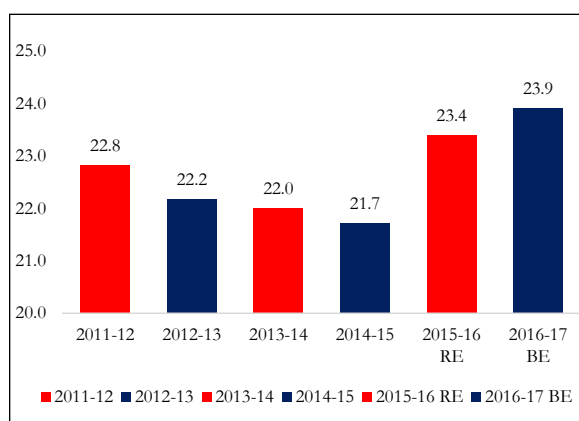
Table 9. Outstanding Liabilities of the State

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 RE# | 2016-17 BE# |
|---|---------|---------|---------|-------------|-------------|
| Liabilities of States (₹ in lakh crore) | 22.1 | 24.7 | 27.0 | 31.7 | 36.0 |
| Liabilities of States (% growth) | 10.6 | 12.0 | 9.4 | 17.4 | 13.5 |

Source: State Finances: A Study of Budgets, RBI

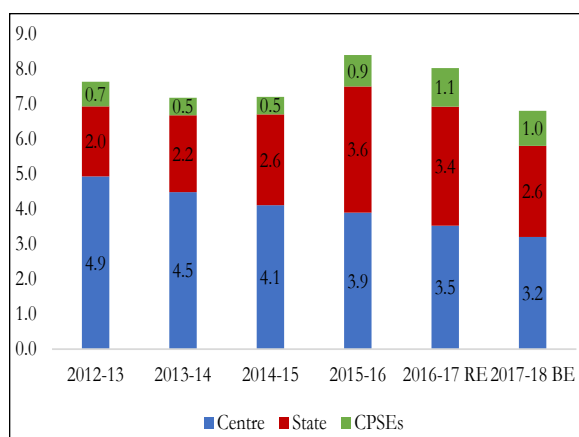
RE=Revised Estimates; BE=Budget Estimates

with UDAY

Figure 16. Outstanding Liabilities of the State (as per cent of GDP)

Source: State Finances: A Study of Budgets, RBI
 RE=Revised Estimates; BE=Budget Estimates
 # with UDAY

16, the total borrowings by the General Government and the debt position of the Centre and States combined also deteriorated (Figure 17 & Table 10). The indications from the budgeted levels of borrowings of States as per cent of GDP in 2017-18 were that they are consolidating (Figure 17). Given the recent trends in fiscal deficits of the Centre

Figure 17. Borrowings by the Centre, States (with Uday) and CPSEs (per cent of GDP)

Source: Union Budget and State Budgets

RE=revised estimates; BE=Budget estimates; CPSEs: Central Public Sector Enterprises

Note: 2016-17 RE and 2017-18 BE numbers are as per information available for 16 states constituting about 79 per cent of GDP

and the clear consolidation roadmap laid out by it in the Medium Term Fiscal Policy Statement 2017-18 (Figure 19), it seems that the General government is consolidating further.

2.28 Public investment—approximated by investment by Centre, States plus CPSEs—improved on the back of accelerated efforts by CPSEs in 2016-17 (Figure 18). The national accounts show that the fixed investment rate in the economy declined from 29.3 per cent in 2015-16 to 27.1 per cent in 2016-17. The Survey calculations show that, but for the improved public investment, the decline in the fixed investment rate would have been steeper (Figure 6 in Chapter 1). The differential trend in the investment spending of the General Government (including CPSEs) between the period 2015-16 to 2016-17 and the period 2016-17 to 2017-18 may be perused from Figure 18.

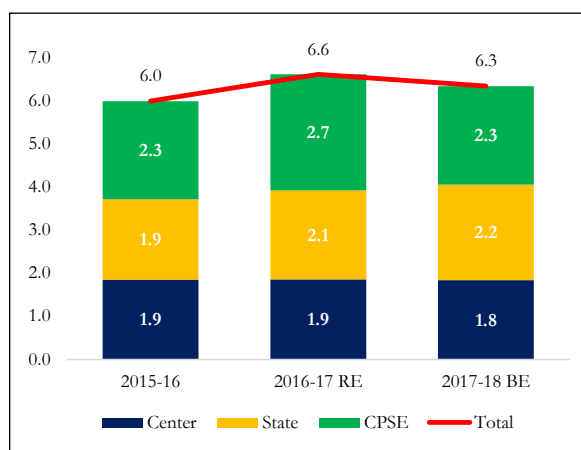
Table 10. Outstanding Liabilities of the Centre and States as per cent of GDP

| Year | Liabilities of the Centre | Liabilities of the States | Combined liabilities of the Centre & States |
|-----------|---------------------------|---------------------------|---|
| 2009-10 | 56.3 | 25.5 | 70.6 |
| 2010-11 | 52.2 | 23.5 | 65.6 |
| 2011-12 | 53.5 | 22.8 | 67.4 |
| 2012-13 | 52.5 | 22.2 | 66.6 |
| 2013-14 | 52.2 | 22.0 | 67.1 |
| 2014-15 | 51.5 | 21.7 | 66.9 |
| 2015-16RE | 52.3 | 23.4 | 69.3 |
| 2016-17BE | 50.7 | 23.9 | 68.6 |

Source: Reserve Bank of India and Survey calculations based on State Finances: A Study of Budgets, RBI
 RE=revised estimates; BE=Budget estimates

Note: The figures of the outstanding liabilities of the Centre as percent of GDP presented in Table 10 do not match with those in Table 7, because external debt is assessed in historical exchange rates in Table 7, whereas the same is assessed in current exchange rate in this table.

Figure 18. Capital spending by Centre, States and CPSEs (per cent of GDP)



Source: Union Budget and State Budgets

Note: 2016-17 RE and 2017-18 BE numbers are as per information available for 16 states constituting about 79 per cent of GDP

FRBM REVIEW COMMITTEE

2.29 Taking stock of the experience of the FRBM era, the Budget 2016-17 had acknowledged that there are different strands of thought on fiscal responsibility roadmap—fixed deficit targets versus range-based targets, fiscal expansion and contraction that respond to credit and economic cycles, etc. These issues were left to be analyzed by an FRBM Review Committee.

2.30 The Government constituted a five-member FRBM Review Committee in May 2016 with Shri N K Singh as Chairman. The members of the Committee were: Shri Sumit Bose, Dr. Urjit Patel, Dr. Rathin Roy and Dr. Arvind Subramanian. The Committee submitted their Report to the Government in January 2017. The Government has still not taken a view on any of these recommendations.

FISCAL POLICY FOR 2017-18 AND BEYOND

2.31 The Union Budget for 2017-18 introduced a number of procedural reforms.

First, discontinuing the practice since 1924, the Railway Budget was integrated with the Union Budget, bringing railway finances to the mainstream. Second, the date of the Union Budget was advanced to February 1, almost by a month, to help ministries and State governments plan and spend their full budget from the beginning of the financial year, whereas previously they had to wait till well into the financial year (typically end-May) for the Budget to secure legislative passage. Third, the classification of expenditure into ‘plan’ and ‘non-plan’ was eliminated to allow focus on the more economically meaningful capital-revenue distinction. Fourth, the Medium Term Expenditure Framework Statement was restructured to give projected expenditures (revenue and capital) for each demand for the next two financial years.

2.32 Overshadowing these otherwise significant fiscal policy initiatives is the introduction of the Goods and Services Tax with effect from the 1st day of July 2017, encompassing a plethora of the Central and State level indirect taxes, paving the way for a dramatic transformation of the Indian markets and the economy (Box 1).

2.33 The budget for 2017-18 opted for a gradual consolidation. Thus, the fiscal deficit is expected to decline to 3.2 percent of GDP in 2017-18 compared with the outcome of 3.5 percent of GDP in 2016-17 (Table 11). The consolidation path adopted by the Central Government prudently balanced competing objectives. On the one hand, there were the requirements of a cyclically weakening economy, afflicted by the Twin Balance Sheet and manifested in declining investment and credit growth, arguing for counter-cyclical policy. And, on the other, the imperatives of maintaining credibility, especially in the wake of potential disruptions to state government

Table 11. Major Fiscal Indicators for 2017-18

| Items | Per cent of GDP | | Growth rate (per cent) | |
|---------------------------|-----------------|------------|------------------------|------------|
| | 2016-17 PA | 2017-18 BE | 2016-17 PA | 2017-18 BE |
| Revenue receipts | 9.1 | 9.0 | 15.2 | 10.1 |
| Gross tax revenue | 11.3 | 11.3 | 18.0 | 11.3 |
| Direct taxes | 5.4 | 5.8 | 11.4 | 18.7 |
| Indirect taxes | 5.7 | 5.5 | 21.4 | 7.6 |
| Net tax revenue | 7.3 | 7.3 | 16.8 | 11.3 |
| Non-tax revenue | 1.8 | 1.7 | 9.1 | 5.3 |
| Non-debt capital receipts | 0.4 | 0.5 | 0.9 | 33.0 |
| Non debt receipts | 9.5 | 9.5 | 14.5 | 11.1 |
| Total expenditure | 13.0 | 12.7 | 10.3 | 8.7 |
| Revenue expenditure | 11.1 | 10.9 | 9.5 | 9.0 |
| Capital expenditure | 1.9 | 1.8 | 14.7 | 6.7 |
| Memo Items | | | | |
| Fiscal deficit | 3.5 | 3.2 | | |
| Revenue deficit | 2.0 | 1.9 | | |
| Primary deficit | 0.4 | 0.1 | | |

Source: Union Budget**PA=Provisional Actual ; BE=Budget Estimates****Box 1. Historic Tax Reform: The Goods and Services Tax (GST)**

The launch of the GST represents an historic economic and political achievement, unprecedented in Indian tax and economic reforms, summarized in Table 2. Here we clarify some misconceptions and highlight some of the relatively unnoticed benefits while pointing to the way ahead.

Table 1. Taxes subsumed under GST

| Central Taxes | State Taxes |
|--|---|
| <ul style="list-style-type: none"> Central Excise Duty Duties of excise (medicinal and toilet preparations) Additional Duties of excise (goods of special importance & textile and textile products) Additional Duties of customs Special Additional Duty of Customs Service tax Cesses and surcharges related to supply of goods or services | <ul style="list-style-type: none"> State VAT Central sales tax Purchase tax Luxury tax Entry tax (all forms) Entertainment tax (not levied by the local bodies) Taxes on advertisements Taxes on lotteries, betting and gambling State cesses and surcharges |

While subsuming State level taxes, the Central government has guaranteed all state governments 14 per cent annual growth in revenues for the next five years, a compensation that will be financed by cesses on demerit goods (tobacco, luxury cars, aerated beverages, etc). Here we clarify some misconceptions and highlight some of the relatively unnoticed benefits while pointing to the way ahead.

Table 2. Key Benefits of the GST

| | |
|--|---|
| 1. Furthering cooperative federalism | <ul style="list-style-type: none"> Nearly all domestic indirect tax decisions to be taken jointly by Centre and states |
| 2. Reducing corruption and leakage | <ul style="list-style-type: none"> Self-policing: invoice matching to claim input tax credit will deter non-compliance and foster compliance. Previously invoice matching existed only for intra-state VAT transactions and not for excise and service taxes nor for imports |
| 3. Simplifying complex tax structure and unifying tax rates across the country | <ul style="list-style-type: none"> 8-11 central excise duty rates times 3-5 State VAT rates itself applied differentially across states to be consolidated into the GST's 6 rates, applied uniformly across states (one good, one Indian tax) Other taxes and cesses of the states and the Centre subsumed in the GST |
| 4. Creating a common market | <ul style="list-style-type: none"> Will eliminate most physical restrictions and taxes on inter-state trade |
| 5. Furthering 'Make in India' by eliminating bias in favour of imports ("negative protection") | <ul style="list-style-type: none"> Will make more effective and less leaky the domestic tax levied on imports (IGST, previously the sum of the countervailing duty and special additional duty), which will make domestic goods more competitive |
| 6. Eliminating tax bias against manufacturing/ reducing consumer tax burden | <ul style="list-style-type: none"> By rectifying breaks in the supply chain and allowing easier flow of input tax credits, GST will substantially eliminate cascading (paying taxes at each stage on value added and taxes at all previous stages, such as with the Central Sales Tax) |
| 7. Boosting revenues, investment, and medium-term economic growth | <ul style="list-style-type: none"> Investment will be stimulated, because scope of input tax credit for capital purchases will increase Tax base will expand through better compliance Embedded taxes in exports will be neutralized |

1. Increased complexity of tax structure?

Much of the commentary has suggested that the GST has a complicated tax structure, implicitly comparing the new system with an ideal GST tax structure while implying that the comparison is with the past. It is inaccurate to suggest that the GST is more complicated than the system it replaced, for two related reasons.

Previously, every good faced an excise tax levied by the Centre and a state VAT. There were at least 8-10 rates of excises and 3-4 rates of state VATs, the latter potentially different across states. So, a structure of multiple rates (as much as 10 times 4 times 29 states) has been reduced to a structure of 6 rates.

More important, uniformity or the principle of “one good, one tax” all over India is now a reality. Previously, different states could impose different taxes on any given product and these could be different from that levied by the Centre.

So, relative to the past, there is now uniformity rather than multiplicity as well as considerably less complexity.

2. Additional compliance burden?

Goods

It is true that there will be additional documentation requirements on all those who are now part of the GST net. But the filing requirements will comprise filling one set of forms per month (not three as has been alleged because filling the first automatically fills the two others). This will not be an additional burden because similar, sometimes more onerous, requirements existed under the previous state VAT and central excise regimes (Table 3). For example, as the Table below shows, under the pre-GST regime, three separate returns to three different authorities had to be filed in respect of the three major taxes that are now subsumed under the GST.

Services

Previously, since only the Centre imposed the service tax, agents had to register with, and hence file to, only one authority. Now, agents will have to register in all states that they operate in and file in each of them. In the discussions in the GST Council, attempts were made to preserve the previous, simpler system, but states were nearly unanimous in insisting for multiple registration as a way to ensure that they receive their due share of revenues. That said, the increased compliance requirements will be faced only by a small number of agents with a pan-India presence and whose ability to comply will be commensurately greater. Going forward, there is scope for more centralized procedures to minimize the compliance burden.

Table 3. Number and Frequency of returns to be filed: before and after GST

| <i>Before GST</i> | <i>GST structure</i> | |
|-------------------|---------------------------|---------------------------|
| State VAT | 1 per month plus 1 annual | 1 per month plus 1 annual |
| Service Tax | 2 per year plus 1 annual | |
| Central Excise | 1 per month plus 1 annual | |

Small Traders

Much has been made of the additional compliance burden on small traders and agents. This overlooks some important changes in the other direction. The GST has significantly raised turnover thresholds for inclusion in the tax net, as Table 4 shows. As a result, out of about 87 lakh agents that were previously in the tax net (states VAT, central excise and service tax) about 70 lakhs remain in the GST net. A significant number of small traders with turnover less than ₹ 20 lakhs may have opted out. Moreover, even though the new threshold is ₹ 20 lakhs, agents with a turnover of up to ₹ 75 lakhs can choose to pay a small tax on their turnover (not valued added), which they can file every quarter instead of every month with fewer documents having to be submitted.

On the concerns about the anti-profiteering provisions might lead to over-zealous administration, the Government has indicated that they will be sparingly used. In any case, a sunset clause was introduced to ensure that the provisions will expire no later than two years.

Table 4. Turnover threshold for inclusion in the tax net: before and after GST

| <i>Before GST</i> | | <i>GST structure</i> |
|-------------------|--------------|--|
| State VAT | ₹ 5-10 lakhs | • Minimum ₹ 20 lakhs |
| Service Tax | ₹ 10 lakhs | • ₹ 20-75 lakhs subject to lower compliance burden |
| Central Excise | ₹ 1.5 crores | |

3. Hidden benefits

One important hidden benefit of the GST is that the textile and clothing sector is now fully part of the tax net. Previously, some parts of the value chain, especially fabrics, were outside the tax net, leading to informalisation and evasion. Some anomalies favoring imports of fabrics over domestic production will need to be rectified but overall the tax base has expanded.

Similarly, one segment of land and real estate transactions has been brought into the tax net: “works contracts”, referring to housing that is being built. This in turn would allow for greater transparency and formalization of cement, steel, and other sales, which tended to be outside the tax net. The formalization will occur because builders will need documentation of these input purchases to claim tax credit.

Third, the GST will rectify the inadequacies of the previous system of domestic taxes levied on imports—the countervailing duty to offset the excise tax and the Special Additional Duty (SAD) to offset the state VAT. For example, the SAD was levied at 4 percent, even though the standard VAT was 12.5 percent in most states; while in principle firms that paid VAT on inputs could reclaim the tax, in practice there were difficulties getting the tax credits. Under the GST, the full taxes on domestic sales levied by the Centre and the states (the IGST) will be levied when imported goods first arrive into the country with full tax credits available down the chain to a greater extent than previously. This will lead to more transparent and more effective taxation of imports.

There are early signs of tax base expansion. Between June & July 2017, 6.6 lakh new agents previously outside the tax net have sought GST registration. This is expected to rise consistently as the incentives for formalization increase. Preliminary estimates point to potentially large increases in the tax base as a consequence.

Another benefit will be the impact of GST and the information it throws up on direct tax collections. This could be substantial. In the past, the Centre had little data on small manufacturers and consumption (because the excise was imposed at the manufacturing stage), while states had little data on the activities of local firms outside their borders. Under the GST, there will be seamless flow and availability of a common set of data to both the Centre and states, making direct tax collections more effective.

The longer-term benefits include the GST’s impact on financial inclusion. Small businesses can build up a real time track record of tax payments digitally, and this can be used by lending institutions for credit rating and lending purposes. Currently, small businesses are credit-constrained because they cannot credibly demonstrate their financial capability.

Finally, even within the first few days of the GST’s launch there are reports of elimination of inter-state check-posts. So far, 24 states have abolished these check-posts while others are in the process of eliminating them. If this trend continues, the reduction in transport costs, fuel use, and corruption could be significant.

There is ample evidence to suggest that logistical costs within India are high. For example, one study suggests that trucks in India drive just one-third of the daily distance of trucks in the US (280 km vs

800 km). This raises direct costs (especially in terms of time to delivery), indirect costs (firms keeping larger inventory), and location choices (locating closer to suppliers/customers instead of the best place to produce). Further, only about 40 per cent of total travel time is spent driving; while one quarter is taken up by check points and other official stoppages. Eliminating check point delays could keep trucks moving almost 6 hours more per day, equivalent to additional 164 kms per day – pulling India above global average and to the level of Brazil.

Overall, logistics costs (broadly defined, and including firms' estimates of lost sales) are 3-4 times the international benchmarks. Studies show that inter-state trade costs exceed intra-state trade costs by a factor of 7-16, thus pointing to clear existence of border barriers to inter-state movement of goods¹. The passage of the GST will dramatically reduce these costs and give a boost to inter-state trade in the country.

4. Challenges ahead

Table 5 shows the structure of GST taxes and sectors that are outside the GST net. The rate structure and the exclusions from the base shown in Table 5 have scope for improvement. Alcohol, petroleum and energy products, electricity, and some of land and real estate transactions are outside the GST base but are taxed by the Centre and/or states outside the GST. Health, and education are outside the tax net altogether, exempted under the GST and not otherwise taxed by the Centre and states.

Keeping electricity out undermines the competitiveness of Indian industry because taxes on power get embedded in manufacturer's costs, and cannot be claimed back as input tax credits. Inclusion of land and real estate and alcohol in GST will improve transparency and reduce corruption; keeping health and education completely out is inconsistent with equity because these are services consumed disproportionately by the rich. Moreover, the tax on gold and jewelry products—items that are disproportionately consumed by the very rich—at 3 percent is still low.

The multiplicity of rates was a response to meeting a variety of objectives, including the need to keep rates down for a number of essential items to protect poorer sections from price rises.

Table 5. GST Rates and Exclusions from Base

| <i>IGST (%)</i> | | | <i>Number of Goods categories*</i> | <i>Major Goods outside the GST</i> |
|-----------------|-----------------|------------------|------------------------------------|---|
| <i>CGST (%)</i> | <i>SGST (%)</i> | <i>Total (%)</i> | | |
| 0 | 0 | 0 | 88 | <ul style="list-style-type: none"> • Alcohol • Petroleum and energy • Electricity • Land and real estate • Education • Healthcare |
| 1.5 | 1.5 | 3 | Gold | |
| 2.5 | 2.5 | 5 | 173 | |
| 6 | 6 | 12 | 200 | |
| 9 | 9 | 18 | 521 | |
| 14 | 14 | 28 | 229 | |

Cesses (multiple)

IGST is the sum of the GST taxes by the Centre (CGST) and the states (SGST).

*Measured as number of Harmonized System (HS) lines defined under the tariff code

The GST Council—a remarkable institutional innovation in the governance of cooperative federalism, and one that has proven to be so already in its first months of existence—will need to take up these challenges in the months ahead to take India from a good GST to an even better one.

¹ See the Subramanian Committee Report on the Revenue Neutral Rate: <http://www.cbec.gov.in/resources//htdocs-cbec/gst/cea-rpt-rnr-new.pdf>

finances, warranted adherence to a path of consolidation.

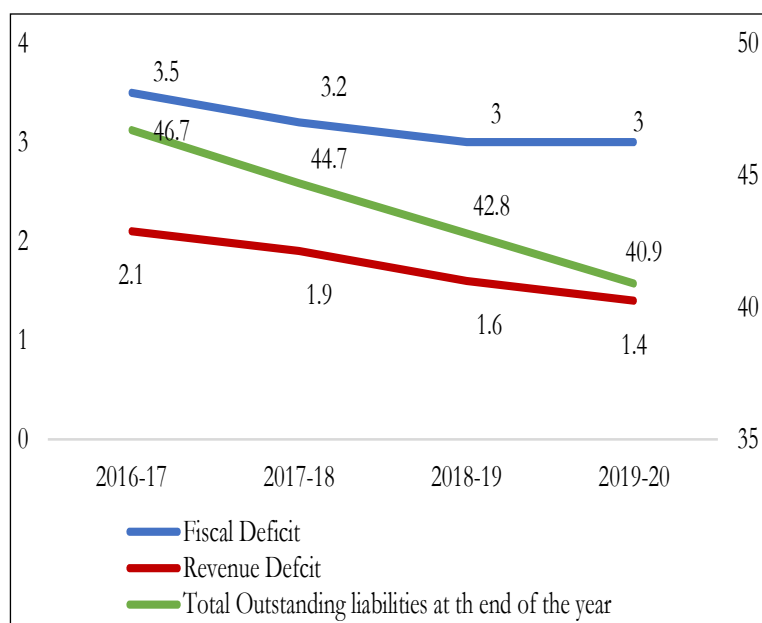
2.34 The Budget for 2017-18 assumed a moderation in indirect tax revenue growth (Table 11), possibly for two reasons. There are no significant measures for additional resource mobilization in the current year. This, and the expected transition to the GST regime, explains the more conservative budget numbers in excise duties and service tax, and broadly in indirect taxes, for the current fiscal. In the aftermath of demonetisation, direct taxes are budgeted to achieve greater momentum. The compulsions of the recommendations of the 7th Pay Commission made it difficult to compress revenue expenditure significantly.

2.35 The fiscal deficit target of 3 per cent of GDP under the FRBM framework is

projected to be achieved in 2018-19. The deficit consolidation plan also implies a reduction in the outstanding liabilities of the Central Government by almost 2 percentage points in each of the next three years starting 2017-18 (Figure 19).

2.36 As per the fiscal roadmap rolled out by FFC for the States, the States that have zero revenue deficit and fiscal deficit within 3 per cent of GSDP have additional borrowing options upto 0.5 per cent of GSDP, over and above the normal 3 per cent limit, subject to conditions (Box 2). The fiscal space of the State Governments to implement the loan waiver is examined in Box 3. The implementation of farm loan waiver by different States of different magnitudes may do well to operate within these limits to ensure that the debt sustainability of the general government is not compromised.

Figure 19. Fiscal targets as percent of GDP



Source: Union Budget 2017-18

Note: The outstanding liabilities of the Centre for 2016-17 presented here do not match with the figure in table 4 because the former is net of investment in special State Government securities

Box 2. State-wise Fiscal Assessment of Loan waivers

What is the fiscal ability of states to implement the farm loan waivers? Assessing this requires estimating the potential cost of the waivers, quantifying the fiscal space for the states relative to their FRL limits, and comparing the two. The analysis is shown in Table below.

State Specific Fiscal Space for Farm Loan Waiver

| | GSDP current MP (2017- 18) | FD without UDAY in 2017-18 (BE) | Fiscal Ceiling post FFC | Fiscal Space | FD without UDAY in 2017-18 (BE) | Fiscal Ceiling post FFC | Fiscal Space |
|---------------------|-------------------------------------|--|----------------------------------|-----------------|---|----------------------------------|-----------------|
| State | Lakh crore | In Thousand | Rupee Crore | | Per cent of GSDP | | |
| Andhra Pradesh | 7.7 | 23.1 | 23.1 | 0.0 | 3.0 | 3.0 | 0.0 |
| Uttar Pradesh | 14.2 | 42.6 | 42.6 | 0.0 | 3.0 | 3.0 | 0.0 |
| Rajasthan | 8.3 | 24.8 | 24.8 | 0.0 | 3.0 | 3.0 | 0.0 |
| Kerala | 7.5 | 25.8 | 22.4 | 0.0 | 3.4 | 3.0 | -0.4 |
| Himachal Pradesh | 1.4 | 4.9 | 4.2 | 0.0 | 3.5 | 3.0 | -0.5 |
| Odisha | 4.1 | 14.4 | 14.4 | 0.0 | 3.5 | 3.5 | 0.0 |
| Chhattisgarh | 2.8 | 9.7 | 9.7 | 0.0 | 3.5 | 3.5 | 0.0 |
| Maharashtra | 25.4 | 38.8 | 76.2 | 37.4 | 1.5 | 3.0 | 1.5 |
| West Bengal | 10.8 | 19.4 | 32.4 | 13.1 | 1.8 | 3.0 | 1.2 |
| Gujarat | 12.8 | 23.2 | 38.3 | 15.1 | 1.8 | 3.0 | 1.2 |
| Jharkhand | 3.0 | 6.9 | 9.1 | 2.2 | 2.3 | 3.0 | 0.7 |
| Haryana | 6.2 | 16.2 | 18.6 | 2.4 | 2.6 | 3.0 | 0.4 |
| Karnataka | 12.8 | 33.4 | 44.8 | 11.5 | 2.6 | 3.5 | 0.9 |
| Tamilnadu | 15.0 | 42.0 | 45.1 | 3.2 | 2.8 | 3.0 | 0.2 |
| Uttarakhand | 2.3 | 6.6 | 6.8 | 0.2 | 2.9 | 3.0 | 0.1 |
| Punjab | 5.0 | 14.6 | 15.1 | 0.5 | 2.9 | 3.0 | 0.1 |
| Bihar | 6.3 | 18.1 | 22.1 | 4.0 | 2.9 | 3.5 | 0.6 |
| Madhya Pradesh | 7.4 | 21.1 | 25.7 | 4.7 | 2.9 | 3.5 | 0.6 |
| Telangana | 7.6 | 26.1 | 26.6 | 0.5 | 3.5 | 3.5 | 0.0 |
| TOTAL | 160.6 | 411.6 | 502.2 | 94.6 | 2.6 | 3.1 | 0.6 |

Notes: Fiscal ceiling is calculated based on the 14th Finance Commission (FFC) recommendations. The necessary condition for being allowed to use additional fiscal space is a zero revenue deficit in the current and preceding years. Then, 0.25% of GSDP worth of fiscal space is available if the interest payment to revenue receipt ratio is less than or equal to 10 %; and an additional 0.25% of GSDP if the debt to GDP ratio is less than 25% of GSDP. The fiscal deficit number for Uttar Pradesh, Punjab and Uttarakhand is for 2016-17 BE.

States are ranked by the extent of fiscal space. The fiscal limit for most states is 3 percent of GSDP. However, six states (Odisha, Chhattisgarh, Telangana, Madhya Pradesh, Karnataka, and Bihar) have higher limits of 3.5 percent of GSDP because they have strong overall fiscal positions, as deemed by the Fourteenth Finance Commission's (FFC's) criteria.

Comparing limits with the BE estimates for 2017-18, we find that only seven states have fiscal space exceeding 0.5 percent of GSDP. The states with the most space in rupee terms are Maharashtra, Gujarat, West Bengal, Karnataka and Madhya Pradesh. In relative terms, Jharkhand also has considerable space, amounting to 0.7 percent of GSDP. States with no additional deficit capacity include Uttar Pradesh, Telangana, Rajasthan, Andhra Pradesh, and Odisha

For the country as a whole, additional fiscal space amounts to about ₹ 95,000 crores or 0.6 percent of GDP. If this space were to be used for loan waivers, the impact on aggregate demand would come from the interest cost of financing that amount—about ₹ 6,350 crores.

APPENDIX 1. MAJOR TAX MEASURES TAKEN DURING 2016-17

(a) Major Measures Under Direct Taxes

- Lowering tax rate to 29% for companies with turnover \leq ₹ 5 crores.
- Manufacturing companies incorporated on or after 1.3.2016 have been given an option to be taxed at 25% without claiming any deductions.
- 100% Deduction to developers of affordable housing projects
- Deduction allowable in respect of rents increased to ₹ 60,000 from ₹ 24,000 for the individual taxpayers who don't get any house rent allowance.
- Presumptive taxation scheme for professionals having receipts \leq ₹ 50 lakhs introduced and threshold for presumptive taxation scheme for business increased from ₹ 1 crore to 2 crore.
- Exemption of long term capital gains for investment in a start-up fund and on sale of residential property for investment in the shares of Start-up company. 100% profit linked deduction for three consecutive years out of five years.
- New Dispute Resolution Scheme introduced to reduce the backlog of litigation.
- Income Disclosure Scheme, 2016 introduced to provide an opportunity to the persons who have failed to pay tax in past.
- Tax-free withdrawal upto 40% of the balance in NPS has been provided at the time of superannuation of employee .
- Introduction of equalization levy of 6% to bring certain off-shore digital transactions within the purview of direct taxation in line with International standard.
- Additional deduction of interest on home loan up to ₹ 50,000 for individual tax payers.
- Pradhan Mantri Garib Kalyan Yojana, 2016, was introduced, wherein an opportunity has been provided to a person having undisclosed income in the form of cash/ bank deposit to declare the same by paying tax, surcharge and penalty of 49.9% of such income along with mandatory deposit of 25% of such income.

(b) Major Measures Under Excise and Customs Duties

i. 'Make In India' Incentives For Domestic Industry

Customs

- Export duty on iron ore fines and lumps with Fe content below 58% and chromium ores and concentrates was fully exempted, and on bauxite was reduced from 20% to 15%.
- BCD (BCD) on coal, lignite, peat, and 'Oils and other products' of the distillation of high temperature coal tar was rationalized at 2.5% and BCD at 5% for Coke and semi-coke of coal, of lignite or of peat; Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons;
- BCD on all acyclic hydrocarbons and all cyclic hydrocarbons other than para-xylene and styrene was rationalized at 2.5%.
- Additional duty of customs levied under section 3(5) of the Customs Tariff Act (commonly known as SAD) on orthoxylene for manufacture of phthalic anhydride was reduced from 4% to 2%.
- BCD on Wood in chips or particles for manufacture of paper, paperboard and news print were exempted.
- BCD on specified fibres, filaments/yarns reduced from 5% to 2.5% .
- Manufacturer or merchant-exporter may also be registered with the Cotton Textiles Export Promotion Council, in addition to Apparel Export Promotion Council or the Synthetic and Rayon Textile Export Promotion Council and may seek certification for the purposes of availing duty free import entitlement.
- BCD on brass scrap and silica sands was reduced from 5% to 2.5%.
- BCD on primary aluminium and zinc alloys was increased from 5% to 7.5% and on other aluminium products from 7.5% to 10%. 1) BCD on Imitation jewellery was increased from 10% to 15%.
- BCD on polypropylene granules / resins for the manufacture of capacitor grade plastic films was reduced from 7.5% to Nil subject to actual user condition.
- BCD on E-Readers was increased from Nil to 7.5% and BCD on raw materials / parts of E-readers was increased to 5%, subject to actual user condition.

- BCD, CVD and SAD exemption on charger /adapter, battery and wired headsets /speakers for manufacture of mobile phones was withdrawn.
- Inputs, parts and components, subparts for manufacture of charger /adapter, battery and wired headsets / speakers of mobile, subject to actual user condition, was exempted from BCD, CVD and SAD.10) Exemption from BCD on Magnetic - Heads (all types), Ceramic / Magnetic cartridges and stylus, Antennas, EHT cables, Level meters/level indicators/ tuning indicators/ peak level meters/ battery meter/VC meters / Tape counters, Tone arms, Electron guns. They will now be chargeable to BCD of 7.5%/10% was withdrawn.
- BCD exemption on preforms of silica for manufacture of telecom grade optical fibre /cables was withdrawn and 10% BCD imposed.
- Specified capital goods and inputs for use in manufacture of Micro fuses, Sub-miniature fuses, Resettable fuses, and Thermal fuses were exempted.
- Exemption from SAD on populated PCBs for manufacture of personal computers, mobile phone/ tablet computer (laptop or desktop) and impose SAD on such populated PCBs was withdrawn.
- BCD on industrial solar water heater was increased from 7.5% to 10% and BCD of 5% was imposed on solar tempered glass.
- Concessional 6% CVD and Nil BCD on electric and hybrid vehicles was extended without any time limit.
- BCD on golf cars was increased from 10% to 60%.
- BCD on Aluminium Oxide for use in the manufacture of Wash Coats, subject to actual user condition, was reduced from 7.5% to 5%.
- BCD on specified capital goods and parts of capital goods falling under 96 Tariff Items was increased from 7.5% to 10%.
- Tariff rate of the BCD on specified capital goods and parts of capital goods falling under 115 Tariff Items was increased from 7.5% to 10%. The effective rate of BCD on these goods will be retained at 7.5%.
- Tools and tool kits were exempted from BCD, CVD and SAD when imported by MROs [registered with the Directorate General of Civil Aviation], for maintenance, repair, and overhauling of aircrafts.
- The restriction of one year for utilization of duty free parts for maintenance, repair and overhaul of aircraft was removed.
- The existing conditions of stay of aircrafts for MRO activity [60 days], so as to provide for stay up to 6 months, and provide for further extension by DGCA, as deemed fit was further relaxed.
- BCD on natural latex rubber made balloons was increased from 10% to 20%.
- BCD on import of Medical Use Fission Molybdenum-99 by Board of Radiation and Isotope Technology (BRIT) for manufacture of radio pharmaceuticals was fully exempted.
- Concessional BCD of 2.5% on Pulp of wood when used for the manufacture of sanitary pads, napkins & tampons [other than adult diapers, for which BCD on pulp is already Nil] was provided.
- Concessional BCD of 5% on Super Absorbent Polymer when used for the manufacture of sanitary pads, napkins & tampons was provided.
- The concessional rate of BCD of 5% to 12 specified items required for medical, surgical, dental or veterinary use and the concessional rate of BCD of 2.5% was restricted to raw materials, parts and accessories required for manufacture of specified goods.
- SAD was restricted to 12 specified items required for medical, surgical, dental or veterinary use.

Excise

- Excise duty on branded readymade garments and made up articles of textiles of retail sale price of ₹ 1000 per piece or more was changed from 'Nil without ITC' to '2% without ITC' irrespective of their composition.
- The tariff value of readymade garments and made up articles of textiles was changed from 30% of the retail sale price to 60% of retail sale price.
- Excise duty on Unsaturated Polyester Resin (polyester based infusion resin and hand layup resin), Hardeners/Hardener for adhesive resin, Vinyl Ester Adhesive (VEA) and Epoxy Resin used for

manufacture of rotor blades for wind operated electricity generators was increased from Nil to 6%.

- Excise duty on carbon pultrusions for manufacture of rotor blades and intermediates, parts and sub-parts of rotor blades for wind operated electricity generators from 12.5% to 6% was reduced, subject to actual user condition.
- Excise duty on rubber sheets & resin rubber sheets for soles and heels, and electric motor, shafts, sleeve, chamber, impeller, washer required for the manufacture of centrifugal pump was reduced from 12.5% to 6%.
- The abatement rate from retail sale price (RSP) for the purposes of RSP based excise duty assessment, for all categories of footwear, was revised from 25% to 30%.
- Excise duty of 2% without ITC or 12.5% with ITC on charger /adapter, battery and wired headsets / speakers, for supply to mobile phone manufacturers as original equipment manufacturer was provided.
- Inputs, parts and components, subparts for manufacture of charger /adapter, battery and wired headsets /speakers of mobile phone, subject to actual user condition, from excise duty was exempted.
- Excise duty of 4% without ITC or 12.5% with ITC on Routers, broadband Modems, Set-top boxes for gaining access to internet, set top boxes for TV, digital video recorder (DVR) / network video recorder (NVR), CCTV camera / IP camera, lithium ion battery [other than those for mobile handsets] was prescribed.
- Excise duty on disposable containers made of aluminium foils increased from 6% with ITC to 12.5% with ITC.
- Concessional 6% excise duty on electric and hybrid vehicles was extended without any time limit.
- Description of “Engine for HV (Atkinson cycle)” to “Engine for xEV(hybrid electric vehicle)” for the purposes of concessional 6% excise duty was changed.
- Exemption from excise duty to tools and tool kits when procured by MROs for maintenance, repair, and overhauling [MRO] of aircraft subject to a certification by the Directorate General of Civil Aviation was extended.
- The procedure for availment of excise duty exemption on parts, parts, testing equipment, tools and tool-kits for maintenance, repair and overhaul of aircraft based on records was simplified.

ii. Ease of Doing Business

Customs

The exemptions from customs duties on specified goods imported for petroleum exploration under various types of licenses and contracts, Marginal Fields Policy and the Coal Bed Methane Policy were merged into a single exemption with a unified list of specified goods and conditions.

Excise

13 cesses levied by other Ministries / Departments and administered by the Department of Revenue, from each of which the revenue collection is less than ₹ 50 crore in a year were abolished.

iii. Movement Towards GST And Broadening of Tax Base

- Excise duty on all branded readymade garments and made ups, having a retail sale price of ₹ 1000 or more, was changed from ‘Nil without ITC or 6%/12.5% with ITC’ to ‘2% without ITC or 12.5% with ITC’.
- Excise duty exemption on Articles of Jewellery [excluding silver jewellery, other than studded with diamonds or other precious stones] was withdrawn and ‘1% without ITC or 12.5% with ITC’ was imposed on them, with a higher threshold exemption upto ₹ 6 crore in a year and eligibility limit of ₹ 12 crore, along with simplified compliance procedure.
- 1% excise duty (without input and capital goods credit) on parts of articles of jewellery falling under heading 7113 of the Central Excise Tariff Act, 1985 (5 of 1986) was prescribed. Further, a criteria for classification of an articles of jewellery or part of articles of jewellery or both as that of a particular precious metal was prescribed.

iv. Swachh Bharat

‘Clean Energy Cess’ levied on coal, lignite and peat was renamed as ‘Clean Environment Cess’ and rate was increased from ₹ 200 per tonne to ₹ 400 per tonne.

v. Additional Resource Mobilisation

- Excise duty on aerated waters, lemonade and other waters, containing added sugar or other sweetening matter or flavored was increased from 18% to 21%.
- An Infrastructure Cess was levied on motor vehicles, with specific exemptions, of heading 8703, as under:
 - Petrol/LPG/CNG driven motor vehicles of length not exceeding 4m and engine capacity not exceeding 1200cc – 1%
 - Diesel driven motor vehicles of length not exceeding 4m and engine capacity not exceeding 1500cc – 2.5%
 - Other higher engine capacity motor vehicles and SUVs and bigger sedans – 4%.
- Excise duty on aviation turbine fuel [ATF], other than for supply to aircraft under the Regional Connectivity Scheme, was increased from 8% to 14%.

vi. Relief Measures**Customs**

- BCD on refrigerated containers was reduced from 10% to 5%.
- Exemption from BCD on Braille paper was extended.
- Disposable sterilized dialyzer and micro barrier of artificial kidney was exempted from BCD, excise duty / CVD and SAD.

Excise

- Excise duty on refrigerated containers was reduced from 12.5% to 6%.
- Excise duty on improved cookstoves including smokeless chulhas for burning wood, agrowaste, cowdung, briquettes, and coal was exempted unconditionally.
- Solar lamp was exempted from excise duty.

vii. Public Health

- Excise duty on cigarettes, cigars, cheroots and cigarillos and others of tobacco substitutes was increased by about 10% .
- Basic excise duty on pan masala, gutkha, unmanufactured tobacco, chewing tobacco, jarda scented tobacco and filter khaini was increased by about 15%.

(c) Measures under Service Tax**i. Broadening the tax base and increasing the Tax to GDP Ratio**

- In Budget 2016-17, the provision made in the previous Budget to tax all services provided by the Government or local authority to business entities was brought into force with effect from 1st April, 2016.
- Krishi Kalyan Cess was imposed on all taxable services at a rate of 0.5% on the value of such taxable services, with effect from 1st June 2016.
- Exemption from Service tax on transportation of passengers, with or without accompanied belongings by air-conditioned stage carriage was withdrawn.
- Withdrawal of exemption from service tax on transport of passengers, with or without accompanied belongings, by ropeway, cable car or aerial tramway.
- Withdrawal of exemption from service tax with respect to construction, erection, commissioning or installation of original works pertaining to monorail or metro, in respect of contracts entered into after 1st March 2016.
- Withdrawal of exemption from service tax on provision of Online Information and Database Access or Retrieval (OIDAR) services, with effect from 1st December, 2016, which are received from a provider of service located in non-taxable territory (cross-border supply of services) by government, local authority, governmental authority, or an individual in relation to any purpose other than commerce, industry or any other business or profession.
- Exemption to import freight service when provided by a foreign flag ship to a foreign charterer with respect to goods destined for India was withdrawn w.e.f. 22nd January, 2017 with a view to provide level playing field to the Indian shipping industry.

ii. For promoting ease of doing business**Exempted from service tax**

- Services provided by Government or a local authority to another Government or a local authority with some exceptions;
- Specified services provided by Government or a local authority to an individual who may be carrying out a profession or business;
- Services provided by the Government or a local authority by way of: (i) registration required under the law; (ii) testing, calibration, safety check or certification as specified;
- Services by way of allocation of natural resources to an individual farmer for the purposes of agriculture;
- Regulation of land-use, construction of buildings and other services listed in the Twelfth Schedule to the Constitution, when provided by Government or a local authority;
- Service Tax payable on one time charge, payable in full upfront or in installments, for assignment of right to use any natural resource and not to any periodic payment required to be made by the assignee on yearly installments due after 1.4.2016 in respect of spectrum assigned before 1.4.2016 and on spectrum user charges and license fee payable after 1.4.2016 for the year 2015-16;
- Fines and liquidated damages payable to Government or a local authority for non-performance of contract entered into with Government or local authority

Clarified that:

- Taxes, cesses or duties levied or penalty are not consideration for any particular service as such and hence not leviable to Service Tax;
- Any activity undertaken by Government or a local authority against a consideration constitutes a service and the amount charged for performing such activities is liable to Service Tax;
- In case of services provided by Government or a local authority to any business entity, the point of taxation shall be the earlier of the dates on which: (a) any payment, part or full, in respect of such service becomes due, or (b) such payment is made;
- Interest chargeable on deferred payment in case of any service provided by Government or a local authority to a business entity, where payment for such service is allowed to be deferred on payment of interest, shall be included in the value of the taxable service;
- CENVAT Credit of the Service Tax on one time charges (whether paid upfront or in installments) paid in a year, allowed to be taken evenly over a period of 3 (three) years. However, the Service Tax paid on spectrum user charges, license fee, transfer fee charged by the Government on trading of spectrum would be available in the year in which the same is paid. Likewise, Service Tax paid on royalty in respect of natural resources and any periodic payments shall be available as credit in the year in which the same is paid;
- Service Tax liability for services provided by an arbitral tribunal (including the individual arbitrators of the tribunal) shall be on the service recipient if it is a business entity located in the taxable territory with a turnover exceeding rupees ten lakh in the preceding financial year;
- It was directed that the discretion vested in the jurisdictional Deputy/Assistant Commissioner under rule 6(2) of the Service Tax Rules, 1994, should be exercised judiciously and rationally.
- In any given case involving hiring, leasing or licensing of goods, it is essential to determine whether, in terms of the contract, there is a transfer of the right to use the goods. Criteria laid down by the Supreme Court in the case of *Bharat Sanchar Nigam Limited vs Union of India*, reported in 2006 (2) STR 161 SC = 2006-TIOL-15-SC-CT-LB, must invariably be followed and applied to cases involving hiring, leasing or licensing of goods;
- The exemption under the entries at Serial No. 12(e) and 25(a) of notification 25/2012-Service Tax, will cover a wide range of activities/services provided to a government, a local authority or a governmental authority and will include the activity of construction of tube wells;
- The immovable property located in the immediate vicinity and surrounding of the religious place and owned by the religious place or under the same management as the religious place, may be considered as being located in the precincts of the religious place and extended the benefit of exemption under Notification No. 25/2012-Service Tax, Sl. No. 5(a).

Monetary Management and Financial Intermediation

03 CHAPTER

The Reserve Bank of India cut the policy rate by 50 basis points during 2016-17. However, it shifted its monetary policy stance from accommodative to neutral in February 2017 and cut the repo rate by 25 basis points in August 2017. Monetary aggregates, such as reserve money, decelerated significantly following the withdrawal of legal tender status of specified bank notes on November 9, 2016. The glut in liquidity persists several months after demonetization. Credit off-take from banks continued to decelerate and the non-performing assets situation deteriorated further. Sluggish growth and increasing indebtedness in some sectors of the economy have impacted the asset quality of banks and this is a cause for concern. Financial inclusion is proceeding apace under the Pradhan Mantri Jan Dhan Yojana. Average balance in accounts opened under PMJDY has registered steady growth in 2016-17 and zero balance accounts declined consistently.

MONETARY DEVELOPMENTS DURING 2016-17

3.1 The Government amended the Reserve Bank of India Act, 1934 in May 2016 to provide for a revised monetary policy framework. Under the amended Act, inflation target would be set by the Government, in consultation with the Reserve Bank, once in every five years and further provides for a statutory basis for the constitution of an empowered Monetary Policy Committee (MPC). The Government has fixed the inflation target of 4 per cent with tolerance level of ± 2 per cent for the period beginning from 5th August, 2016 to March 31, 2021. Reserve Bank of India (RBI) also refined its liquidity management policy framework in April 2016, with the objective of meeting short-term liquidity needs through regular facilities; reducing frictional

and seasonal mismatches through fine-tuning operations and providing more durable liquidity by modulating net foreign assets and net domestic assets in its balance sheet. This was, in part, a response to excessively tight liquidity conditions observed in late 2015 (see Box 3.1 figure 1).

3.2 The Government notified the constitution of the MPC on 29th September 2016. The MPC held three meetings in 2016-17. The MPC, in its last meeting of 2016-17 held on February 8 2017, while holding policy rates, changed the monetary policy stance from accommodative to neutral. In its latest meeting held on August 2, 2017, MPC cut policy repo rates by 25 bps to 6 per cent. Accordingly, reverse repo rate stands at 5.75 per cent, and the Marginal Standing Facility (MSF) rate at 6.25 per cent.

3.3 During 2016-17, monetary aggregates

Table 1. Revision in Policy Rates

| Effective date | Bank rate/ MSF rate* (per cent) | Repo rate (per cent) | Reverse repo rate (per cent) | Cash reserve ratio (per cent of NDTL) | Statutory liquidity ratio (per cent of NDTL) |
|----------------|---------------------------------------|-------------------------|------------------------------------|--|---|
| 29-09-2015 | 7.75 | 6.75 | 5.75 | 4.00 | 21.50 |
| 1-12-2015 | 7.75 | 6.75 | 5.75 | 4.00 | 21.50 |
| 2-02-2016 | 7.75 | 6.75 | 5.75 | 4.00 | 21.50 |
| 5-04-2016 | 7.0 | 6.50 | 6.0 | 4.00 | 21.25 |
| 7-06-2016 | 7.0 | 6.50 | 6.0 | 4.00 | 21.25 |
| 9-08-2016 | 7.0 | 6.50 | 6.0 | 4.00 | 21.00 |
| 4-10-2016 | 6.75 | 6.25 | 5.75 | 4.00 | 20.75 |
| 7-12-2016 | 6.75 | 6.25 | 5.75 | 4.00 | 20.75 |
| 8-02-2017 | 6.75 | 6.25 | 5.75 | 4.00 | 20.50 |
| 6-04-2017 | 6.50 | 6.25 | 6.0 | 4.00 | 20.50 |
| 7-06-2017 | 6.50 | 6.25 | 6.0 | 4.00 | 20.50 |
| 2-08-2017 | 6.25 | 6.00 | 5.75 | 4.00 | 20.00 |

Source: RBI.

Notes: *: Bank Rate was aligned to MSF rate with effect from February 13, 2012. NDTL is net demand and time liabilities.

decelerated significantly following the withdrawal of legal tender status of specified banknotes (SBNs) on November 9, 2016. Prior to demonetisation, growth of reserve money (M0 on YoY basis), averaged around 15 per cent, nearly 4 percentage points higher than the average growth in the corresponding period of 2015-16 (Figure 1). The acceleration in reserve money was primarily on account of higher growth in currency in circulation (CIC). Following demonetisation, currency in circulation declined sharply the first time in the past several years, concomitantly pulling down reserve money (Table 2). The moderation in reserve money largely reflected build-up of government cash balances under the Market Stabilisation Scheme, mostly through the issuance of cash management bills as also the mounting LAF reverse repo with a view to absorbing excess liquidity in the banking system. After declining to a low

of ₹9 trillion on January 6, 2017, currency in circulation started moving up in line with the remonetisation process and reached 74 per cent of its peak by March 31, 2017 (₹18 trillion on November 4, 2016). Consequently, reserve money, at end March 2017 recovered but stood lower by 12.9 per cent than the last year.

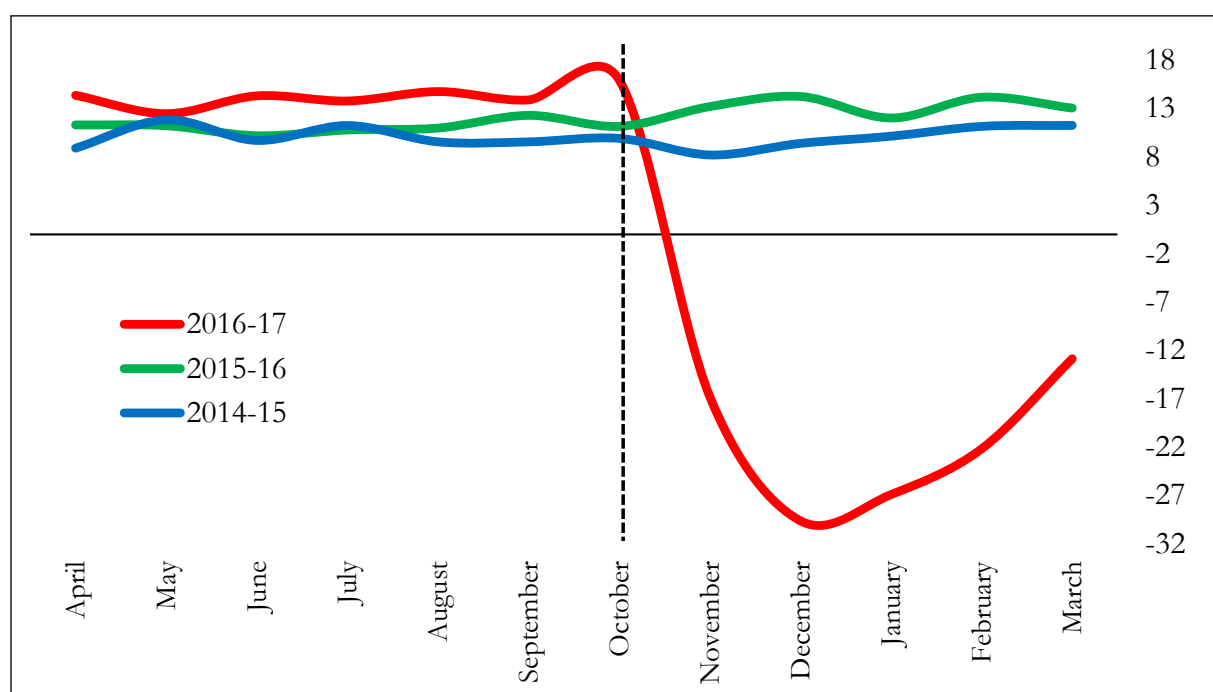
3.4 The growth of broad money (M3) slackened during 2016-17, reflecting subdued credit growth and the sizable redemption of FCNR (B) deposits (Figure 2). Subsequent to November 9, 2016, however, currency with the public plummeted and its growth turned negative. At the same time, aggregate deposits showed an upsurge as, restrictions on cash withdrawals were imposed along with the withdrawal of legal tender status of SBNs. Consequently, the reduction in broad money, post-demonetisation was much less than the

Table 2. Year-on-Year Change in Monetary Aggregates as on end March of Each Year (per cent)

| Items | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
|--------------------------------|-------|------|------|------|-------|-------|------|
| Currency in circulation | -19.7 | 14.9 | 11.3 | 9.2 | 11.6 | 12.4 | 18.8 |
| Cash with banks | 8.1 | 6.6 | 12.4 | 10.7 | 14.6 | 15.2 | 18.0 |
| Currency with the public | -20.8 | 15.2 | 11.3 | 9.2 | 11.5 | 12.3 | 18.8 |
| Bankers' deposits with the RBI | 8.3 | 7.8 | 8.3 | 34.0 | -10.0 | -15.9 | 20.2 |
| Reserve money (M0) | -12.9 | 13.1 | 11.3 | 14.4 | 6.2 | 3.6 | 19.1 |
| Demand deposits | 42.5 | 11.0 | 9.8 | 7.8 | 6.0 | -1.7 | 0.7 |
| Narrow money(M1) | 3.6 | 13.5 | 11.3 | 8.5 | 9.2 | 6.0 | 10.0 |
| Time deposits | 12.6 | 9.2 | 10.7 | 14.9 | 15.0 | 16.1 | 18.3 |
| Broad money (M3) | 10.6 | 10.1 | 10.9 | 13.4 | 13.6 | 13.5 | 16.1 |

Note: Data are Provisional, *Source:* RBI

Figure 1. Reserve Money Y-o-Y Growth (%) - Monthly Trend



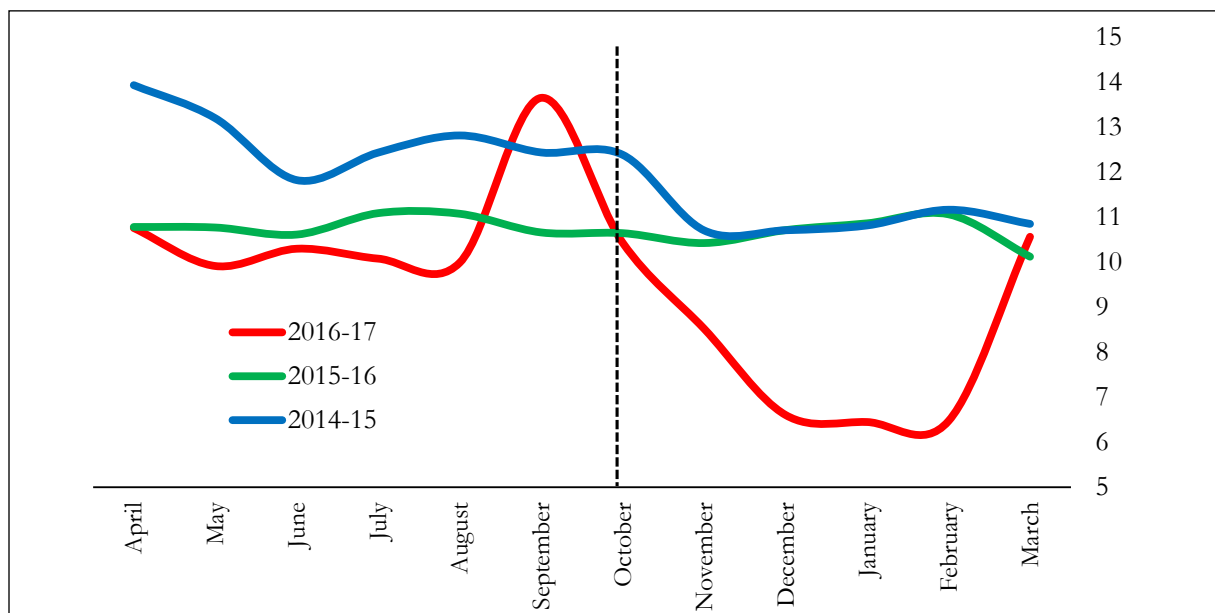
Source: RBI

contraction in reserve money, resulting in a sharp increase in money multiplier during the period. However, with the pace of remonetisation gathering momentum, broad money recovered and stood higher by 10.6 per cent than last year. Consequently, after reaching its peak at 8.8 on January 6, 2017,

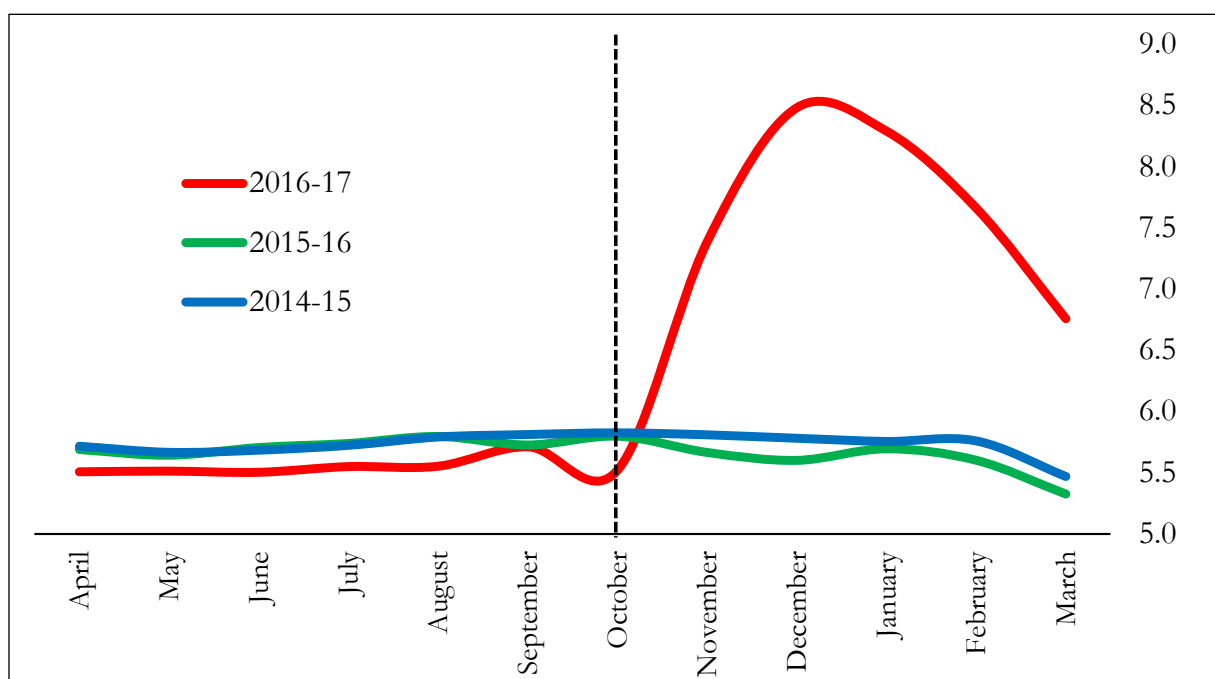
money multiplier declined in subsequent period and was placed at 6.8 on March 31, 2017 (5.3 last year)(Figure 3).

LIQUIDITY CONDITIONS AND ITS MANAGEMENT

3.5 With the introduction of the new

Figure 2. Broad Money Y-o-Y Growth (%) - Monthly Trend

Source: RBI

Figure 3. Money Multiplier - Monthly Trend

Source: RBI

liquidity management framework in April 2016, which entailed, inter alia, progressively lowering the average ex ante liquidity deficit in the system to a position closer to neutrality, the average monthly liquidity

deficit in the system consistently declined from April through June 2016. RBI remained in absorption mode during the period from July to mid-September 2016 on the back of decline in Government of India (GoI)

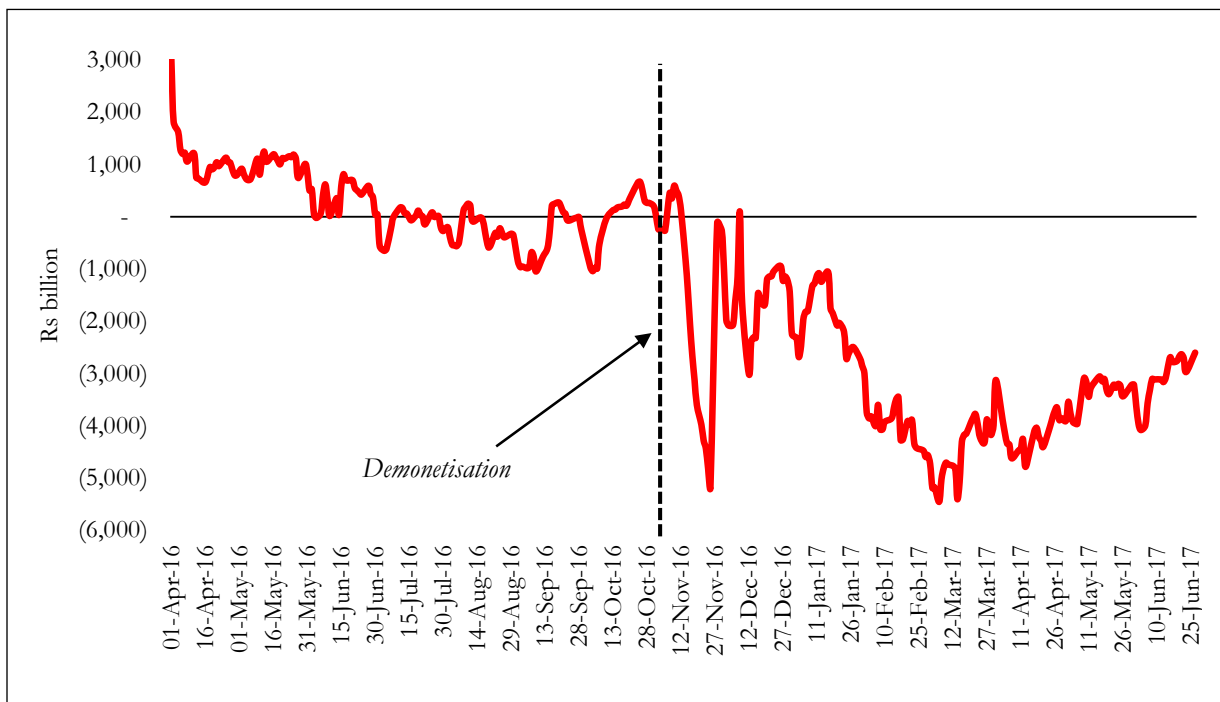
cash balances with the RBI and injection of permanent liquidity through OMO purchase auctions. The liquidity condition tightened slightly in the second half of September on account of advance tax outflows from the banking system and the resultant increase in the GoI cash balances with the RBI. It remained in surplus mode until mid-October 2016 before turning into deficit mode in the second half of October on the back of festival induced increase in currency in circulation. Such movements were within the usual experience.

3.6 Demonetisation announced on November 8, 2016 resulted in unprecedented liquidity surplus in the banking system. The net liquidity absorption under LAF touched a peak of ₹5194 billion on November 25, 2016. In order to mop up the deluge of liquidity in the banking system, the Reserve Bank took various measures. The measures included temporary imposition of 100 per cent incremental CRR (on the increase in NDTL between September 16, 2016 and

November 11, 2016) with effect from the fortnight beginning November 26, 2016 and issuance of cash management bills (CMBs) under Market Stabilisation Scheme (MSS) and absorption through variable rate reverse repos of various tenors ranging from overnight to 91-days.

3.7 Large surplus liquidity condition engendered by demonetisation continued in Q4 of 2016-17 also. In order to absorb surplus liquidity, the RBI continued with the variable rate reverse repos and CMB issuances during January 2017 also. Liquidity absorption through CMB issuances under MSS touched a peak of ₹5,966 billion in January 2017. With the maturing of CMBs and discontinuation of fresh issuances of CMBs in February and March 2017, the RBI expanded the scale of reverse repo auctions to absorb surplus liquidity in the system. As a result, the average daily net liquidity absorption under the LAF increased from ₹2002 billion in January 2017 to ₹3,997 billion in February 2017 and further to ₹4,483 billion

Figure 4. Daily Market Liquidity



Source: RBI

Box 1. What is central bank liquidity?

Under the liquidity adjustment facility (LAF), banks and primary dealers (PDs) may either borrow from the RBI using the repo window (paying the repo rate) or park excess funds with the RBI using the reverse repo window (receiving the reverse repo rate). Note that the PDs are registered entities with the RBI who have the license to purchase and sell government securities. Since October 2013 and June 2014, the RBI also started term repo (up to 14 days) and term reverse repo (up to 56 days) operations. Transactions under repo and reverse repo window are collateralized.

Liquidity, at any given point of time, refers to the net fund (fund borrowed minus fund deposited with RBI) borrowed by banks and PDs under LAF. Liquidity shortage refers to a situation where net fund borrowed from RBI is positive. In other words, banks and PDs have to resort to RBI for overnight borrowings as there is liquidity crunch in the market. Similarly, excess liquidity refers to an opposite situation where net fund borrowed from the RBI is negative. Basically, banks and PDs have more than enough liquidity with them so they turn to the RBI to park their excess fund to earn interest.

in March 2017. Average daily net liquidity absorption through LAF and CMB issuances was ₹5932 billion during Q4 of 2016-17 with a peak of ₹7,956 billion recorded on January 4, 2017. However, all these measures have not succeeded in eliminating the excess liquidity from the system. Excess liquidity continues to remain in excess of ₹2,500 billion even in the last week of June 2017.

BANKING SECTOR

3.8 Bank credit is an important indicator of economic activity. The high growth observed in the 2003-08 period was accompanied by a surge in monetary aggregates and credit growth, which usually exceeded the 20 per cent mark year on year. After being impacted sharply by the global financial crisis and the fiscal stimuli over the period 2008-10, credit growth remained at around the 15 per cent mark till February 2014. Subsequently, it has slowed down. During 2016-17, gross bank credit outstanding grew at around 7 per cent on an average. The latest reading for May 2017 is 4.1 per cent. The sluggish growth can be attributed to several factors: (a) incomplete transmission of the monetary policy as banks had not passed on the entire benefit of monetary easing to borrowers; (b) problem of twin-balance sheet (weak bank balance sheet as well corporate balance sheet); (c) more attractive interest rates for borrowers in the bond market and from non-

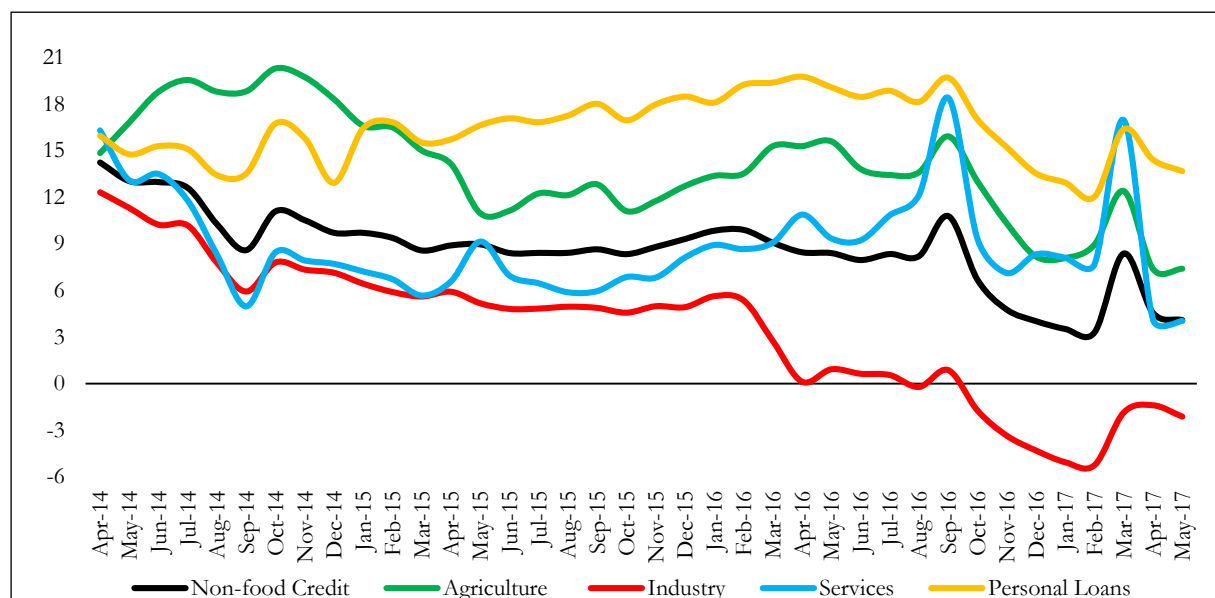
banking financial institutions.

3.9 The trend in deployment of gross bank non-food credit by major sectors shows that credit off take by the industry sector has been slowing (Figure 5). The average gross bank credit to industry contracted by 1.6 per cent in the FY 2016-17. In May 2017, it contracted by 2.1 per cent. Even the personal loans segment slowed down in the second half of the FY 2016-17. Figures 6a and 6b show the aggregate deployment of non-food credit and credit to industry by public and private banks. We observe that the slowdown in credit off-take from public sector banks (PSBs) has been much more pronounced compared to the private sector banks (PVBs).

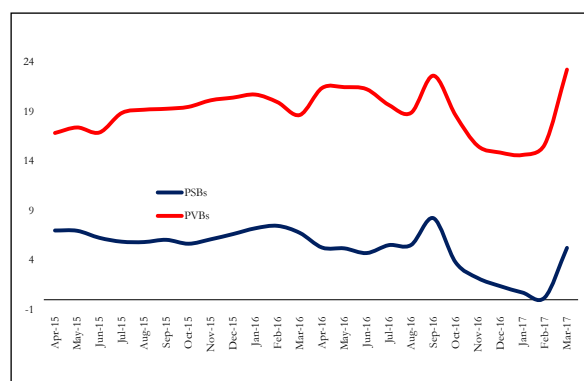
3.10 The gross non-performing advances (GNPAs) ratio of SCBs rose from 9.2 per cent in September 2016 to 9.5 per cent in March 2017. SCBs' capital to risk-weighted assets ratio (CRAR) improved from 13.4 per cent to 13.6 per cent between September 2016 and March 2017 whereas profit after tax (PAT) expanded by 45.8 per cent in 2016-17 as against a decline of 61.6 per cent in 2015-16, mainly due to higher increase in other operating income (OOI) relative to risk provisions and write-off.

FINANCIAL INCLUSION

3.11 The launch of Pradhan Mantri Jan Dhan Yojana (PMJDY) in August 2014 has

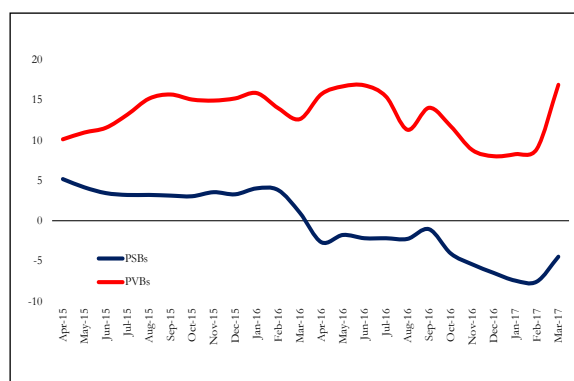
Figure 5. Sectoral Deployment of Bank Credit (y-o-y, %)

Source: RBI

Figure 6a. Non-food Credit Growth Across Bankgroups (y-o-y, %)

Source: Survey Estimate

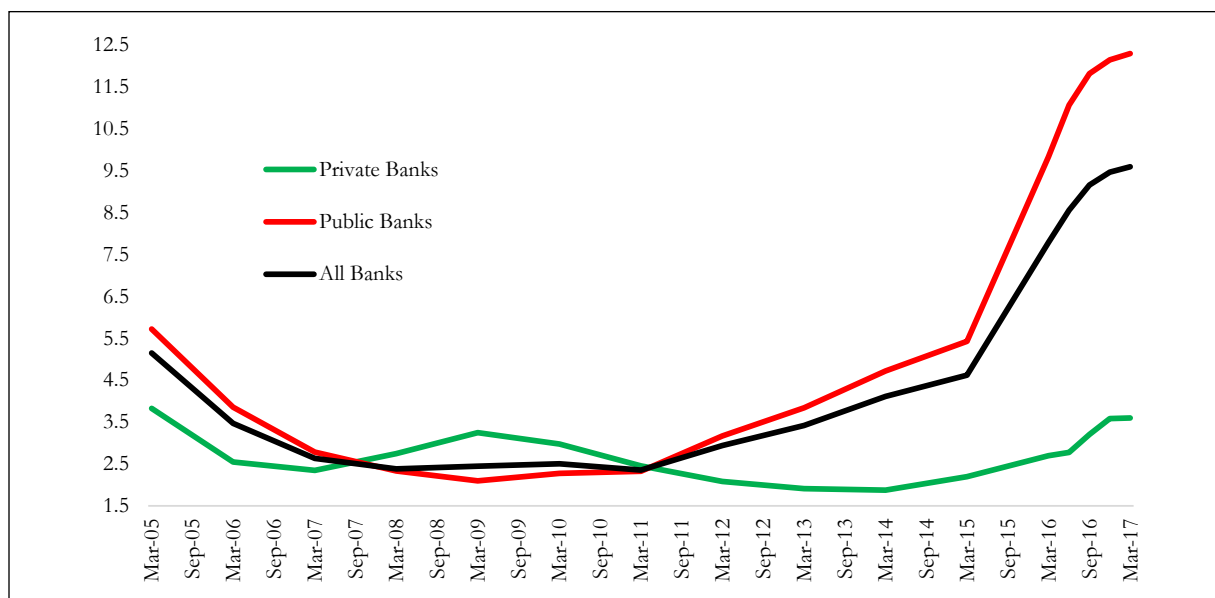
Note: Mar-17 numbers are provisional, PVBs – Private Sector Banks, PSBs – Public Sector Banks,

Figure 6b. Growth in Credit to Industry Across Bankgroups (y-o-y, %)

committed India to an ambitious agenda of financial inclusion in mission mode. As this initiative approaches the close of its third year, it is appropriate to assess its impact in outcome terms, identify key takeaways, and look at the way ahead.

3.12 Basic Savings Bank Deposit Account (BSBD) accounts being the basic savings account product introduced specifically for unbanked persons, the growth in these

accounts is a key parameter for assessing growth in financial inclusion. Prior to the launch of PMJDY, since introduction of BSBD accounts in 2005 till July 2014, the number of such accounts had grown to 25.54 crore. After the launch of PMJDY, the number of BSBD accounts rose rapidly to 51.50 crore by December 2016, of which 26.20 crore were accounts opened under PMJDY, representing more than half of the total. Since then, another 2.56 crore BSBD

Figure 7. NPAs - Across Bankgroups (y-o-y, %)

Source: Survey Estimate

Note: All banks refer to Scheduled Commercial Banks

Box 2. Banking Regulation (Amendment) Ordinance, 2017

The Banking Regulation (Amendment) Ordinance, 2017 was promulgated on May 4, 2017. It inserts two new Sections (viz. 35AA and 35AB) after Section 35A of the Banking Regulation Act, 1949 enabling the Union Government to authorize the Reserve Bank of India (RBI) to direct banking companies to resolve specific stressed assets by initiating insolvency resolution process, where required. The RBI has also been empowered to issue other directions for resolution, and appoint or approve for appointment, authorities or committees to advise banking companies for stressed asset resolution.

Soon after the promulgation of the Ordinance, the Reserve Bank issued a directive bringing the following changes to the existing regulations on dealing with stressed assets.

- It was clarified that a corrective action plan could include flexible restructuring, Strategic Debt Restructure Scheme (SDR) and Scheme for Sustainable Structuring of Stressed Assets (S4A).
- With a view to facilitating decision making in the Joint Lenders Forum (JLF), consent required for approval of a proposal was changed to 60 percent by value instead of 75 percent earlier, while keeping that by number at 50 percent.
- Banks who were in the minority on the proposal approved by the JLF are required to either exit by complying with the substitution rules within the stipulated time or adhere to the decision of the JLF
- Participating banks have been mandated to implement the decision of JLF without any additional conditionality.
- The Boards of banks were advised to empower their executives to implement JLF decisions without further reference to them

The ordinance will enable RBI to take a targeted approach and deal with non-performing assets quickly. An empowered Oversight Committee will be able to bypass three factors that have so far slowed the resolution process. One, stop 'free-riding' by lenders who didn't participate. Two, compliance after an agreement has been sealed. Three, certify the process in order to allay fears of future investigations.

The Government action will have a direct impact on effective resolution of stressed assets, particularly in consortium or multiple banking arrangements, as the RBI will be empowered to intervene in specific cases of resolution of non-performing assets, to bring them to a definite conclusion. On 13th June, 2017, the RBI identified 12 large loan defaulters where the Insolvency and Bankruptcy Code (IBC) would be initiated. Also, the RBI expanded the Oversight Committee to include three new members in a bid to speed up bad loans resolution. The Committee now consists of five members.

Box 3. Insolvency and Bankruptcy Code, 2016

The Insolvency and Bankruptcy Code, 2016 (Code) was enacted on May 28, 2016. The Code provides a comprehensive, modern and robust insolvency and bankruptcy regime, at par with global standards and even better in some aspects. The unique features of this regime are: (i) a comprehensive regime dealing with all aspects of insolvency and bankruptcy of all kinds of persons. (ii) separating commercial aspects of insolvency and bankruptcy proceedings from judicial aspects and empowered stakeholders and adjudicating authorities to decide the matters within their domain expeditiously. (iii) moving away from erosion of net worth to a more objective default in payment for initiation of the insolvency process. (iv) moving away from the ‘debtor-in-possession’ regime to a ‘creditors-in-control’ regime where creditors decide matters with the assistance of insolvency professionals. (v) providing collective mechanism to resolve insolvency rather than recovery of loan by a creditor. (vi) achieving insolvency resolution in a time bound manner and empowers the stakeholders to complete transactions in time.

A key innovation of the Code is four pillars of institutional infrastructure. The first pillar is a class of regulated persons, the “Insolvency Professionals”, who assist the stakeholders in conduct of insolvency and bankruptcy process. The second pillar is a new industry of ‘Information Utilities’ who store and make available authentic information required to carry out various transactions under the Code efficiently and expeditiously. The third pillar is the adjudicating authorities, namely, NCLT and DRT for corporates and individuals respectively and their appellate bodies, namely, NCLAT and DRAT. The fourth pillar is a regulator, namely, “The Insolvency and Bankruptcy Board of India” which has regulatory over-sight over the Insolvency Professionals, Insolvency Professional Agencies and Information Utilities and writes regulations to govern various transactions under the Code.

The Government moved at a quick pace to implement the Code. It established the Tribunals, National Company Law Tribunal (NCLT) and National Company Law Appellate Tribunal (NCLAT), on 1st June 2016 and the Insolvency and Bankruptcy Board of India (IBBI) on 1st October 2016. With concerted efforts of all concerned, most of the regulatory framework and ecosystem related to corporate insolvency were rolled out by 31st March 2017.

About 2050 applications have been filed before NCLT so far, of which, 112 applications have been admitted and another 146 have been rejected or withdrawn. The default underlying admitted applications range from a few lakh of rupees to a few thousands of crores. The announcement of 12 large defaulters by the RBI will expand this sharply.

Table 1. Month-wise Applications filed

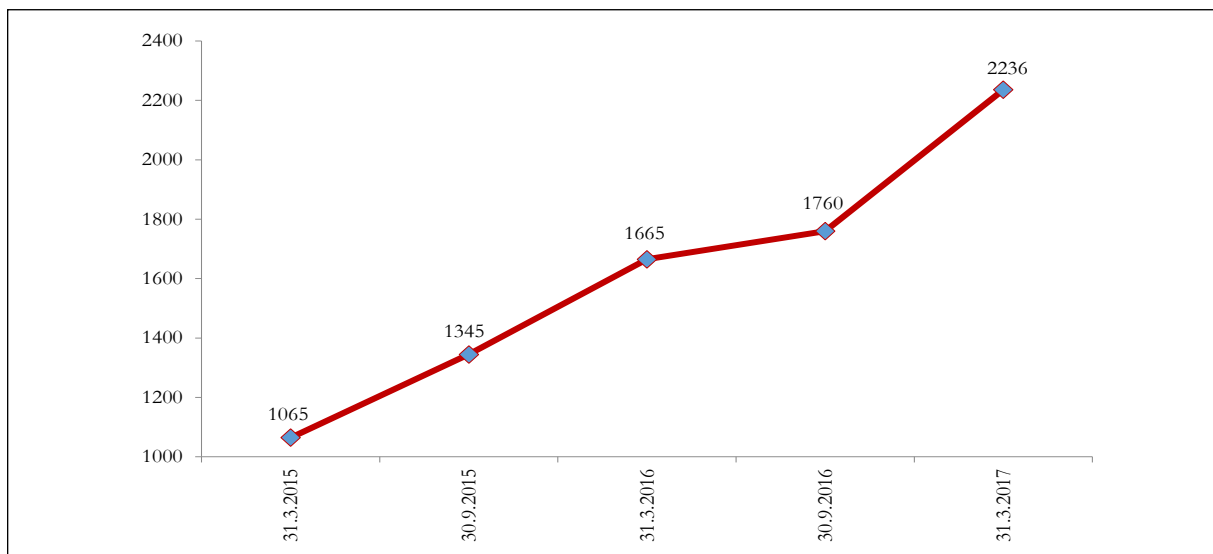
| | December 2016 | January 2017 | February 2017 | March 2017 | April 2017 | May 2017 | June 2017 | Total |
|---------|------------------|-----------------|------------------|---------------|---------------|-------------|--------------|-------|
| Numbers | 1 | 9 | 42 | 106 | 558 | 462 | 872 | 2050 |

Note: Data sourced from NCLT website as on June 30, 2017.

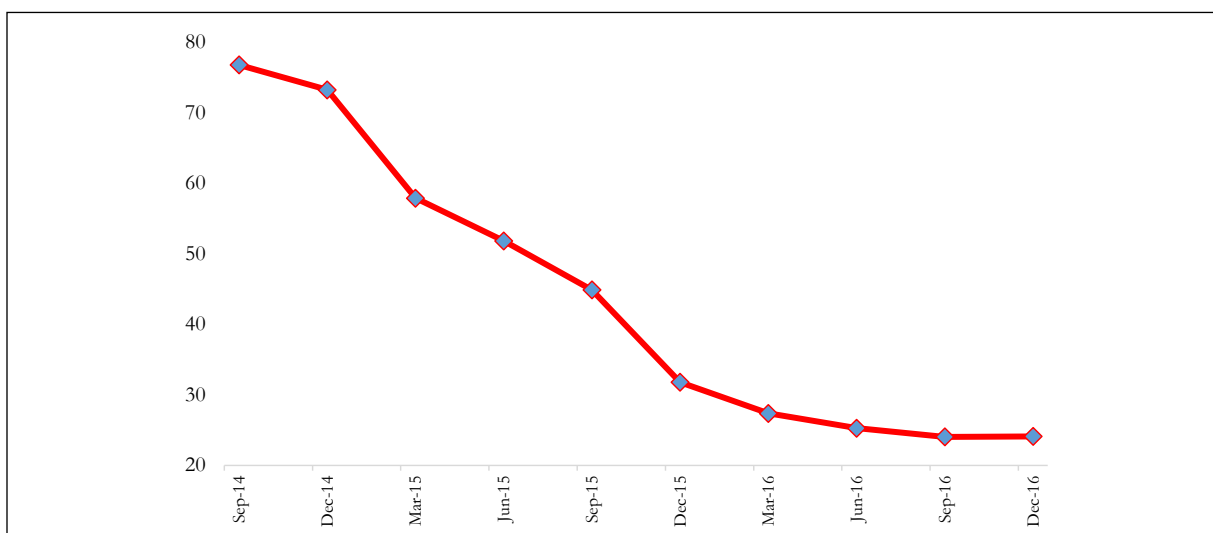
accounts have been opened under PMJDY, raising the total to 28.76 crore as on 31.5.2017. PMJDY’s contribution to enhanced banking access is clear.

3.13 Gender has been an issue in financial inclusion. As of March 2014, women constituted about 28 per cent of all savings accounts, with 33.69 crore accounts. As of March 2017, according to data from top 40 banks and RRBs, women’s share has risen to about 40 per cent. This includes 14.49 crore accounts opened by women under PMJDY, out of a total of 43.65 crore women’s accounts. This represents a sizeable and rapid growth in financial inclusion of women.

3.14 Effective financial inclusion should be reflected not only in terms of access but in the use of financial services. In terms of deposit mobilisation, the average balance in accounts opened under PMJDY has registered steady growth, from ₹1,065 per account in March 2015 to ₹2,236 in March 2017 (Figure 8). Also, zero balance accounts under PMJDY has declined consistently from nearly 58 per cent in March 2015 to around 24 per cent as of December 2016. Aadhaar-enabled payments, the principal mode of transactions at Banking Correspondent (BC) outlets, have also witnessed a rapid growth, growing from 0.3 crore per month in August

Figure 8. Average deposit balance in BSBD accounts opened under PMJDY (in ₹)

Source: Scheduled Commercial Banks

Figure 9. Zero Balance Accounts Under PMJDY (%)

Source: PMJDY website

2015 to 2.3 crore in August 2016 and 6.8 crore in May 2017. As a result of expansion in and strengthening of interoperability, the share of transactions performed by customers of one bank at the BC outlet of another bank (“off-us” transactions) has also risen, growing steadily from less than 1 per cent of all transactions at BC outlets till April 2016 to nearly 17 per cent in May 2017. This has happened even as the number of BCs has remained steady. While the number of

rural accounts opened under PMJDY has grown from 8.0 crore in August 2015 to 14.8 crore in August 2016 and 17.2 crore in May 2017, the growth in transactions is at a rate much faster than the rate of growth of the rural account base. Thus, use of accounts in terms of both deposits and transactions through BC outlets has registered impressive growth, which has positive consequences for the viability of and the continued growth of the BC network.

3.15 Besides the personal accident insurance cover to the holders of accounts opened under PMJDY through the insurance in-built into their associated debit cards, 10.02 crore accountholders have insured themselves for personal accident cover under Pradhan Mantri Suraksha Bima Yojana and 3.11 crore for life insurance cover under Pradhan Mantri Jeevan Jyoti Bima Yojana. As a result, the number of persons insured for personal accidents and life has increased from about 32.31 crore in March 2015 to about 45.44 crore in May 2017. This has been achieved while substantially lowering the premium amount, to make it affordable to large sections of population.

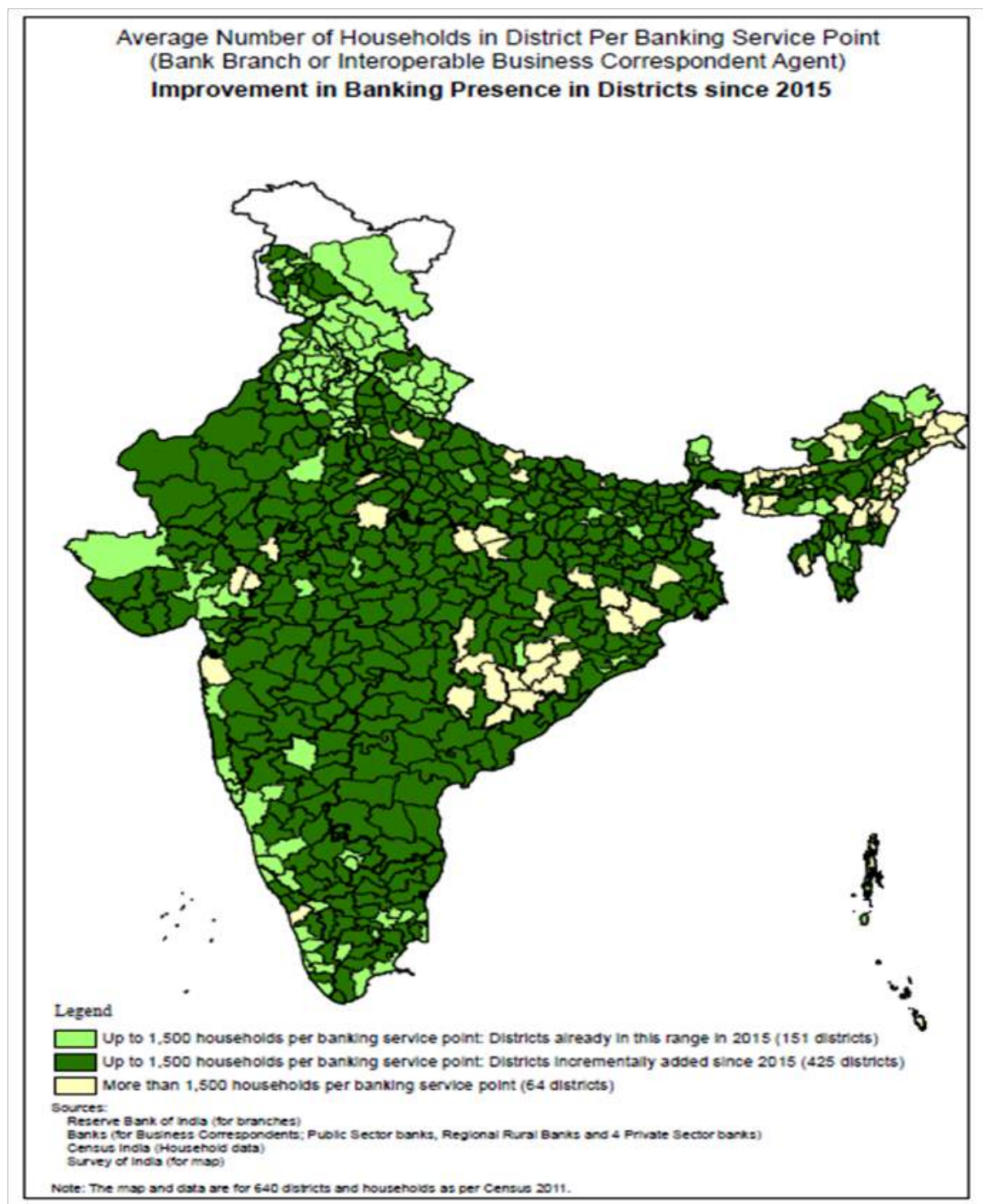
3.16 Among several strategic choices and innovations that have enabled these outcomes, three main enabling factors are noteworthy. The first enabler is the massive expansion made in effective banking presence in rural areas. Branches and interoperable BC outlets are the banking service points relevant for this. The number of such service points of Scheduled Commercial Banks, which was 1.16 lakh in March 2014 more than doubled to 2.62 lakh service points in March 2017. The number of districts having an average of up to 1,500 households per banking service point has risen from 151 districts in January 2015 to 576 districts in March 2017 (see map below). The second key enabler has been the linking of accounts with the customer's Aadhaar number, on user consent basis. About two of every three active savings accounts have been seeded with Aadhaar number, which has created the large user base required both for customer access for Aadhaar-enabled transactions and for BC viability. The third key enabler, for financial inclusion in insurance, is the innovation of leveraging the expanded banking network for insurance purposes and lowering premiums while expanding coverage. This innovation

has increased the reach of micro insurance in rural areas in a major way.

Non-Banking Financial Sector

3.17 The consolidated balance sheet size of the Non-Banking Financial Sector (excluding government companies) increased by 14.5 per cent in 2016-17 to ₹12,56,388 crore compared to asset size growth of 16.87 per cent during 2015-16. The number of NBFCs stood at 11,522 as on March 31, 2017 as against 11,586 as on March 31, 2016. Capital and reserves (26.1 percent of total liabilities), bank borrowings (23.1 percent), debentures (21.1 per cent) and commercial paper (9.5 percent) are the major source of funding for NBFCs as on March 31, 2017. Loans & advances and investments formed 70 percent and 17 percent respectively of the total assets of the sector as on March 31, 2017. Loans and Advances of NBFCs grew by 16.4 percent to ₹8,81,651 crores during 2016-17 as against 12.5 percent during 2015-16. Credit to industry, services and retail sectors formed 42.2 percent, 30.8 percent and 21.5 percent of the total credit respectively as on March 31, 2017.

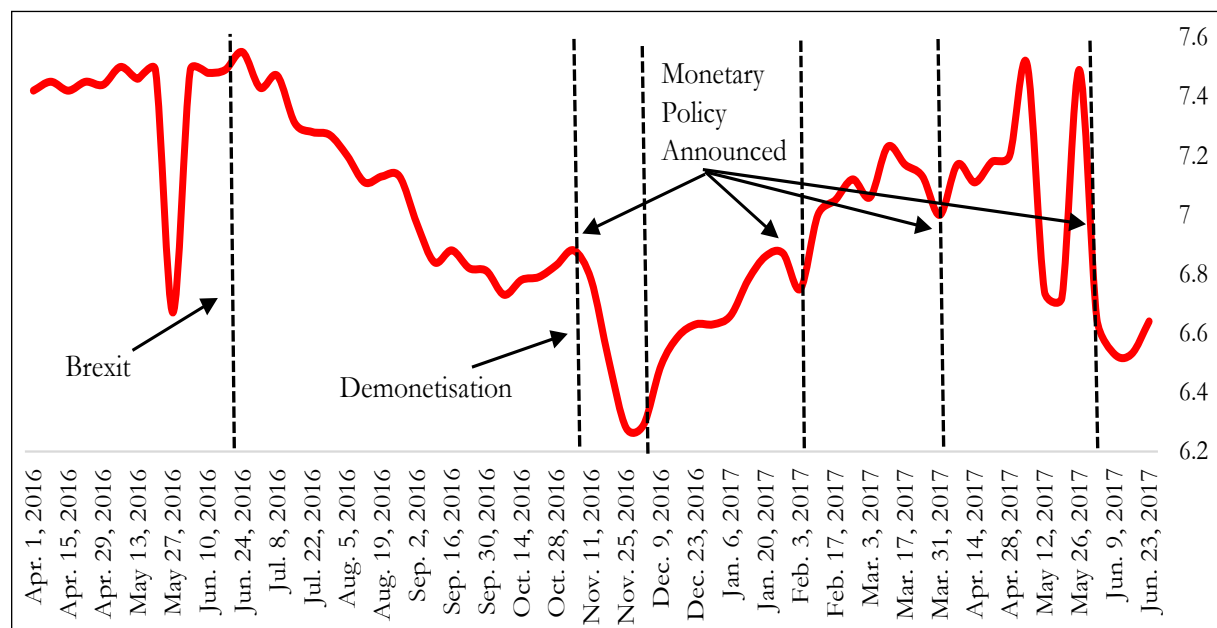
3.18 The gross NPA ratio (gross NPA to gross advances) of the NBFC sector increased to 4.4 per cent in March 2017 from its level of 4.2 per cent in March 2016. The Net NPA (net NPA to net advances) ratio was 2.2 per cent for March 2017 as well as March 2016. The average Capital to Risk Weighted Assets Ratio (CRAR) of the NBFC sector declined to 22.5 per cent in March 31, 2017 (24.3 per cent a year ago). The minimum requirement of CRAR for individual NBFCs is 15 per cent. Return on Assets (RoA) and Return on Equity (RoE) were 6.8 per cent and 1.8 per cent respectively during 2016-17 (as compared to 7.9 per cent and 2.1 per cent during 2015-16).



DEVELOPMENTS IN GOVERNMENT SECURITIES MARKET

3.19 The 10-year government securities (g-sec) yield generally softened during the pre-demonetisation period on the back of positive sentiments generated by reduction

in policy rate, reduction in minimum daily CRR maintenance from 95 per cent to 90 per cent of the requirement, and change in the liquidity management framework, from deficit to a position close to neutrality in the monetary policy statement of April 5, 2016. The g-sec yield exhibited slight

Figure 10. 10-Year G-Sec Yield (%)

Source: RBI

hardening bias in the run up to the Brexit referendum on June 23, 2016. However, the yield softened significantly, tracking the fall in global yields post the Brexit referendum results. A relatively stable domestic currency market, expectations of easing measures by major central banks and increased likelihood of delay in rate hike by the Federal Reserve kept the yield lower.

3.20 Post-demonetisation, there was a sharp decline in the yield. Thereafter, the yield, rose initially due to a combination of remonetisation and markets not anticipating policies. Since February 2017, there has been unusual volatility in g-sec rates, reflecting both policy surprises as well as large capital inflows. The g-sec yield softened sharply post June 2017 monetary policy statement, owing to significant decline in the inflation forecast of the RBI and future expectations of a rate cut.

DEVELOPMENTS IN CAPITAL MARKET

Primary Market

3.21 The year 2016-17 witnessed a steady

increase in resource mobilisation in the primary market segment. During the year, 134 companies accessed capital market and raised ₹62,079 crore compared to ₹57,866 crore raised through 107 issues during 2015-16, showing 7.3 per cent increase over the year (Table 3). Resources mobilised by Mutual funds also increased substantially in 2016-17 as compared to the previous year. Total Asset under Management (AUM) increased to ₹17.54 lakh crore from ₹12.32 lakh crore during 2015-16 (Table 4).

3.22 Resource mobilisation through issuance of corporate bonds (public issuance and private placement) rose rapidly during 2016-17 as compared to previous year, with an amount of ₹6.70 lakh crore raised through 16 public issuances and 3377 private placements. Private placements continue to dominate the corporate bond market. However, it must be noted that resource mobilized through public and private placement of corporate bonds is not a substitute for bank credit. The maturity period of bonds are much shorter compared to bank credit and hence one need

Table 3. Primary Market Resource mobilisation through Public and Rights Issues
(₹ crore)

| Issue Type | 2014-15 | | 2015-16 | | 2016-17 | | 2017-18\$ | |
|------------------------|---------|--------|---------|--------|---------|--------|-----------|--------|
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount |
| Public issue (Equity) | 46 | 3,311 | 74 | 14,815 | 106 | 29,105 | 16 | 2,344 |
| Rights Issues (Equity) | 18 | 6,750 | 13 | 9,239 | 12 | 3,415 | 2 | 368 |
| Total Equity | 64 | 10,061 | 87 | 24,054 | 118 | 32,520 | 18 | 2,712 |
| Public Issue (Debt) | 25 | 9,713 | 20 | 33,812 | 16 | 29,559 | 1 | 1,968 |
| Total | 89 | 19,774 | 107 | 57,866 | 134 | 62,079 | 19 | 4,680 |

Note: Data for 2017-18 provisional. \$ As on May 31, 2017 **Source:** SEBI

Table 4. Resource Mobilization by Mutual Funds

| | 2014-15 | | 2015-16 | | 2016-17 | | 2017-18\$ (₹ in crore) | |
|--------|----------|-----------|----------|-----------|----------|-----------|---------------------------|-----------|
| | Net flow | AUM | Net flow | AUM | Net flow | AUM | Net flow | AUM |
| Debt | 22,556 | 6,94,127 | 33,008 | 7,82,900 | 2,13,154 | 10,74,652 | 20,167 | 5,83,558 |
| Equity | 71,030 | 3,45,139 | 74,026 | 3,86,403 | 70,367 | 5,43,541 | 74,195 | 11,63,671 |
| Others | 9,702 | 43,491 | 27,147 | 63,521 | 59,527 | 1,36,426 | 15,630 | 1,56,747 |
| Total | 1,03,288 | 10,82,757 | 1,34,181 | 12,32,824 | 3,43,048 | 17,54,619 | 1,09,992 | 19,03,975 |

\$ As on May 31, 2017 **Source:** SEBI

Table 5. Funds Mobilized through Issuance of Corporate Bonds in India
(Listed Securities)

| Financial Year | No. of Public Issues | Amount Raised through Public Issue (₹ Crore) | No. of Pvt. Placement | Amount Raised through Private Placement (₹ Crore) | Total Amount Raised through Public Issue and Pvt. Placement (₹ Crore) |
|----------------|----------------------|---|-----------------------|--|--|
| 2014-15 | 25 | 9,713 | 2,611 | 4,04,136 | 4,13,849 |
| 2015-16 | 20 | 33,811 | 2,975 | 4,58,073 | 4,91,884 |
| 2016-17 | 16 | 29,559 | 3,377 | 6,40,716 | 6,70,275 |
| 2017-18\$ | 1 | 1,969 | 602 | 97,208 | 99,177 |

Note: Data for 2017-18 provisional.

\$ As on May 31, 2017 **Source:** SEBI

to be cautious while comparing such resource mobilization with bank credit.

Secondary market

3.23 Indian stock markets recorded a robust

growth in 2016-17, with Sensex up by 16.9 percent and Nifty higher by 18.6 per cent as compared to losses registered in the previous year 2015-16. Except for South African stock market, 2016-17 was a year of positive

Box 4. Disintermediation in Credit and Deposits

Banks' share in credit intermediation witnessed a considerable change in 2016-17. The banks' share in incremental credit intermediation to private non-financial sector (PNFS) which was around 60 per cent in 2014-15 and 2015-16 declined to 45 per cent in 2016-17. In terms of resource mobilization as well we see a similar trend. Net flow of resources in mutual funds (MF) as a share of net time deposits (TD) flow in banks jumped sharply from 18 per cent in 2015-16 to 33 per cent in 2016-17. Note that annual net flows are calculated as change in total outstanding (for both lending and resource mobilization) for banks and non-banks between two financial years.

The greater role of non-banking sector in resource mobilization, and hence credit intermediation, helped commercial sector, albeit partially, to make up for historically low bank credit outstanding growth. Thus, problems in the banking sector are leading to greater reliance on non-banks for borrowers as well as savers.

Figure 1. Share in Net Credit Flow to PNFS (%)

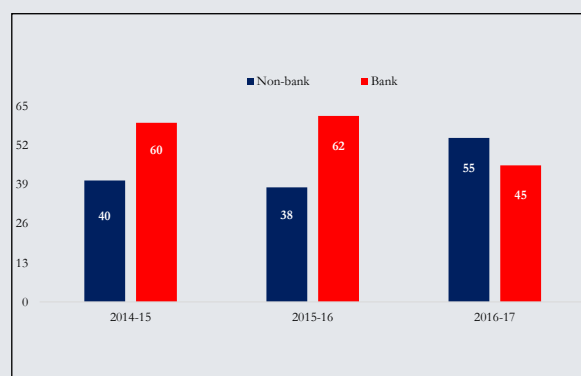
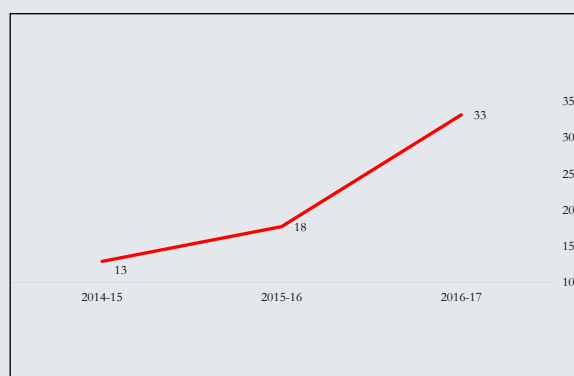


Figure 2. Net Flow in MF as % of Net TD Flow



Source: Survey Estimates based on RBI, SEBI and BIS data.

growth for equity world over, and gains in Indian markets were comparable to the gains in developed economies.

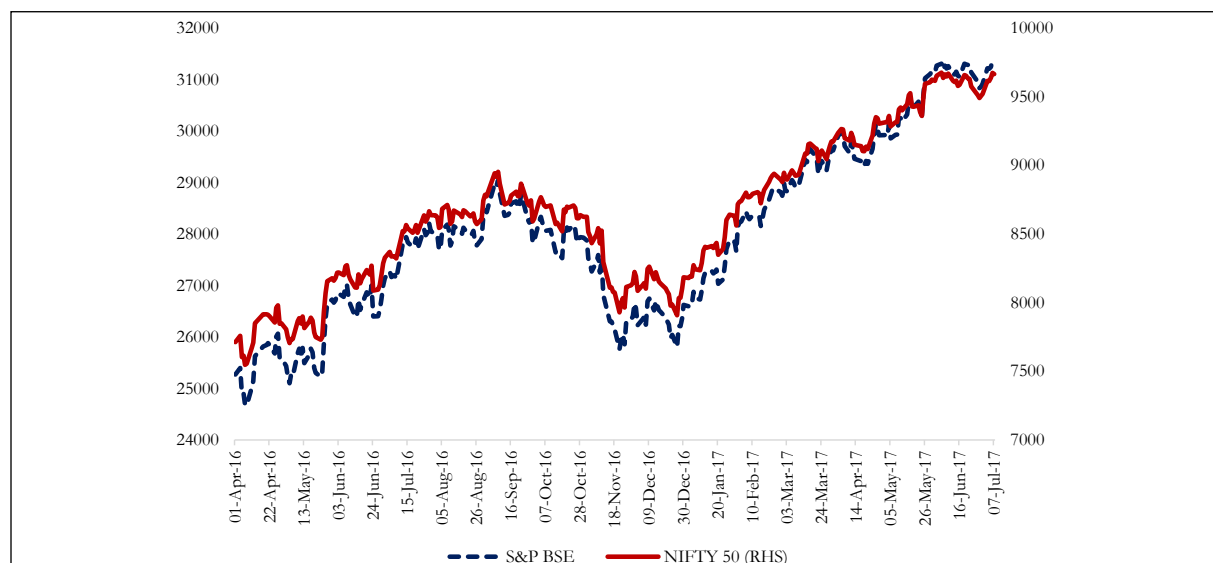
3.24 The steady upward momentum in the market was fuelled by global and domestic liquidity conditions. During the last quarter of 2016-17, Foreign Institutional Investors (FIIs) pumped in ₹68,627 crores (as against an outflow of ₹23,079 crores during the entire calendar year of 2016), while Domestic Institutional Investors (DII) brought in ₹1288 crore, on the back of strong and sustained subscription to mutual fund / insurance schemes. The total assets under management by Mutual funds rose by 42 percent in 2016-17 over the previous year. The other factors which raised market sentiments during the year included Government's commitment to fiscal consolidation roadmap, continuity and certainty of reforms,

commitment to resolve bank NPAs, and certainty on implementation of GST etc.

INSURANCE AND PENSION SECTOR

3.25 Apart from protecting against mortality, property and casualty risks and providing a safety net for individuals and enterprises in urban and rural areas, the insurance sector encourages savings and provides long-term funds for infrastructure development and other long gestation projects of the Nation. The development of the insurance sector in India is necessary to support its continued economic transformation.

3.26 The potential and performance of the insurance sector should be assessed on the basis of two parameters, viz., Insurance Penetration and Insurance Density. Insurance penetration is defined as the ratio of premium underwritten in a given

Figure 11. Indian Benchmark Stock Indices (Sensex and Nifty)

Sources: Sensex, NIFTY

Table 6. Performance of Major Markets in the World

| Index | 2014-15 | 2015-16 | 2016-17 | Performance in | |
|------------------------------|--------------|--------------|--------------|-----------------------------|----------------|
| | (31.03.2015) | (31.03.2016) | (31.03.2017) | (%, Local Currency Unit) | (%, Dollar) |
| Indian Markets | | | | | |
| SENSEX, India | 27957 | 25342 | 29621 | 16.9 | 19.1 |
| NIFTY, India | 8491 | 7738 | 9174 | 18.6 | 20.8 |
| Emerging Markets | | | | | |
| SHANGHAI COMPOSITE, China | 3748 | 3004 | 3223 | 7.3 | 0.8 |
| RTSI\$, Russia | 880 | 877 | 1114 | 27.1 | 43.7 |
| Indice BOVESPA, Brazil | 51150 | 50055 | 64984 | 29.8 | 44.7 |
| JCI, Indonesia | 5519 | 4845 | 5568 | 14.9 | 15.2 |
| JSE40, South Africa | 46017 | 46140 | 45167 | -2.1 | 11.6 |
| KOSPI, South Korea | 2041 | 1996 | 2160 | 8.2 | 12.4 |
| TAIWAN TAIEX, Taiwan | 9586 | 8745 | 9812 | 12.2 | 17.7 |
| Developed Markets | | | | | |
| S&P 500, US | 2068 | 2060 | 2363 | 14.7 | 14.7 |
| DOW JONES, US | 17776 | 17685 | 20663 | 16.8 | 16.8 |
| DAX, Germany | 11966 | 9966 | 12313 | 23.6 | 18.1 |
| FTSE 100, UK | 6773 | 6175 | 7323 | 18.6 | 2.9 |
| CAC-40, France | 5034 | 4385 | 5123 | 16.8 | 11.3 |
| NIKKEI 225, Japan | 19207 | 16759 | 18909 | 12.8 | 13.9 |
| HANG SENG, Hong Kong | 24901 | 20777 | 24112 | 16.1 | 15.9 |
| Straits Times, Singapore | 3447.01 | 2840.9 | 3175.11 | 11.8 | 8.9 |

Sources: Bloomberg, Survey Estimate

year to the gross domestic product (GDP). Insurance density is defined as the ratio of premium underwritten in a given year to the total population (measured in US\$ for convenience of international comparison).

3.27 The insurance penetration was 2.32 (Life 1.77 and General (Non-life) 0.55) in the year 2000 when the sector was opened up for private and has increased to 3.44 in 2015 (Life 2.72 and General 0.72). Insurance Penetration in some of the emerging economies in Asia, i.e., Malaysia, Thailand and China during the same year i.e. 2015 was 5.81, 5.5 and 3.6 respectively. The insurance density in India was US\$9.9 in 2000 which has increased to US\$54.7 in 2015 (Life 43.2 and General 11.5). The comparative figures for Malaysia, Thailand and China during the same period i.e. 2015 were US\$472, US\$319 and US\$281 respectively.

3.28 During the fiscal 2016-17, the Gross Direct Premium (GDP) of General Insurers (within India) crossed ₹1,27,631 crores (as per the provisional figures submitted by the insurers), registering 32 per cent growth (highest ever since 2000-01). Crop insurance, motor sales, health insurance etc. helped the industry report this growth. Life insurance

industry registered a growth of 26.2 per cent in the first year premium as at the end of March, 2017 compared to the growth of 22.3 per cent of previous year with a first year premium underwritten of ₹1,75,022.5 crore compared to ₹1,38,657.3 crores in the previous year.

3.29 National Pension System (NPS) is a defined contribution-based pension scheme launched by the Government of India with the objectives of providing old age income, market-based returns over the long run and extending old age income security coverage to all citizens. The efforts of the government are to widen the reach of the scheme beyond employees who are within the government fold.

3.30 Till 31st March 2017, a total of 154.4 lakh members/subscribers, inclusive of the Atal Pension Yojana (APY), have been enrolled under the NPS. Assets under management (AUM), which includes returns on the corpus under the NPS, have witnessed an increase of 47 per cent from ₹1,18,810 crores on 31 March 2016 to ₹1,74,561 crore on 31 March 2017. The APY has a total of about 48 lakh subscribers and a corpus of ₹1,751 crore as on 31 March 2017.

Prices and Inflation

The economy has undergone a transition - possibly structural and permanent - from high to low inflation in the last three years. CPI inflation declined during 2016-17 with broad based decline in all commodity groups. Food inflation, which was the main driver of inflation in the past, declined significantly during the year because of improvements in supply of pulses and vegetables on the back of a normal monsoon. Core inflation-indicative of underlying trends -- too declined in the last few months. There has been convergence between CPI and WPI inflation in the last few months. Similarly, there has been narrowing of gap between rural and urban inflation. Many States/ UTs witnessed decline in CPI inflation in 2016-17 as compared to the previous year.

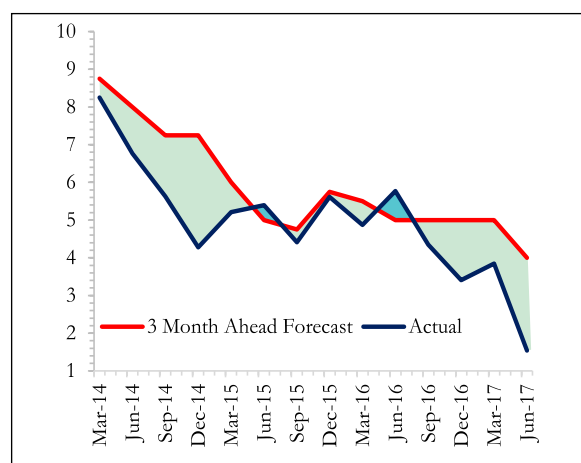
I. PARADIGM SHIFT TO LOW INFLATION?

4.1 Is India undergoing a structural shift in the inflationary process toward low inflation?

4.2 Research indicates that consumer price inflation has undershot professional forecasts fairly consistently over the last 5

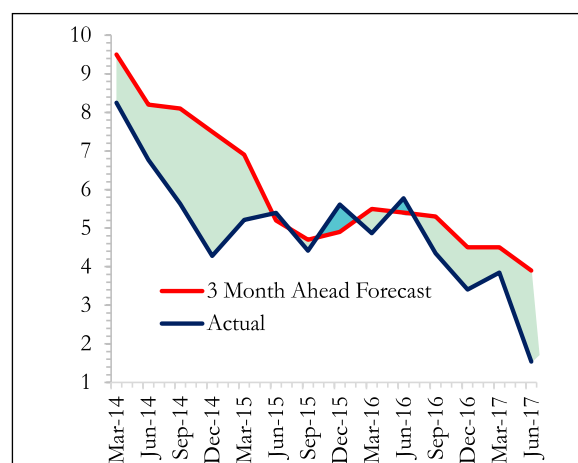
years or so, globally as well as in the advance economies. In the Indian context, evidence seems to be pointing to same conclusion-- though the errors have been on both side over longer time horizon. More recently such shifts seem to have been missed (Figure 1 and Figure 2, respectively)^{1a}. For example,

Figure 1. CPI Inflation - RBI Forecast and Actual



Source: RBI and Survey Calculations

Figure 2. CPI Inflation -Professional Forecast and Actual

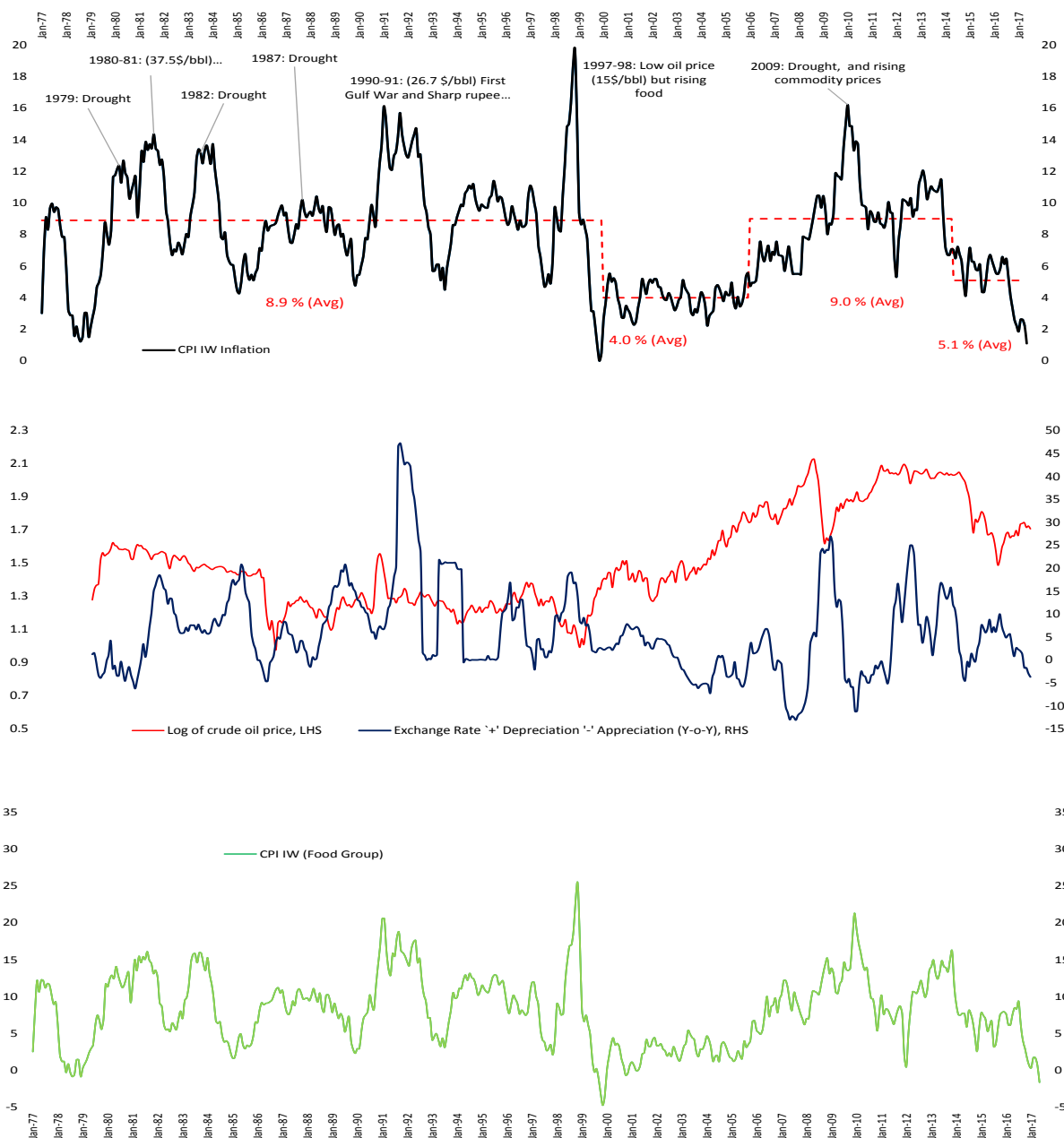


^{1a} In Figure 1, the inflation forecast is estimated as the mid-point of the confidence bands in the fan charts of respective monetary policy statements.

in the last 14 quarters, inflation has been overestimated by more than 100 basis points in six quarters (three in 2014 and three in the most recent period) with an average error of 180 basis points (and that too for a

very short-term forecast, just three months ahead) (Figure 1). It must also be noted that during this period the forecast was within 50 bps of the outcome in 4 out of 14 quarters (March 2014, June, September and

Figure 3. Long term Inflation^{1b} (1977-2017)



Source: Labour Bureau, Reserve Bank of India and World Bank.

^{1b} Inflation based on Consumer Price index for Industrial Worker (CPI-IW) released by Labour Bureau is used since it is available for longer period instead of inflation based on new series of Consumer Price Index – Combined (CPI-C) released by Central Statistics Office (CSO). CPI –IW inflation figures for base year 1960 (January, 1977 to September, 1988), base year 1982 (October, 1988 to December, 2005) and base year 2001 (January, 2006 to May 2017) is used. CPI-IW and CPI-C based inflation moves very closely with a correlation coefficient of 0.9383 (for period January, 2012 to April, 2017). Crude oil is Crude Brent (global basket). Exchange rate in rupee per US dollar.

December 2015) and within 25 bps in 1 out of 14 quarters (December 2015). The record of professional forecasters is similar (Figure 2). Actual lesser inflation than forecast could well reflect the extraordinary developments such as the durable collapse of international oil prices.

4.3 The question going forward is whether there is a paradigm shift in inflation and what it implies for monetary management.

4.4 Consider first a long term perspective on inflation in India shown in Figure 3. Over the last four decades (beginning 1977), there have been broadly four phases: high inflation, averaging 9 percent, for about 23 years; low inflation of about 4 percent for 5 years between 2000 and 2005; a resurgence of inflation back to about 9 percent during the period 2006-2014; and now a new phase of relatively low, possibly very low, inflation^{2a}.

4.5 Figure 3 helps identify understand the drivers of inflation. Broadly, high inflation, and especially inflation peaks, coincide with surges in commodity prices, especially for oil and food; in some cases, they are caused by one-off factors such as sharp exchange rate depreciation.

4.6 So, if there are structural changes in the oil market and in domestic agriculture, the inflationary process could also experience structural shifts. As elaborated below, there are reasons to believe that both changes are underway.

Oil

4.7 It has become almost an involuntary reflex to cite geopolitics in the list of risks to oil prices, and hence to domestic inflation. But these risks may well be diminishing substantially. The oil market is very different today than a few years ago in a way that

imparts a downward bias to oil prices, or at least has capped the upside risks to oil prices.

4.8 The exploitation of shale oil and gas—courtesy of sophisticated new technologies such as hydraulic fracturing—have increased the supply of oil from non-OPEC countries, especially from North America. Moreover, this supply has two significant properties. It is profitable at prices close to \$50 per barrel and supply responds more quickly to price changes because of much lower capital costs than for conventional oil. As a result, OPEC has less control over oil prices than it used to. Figure 4 plots OPEC's swing capacity and oil prices. Before 2014, the two moved closely together but since then, the two have completely decoupled.

4.9 Figure 5 plots the worldwide count of rigs and oil prices. Here too the relationship is striking, with rig capacity declining in response to lower prices and quickly expanding as oil prices rise^{2b}. This accordion-like quality of shale combined with estimates that viability is achieved close to \$50 per barrel means that oil prices are broadly capped.

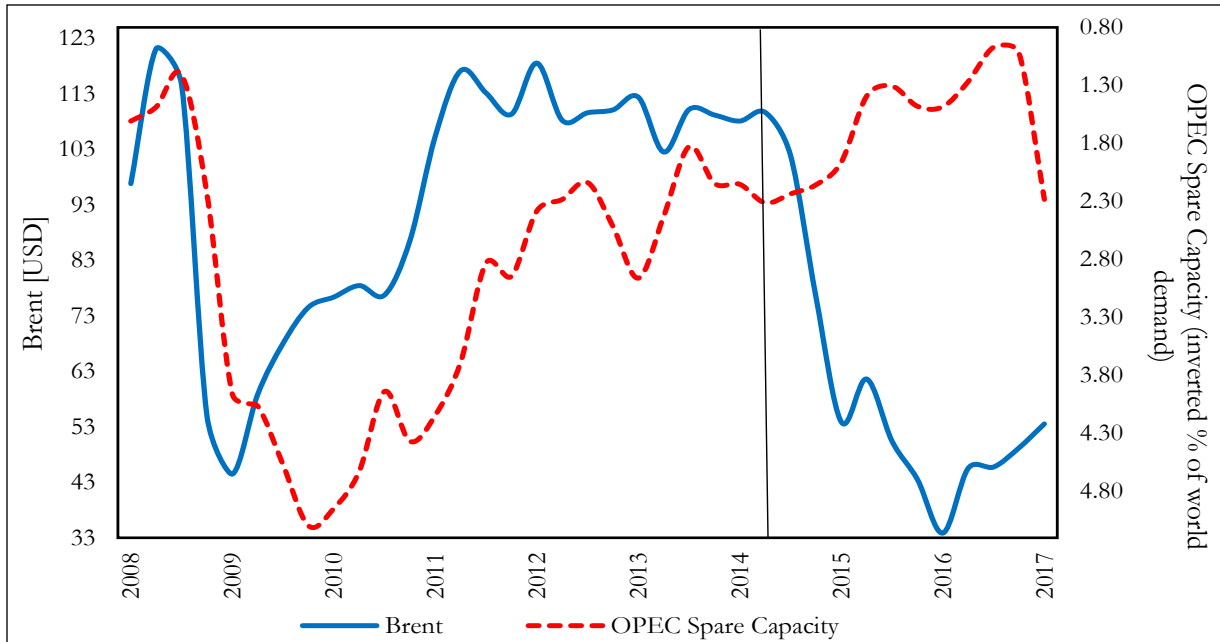
4.10 Going forward, therefore, it is not that prices will not be volatile nor is it the case that they will never rise above the \$50 “ceiling.” Rather, shale technology will ensure that prices cannot remain above this ceiling for any prolonged period of time because of rapid supply responses which will take the prices toward the marginal cost of production of shale. The dramatic decline in the cost and prices of renewables will only re-inforce this tendency.

4.11 In sum, geopolitical risks are simply not as risky as earlier. Technology has rendered India less susceptible to the vicissitudes of geo-economics (OPEC) and geo-politics

^{2a} Headline CPI inflation is now below 2 percent but even refined core (which strips out all the volatile food and fuel components), has now gone below 4 percent. This compares very favorably with India's long-run inflation performance of close to 9 percent and with the average of refined core inflation of 6.8 percent in the CPI-New Series from January 2011 onwards.

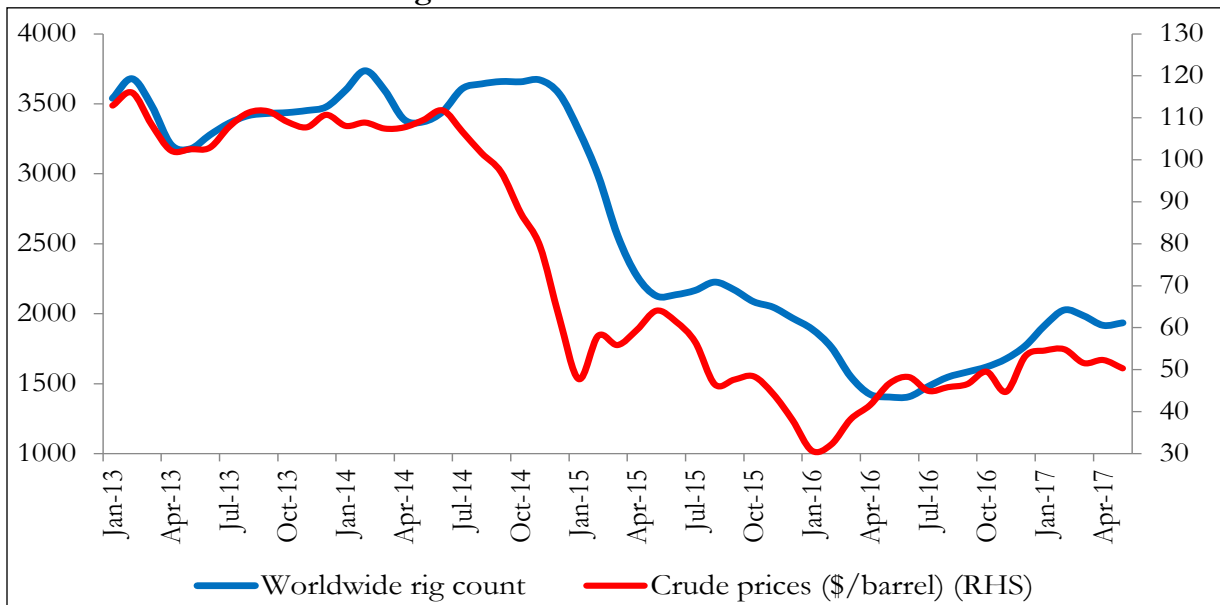
^{2b} A broadly similar relationship holds between the flow of rigs and oil prices.

Figure 4. OPEC's Fading Market Power?



Source: U.S. Energy Information Administration (USEIA).

Figure 5. The Shale “Accordion”



Source: Baker Hughes and USEIA

(Middle East). If and to the extent that changes prove permanent, the consequences for the inflationary process need to be taken into account.

II. VARIABILITY OF INFLATION ACROSS ITEM GROUPS AND STATES

4.12 Inflation based on Consumer Price

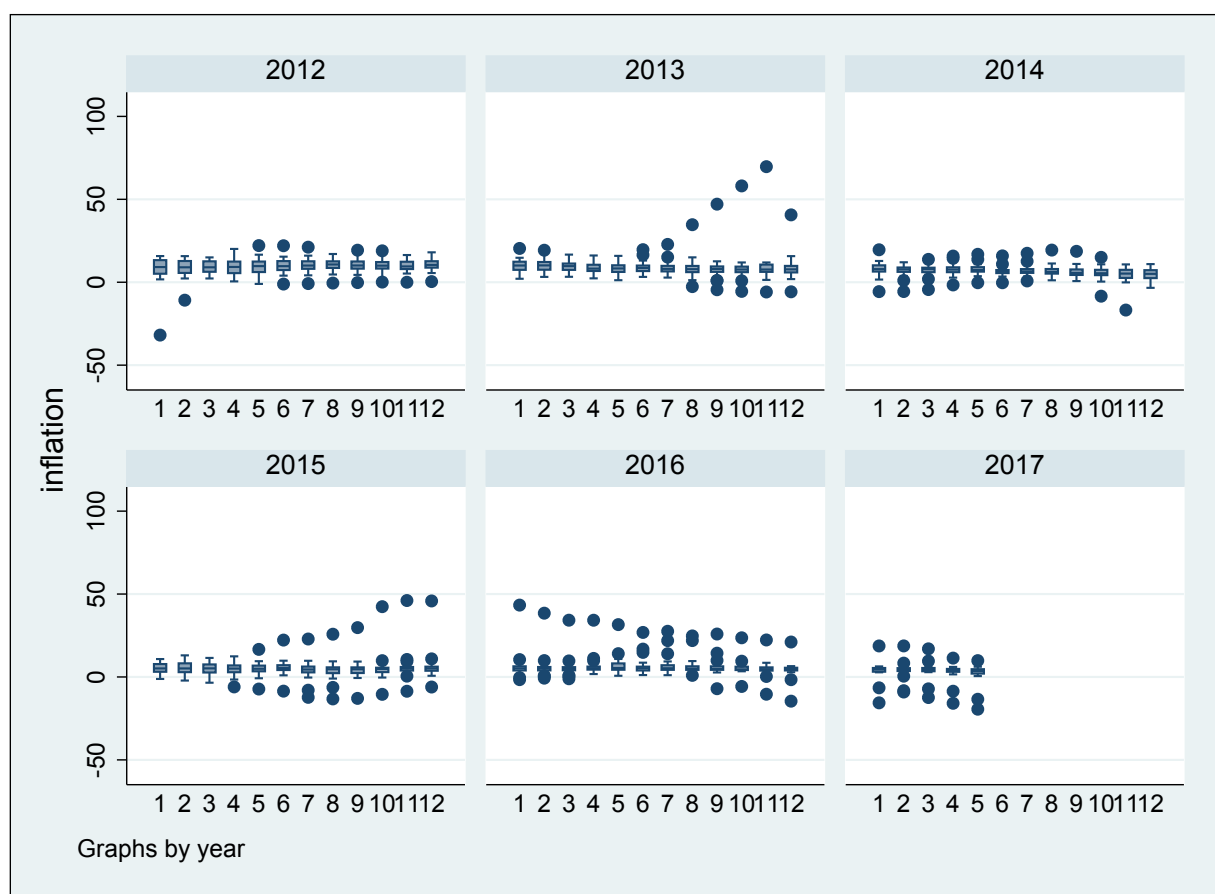
Index – Combined (CPI-C) has shown a declining trend from around 9 per cent in 2012 to around 3 per cent in 2017, except in 2013 when it increased to around 10 per cent. Figure 6 shows the variability of inflation across major item groups. Starting from mid-2013, the inflation of vegetables

has been consistently higher (reaching a high of around 70 per cent in November 2013) than the rest of the item groups for the rest of the year. Inflation of pulses started rising since May 2015 and has been higher than the rest of the item groups till mid-2016. Overall, the inflation in major item groups (Figure 6) and across major States (Figure 7) does not exhibit any definite trend during the period (2012-17); however, there has been less variability across different item groups since 2016.

III. CURRENT TRENDS IN INFLATION

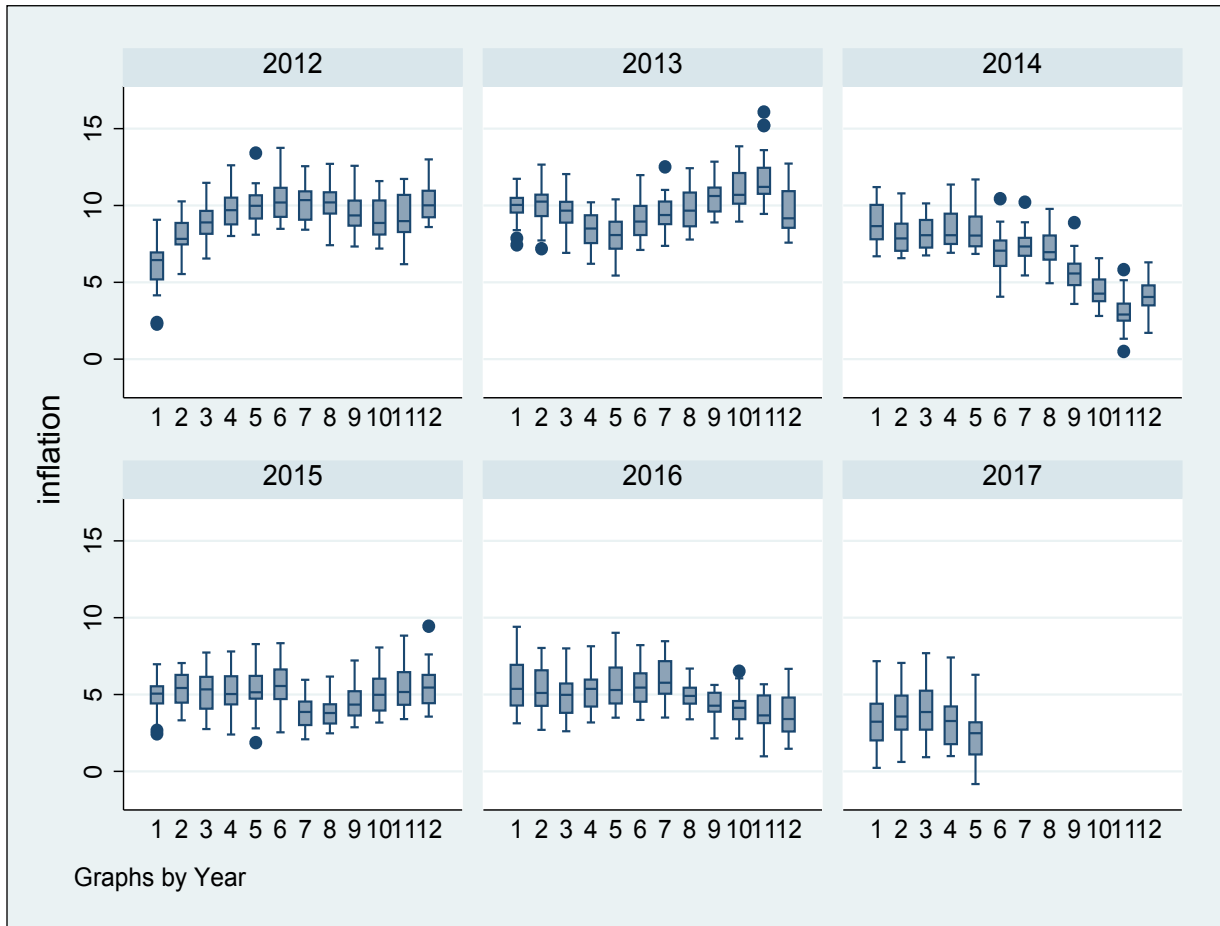
4.13 Inflation both in terms of Consumer Price Index – Combined (CPI-C) and Wholesale Price Index (WPI) has decreased in recent years with WPI registering negative growth in 2015-16. The salient aspects include secular decline in headline inflation, convergence of CPI and WPI, decline in inflation across commodity groups, notable being food, narrowing of gap between rural and urban inflation and decline in inflation across States.

Figure 6. Variability³ across major items under groups in terms of CPI- Combined



Source: CSO, Survey calculations

³ Box and whisker plots enable us to study the characteristics of a distribution. The box shows the interquartile range, that is the 75th and 25th points on the distribution. The horizontal line in the box indicates median of the distribution and the whiskers are lines running from the box to the maximum and minimum values. If a data value is very far away from the quartiles, it is sometimes designated an outside value (represented by dots in figure). The standard definition for an outside value is a number which is less than Q_1 or greater than Q_3 by more than 1.5 times the IQR ($IQR = Q_3 - Q_1$). That is, an outside value is any number less than $Q_1 - (1.5 \times IQR)$ or greater than $Q_3 + (1.5 \times IQR)$.

Figure 7. Variability of inflation across major states (2012-2017) in terms of CPI-Combined

Source: CSO, Survey calculations

4.14 First, sharp decline in inflation is observed for various price indices. Headline CPI (combined) inflation declined sharply to 4.5 per cent in 2016-17 from 4.9 per cent in 2015-16 and 5.9 per cent in 2014-15. CPI inflation has been below 4 per cent for past eight months and decreased to 1.5 per cent (lowest since the series began in 2012) in June 2017. Inflation based on CPI-Industrial workers (IW) declined to 4.1 percent in 2016-17 from 5.6 percent in the previous year. It reached a low level of 1.1 percent in May 2017. As per Wholesale Price Index (WPI) with base 2011-12, inflation increased to 1.7 percent in 2016-17 from -3.7 per cent in 2015-16 on the back of hardening of global commodity prices. A comparative picture of inflation based on the major price indices for

the last five years is given in Table 1.

4.15 Second, convergence between CPI and WPI based inflation is another notable feature. The gap between CPI and WPI based inflation which increased to a high of 10 percentage points in September 2015 has disappeared in May 2017 when both CPI and WPI based inflation stood at 2.2 per cent (Figure 8). On yearly basis, the gap between the two, after increasing from 4.7 percentage points in 2014-15 to 8.6 percentage points in 2015-16 has narrowed down to 2.8 percentage points in 2016-17 (Table 1). The convergence can be attributed primarily to firming up of prices of tradable commodities which constitute a major part of WPI basket and revision in the base year for Wholesale Price Index from 2004-05 to 2011-12.

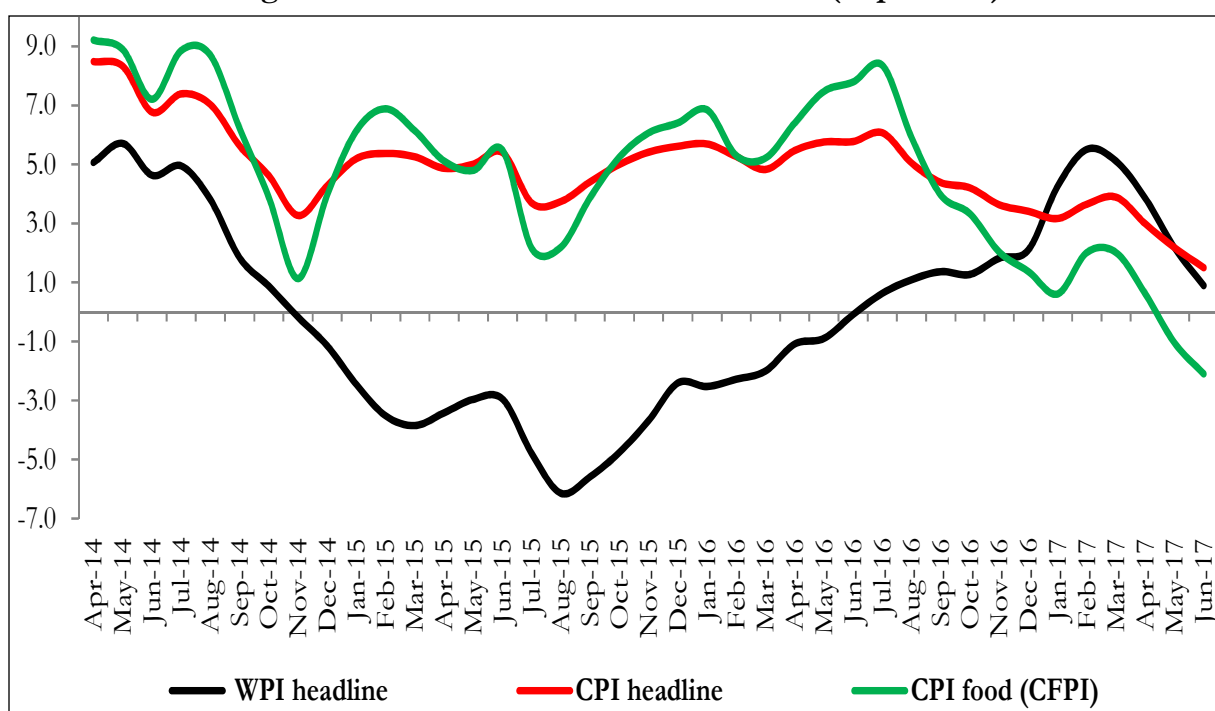
Table 1. General inflation based on different price indices (in per cent)

| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|----------------|---------|---------|---------|---------|---------|
| WPI | 6.9 | 5.2 | 1.2 | -3.7 | 1.7 |
| CPI (combined) | 10.2 | 9.5 | 5.9 | 4.9 | 4.5 |
| CPI (IW) | 10.4 | 9.7 | 6.3 | 5.6 | 4.1 |
| CPI (AL) | 10.0 | 11.6 | 6.6 | 4.4 | 4.2 |
| CPI (RL) | 10.2 | 11.5 | 6.9 | 4.6 | 4.2 |

Source: Department for Industrial Policy and Promotion (DIPP) for WPI, Central Statistics Office (CSO) for CPI (combined) and Labour Bureau for CPI (IW), CPI (AL) and CPI (RL).

Note: CPI (combined) inflation for 2012-13 and 2013-14 is based on old series 2010=100

IW stands for Industrial Workers, AL stands for Agricultural Labourers and RL stands for Rural Labourers.

Figure 8. Inflation based on WPI and CPI (in per cent)

Source: DIPP & CSO

4.16 Third, there has been broad based decline in inflation for all commodity groups, the most significant being decline in food. Food inflation based on consumer food price index (CFPI) declined to 4.2 per cent in 2016-17 from 4.9 per cent in 2015-16 and 6.4 per cent in 2014-15. High inflation in pulses, vegetables and sugar although put some pressure on CFPI in the beginning of 2016-17, favourable Monsoon leading to increase in production of cereals and pulses has led to a decline in CPI food inflation

in the second half. In order to reduce the volatility in prices of pulses, the Government has built-up buffer stocks of about 19 lakh tonnes through domestic procurement and imports. Vegetable prices, which generally flare up during lean summer seasons, have declined sharply in the past few months, as supply picked up. CPI inflation in vegetables as a result remained negative since September 2016. Sugar inflation remained persistently high during 2016-17 in the backdrop of lower production and hardening of prices in

the international market. Sugar prices at both wholesale and retail level have moderated in the last few months. The break-up of food

inflation based on CPI and WPI is at Table 2 and 3 respectively.

Table 2. Inflation in selected groups of CPI-Base 2012 (in per cent)

| Description | Weights | 2015-16 | 2016-17 | Jun-16 | May-17 | Jun-17 (P) |
|--------------------------------------|---------|---------|---------|--------|--------|------------|
| All Groups | 100 | 4.9 | 4.5 | 5.8 | 2.2 | 1.5 |
| CFPI* | 39.1 | 4.9 | 4.2 | 7.8 | -1.0 | -2.1 |
| Food & beverages | 45.9 | 5.1 | 4.4 | 7.5 | -0.2 | -1.2 |
| Cereals & products | 9.7 | 1.8 | 4.2 | 3.1 | 4.8 | 4.4 |
| Meat & fish | 3.6 | 6.3 | 5.6 | 6.6 | 1.8 | 3.5 |
| Egg | 0.4 | 2.3 | 6.7 | 5.5 | 0.7 | -0.1 |
| Milk & products | 6.6 | 5.2 | 4.1 | 3.4 | 4.6 | 4.1 |
| Oils & fats | 3.6 | 4.3 | 4.0 | 4.0 | 2.7 | 2.3 |
| Fruits | 2.9 | 1.5 | 4.8 | 2.8 | 1.4 | 2.0 |
| Vegetables | 6.0 | 1.4 | -2.2 | 14.8 | -13.4 | -16.5 |
| Pulses & products | 2.4 | 31.9 | 9.3 | 26.9 | -19.5 | -21.9 |
| Sugar & confectionery | 1.4 | -7.0 | 19.6 | 16.8 | 9.8 | 8.7 |
| Fuel & Light | 6.8 | 5.3 | 3.3 | 2.9 | 5.5 | 4.5 |
| CPI excl. food and fuel group (Core) | 47.3 | 4.6 | 4.8 | 4.4 | 4.2 | 4.0 |

Source: CSO

P: Provisional

***** Consumer Food Price Index

Table 3. Inflation in selected groups of WPI- Base 2011-12 (in per cent)

| | Weight | 2015-16 | 2016-17 | Jun-16 | May-17 (P) | Jun-17 (P) |
|---------------------------------------|--------|---------|---------|--------|------------|------------|
| All Commodities | 100 | -3.7 | 1.7 | -0.1 | 2.2 | 0.9 |
| Food Index | 24.4 | 1.2 | 5.8 | 8.0 | 0.1 | -1.2 |
| Food articles | 15.3 | 2.6 | 4.0 | 7.8 | -2.3 | -3.5 |
| Cereals | 2.8 | 1.1 | 8.7 | 9.5 | 4.1 | 1.9 |
| Pulses | 0.6 | 34.8 | 17.6 | 27.3 | -19.7 | -25.5 |
| Vegetables | 1.9 | -8.6 | -5.3 | 18.6 | -18.5 | -21.2 |
| Fruits | 1.6 | 0.1 | 6.0 | 6.0 | -0.7 | -0.1 |
| Milk | 4.4 | 3.1 | 2.9 | 2.3 | 4.5 | 4.1 |
| Egg, meat & fish | 2.4 | 1.5 | 0.8 | 2.3 | -1.0 | 1.9 |
| Food products | 9.1 | -1.5 | 9.5 | 8.7 | 4.8 | 3.1 |
| Sugar | 1.1 | -9.8 | 28.8 | 29.8 | 12.8 | 10.7 |
| Edible oils | 2.6 | -3.2 | 8.4 | 4.1 | 2.1 | 1.5 |
| Fuel & power | 13.2 | -19.7 | -0.2 | -11.6 | 11.7 | 5.3 |
| Non-Food manufactured products (Core) | 55.1 | -1.8 | -0.1 | -1.8 | 2.1 | 2.1 |

Source: DIPP

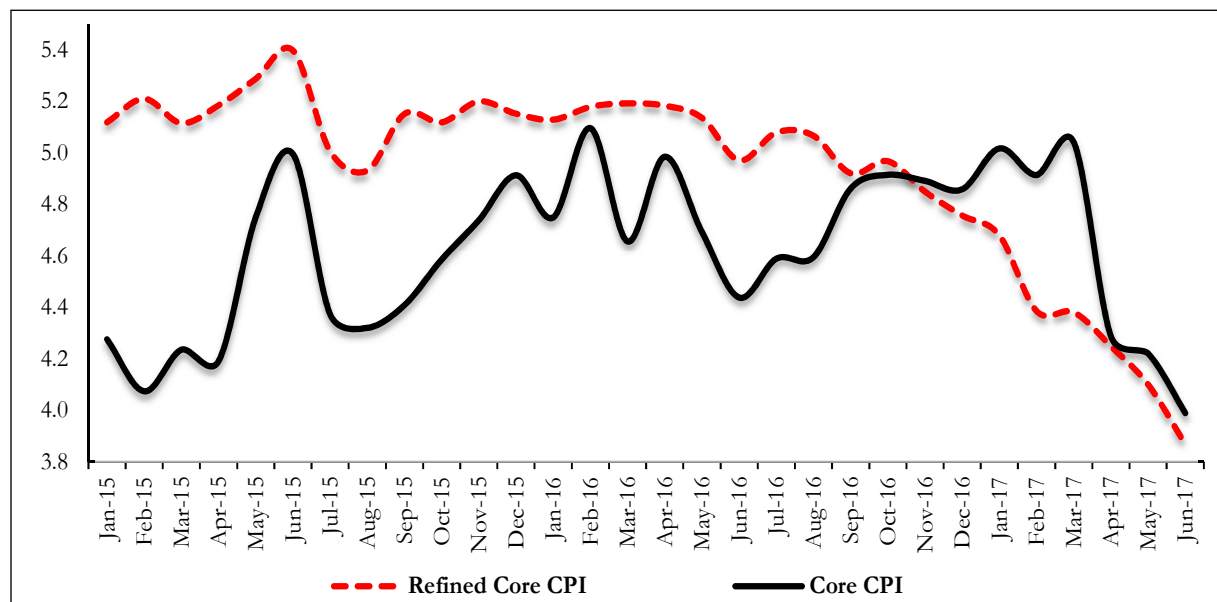
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4.17 Along with significant moderation witnessed in the headline and food inflation in the last three years, CPI based refined core⁴ inflation has declined from 5.2 per cent in 2015-16 to 4.9 per cent in 2016-17. CPI based core⁵ inflation though has increased marginally to 4.8 per cent in 2016-17 from 4.6 per cent in 2015-16. All the CPI based

core inflation measures have been trending down in the last few months (Figure 9).

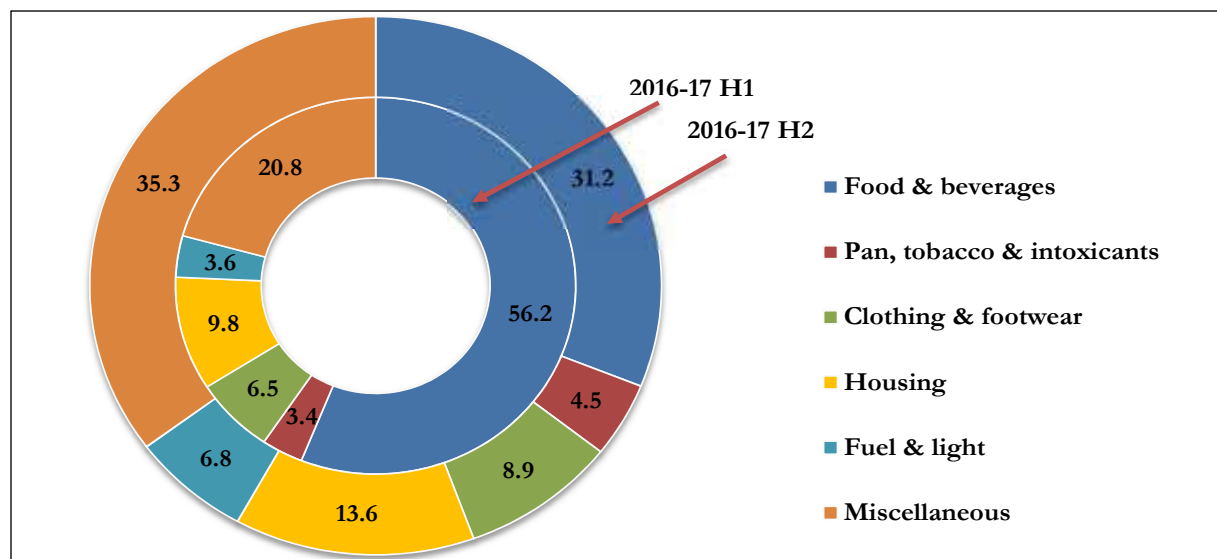
4.18 During first half of 2016-17, while CPI inflation was driven mainly by food, it was the miscellaneous group primarily services which contributed significantly in the second half (Figure 10). Housing too contributed to

Figure 9. CPI based Core Inflation (in per cent)



Source: CSO, Survey calculations

Figure 10. Contribution to CPI inflation 2016-17 H1 and H2



Source: CSO, Survey calculations

⁴ CPI excluding food and fuel group, petrol & diesel

⁵ CPI excluding food and fuel group

general inflation. A break-up of CPI inflation into goods (weight 76.6%) and services (weight 23.4%) shows a sharp fall in goods inflation since August 2016 (Figure 11). However, services inflation remained sticky and was hovering around 5 per cent during 2016-17, mainly driven by high inflation in health, education, house rent and airfare.

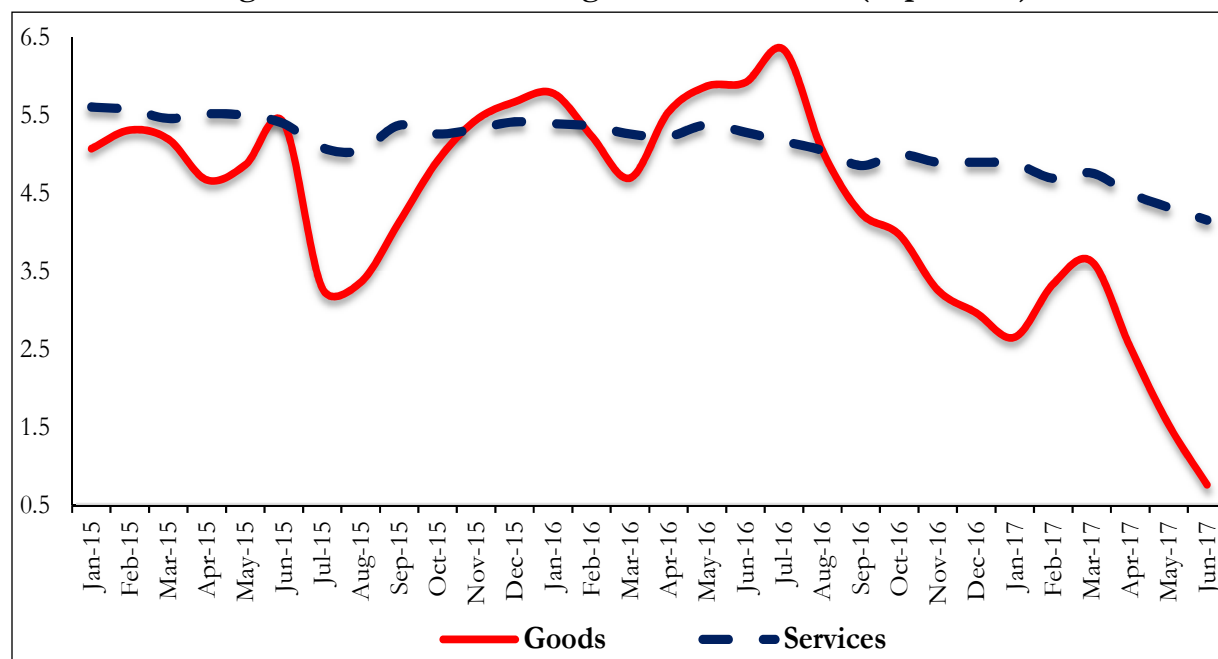
4.19 Fourth, both rural and urban inflation have declined and the gap between the two in recent months has significantly narrowed (Figure 12). Rural inflation based on CPI (rural) decreased to 5.0 per cent in 2016-17 from 5.6 per cent in 2015-16 and 6.2 per cent in 2014-15. Urban inflation based on CPI (urban) declined to 4.0 per cent in 2016-17 as compared to 4.1 per cent in 2015-16 and 5.7 per cent in 2014-15. Urban inflation remains at a lower level than rural and the difference is largely owing to variation in the weights of items in rural and urban consumption basket. The rural basket of CPI assigns significantly larger weight to cereals, vegetables, meat and fish and pulses.

4.20 The gap between rural and urban

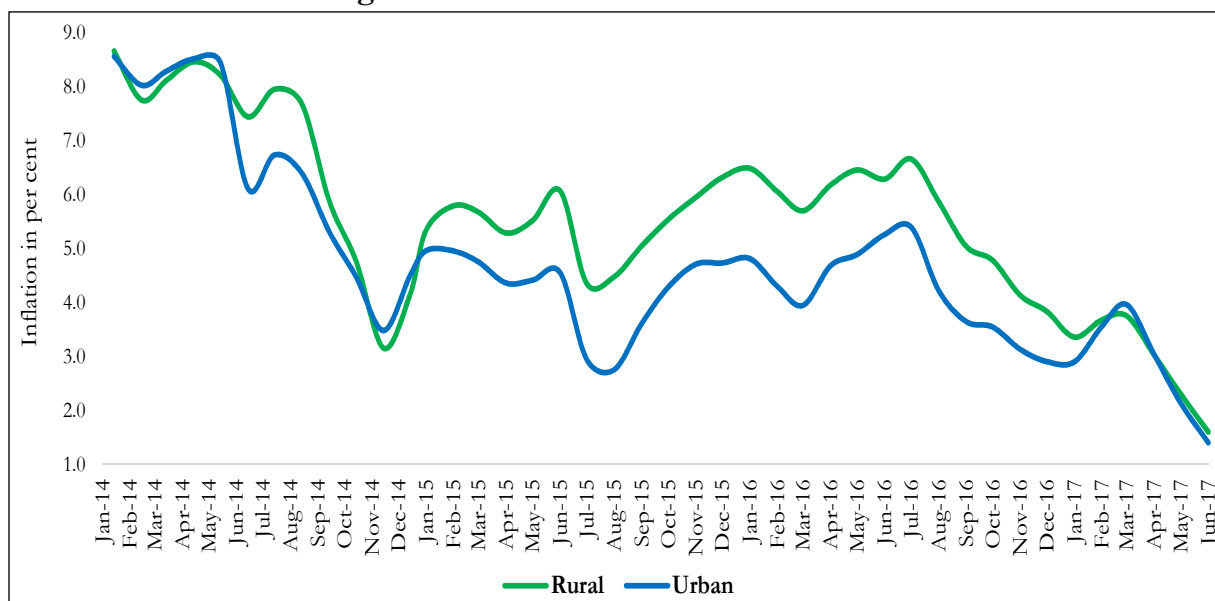
inflation based on Consumer Price Index increases sharply whenever there is increase in food and beverages group inflation (weight of 54.2 per cent in rural basket and 36.3 per cent in urban basket) (Figure 13). Fuel and light group inflation for rural area (weight 7.9 per cent) which throughout the period is higher than fuel and light group inflation of urban area (weight 5.6 per cent) also pushes up the rural inflation. Firewood & chips and dung cake together account for 2.5 per cent of weight in CPI basket (mainly associated with rural areas) experience high inflation and volatility. Inflation for Miscellaneous group in rural areas (consisting of consumer durables and services with weight 27.3 per cent) is almost always higher than miscellaneous group inflation of urban areas (weight 29.5 per cent). This could be attributed to infrastructure gaps between rural and urban areas leading to increased marketing costs in rural areas for consumer durables and services.

4.21 Finally, many of the States/UTs have witnessed fall in CPI inflation during 2016-17

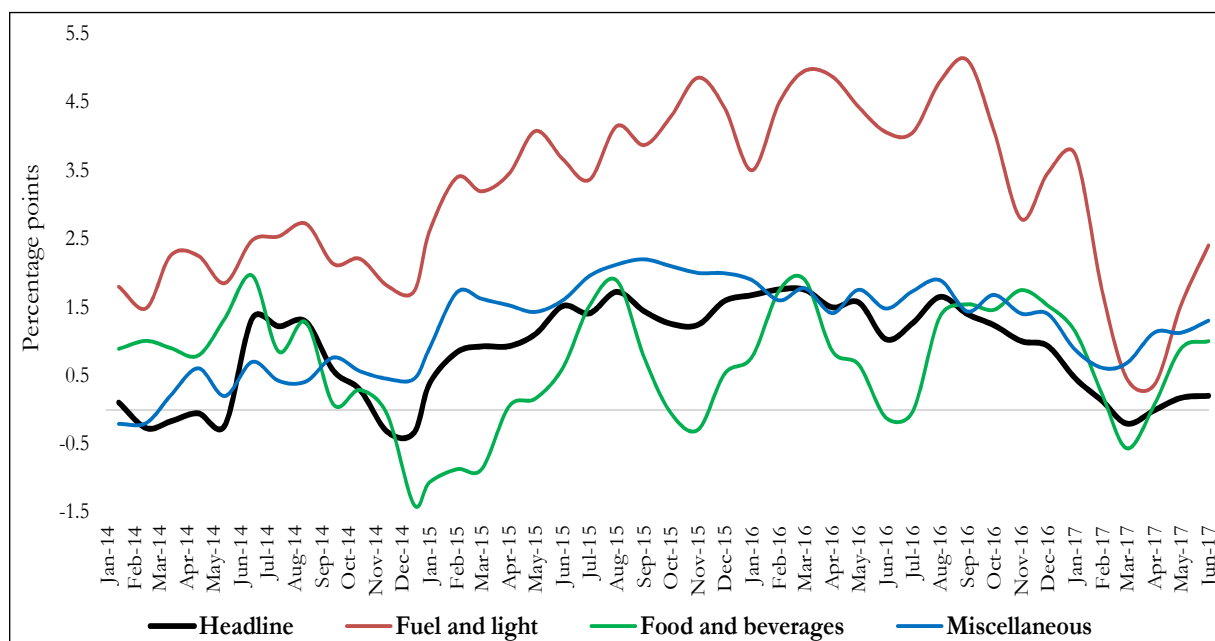
Figure 11. CPI inflation in goods and services (in per cent)



Source: CSO, Survey calculations

Figure 12. CPI Rural and Urban Inflation

Source: CSO, Survey calculations

Figure 13. Inflation differential (in percentage points) between Rural and Urban

Source: CSO, Survey calculations

especially on account of drop in food inflation (Figures 14 and 15). Inflation has been below the target of 4 per cent in 11 States/UTs. Except few north-eastern States, Andaman & Nicobar Islands and Telangana, inflation in all States is lower than the upper tolerance level of 6 per cent set in pursuance of the amended RBI Act. While four major

States viz, Karnataka, Andhra Pradesh, Odisha and Chhattisgarh, witnessed above 6 per cent inflation in 2015-16, only Telangana recorded more than 6 per cent inflation in 2016-17.

4.22 At group level, the inter-State variation in food inflation is low as compared to housing, fuel & light and pan, tobacco &

Figure 14. CPI inflation 2016-17 (in per cent)

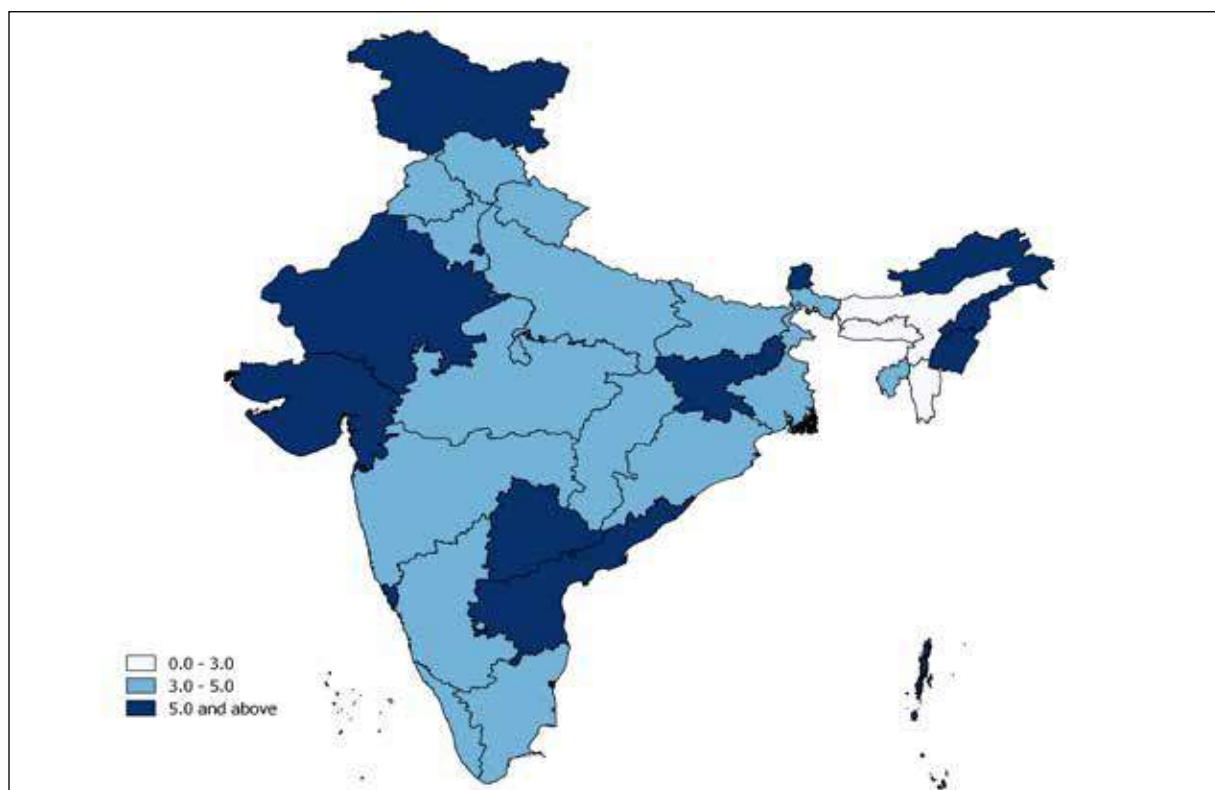
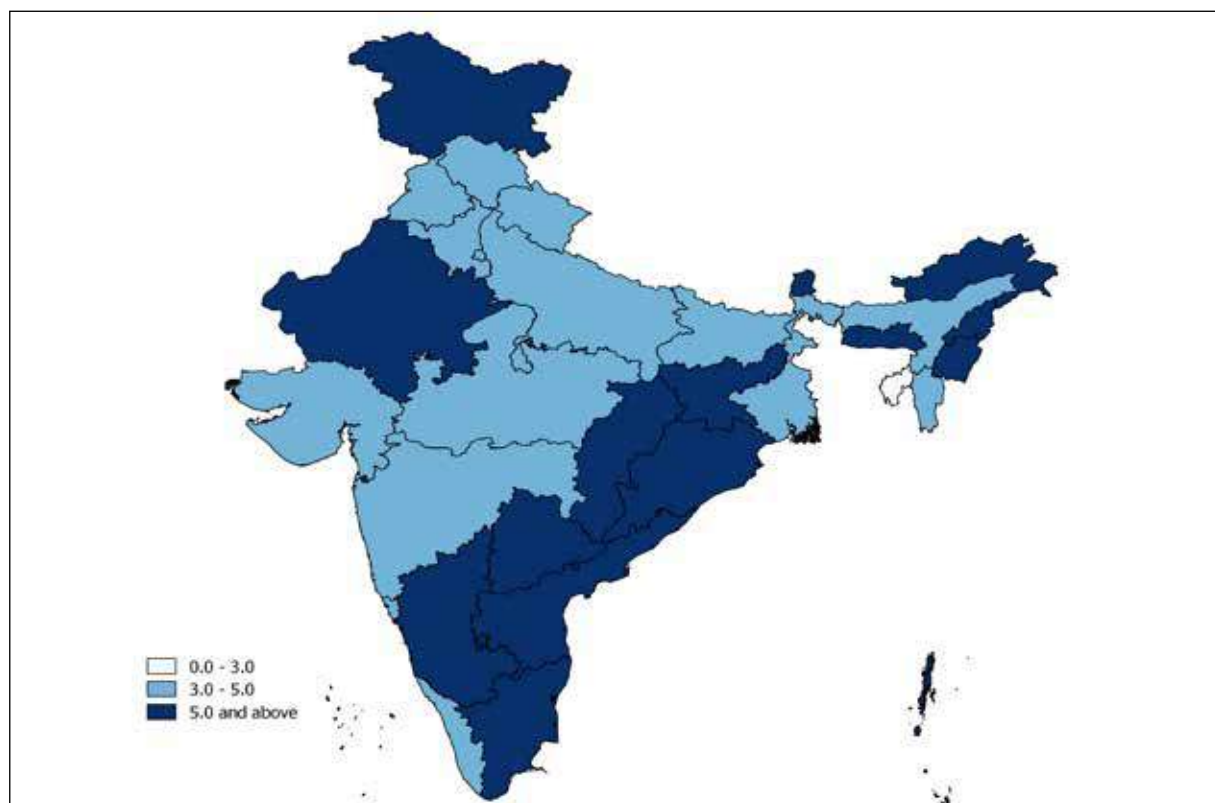


Figure 15. CPI inflation 2015-16 (in per cent)

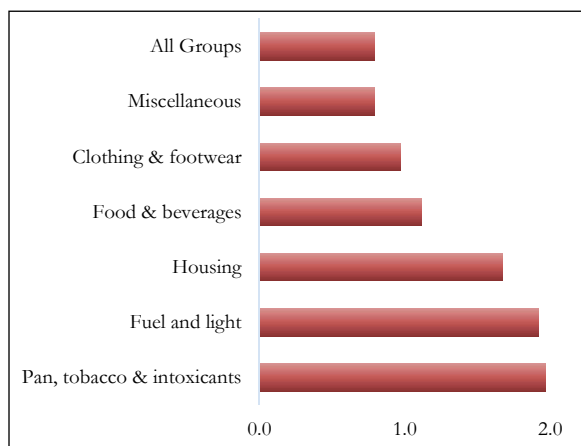


Source: CSO, Survey calculations

Note: Inflation for Arunachal Pradesh is only for Rural.

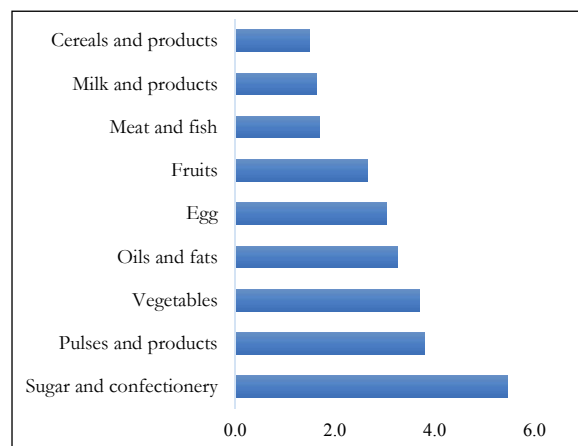
intoxicants in 2016-17 (Figure 16). Under the food category, highest inter-State variation has been observed in sugar and pulses, which

Figure 16. Variation in CPI inflation across major States in 2016-17: Standard Deviation for major groups



witnessed high inflation in 2016-17 (Figure 17). However, variation in cereals has been very low among major States.

Figure 17. Variation in CPI inflation across major States in 2016-17: Standard Deviation for food groups

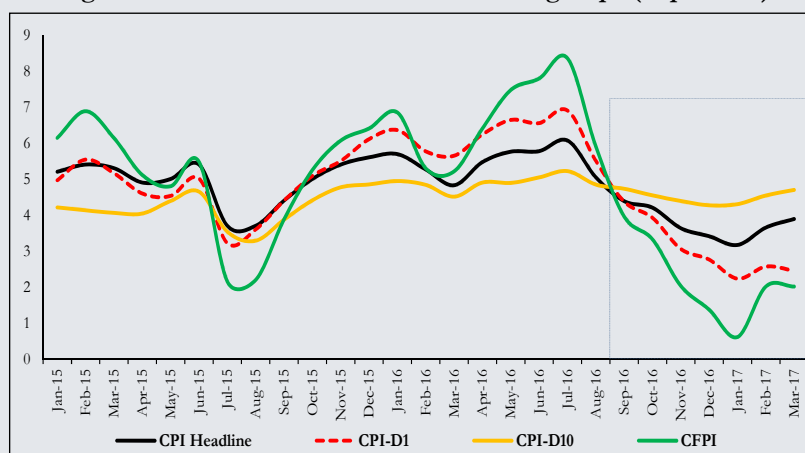


Source: CSO, Survey calculations

Box 1. Low food inflation - a relief to poor

Inflation in India in general is driven by food prices. Food which constitutes a major portion of the consumption expenditure of the poor has high weightage in the CPI basket. High inflation due to rise in food prices hits the poor more. Conversely, reduction in food inflation has a salutary impact on poorer sections of the population. Recent drop in headline CPI inflation is mainly on account of fall in food inflation, especially of pulses and vegetables. This has favourably impacted poorer segments of the population as can be seen from Figure 18.

Figure 18. CPI Inflation for different decile groups (in per cent)



Source: CSO, Survey calculations

Figure 18 reflects CPI inflation for lowest and highest deciles of the society based on the consumer expenditure data (On the basis of the 68th Round of Consumer Expenditure data of NSS, decile wise weights have been assigned and applied to the item level index of CPI-Combined to generate decile wise index and inflation). The figure shows that since September 2016 inflation for the lowest decile (D-1) is low compared to the highest decile (D-10) and the headline CPI. Moreover, CPI inflation for the lowest decile has almost followed the trend of food inflation (CFPI), owing to higher weight of food for lower deciles than higher deciles. As is evident from the figure, low food inflation benefits the poor relatively more than the rich and vice versa.

Box 2. Global and WPI inflation

Oil effect and adverse base effect pushes WPI inflation

WPI inflation remained negative from November 2014 to June 2016 and averaged (-) 3.7 per cent in 2015-16 primarily owing to weak global commodity prices. However, rebound in the global commodity prices, especially crude oil along with adverse base effect has reversed the declining trend of WPI. Global energy inflation based on World Bank energy index increased to 4.0 per cent in 2016-17 from a low of (-) 43 per cent in 2015-16 and inflation for base metals increased to 4.1 per cent in 2016-17 from (-) 20.2 per cent in 2015-16. WPI inflation in fuel and metals has almost followed the international trend and has been moving upwards (Figure 19 and 20).

Figure 19. Global Inflation based on World Bank Price Indices (%)

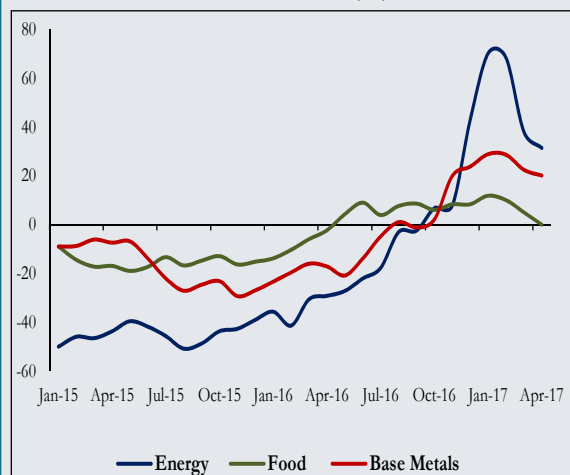
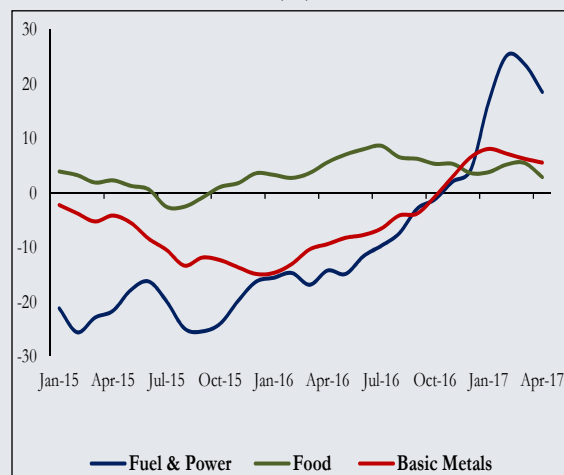


Figure 20. Inflation based on WPI (%)



Box 3. Salient features of the new series of Wholesale Price Indices with base 2011-12

The Government revised the base year of Wholesale Price Index (WPI) from 2004-05 to 2011-12 from April 2017. WPI inflation measures the average change in the prices of commodities for bulk sale at the level of early stage of transactions pertaining to four sectors namely agriculture, mining, manufacturing and electricity. The share of these four sectors in GDP at current prices was 41.4 per cent in 2011-12. The basket of the WPI covers commodities falling under three Major Groups, namely, Primary Articles, Fuel & Power and Manufactured products. The prices tracked are ex- factory prices for manufactured products, mandi prices for agricultural commodities and ex-mines prices for minerals. Weight given to each commodity covered in the WPI basket is based on the value of production adjusted for net imports. WPI basket does not cover services. The major changes in weights, number of items and quotations between WPI 2004-05 and WPI 2011-12 are given in Table 4.

In the new WPI series (2011-12) significant improvement in terms of concept, coverage and methodology has been made. The item basket has been revised with inclusion of new items and exclusion of old ones in order to capture the structural changes that have occurred in the economy. In the updated WPI basket, the number of items has been increased and special efforts have been made to enhance the number of price quotations across the major groups to ensure comprehensive coverage and representativeness.

Table 4. Comparative Statement of Weights, Number of Items & Number of Quotations

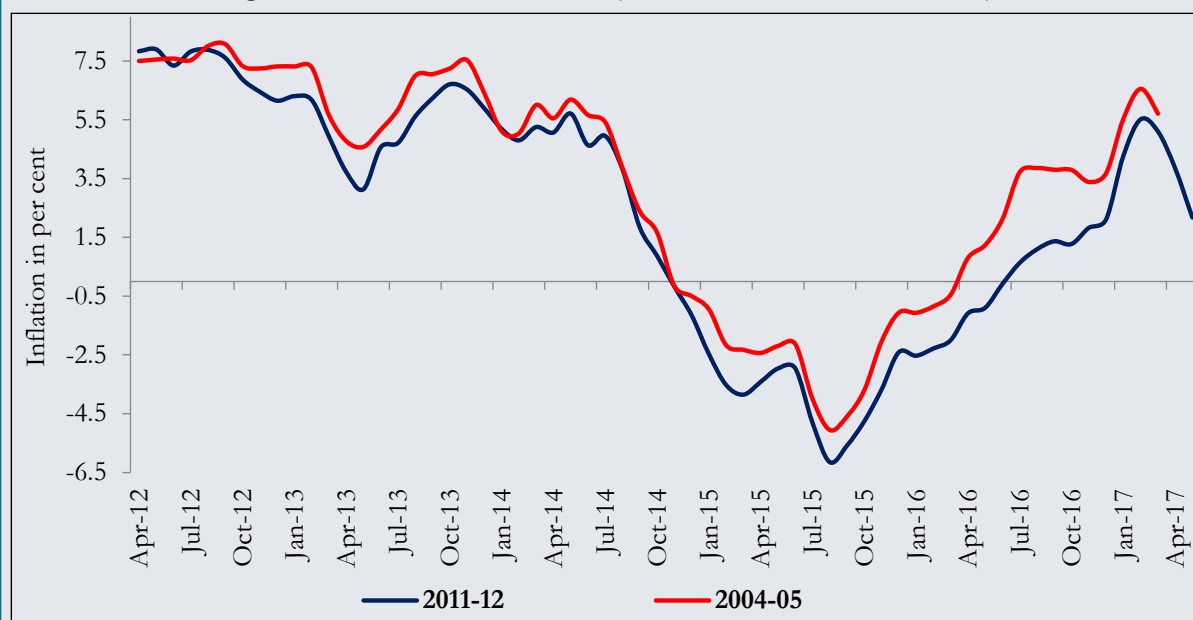
| Major Group/ Group | Weights | | No. of Items | | No. of Quotations | |
|-----------------------|---------|---------|--------------|---------|-------------------|---------|
| | 2004-05 | 2011-12 | 2004-05 | 2011-12 | 2004-05 | 2011-12 |
| All Commodities | 100 | 100 | 676 | 697 | 5482 | 8331 |
| Primary Articles | 20.12 | 22.62 | 102 | 117 | 579 | 983 |
| Fuel & Power | 14.91 | 13.15 | 19 | 16 | 72 | 442 |
| Manufactured Products | 64.97 | 64.23 | 555 | 564 | 4831 | 6906 |

In the new WPI series the following key conceptual and methodological changes have been made:

- Prices used for compilation do not include indirect taxes in order to remove the impact of fiscal policy. This is in consonance with best international practices and makes the new WPI conceptually closer to 'Producer Price Index'. This would also not require changes in the price collection once the GST is implemented.
- The new series has the provision to compile 'WPI Food Index'. This index is compiled by combining indices of Food Articles and Manufactured Food Products. This along with CPI Food Price Index published by CSO would help in monitoring the food inflation effectively.
- Item level aggregates for new WPI are compiled using Geometric Mean (GM) following international best practice and as is currently used for compilation of All India CPI. Geometric mean is considered to be robust as it passes most of the axiomatic tests such as time reversal test etc. and the change is likely to minimise biases in the series.
- Seasonality of fruits and vegetables has been updated to account for more months as these are now available for longer duration. Large number of fruits and vegetables has been added to the basket to ensure greater representation of these items.
- The number of 2 digit groups in Manufactured products has been increased from 12 to 22 in keeping with NIC-2008. This would make WPI more useful for use as deflator in GDP and IIP.
- A high level Technical Review Committee has been set up for the first time to carry out dynamic review process in order to keep pace with the changing structure of the economy.

As depicted in Figure 21, the annual inflation estimates based on the two series are moving in tandem and do not show wide deviation, except that the new series is showing comparatively lower level of inflation as expected due to the new base.

Figure 21. Headline WPI Inflation (2011-12 Series and 2004-05 Series)



Source: DIPP

IV. EFFORTS TO CONTAIN INFLATION

4.23 Government reviews the price situation regularly as tackling inflation has been the top priority of the Government. A number of measures has been taken by the Government

to contain food inflation. The steps taken, inter alia, include:

- Increased allocation for Price Stabilization Fund in the budget 2017-18 to check volatility of prices of essential

commodities, in particular of pulses.

- Government has approved creation of a dynamic buffer of upto 20 lakh tonnes of pulses for appropriate market intervention against which buffer of around 18.75 lakh tonnes has already been built.
- Subsidized unmilled pulses from the buffer stock were offered to States/ Agencies for direct distribution to public at a reasonable rate.
- States/UTs have been empowered to impose stock limits in respect of pulses, onion, edible oils and edible oil seeds under the Essential Commodities Act.
- Export of all pulses is banned except kabuli channa and up to 10,000 MTs of organic pulses and lentils.
- Import of pulses is allowed at zero import duty except for Tur where import duty of 10% has been imposed due to its bumper production in 2016-17.
- SEBI banned new contracts in Chana to dampen speculative activities.
- Announced higher Minimum Support Prices so as to incentivize production and thereby enhance availability of food items which may help moderate prices.
- Export of edible oils was allowed only

in branded consumer packs of upto 5 kg with a minimum export price (MEP) of USD 900 per MT. This restriction has recently been liberalized.

- MEP of USD 360 was imposed on potato till December 2016.
- Reduced import duty on potatoes, wheat and palm oil.
- Imposed 20 per cent duty on export of sugar.
- Imposed stock-holding and turn-over limit on sugar till 28.10.2017 to check speculative tendencies and possible hoarding behaviour.
- Recently allowed duty free import of 500,000 tonnes of raw sugar to enhance domestic availability.

V. CONCLUSION

4.24 The current low level of inflation provides a historic moment in inflation scenario, instilling confidence in price stability. CPI inflation declined to 4.5 per cent during 2016-17, with broad based price decline in all major commodity groups. It has been below 4 per cent for past eight months. The measure of underlying trends –core inflation has been trending down in the last few months. Food inflation too has declined sharply in the last few months on the back of normal monsoon.

Climate Change, Sustainable Development and Energy

05 CHAPTER

A road-map towards sustainable development, free from hunger and poverty; along with an uninterrupted, affordable supply of sustainable energy (every Indian connected to the grid) - these are the broad objectives that India has chosen to pursue. India's commitment to environment and climate change, made at the highest political level, shows the global way in supporting sustainable development goals while retaining reliance on cleaner energy, including cleaner, greener coal. India has strengthened its response to the threat of climate change in accordance with the principles of common but differentiated responsibilities and in the light of national circumstances with the "Paris Pledge" to reduce the emission intensity of GDP by 33-35 per cent over 2005 levels by 2030. International support would greatly facilitate the pathway towards low carbon and climate-resilient development. India also looks forward to international cooperation on the development, deployment and commercialization of sustainable and climate-friendly technologies in renewables as well as conventional sources.

INTRODUCTION

5.1 Mahatma Gandhi once said, "A time is coming when those, who are in the mad rush today of multiplying their wants, vainly thinking that they add to the real substance, real knowledge of the world, will retrace their steps and say: 'what have we done?'" It is only appropriate that on 2nd October, 2016, the birth anniversary of this apostle of peace and life in harmony with nature, India ratified the Paris Agreement on climate change. As on date, Paris Agreement has been ratified by 153 Parties. In the pre-2020 period, India's goal is to achieve the voluntary pledge of reducing the emissions intensity of GDP by 20- 25 per cent over 2005 levels by 2020, which, it is on course to achieve. The emissions intensity of India's GDP has

been reduced by 12 per cent between 2005 and 2010, according to India's first Biennial Update Report communicated to UNFCCC. This has been possible on account of a number of policy measures undertaken to address climate change and sustainable development concerns. As a responsible country, it has delivered on its commitments and is well on track to achieve its ambitious climate goals and actions by 2020.

5.2 For the post-2020 period, India's Nationally Determined Contribution (NDC) has outlined the actions India intends to undertake. India's NDC targets to lower the emissions intensity of GDP by 33-35 per cent by 2030 from 2005 levels, to increase the share of non-fossil based power generation capacity to 40 per cent of installed electric power capacity (cumulative) by 2030, and

to create an additional carbon sink of 2.5-3 Gt CO₂e through additional forest and tree cover by 2030.

5.3 At the multilateral level, the international community is engaged in writing the “Paris rule book” which includes guidelines and modalities for the implementation of the Paris Agreement for the transparency framework for action and support, features and accounting of NDCs etc. At the national level, the roadmap for implementation of India’s NDC is being prepared, by constituting an Implementation Committee and six Sub-Committees. The Committees are working to elaborate their respective NDC goals and identify specific policies and actions aimed at achieving them. Simultaneously, the global community has committed to the Sustainable Development Goals (SDGs) in September 2015, as detailed in the UN Resolution, “Transforming our World: the 2030 Agenda for Sustainable Development.” The 17 SDGs have 169 related targets to be achieved by 2030 and are expected to help organise and streamline development action for achievement of greater human well-being. Affordable, reliable and modern energy services is crucial to achieving all of the sustainable development goals especially SDG 1: Eradicating poverty in all its forms everywhere. Hence, Goal No. 7 “Ensure access to affordable, reliable, sustainable and modern energy for all” – is central to every major challenge we face. Cleaner energy forms are imperative for delivering a sustainable development agenda.

5.4 On November 30 2015, with India’s initiative, the International Solar Alliance (ISA) was jointly launched by the Hon’ble Prime Minister of India, Shri. Narendra Modi, and the then French President Mr. Francois Hollande in Paris at the 21st Conference of Parties to the UNFCCC (COP21). The ISA

is conceived as a unique international body with an exclusive focus on solar energy with all its prospective member countries, which lie completely or partially between the Tropic of Cancer and Tropic of Capricorn, well-endowed with the resource, striving to bring them together for coordinated research, low cost financing and rapid deployment. Joint efforts under the Alliance include innovative policies, projects, programs, capacity building measures and financial instruments to mobilize US\$1 trillion of investment by 2030. The foundation stone of the ISA Headquarters was laid at Gwal Pahari, Guragaon in Haryana. India has already committed the required support of operationalization of ISA.

5.5 The Paris Agreement prescribes a multilateral framework for taking action on climate change in the post-2020 period. It recognizes that developed countries are responsible for the cumulative historic stock of greenhouse gases (GHGs) in the atmosphere and therefore must take the lead in climate actions and also provide financial, technological and capacity building support to developing countries with respect to both mitigation and adaptation. The imperative would be to ensure that UNFCCC and Paris Agreement continue to take cognizance of the fact that developing countries have unique vulnerabilities, special circumstances, and development priorities like eradication of poverty, food security, energy access etc. There would also be enormous climate finance requirements, as reflected in India’s NDC which clearly underscores that provision of adequate means of implementation to developing countries is needed for effective implementation of NDCs.

5.6 One major recent development has been the US announcement on June 1, 2017 about its intention to withdraw from the Paris Agreement. The target the USA had

chosen under the Paris Agreement is a cut in emissions by 26-28 per cent by 2025 compared to the 2005 level. The announcement is considered as a part of the unfolding of its own domestic energy policies in the last few years. However, till the formal withdrawal is complete, which would take another three years, the US continues to be a member of the Paris Agreement. As on date, 153 Parties have ratified covering around 85 per cent of emissions. USA covers around 18 per cent of emissions and therefore, its withdrawal does not affect the 55 per cent threshold number of the Paris Agreement. As far as India is concerned, it has reaffirmed its commitment to the environment and climate change at the highest political level. India has positioned itself as a sustainability leader, extensively supporting cleaner energy. We need to have a rational approach that balances environment, climate, economic development and energy security needs. We need to concentrate on cleaner forms of energy including cleaner coal, renewables and natural gas to fuel inclusive economic development.

INDIA'S GHG EMISSION PROFILE

5.7 According to India's Biennial Update Report (BUR), India emitted 21,36,841.2 Gg (Giga gram) CO₂ equivalent (2.1 billion tonnes of CO₂eq) in the year 2010 from energy, industrial processes and product use (IPPU), agriculture and waste sectors (excluding land use, land use change and forestry (LULUCF)) (Table 1). In 2010, the year for which comparable figures are available, India's emissions are lower than GHG emissions of China (11.2 billion tonnes CO₂eq), USA (6.7 billion tonnes CO₂eq), European Union (4.8 billion tonnes CO₂eq) and Brazil (2.9 billion tonnes CO₂eq).

CURRENT ENERGY MIX

5.8 Within the energy mix of the country, coal accounts for nearly 55 per cent of the total primary energy supply, followed by oil at 30 per cent, and natural gas at 9 per cent. Only 2 per cent of total primary energy is supplied by renewable energy sources. Within the power sector, thermal power (particularly coal) dominates the share

Table 1. India's GHG profile over time

| Sector | 1994 | | 2000 | | 2005 | | 2010 | |
|------------------------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|
| | Emission | Share (per cent) | Emission | Share (per cent) | Emission | Share (per cent) | Emission | Share (per cent) |
| Energy | 7,43,820 | 62 | 10,27,016 | 67 | 12,10,384 | 69 | 15,10,121 | 71 |
| Industrial processes & product use | 1,02,710 | 7 | 88,608 | 6 | 1,24,017 | 7 | 1,71,503 | 8 |
| Agriculture | 3,44,485 | 29 | 3,55,600 | 23 | 3,60,313 | 21 | 3,90,165 | 18 |
| LULUCF | 14,292 | - | -2,22,567 | - | -2,78,721 | - | -2,52,532 | - |
| Waste | 23,333 | 2 | 52,552 | 4 | 62,638 | 4 | 65,052 | 3 |
| Total (Without LULUCF) | 12,14,248 | | 15,23,777 | | 17,57,352 | | 21,36,841 | |
| TOTAL (Net emission) | 12,28,540 | | 13,01,209 | | 14,78,632 | | 18,84,309 | |

Values in Gg CO₂e; 1 Gg= 10⁹g =1000 t (t = tonne)

Source: India's First Biennial Update Report

of total installed power capacity in India (Figure 1). Coal based thermal power accounts for around 59 per cent of the total installed capacity of 327 GW, while 18 per cent of the installed capacity is coming from renewable energy sources (RES). Out of the total RES installed capacity of 57 GW, around 56 per cent is wind based power.

5.9 With this, an overall growth in generation of electricity in the country from 1173.5 BU during 2014-15 to 1173.6 BU during the year 2015-16 and 1242 BU during 2016-17 has been recorded. The performance of category wise generation during the year 2016-17 is given in Table 2.

Table 2. Performance of category wise generation of electricity 2016-17

| | | |
|------------|--------------|---------------|
| Thermal | Increased by | 5.3 per cent |
| Hydro | Reduced by | 0.8 per cent |
| Nuclear | Increased by | 1.3 per cent |
| Renewables | Increased by | 24.5 per cent |

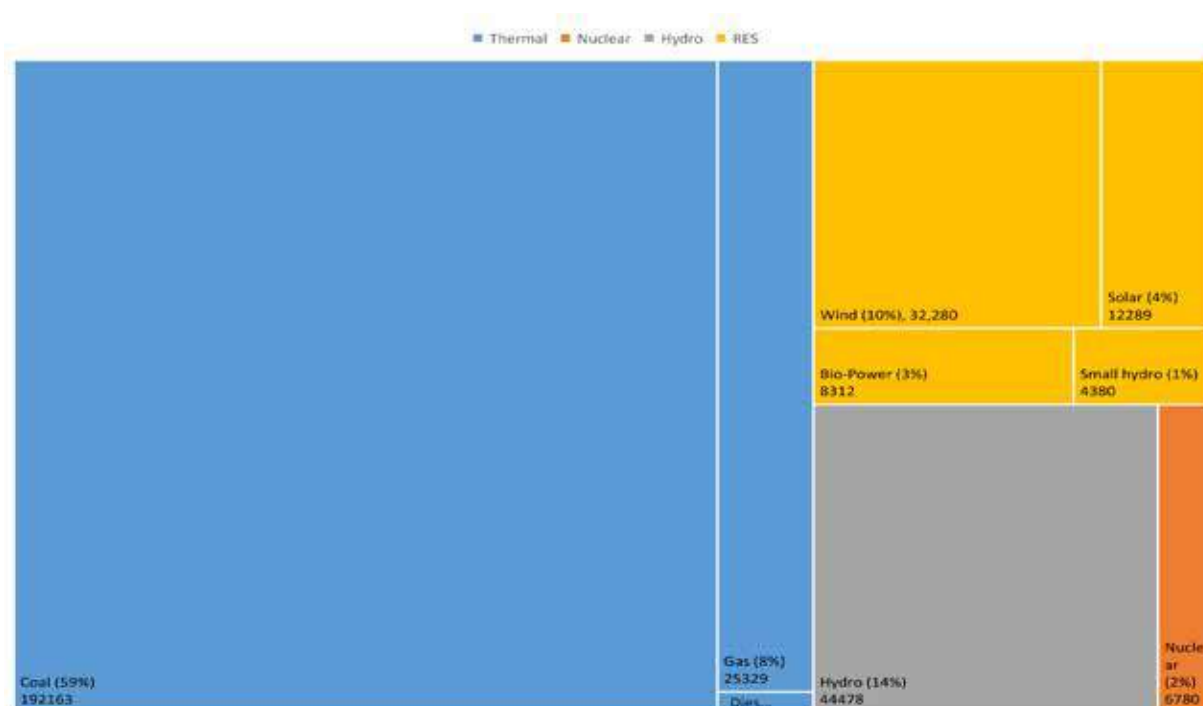
Source: Central Electricity Authority

FUTURE ELECTRICITY TRANSITION SCENARIOS

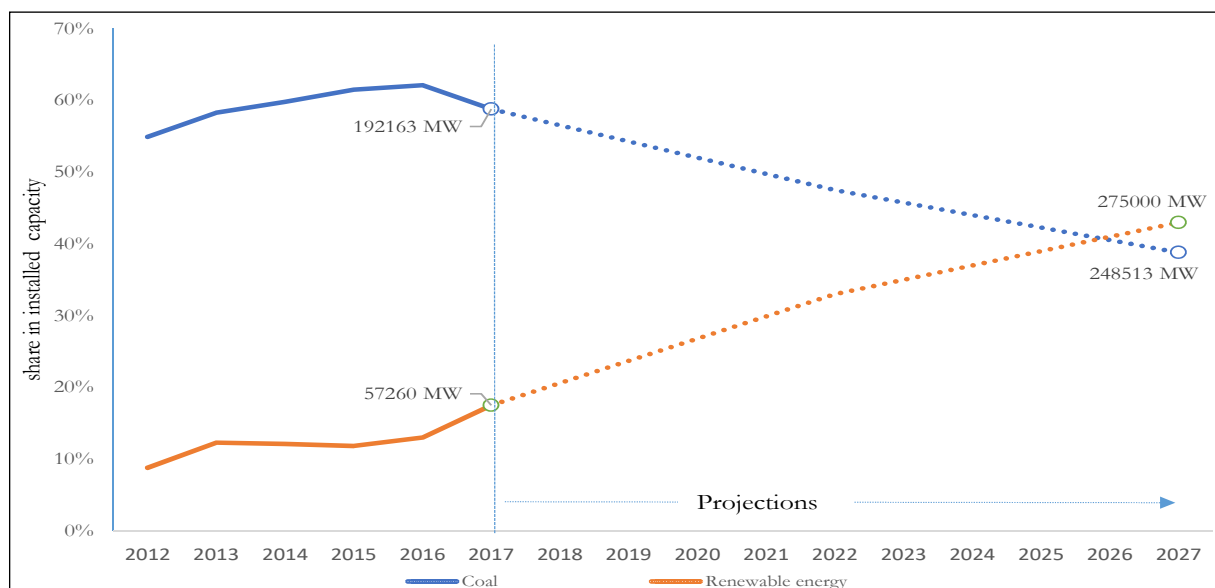
5.10 As stated earlier, India has set itself ambitious targets in the area of renewable energy. Moving ahead in this direction, India is implementing the largest renewable energy expansion programme in the world. It envisages an increase in the overall renewable energy capacity to 175 GW by 2022. This includes 100 GW of solar, 60 GW of wind, 10 GW of biomass, and 5 GW of small hydro power capacity.

5.11 Projections made by CEA (2016) indicates that the capacity addition in coal based power plants is expected to be around 50 GW between 2017 and 2022. Further, according to these projections, no more addition in the installed capacity of coal based power generation would be required in the period 2022 to 2027. As a result, the share of renewables in total installed capacity in this scenario is likely to increase to around 43 per cent in 2027 (Figure 2).

Figure 1. Installed power capacity (in MW)



Source: Central Electricity Authority (CEA), as on 31 March, 2017.

Figure 2. Electricity Mix Projections: Coal and Renewables in Installed Capacity

Source: Historical installed capacities from CEA Monthly Reports for March, for years from 2013 to 2017 and projections for installed capacity for coal and renewables from CEA (2016).

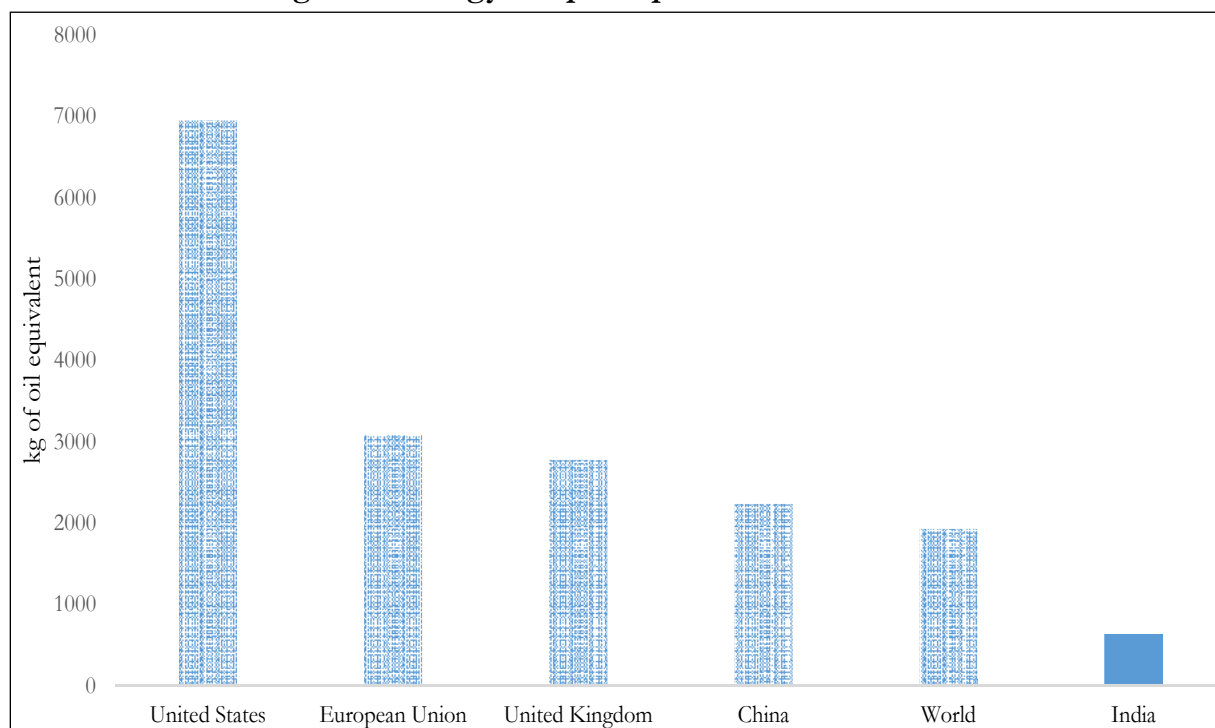
INDIA'S ENERGY SECURITY

5.12 India is at a stage of development that requires it to grow at a fast rate and lift the large number of their citizens from below the poverty line. Energy deprivation levels for a sizeable portion of population remain at high levels. The SDG 7 is to ensure access to affordable, reliable, sustainable and modern energy for all. The importance given to secure energy access is also due to the fact that access to energy is intertwined with the various other economic and social developmental objectives such as poverty alleviation, health, industrialisation, education, provision of communication infrastructure, and climate change mitigation among others.

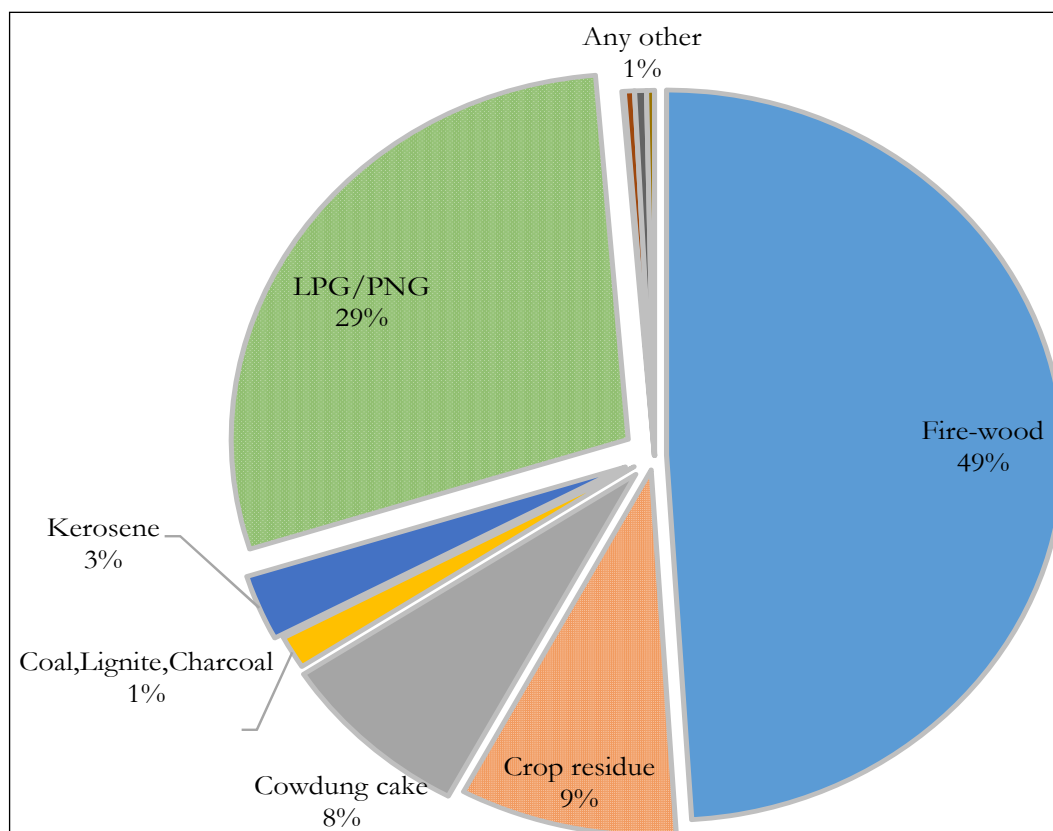
5.13 India is one of the fast growing economies of the world. Associated with the rapid increase in incomes is rapid increase in the demand for energy. However, the per capita energy consumption in India continues to be only around one-third of the global average and one-eleventh that in the United States (Figure 3) (OECD/IEA, 2015).

5.14 Further, associated with the energy deprivation, there is also a lack of access to better forms of energy. An analysis of the type of fuel used for cooking by households in India would show that a majority of households still rely on firewood as fuel for cooking. According to the 2011 Census data, around 49 per cent of households still use firewood for cooking while only 29 per cent use LPG or PNG for cooking purposes (Figure 4). Comparing across states we can see that the majority of states have a dominance of fire-wood in their cooking fuel usage (Figure 5) while the percentage of LPG/PNG users is below 30 per cent. Similar is the case with access to electricity (Figure 6).

5.15 This shows that there is an urgent need to further increase the access of the poor to more efficient energy resources. To improve the health of women and children in rural areas who are most affected by indoor air pollution due to use of bio-mass as cooking fuel, initiatives have been taken like Pradhan Mantri UJJWALA Yojana

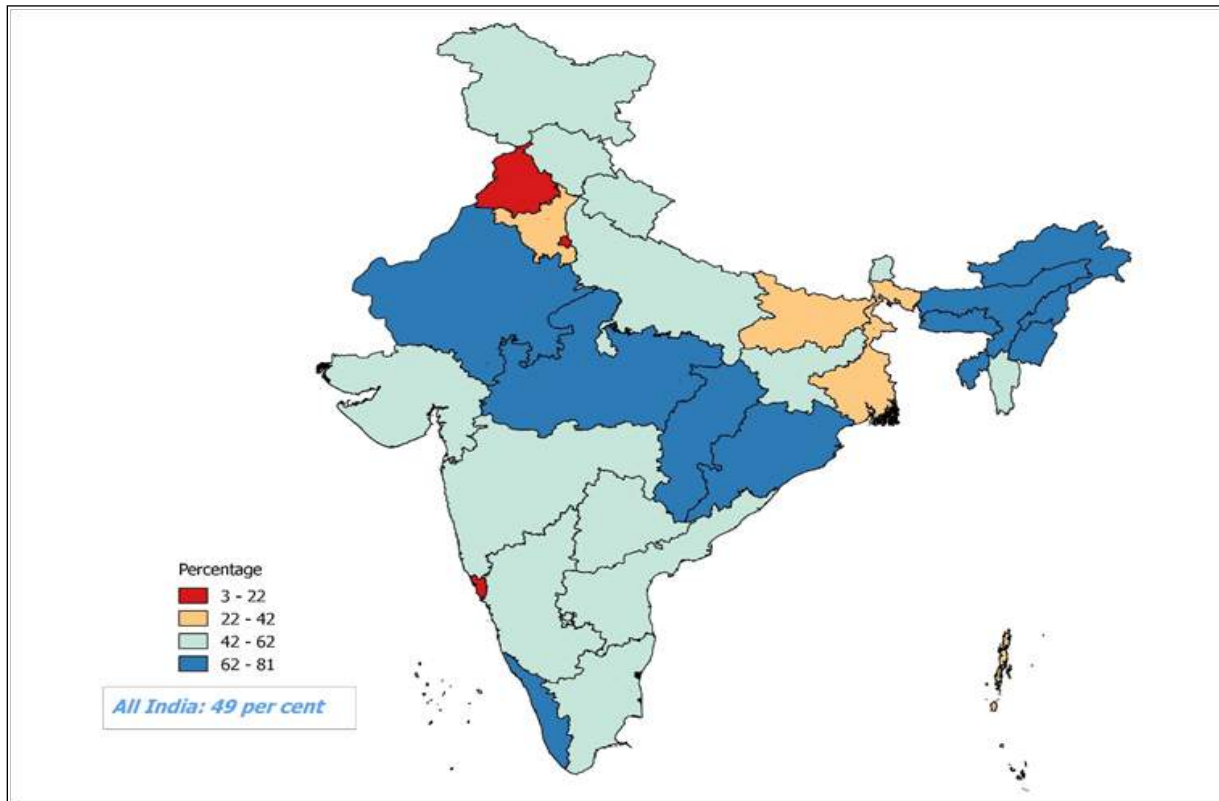
Figure 3. Energy use per capita in select countries

Source: World Bank

Figure 4. Type of Fuel Used for Cooking

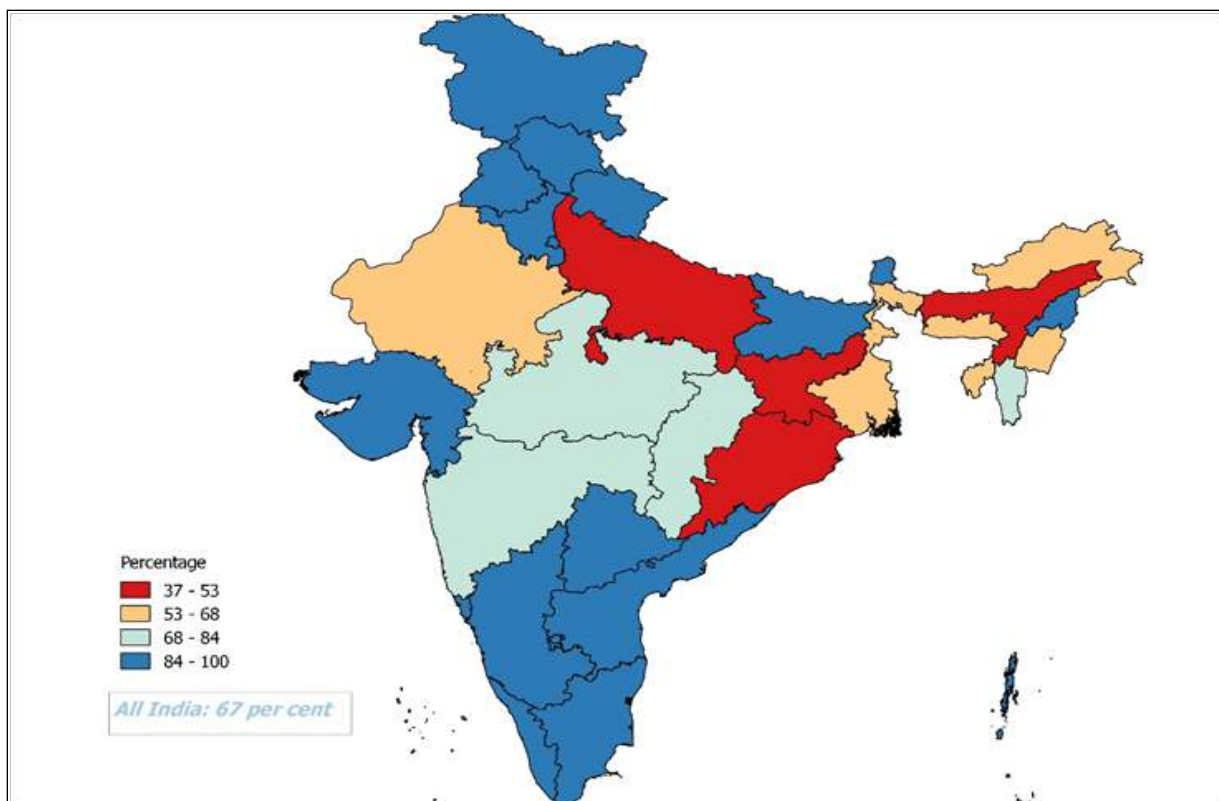
Source: Census 2011

Figure 5. Percentage of households using firewood for cooking



Source: Census 2011

Figure 6. Percentage of households using electricity for lighting



Source: Census 2011

aimed at distribution of about 50 million LPG cylinders by 2018-19. The Government has now planned to extend the scheme to provide 80 million LPG connections by 2020. Government is also coming out with other initiatives namely “Ujjawala Plus” which will address the cooking needs of deprived people who are not covered under the Socio-Economic Caste Census (SECC) 2011. Pratyaksh Hastantrit Labh (PAHAL) scheme was introduced for direct transfer of LPG subsidies to the consumers’ bank accounts. The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) was launched as its principal vehicle to achieve the goal of electricity for all by 2022, by first achieving 100 per cent village electrification by 2018.

5.16 Ensuring adequate and affordable energy access for all of India’s people and doing so in a sustainable manner is a very high priority for the Government of India. Hon’ble Prime Minister has regarded energy sustainability as a sacred duty, and has also stated that sustainable, stable and reasonably priced energy is essential for the fruits of economic development to reach the bottom of the pyramid. He has envisioned energy access, energy efficiency, energy sustainability and energy security as the four pillars of our energy future.

SOCIAL COST ANALYSIS OF COAL BASED POWER VERSUS RENEWABLES BASED POWER

5.17 In recent years there has been a considerable push towards renewables as a sustainable source of power generation all around the world. The choice between alternative sources of energy has to be based on a thorough analysis of the impacts each has on the economy. A clear quantification of the social costs of the alternatives give us a rational way to identify the merits and demerits of each alternative on a holistic basis. In this

section of the Survey, an attempt has been made to identify the aggregate social costs of coal based electricity generation versus that of renewable based power generation (specifically, wind and solar).

5.18 The estimates used in the exercise are based on the scenarios of power generation in TERI (2017). The report has presented two scenarios for the future electricity mix. A ‘High Renewables Scenario’ gives a higher priority to renewable energy in which the renewable energy capacity increases to 175 GW in 2022 and further to 275 GW in 2026. On the other hand, the ‘Low Renewables Scenario’ is based on a lower trajectory of renewables in view of the challenges and uncertainty of solar prices inclusive of storage costs achieving grid parity. Further two demand scenarios have been considered. The estimates of coal based power generation in the projection is based on the demand projections as well as the projections for the installed capacities for various sources of electricity. Broadly, in order to estimate the social cost of coal or renewables based power, the private costs of generation, the opportunity cost of land, social cost of carbon, health costs as well as the costs of stranded assets have been considered.

(i) Private costs of generation

5.19 The cost of electricity generation is driven by many factors such as equipment costs like turbine costs for wind energy, panel costs for Solar Photo Voltaic (SPV), land costs, construction costs, evacuation costs, capacity utilization factor, cost of capital. The cost of power generation from renewable sources have been falling rapidly over the recent years. Globally, the price of SPV panels has fallen considerably resulting in the levelised cost of electricity from SPV halving between 2010 and 2014 (IRENA 2014). The cost of wind power generation has also declined, though at a slower rate.

5.20 A similar trend is observed in India as well. Figure 7 shows the trend of recent solar tariff in bids since 2010. It can be seen that solar power tariffs have been falling in the last two years in India. The tariff has reached a historical low of ₹2.4 per KWh in May 2017. The costs of SPV panel are expected to decline further in the coming years.

(ii) Social cost of carbon

5.21 Social cost of carbon refers to the economic cost or loss in the discounted value of economic welfare induced by an additional unit of carbon dioxide emissions (Nordhaus, 2017). The generation of power from coal based thermal power plants is based on the combustion of coal as fuel and thus generate emissions that contribute to increasing the concentration of greenhouse gases in the atmosphere. Nordhaus (2017) finds that the global social cost of carbon at 2010 prices for the year 2015 was US\$ 31.2 per tCO₂. By the year 2030, this is estimated to rise to

US\$ 51.6 per tCO₂. Social cost of carbon for India is estimated at US\$ 2.9/ton.

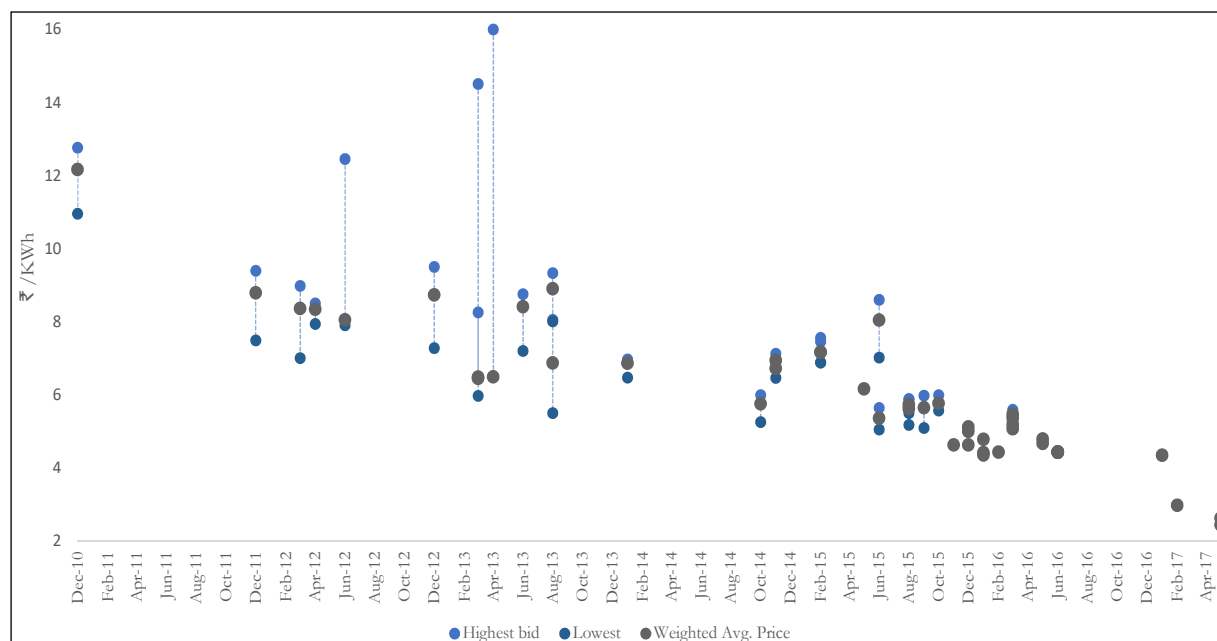
(iii) Health Costs

5.22 The health impact of coal combustion is manifested in the form of negative impact on the respiratory system, cardiovascular diseases, neurological effects, etc. This is in addition to the health impacts on the coal miners who are at a higher risk of chronic bronchitis and other lung diseases. The annual number of deaths linked to coal based power plants pollution is estimated to be around 115000 and the total monetary cost is around US\$ 4.6 billion¹.

(iv) Costs of Intermittency

5.23 Wind and solar power are non-dispatchable. This means that energy can be generated only when there is wind blowing or there is appropriate sunshine. Electricity system has to adjust to the demand patterns of electricity. Therefore, there is an integration cost which is not included in the estimates of

Figure 7. Trend of Solar Tariff Bids in India



Source: Survey calculations

¹ <https://www.scientificamerican.com/article/coal-fired-power-in-india-may-cause-more-than-100000-premature-deaths-annually/>

the levelised cost of electricity. This would require that other conventional sources of energy like coal based power plants have to fill in the gap during times when renewables are not supplying power. One solution to the intermittency problem is storage. The future costs of renewable energy generation depend crucially on the path taken by storage technologies and their cost effectiveness.

(v) Opportunity Cost of Land

5.24 One of the barriers to the widespread adoption of solar and wind technologies that is cited is the land area requirements for setting them up. The land requirement for a coal power plant is usually 2023 m²/MW. Compared to this the requirement of land for a solar power is around 10 times that of coal. Advances in the efficiency of solar technologies would lead to decline in the land requirements for solar in the future years (Mitavachan and Srinivasan, 2012). The cost of the diversion of land to renewable energy generation is not only the private cost of land incurred by the investor but also the opportunity cost of such land. This would depend on the alternative uses for which a particular patch of land can be utilized.

(vi) Stranded Assets

5.25 A shift to renewables is likely to render a part of the assets in conventional energy generation plants idle or result in them being used at a much lower level than their maximum technically feasible level given their capacities. The investments in these plants being sunk, it is no longer possible to recover any returns from them although their useful life is still not over. In our estimates, these stranded assets are estimated as the lost revenues due to the suboptimal utilisation of coal based power generation assets as a result of shift to renewables. The stranding of assets can have implications for the banking system depending on their exposure to the sector. In

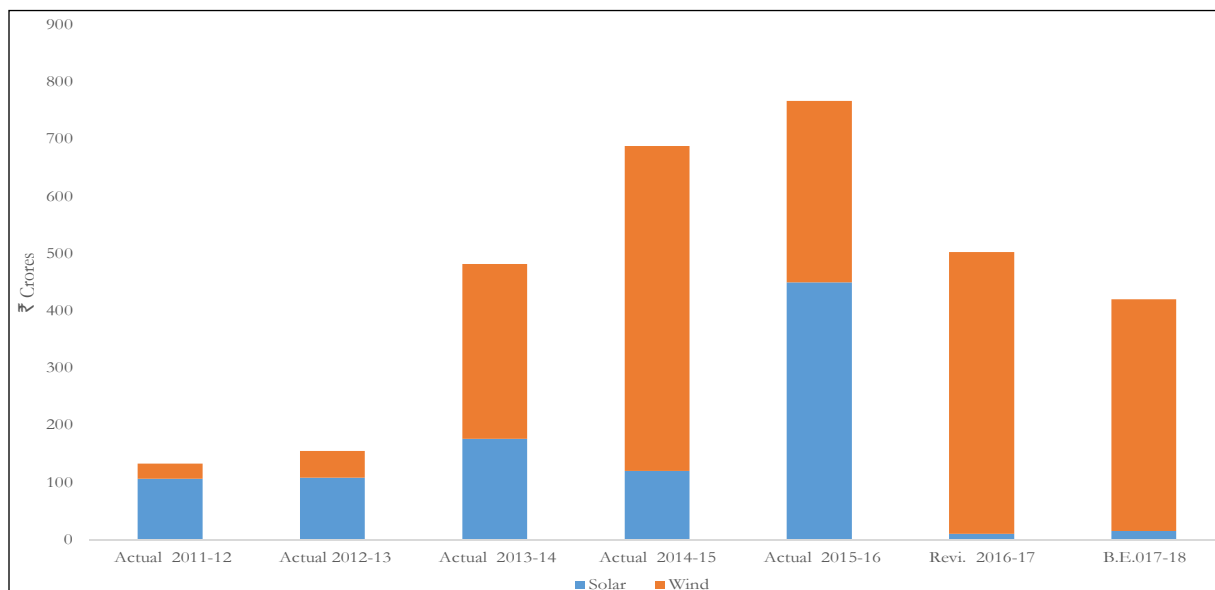
a situation where the banking system is already facing a stressed assets problem, stranding of assets could have considerable impacts. The NPA ratio pertaining to electricity generation was around 5.9 per cent from total advances (outstanding) of ₹473815 crores. The total advances to coal sector was ₹5732 crores with a NPA ratio of 19.8 per cent.

(vii) Cost of Government Incentives

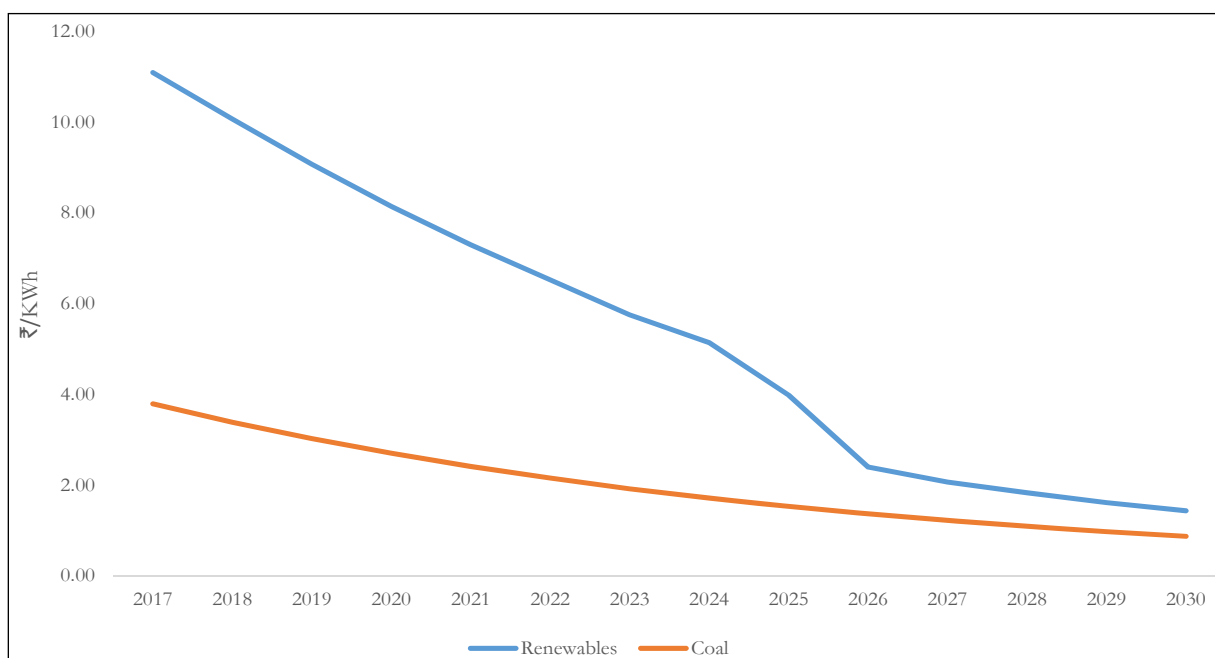
5.26 The role of government in incentivising investments in renewable energy in India has been considerable. The low tariffs witnessed recently have been partly a result of government subsidies/tax holidays and other incentives. Budget estimates for the year 2017-18 indicate an allocation of ₹420 crores towards subsidies for solar and wind power (Figure 8). After increasing from ₹106 crores to ₹450 crores in 2015-16, subsidies to solar power has declined to ₹10 crores and ₹15 crores in 2016-17 and 2017-18 (B.E). On the other hand, wind power has been receiving a considerable portion of the total subsidies to renewables in the recent years.

Results

5.27 Our estimates of social costs of coal and renewables show that in 2017 the social cost of renewables was around 3 times that of coal at ₹11 per KWh (Figure 9). The social cost of RE generation as well as the gap between RE and coal reduces as we progress towards the year 2030. This is because private costs of generation as well as the stranded assets in coal which account for around 30 per cent of the total social cost of renewables currently, falls to around 2.4 per cent of the total social costs of RE in the year 2030. Overall, cost of stranded assets account for a large portion of discounted social costs for renewables between 2017 and 2030 (Figure 10). This indicates that while investments in renewable energy is crucial for India to meet its climate change goals,

Figure 8. Subsidies to Solar and Wind Power

Source: Detailed Demand for Grants, Union Budget Documents

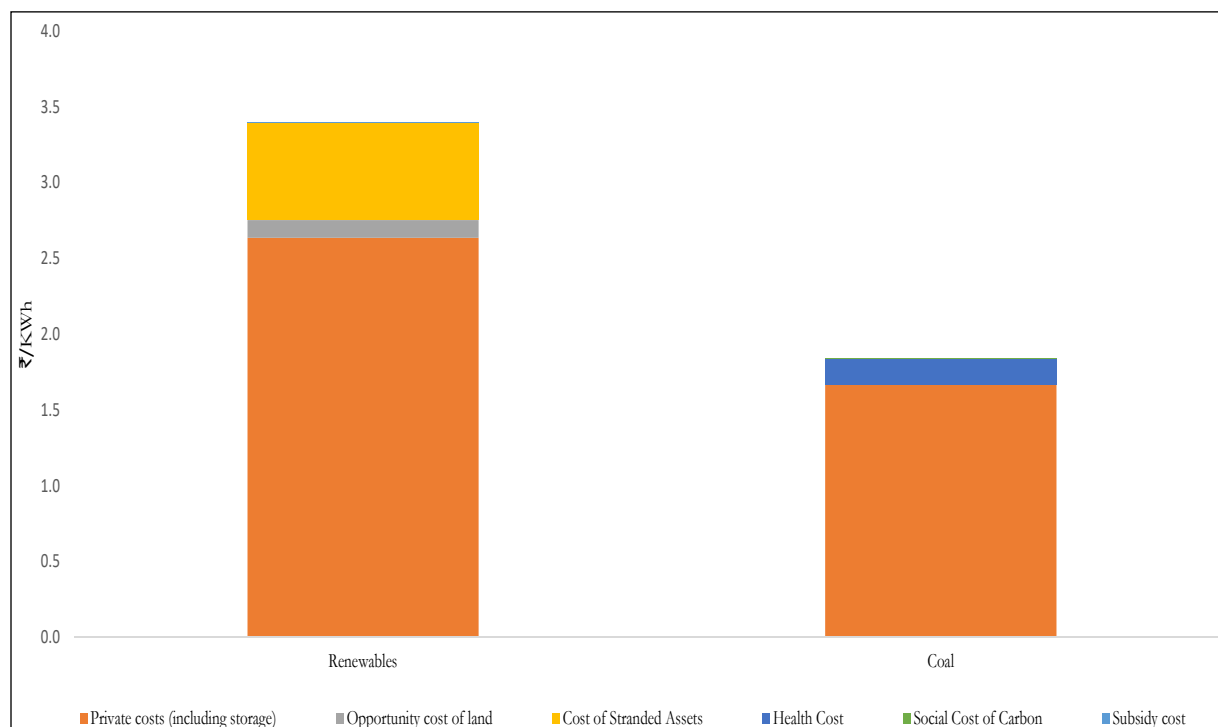
Figure 9. Social costs of Coal vs. Renewable Power Sources

Source: Survey calculations

such investments be made at a calibrated pace looking into the total cost accrued to the society. Given that the first goal for India is to provide 100 per cent energy access to its population and bridge the 'development deficit gap', all cleaner energy sources need to be tapped.

INDIA'S ACTIONS ON SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE

5.28 A large number of focused initiatives have been taken in various sectors of the economy to ensure a pathway of lower emission and climate resilient development.

Figure 10. Social Cost per KWh of Renewables and Coal (2017-2030)

Source: Survey calculations

As stated earlier, India is on course to achieve its pre-2020 voluntary commitment. This has been possible with the commencement of various actions for implementation in the National Action Plan on Climate Change and taking it to the next level at the sub national level with State Action Plans on Climate Change.

Sustainable Development Goals

5.29 While the 17 SDGs and 169 related targets have been globally adopted, each nation has the flexibility to develop indicators suitable to it. At the Central Government level, NITI Aayog has been assigned the role of overseeing the implementation of SDGs, while the Ministry of Statistics & Programme Implementation (MoSPI) is evolving the related national indicators. NITI Aayog has carried out a detailed mapping of the 17 Goals on Nodal Central Ministries, Centrally Sponsored Schemes (CSSs) including ‘core of the core’, ‘core’, and ‘optional’ schemes;

on the government initiatives and also of each of the 169 targets on concerned Central Ministries. Several States/UTs have also carried out a similar mapping of the SDGs and related targets on their respective Departments and programmes for faster implementation of SDGs.

5.30 Much of our national development agenda is mirrored in the SDGs and therefore many of the government programmes and initiatives are already aligned with SDGs. Further, an impetus has been accorded to programmes related to ending poverty and creating infrastructure through higher budgetary allocations. Various goals and targets are highly interconnected, therefore, a push accorded to any specific goal or target also facilitates achievement of other goals and targets as well.

5.31 As a signatory to the 2030 Agenda for Sustainable Development, India is committed to participate in the international review of

progress of SDGs on a regular basis. The central platform for international follow-up and review of the 2030 Agenda is the High-Level Political Forum (HLPF), which has started meeting annually since 2016 under the auspices of the UN Economic and Social Council (ECOSOC). In the HLPF, UN member countries are expected to present their Voluntary National Review (VNR) on implementation of SDGs. The VNRs thus serve as a basis for international review of progress of SDGs. India presented its Voluntary National Review among 44 countries in the annual review by the HLPF held in July 2017.

5.32 India's Green Initiatives

1. **National Action Plan on Climate Change (NAPCC):**

The Government of India has been taking several steps in its action against climate change. The NAPCC, launched in June 2008, which includes eight national missions: Jawaharlal Nehru National Solar Mission, National Mission for Enhanced Energy Efficiency, National Water Mission, National Mission for a Green India, National Mission on Sustainable Habitat, National Mission for Sustainable Agriculture, National Mission for Sustaining the Himalayan Ecosystem and National Mission on Strategic Knowledge for Climate Change. Each mission is anchored under a Ministry, which is responsible for its implementation and lays down the budget provisions and actionable priorities for it.

2. **National Green Corridor Programme:**

To address the fluctuations/variability in the renewable power supply, Government in 2013 announced a National Green Corridor Programme (NGCP). The Power Grid Corporation of India is developing the inter-state transmission corridor and the state transmission utilities are responsible for setting up and

strengthening the intra-state transmission infrastructure. Intra State transmission schemes under Green Energy Corridors (GEC) are to be funded as 20 per cent equity of the State Govt., 40 per cent grant from National Clean Energy and Environment Fund (NCEEF) and 40 per cent soft loan, whereas, the inter State transmission schemes are to be funded as 30 per cent equity by Power Grid Corporation of India Ltd. (PGCIL) and 70 per cent as soft loan. The PGCIL has estimated that the cost to develop the corridor comes to ₹380 billion. The inter-state transmission projects of the green corridor are likely to be completed by 2018.

3. **R&D for Clean Coal Technologies:**

In 2016, R&D Project for “Development of Advanced Ultra Supercritical (Adv. USC) Technology for Thermal Power Plants” on a Mission Mode, at an estimated cost of ₹1554 crore has been approved by the Cabinet Committee on Economic Affairs.

4. **National Green Highways Mission:**

The Ministry of Road Transport and Highways (MoRTH), has promulgated Green Highways (Plantations, Transplantations, Beautification and Maintenance) Policy – 2015 to develop green corridors along National Highways for sustainable environment and inclusive growth. Under the aegis of the Policy, development of green corridors is proposed along developed and upcoming National Highways in the width available in existing Right of Way (ROW) in the form of median and avenue plantations. National Green Highways Mission (NGHM) under National Highways Authority of India (NHAI) has been entrusted with the task of planning, implementation and monitoring roadside

plantations along one lakh km network of National Highways.

5. **Faster Adoption and Manufacturing of Hybrid & Electric Vehicles (FAME India):** Under FAME-India Scheme, under the National Electric Mobility Mission Plan for 2020, Department of Heavy Industry has extended demand incentives of ₹127.8 Crore for purchase of 1,11,897 Electric/Hybrid vehicles since inception of the Scheme on 1st April, 2015 till February, 2017. To promote eco-friendly vehicles, the Government has been offering incentives on electric and hybrid vehicles of up to ₹29,000 for bikes and ₹1.4 lakh for cars under the scheme in pilot mode till February 2017.

6. **National Clean Energy and Environment Fund:** Through Finance Bill 2010-11 a corpus called National Clean Energy Fund (NCEF) was created out of cess on coal produced/imported ("polluter pays" principle) for the purposes of financing and promoting clean energy initiatives, funding research in the area of clean energy or for any other purpose relating thereto. Subsequently, the scope of the Fund has been expanded to include clean environment initiatives also. The coal cess which was collected at ₹50 per tonne of coal since June 22, 2010 was increased several times subsequently. The coal cess was increased to ₹400 per tonne in the Union budget 2016-17, and the same has been renamed as "Clean Environment Cess". Accordingly, the name of NCEF has been changed to National Clean Energy and Environment Fund (NCEEF). However, the Goods and Services Tax (Compensation to States) Act, 2017 which has been notified on 12.04.17, provides that coal cess, along with some other cess on pan masala, tobacco, aerated water etc. would

constitute GST Compensation Fund and the same would be utilized to compensate the States for five years for potential losses on account of GST implementation. After five years any amount left would be shared on 50 per cent basis between Centre and States. Table 3 explains the details of NCEEF projects.

INDIA'S ADAPTATION ACTIONS

5.33 Adaptation to climate change is an absolute imperative for the nation. Keeping this in view, the Government of India accords great emphasis on adaptation. National Adaptation Fund was created as a central scheme with a corpus of ₹350 crores for the year 2015-16 and 2016-17. The overall aim of the Fund is to support concrete adaptation activities which are not covered under on-going activities through the schemes of National and State Governments that reduce the adverse impact of climate change facing community, sector and states. Till date, a total of ₹212.3 crores has been sanctioned for 21 approved projects. with a total project cost of ₹432.7 crore covering the vulnerable sectors of Water, Agriculture and Animal Husbandry, Forestry, Ecosystems and Biodiversity etc.

5.34 In this context, efforts are also being made by NABARD to develop climate resilient rural infrastructure to ensure its sustainability under changing climatic conditions. Some of the recently taken important steps by NABARD are related to accessing national and international funding mechanism to fulfil the need of climate finance. NABARD has been accredited as National Implementation Entity (NIE) for Adaptation Fund (AF) and Direct Access Entity (DAE) for Green Climate Fund (GCF) under UNFCCC. Under Adaptation Fund, 6 projects submitted by NABARD have been approved by Adaptation Fund Board (AFB) with an outlay of US \$ 9.8 million

Table 3. The Details of NCEF Projects (Amount in ₹ crore)

| Year | Coal Cess Collected | Amount transferred to NCEEF | Amounts financed from NCEEF for projects | Projects recommended by IMG to be financed from NCEEF | No of Projects recommended by IMG |
|----------------|---------------------|-----------------------------|--|---|-----------------------------------|
| 2010-2011 | 1,066.46 | 0.00 | 0.00 | 0.00 | 0 |
| 2011-2012 | 2,579.55 | 1,066.46 | 220.75 | 566.50 | 9 |
| 2012-2013 | 3,053.19 | 1,500.00 | 246.43 | 2715.11 | 6 |
| 2013-2014 | 3,471.98 | 1,650.00 | 1,218.78 | 1060.22 | 11 |
| 2014-2015 | 5,393.46 | 4,700.00 | 2,087.99 | 12000.17 | 19 |
| 2015-2016 | 12,675.60 | 5,123.09 | 5,234.80 | 18469.47 | 10 |
| 2016-2017 (RE) | 28,500.00 | 6,902.74 | 6,902.74 | - | - |
| 2017-2018 (BE) | 29,700.00 | 8,703.00 | - | - | - |
| Total | 86,440.21 | 29,645.29 | 15,911.49 | 34811.19 | 55 |

Source: Ministry of Finance, 2017

against an overall country cap of US\$ 10 million. These projects would benefit 77,225 vulnerable people spread over in six States. These projects are designed to generate key learnings for development of adaptation projects which can be mainstreamed under existing programmes and policies.

5.35 NABARD being a DAE of GCF has achieved a milestone by getting approval of a project on “Ground water recharge and Solar Micro Irrigation to ensure food security and enhance resilience in vulnerable tribal areas of Odisha” from 16th GCF Board meeting. The project is approved with an outlay of US\$ 166.29 million including GCF grant support of US\$ 34.35 million whereas other financial resources would be provided by Government of Odisha and World Bank.

5.36 To strengthen agricultural insurance in the country, in Kharif 2016, the Pradhan Mantri Fasal Bima Yojna (PMFBY) was introduced (Box 1).

DISCUSSIONS IN THE G-20 FORUM

5.37 The relevance of green finance has

been steadily growing over the past few years, and has now emerged as key topic underpinning the new policy dynamics promoting sustainable development. There is a growing interest globally to identify barriers and develop options on how to enhance the ability of the financial system to mobilize adequate funds for green investments and assess associated environmental risks. The action to incorporate environmental factors into the financial system has been gathering momentum across the countries and even shaping the strategies of a number of businesses.

5.38 In this context, G-20 also framed their political commitment to show leadership in implementing the 2030 Agenda for sustainable development and implementation of Paris Agreement reflecting equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances. G-20 Sustainability Working Group in 2017 focussed its discussions on the topics of climate and energy and made efforts in

Box 1. Climate Insurance

India is one of the world's most vulnerable countries to climate change, with its economic sectors highly exposed to the changing climate. Estimates indicate that currently, India incurs losses of about US\$ 9-10 bn², annually, due to extreme weather events. Of these, nearly 80 per cent of losses remain uninsured. From 2014-15, natural catastrophe (NatCat) losses for Indian insurance companies were estimated at US\$ 11bn³. The low insurance penetration in India is also visible from the data from recent calamities. For example, the total losses due to floods in Kashmir in 2014, caused by unprecedented rains, were declared officially to be in excess of ₹100,000 crore (approx. US\$ 15 bn), insurance companies were required to pay around ₹4000 crore (approximately US\$ 610 mn) according to a High Court directive, due to the low insurance coverage. In another instance, while total losses from 2014 Cyclone Hudhud reached US\$ 11 bn, only US\$ 650 mn was insured.⁴

Life insurance has mainly dominated the insurance market in India, while general insurance is slowly picking up the pace. The non-life insurance market has more than tripled in a ten-year period, growing from US\$ 3.4 bn in 2004 to US\$ 13.5 bn in 2015. Moreover, since 2007, the market has become increasingly competitive as the public sector's share has reduced from 64.4 per cent to 52.4 per cent in 2015⁵. While General Insurance Corporation of India (GIC) with 52 per cent covers large portion of traditional risks within Indian insurance market, there has only been some recent development of domestic expertise on targeted climate risks. India's insurance penetration rate of 3.3 per cent, 2.6 per cent of GDP for life insurance and 0.7 per cent of GDP for non-life insurance, is far below the global average of 6.2 per cent.⁶

In India, climate-related insurance is limited to the agriculture sector, primarily in the form of crop insurance. Eleven states in India submitted memoranda reporting crop loss due to natural calamities like drought, hailstorm, cold wave etc and was approved to the tune of US\$ 2.3 bn during 2015-16 (NDRF, 2016). Yet, in the agriculture sector, it is estimated that only 19 per cent of farmers make use of crop insurance.

In the agricultural insurance segment, there are few players with the most prominent being the public owned Agriculture Insurance Company of India Ltd. (AIC) followed by NABARD. While AIC is taking several innovative steps and launching products for niche segments – such as Rubber Plantation Insurance, Bio-Fuel Plants Insurance, Mango Weather Insurance, Potato Contract Farming Insurance, Rabi Weather Insurance, etc. – it is unable to effectively cover the entire agriculture sector. The company's net incurred claims ratio of 99.7 per cent in 2015-16 as against 108.5 per cent in 2014-15⁷, clearly shows that there is a need for expansion and more players in the segment. The Insurance Regulatory and Development Authority (IRDA) estimates that approximately US\$ 7.5 bn is needed to increase insurance penetration to 6 per cent, of which US\$ 3.7 bn will need to be foreign investment.⁸

To strengthen agricultural insurance in the country, in Kharif 2016, the Pradhan Mantri Fasal BimaYojna (PMFBY) was introduced. Under PMFBY, farmers have insured their crops during kharif 2016 and 32.6 mn farmers have been covered under PMFBY and Weather Based Crop Insurance Schemes (WBCIS) as on November 2016. As per Budgetary Estimates (BE), Government of India has allocated US\$ 846 mn under for PMFBY during 2016-17. The scheme is being implemented by AIC and some private insurance companies.

Innovative products supported by risk models and reinsurance pools can provide huge opportunities to the insurance industry in India. One such model is that of Catastrophe Risk Pools (CRP) that aim to put the focus on proactive financial planning to deal with adverse impacts of natural disasters, instead of relying on fund-raising efforts after disasters, resulting in reduced economic losses as well as lowering the impact of disasters on the national budget. Financial instruments used in creating these could include contingency funds, contingent loans, grants, besides other risk transfer solutions.

² <https://earthsecuritygroup.com/wp-content/uploads/2016/06/ESG.IndiaInsurance.pdf>

³ 'Nat CAT events cost insurers US\$2 bn in 2 years', Asia Insurance Review, 8 January 2016

⁴ <https://earthsecuritygroup.com/wp-content/uploads/2016/06/ESG.IndiaInsurance.pdf>

⁵ 'India Market General Insurance Update', Towers Watson, September 2015

⁶ 'Swiss Re Sigma No.4 / 2015-World Insurance Report', Swiss Re, 2014

⁷ <https://www.giz.de/en/mediacenter/36562.html>

⁸ India: Insurers need US\$9 bn to reach global average penetration', Asia Insurance Review, 16 December 2015

preparing G-20 Action Plan on Climate and Energy for growth whilst not duplicating other processes. The elements of the G-20 Action Plan on Climate include: move forward to implementing NDCs in line with the Paris Agreement, strive to communicate long-term GHG development strategies, enhancing climate resilience and adaptation efforts, aligning finance flows consistent with the goals of the Paris Agreement and national sustainable development priorities and economic growth. At the 2016 Hangzhou Summit, G-20 Heads of State recognized the need to scale up green finance. G-20 Green Finance Study Group (GFSG) has been functioning with the objective to “identify institutional and market barriers to green finance, and based on country experiences, develop options on how to enhance the ability of the financial system to mobilize private capital for green investment. Considerable momentum has been generated internationally particularly since the adoption of Paris Agreement in December 2015 in terms of policy signals and framework for green finance. During 2017, the GFSG has focussed on two themes; first, the environmental risk analysis (ERA) in the financial industry and second the use of Publicly Available Environmental Data (PAED) for financial risk analysis and inform decision-making. GFSG knowledge partners have identified a number of options for encouraging voluntary adoption of ERA that the countries could consider including ensuring the consistency of policy signals to the extent possible, raise awareness of the importance of ERA for financial institutions that have significant environmental exposure, encourage better quality and more effective use of environmental data, encourage public institutions to assess environmental risk and their financial implications in different country settings. PAED are important sources of information for ERA and broader

financial analysis. GFSG knowledge partners has identified options for improving, on a voluntary basis, the availability, the accessibility and relevance of PAED and supported the development of a catalogue of PAED with a focus on its use for financial analysis.

5.39 G-20 also recognizes that a number of other areas of inquiry are emerging and require further research. Examples of these areas include, among others: integration of green investment opportunities framework; more integrated national approaches to green finance; development of local currency green bond markets in emerging market economies; the role of public finance and development banks in supporting green investment, and the application of financial technology (‘FinTech’) in green finance.

THE FINANCIAL SECTOR AND GREEN INITIATIVES

5.40 A number of initiatives have been taken in the Indian financial sector also, which among others include:

1. Reserve Bank of India (RBI) has been conscious of the role of banks in providing finance for sustainable development. As early as in December 2007, banks in India were sensitized to the various international initiatives including the Equator principles and were asked to keep abreast of the developments in the field of sustainable development and corporate social responsibility and dovetail/modify their lending strategies/plans in the light of such developments.
2. A core of the financial policy in India is the Priority Sector Lending (PSL) requirement for banks to allocate 40 per cent of lending to key socially important sectors such as agriculture and small and medium-sized enterprises. In 2015, RBI included lending to social infrastructure

and small renewable energy projects within the targets, thereby, giving a further fillip to green financing. In the renewable energy segment, as per the notification of the RBI in May 2016, bank loans of up to ₹15 crore for solar-based power generators, biomass-based power generators, wind mills, micro-hydel plants, etc. will be considered part of PSL.

3. The RBI has also recently introduced market for trading priority sector lending obligations, incentivizing lower cost delivery.
4. New Development Bank (NDB) is the first Multi-lateral Development Bank established by developing countries and emerging economies – Brazil, Russia, India, China and South Africa (BRICS) – in accordance with the agreement on New Development Bank signed on 15th July, 2014 in Fortaleza, Brazil. NDB's objectives are in line with the BRICS countries' own development goals, with an increased focus on sustainable development and hence NDCs. In 2016, the NDB has approved seven projects, of which two are in India, for a total of over US\$ 1.5 billion, in the areas of renewable and green energy, and transportation. The two loans approved for India amount to US\$ 600 mn. The renewable energy generation project in India will lead to generation of about 500 MW Renewable Energy thereby preventing generation of 815,000 tonne CO₂ per annum. US\$ 250 million sovereign guaranteed loans will be given to Canara Bank in three tranches under this project.
5. The External Commercial Borrowing (ECB) norms have been further liberalized so that green projects can tap this window for raising finance across the borders. Extant guidelines permit use

of ECB proceeds to retire outstanding Rupee loans provided minimum average maturity of ECB is 10 years or ECB is denominated in Rupees. ECB can also be raised to refinance existing ECB provided all-in-cost is lower than that of existing one and residual maturity is not reduced.

6. The Securities and Exchange Board of India (SEBI) has, in May 2017, put in place the framework for issuance of green bonds and the listing requirements for such bonds, which will help in raising funds from capital markets for green projects.
7. Large corporates integrating sustainability in their core businesses are included in the Bombay Stock Exchange's green indices, the GREENEX and CARBONEX. GREENEX was introduced in 2012 and comprises of 25 of India's biggest companies. The S&P BSE CARBONEX seeks to track the performance of the companies in the S&P BSE 100, based on their commitment to mitigating risks arising from climate change in the long run.
8. Companies Act 2013 directs companies having a certain level of profits, to spend 2 per cent of their annual profit on Corporate Social Responsibility (CSR) activities. Estimates indicate that a fair share of the available CSR funding of about ₹220 billion (US\$ 3.5 billion) annually will be invested in environment initiatives from this window.

OUTLOOK

5.41 To sum up, India has delivered on its commitments and is well on track to achieve its voluntary pledge of reducing the emissions intensity of its GDP by 20-25 per cent over 2005 levels by 2020. India has ratified the Paris Agreement and is committed to its NDC implementation as outlined

therein. India is constructively engaged at the multilateral level in writing the “Paris rule book” for the implementation of Paris Agreement. At the national level, roadmap for implementation of its NDCs is being prepared by the Committees constituted for the purpose. Multilateral climate regime will do well if financial resources are provided to assist developing countries to facilitate the pathway towards low GHG emissions and climate resilient development. In this regard, India underscores the importance of an increase in the volume, flow and access to finance alongside improved capacity and technology for developing countries.

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External Sector

The year 2016-17 witnessed a turnaround in India's external sector with export growth becoming positive after two years of continuous negative growth, import growth remaining negative, though marginally for the fourth year in succession resulting in narrowing down of both trade deficit by 1.2 percentage points to 5 percent of GDP and current account deficit by 0.4 percentage points to 0.7 percent of GDP. These along with robust growth in gross foreign direct investment of 18.2 per cent, accretion in foreign exchange reserves and fall in external debt by 2.7 per cent after a smooth and successful redemption of FCNR(B) deposits have resulted in a more stable external sector situation. The year also witnessed major policy changes like rationalisation of export promotion schemes, a new push towards building export infrastructure and trade facilitation measures, further opening up of foreign investment and above all finalising the blueprint of the Goods & Services Tax implemented from 1st July 2017.

GLOBAL ECONOMIC ENVIRONMENT

6.1 Global growth decelerated from 3.4 per cent in 2015 to 3.2 per cent in 2016 (IMF's World Economic Outlook Update, July 2017), with slowdown and even fall in global trade, weak investment, slowdown in China, and heightened policy uncertainty depressing world economic activity in 2016. After a lackluster performance in 2016, economic activity is projected to pick up pace in 2017 and 2018 with a long awaited cyclical recovery in investment, manufacturing, and trade. Global growth is projected to rise to 3.5 per cent in 2017 and 3.6 per cent in 2018. While most of the advanced economies are projected to grow at a faster pace in 2017 and 2018, the picture for emerging market and developing economies (EMDEs) remains much more diverse. China's growth at 6.7 per cent in 2016 was a bit stronger than expected,

supported by continued policy stimulus and is projected also at 6.7 per cent in 2017, slowing slightly to 6.4 per cent in 2018. India grew at 7.1 per cent in 2016 which is one of the highest among the major economies of the world and is projected to grow at 7.2 per cent in 2017 and 7.7 per cent in 2018.

6.2 World trade value growth which had fallen drastically by 13.2 per cent in 2015 continued to fall though by a lesser 3.2 per cent in 2016 (WTO database), with slowdown in global growth and investment, uptick in protectionism, falling commodity prices and decline in growth of global value chains. World trade volume (goods and services) growth also continued to decelerate in 2016 to 2.3 per cent from 2.6 per cent in 2015 (IMF's WEO Update, July 2017). It is projected to pick up with growth of 4.0 per cent in 2017 and 3.9 per cent in 2018 (Table 1).

However, the pace of recovery is slower than previously expected because of downward revisions to growth prospects in major advanced economies, persistent weakness in global investment, and slower or stalled trade

liberalization amid uncertainty about trade policy in the United States and Europe and rising anti-trade and protectionist measures (See box 1).

Table 1. Overview of World Trade (Goods & Services)

| | Estimate | Projections | | Difference from WEO April 2017 Projections | |
|--|----------|-------------|------|--|------|
| | 2016 | 2017 | 2018 | 2017 | 2018 |
| World Trade Volume (goods and services) | 2.3 | 4.0 | 3.9 | 0.2 | 0.0 |
| Advanced Economies | 2.3 | 3.9 | 3.5 | 0.2 | -0.1 |
| EMDEs | 2.2 | 4.1 | 4.6 | 0.1 | 0.3 |

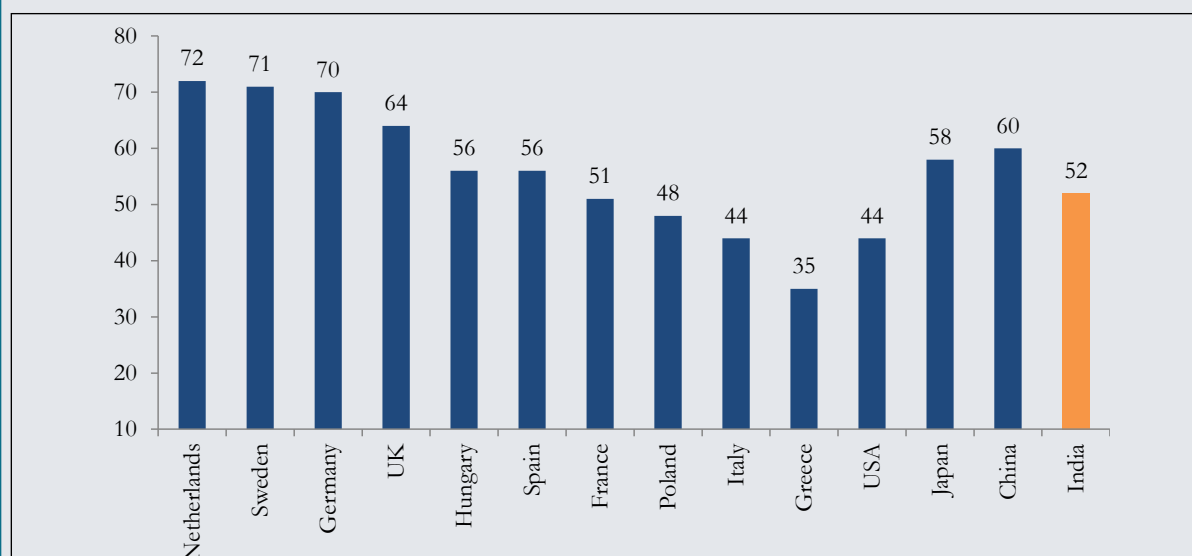
Source: IMF, World Economic Outlook Update, July 2017

Box 1. Rising Anti-globalization and Trade Restrictive Measures

Growing Anti-globalization: In recent years, anti-globalization tendencies have surfaced with the recent developments in the US during and after the elections and the Brexit referendum with people viewing trade, immigration, and multilateral engagements with some amount of skepticism and becoming wary of the benefits of globalization. In addition to this, studies suggest that despite the reduction in global inequality since 1990s, inequality within countries has increased, especially among the advanced economies. Similarly, the IMF's World Economic Outlook (April 2017) states that a number of middle-skill jobs in advanced economies have been lost as a result of technological change since the early 1990s and the distribution of income has continued to favour the highest earners leaving little room for those with lower incomes to advance. On average, across 21 OECD countries, it is estimated that 9 per cent of jobs are at high risk of automation, while another 25 per cent of jobs are likely to experience major retooling because of automation (OECD, 2017a). Studies also indicate that to some degree this malaise reflects a macroeconomic policy mix that has failed to sustain sufficient demand growth in the world economy (OECD, 2017a).

Rising Trade Restrictive Measures: There is a rapid rise in recent years of many trade restrictive measures including several types of non-tariff barriers (NTBs). New restrictions on visas and the risk of a backlash against the movement of persons, add to a situation that is of growing concern. As per the WTO's seventeenth monitoring report on G20 trade measures (30 June 2017), a total of 42 new trade-restrictive measures were implemented by G20 economies during the review period (mid-October 2016 to mid-May 2017), including new or increased tariffs, customs regulations and rules of origin restrictions, amounting to a monthly average of six measures. This represents a slight increase over the previous period, but still remains lower than the longer-term trend observed from 2009-2015 of seven per month. The steady accumulation of trade-restrictive measures since the financial crisis has also gradually increased the share of global trade affected by such restrictions. In mid-October 2016, the share of world imports covered by import-restrictive measures implemented since October 2008 and still in place was 5 per cent and the share of G-20 imports covered was 6.5 per cent. The trade coverage of the trade-restrictive measures affecting imports introduced during the latest review period (mid-October 2016 to mid-May 2017) was US\$ 47 billion, i.e. 0.37% of the value of G20 merchandise imports or 0.29% of the value of world merchandise imports.

Differing views of countries: Not all countries have the same views on globalization. It differs from country to country or group of countries as indicated below (PEW Research Centre Surveys 2016-2017, OECD 2017c).

Chart 1. Differing Views of Countries on Global Economic Engagement (per cent)

Source: PEW Research

Note: *= per cent of surveyed people

- Chinese and Indians are upbeat about globalization with 60 per cent of those surveyed in China stating that globalization is a good thing. In the Indian case it was 52 per cent.
- In Europe the views are divided with majority in Netherlands, Sweden, Germany, UK, Hungary and Spain supporting it while majority in Greece, Italy, Poland opposing it and France being on the border line.
- Americans' views on trade are counter intuitive, partisan and changing. Trade has never been a priority for most Americans, although they are slightly more concerned in 2017. American public's support for NAFTA has grown in recent years, though Government's support for NAFTA has declined.

INDIA'S BALANCE OF PAYMENTS DEVELOPMENTS

Overview of Balance of Payments

6.3 India's balance of payments situation which was benign and comfortable during 2013-14 to 2015-16, further improved in 2016-17, as a result of low and falling trade and current account deficits and moderate and rising capital inflows, resulting in further accretion of foreign exchange reserves. Reflecting the slowly improving world economic situation, India's exports turned positive at 5.2 per cent in 2016-17 after an interregnum of two years. This along with a marginal decline in imports by 1.0 per cent resulted in narrowing down of trade deficit to US\$ 112.4 billion (5 per cent of GDP) in

2016-17 as compared to US\$ 130.1 billion (6.2 per cent of GDP) in 2015-16. Net invisibles balances were lower at US\$ 97.1 billion (4.3 per cent of GDP) in 2016-17 as against US\$ 107.9 billion (5.2 per cent of GDP) in 2015-16. The current account deficit (CAD) narrowed down progressively to 0.7 per cent of GDP in 2016-17 from 1.1 per cent of GDP in 2015-16 led by sharp contraction in trade deficit which more than outweighed a decline in net invisibles earnings. Net capital inflows were slightly lower at US\$ 36.8 billion (1.6 per cent of GDP) in 2016-17 as compared to US\$ 40.1 billion (1.9 per cent of GDP) in the previous year, mainly due to fall in NRI deposits. As the capital account surplus was in excess of financing current account deficit, there was an accretion of

reserves (on BOP basis) to the extent of US\$ 21.6 billion in 2016-17 which was higher than the accretion of US\$ 17.9 billion in 2015-16.

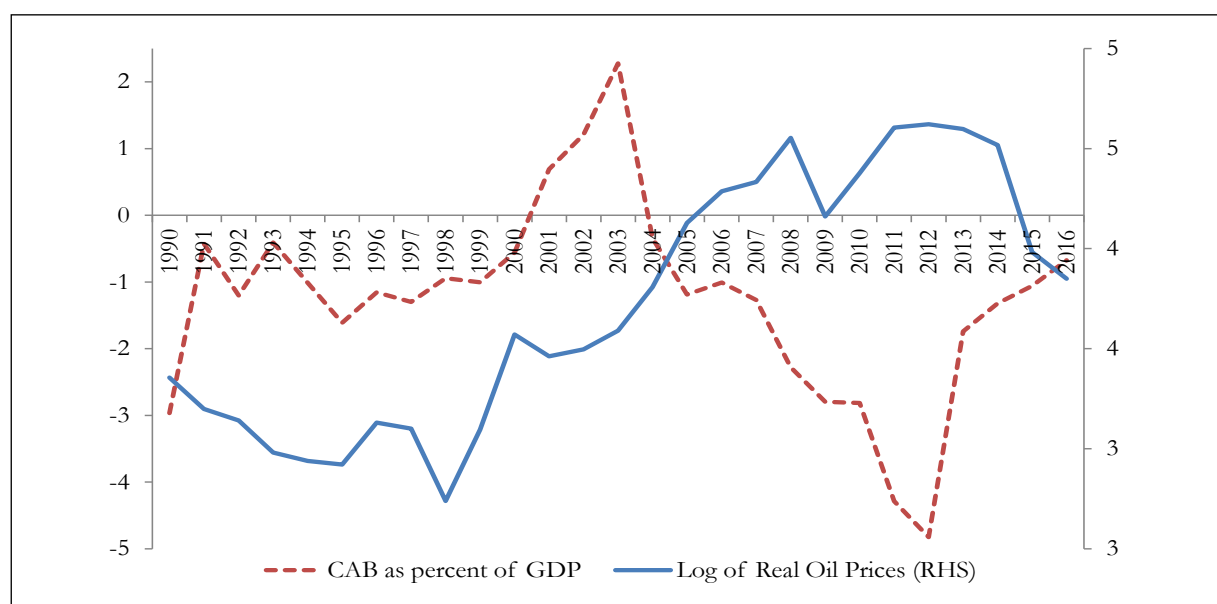
Current Account Developments in 2016-17

Merchandise

6.4 After two years of negative growth, merchandise exports (BOP basis) grew by 5.2 percent in 2016-17 with positive growth in both Petroleum Oil and Lubricants (POL) and non-POL exports. Merchandise imports (BOP basis), which has been falling continuously since 2012-13 fell marginally in 2016-17 by 1.0 per cent. With rise in exports

and fall in imports, trade deficit fell by 13.6 per cent. A sharp decline in imports in H1 and pick-up in exports in H2 helped India to reduce trade deficit by nearly US\$ 18 billion in 2016-17. The fall in international crude oil prices (Indian Basket) which resulted in a decline in oil import bill by around 10 per cent in April-December 2016-17 together with a sharp decline in gold imports led to a fall in India's overall imports. The sharp fall in crude oil prices since 2014-15 has been one of the major reasons for the fall in India's current account deficit (Figure 1). However, there was strong pick up in imports in Q4 of 2016-17 as crude oil prices rose from their levels a year ago.

Figure 1. Current Account Balance and Log of Real Oil Prices



Source: Based on RBI and World Bank data

6.5 India's merchandise exports (on customs basis) reached the highest level of US\$ 314.4 billion in 2013-14 though with a growth of only 4.7 per cent. Following the global trend of decline in export growth, India's export growth also declined during 2014-15 and 2015-16, by 1.3 per cent and 15.5 per cent respectively. India's export growth continued to be negative in the first half of 2016-17. However, in the second half of 2016-17, it registered

positive growth resulting in exports reaching US\$ 276.3 billion with positive growth of 5.3 per cent for the whole year 2016-17. (Table 2).

6.6 India's export growth (non-fuel) which has generally been higher than world export growth (non-fuel) moved to negative territory in 2014 and was lower or in tandem with world export growth (non-fuel) since then (Figure 2).

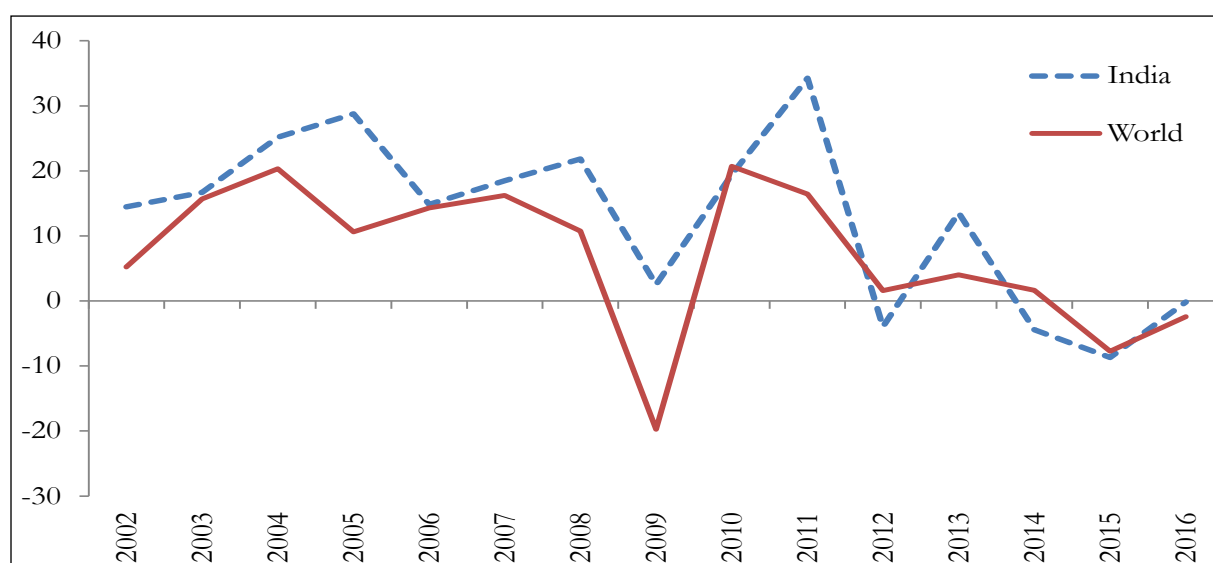
Table 2. Trade Performance

| | (Value in US\$ billion) | (Growth (y-o-y) in per cent) | | |
|-------------------------------------|----------------------------|------------------------------|---------|------------------------|
| | 2016-17 | 2015-16 | 2016-17 | 2017-18 (Apr-June)* |
| Exports | 276.3 | -15.5 | 5.3 | 10.6 |
| POL Exports | 31.7 | -46.2 | 3.7 | 20.4 |
| Non POL Exports | 244.6 | -8.6 | 5.6 | 9.4 |
| Imports | 384.3 | -15.0 | 0.9 | 32.8 |
| POL Imports | 86.9 | -40.0 | 4.8 | 23.0 |
| Non POL Imports | 297.4 | -3.8 | -0.2 | 35.6 |
| Gold & Silver Imports | 29.3 | -8.8 | -17.3 | 176.3 |
| Non-POL & Non Gold & Silver Imports | 268.1 | -3.0 | 2.1 | 25.0 |
| Trade Balance | -108.0 | -13.8 | -9.0 | 108.2 |

Source: Based on Department of Commerce data.

* Based on latest Press Release.

Figure 2. Non-Fuel Export Value growth of World and India (per cent)

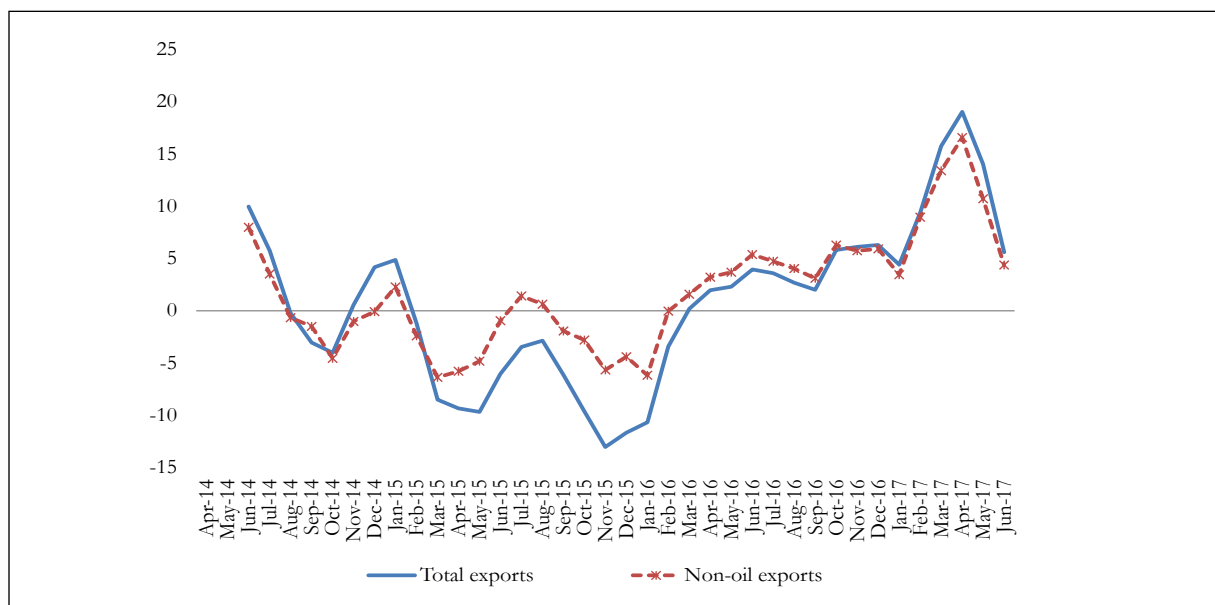


Source: Based on ITC Trade map

6.7 India's positive export growth in 2016-17 was due to the positive growth of both POL and non-POL exports at 3.7 per cent and 5.6 per cent respectively. With pick up in crude oil prices, POL export growth at 25.8 per cent was more than double the non-POL export growth of 10 per cent in the second half of 2016-17. In 2017-18 (April-June) there was double digit export growth at 10.6 per cent with POL export growth being more than two times the growth in non-POL exports.

6.8 Pick up in volume growth of both POL and non-POL exports in December 2015 which moved to positive territory in February 2016 helped in the recovery in exports, though there was a slight deceleration in May and June 2017 (Figure 3).

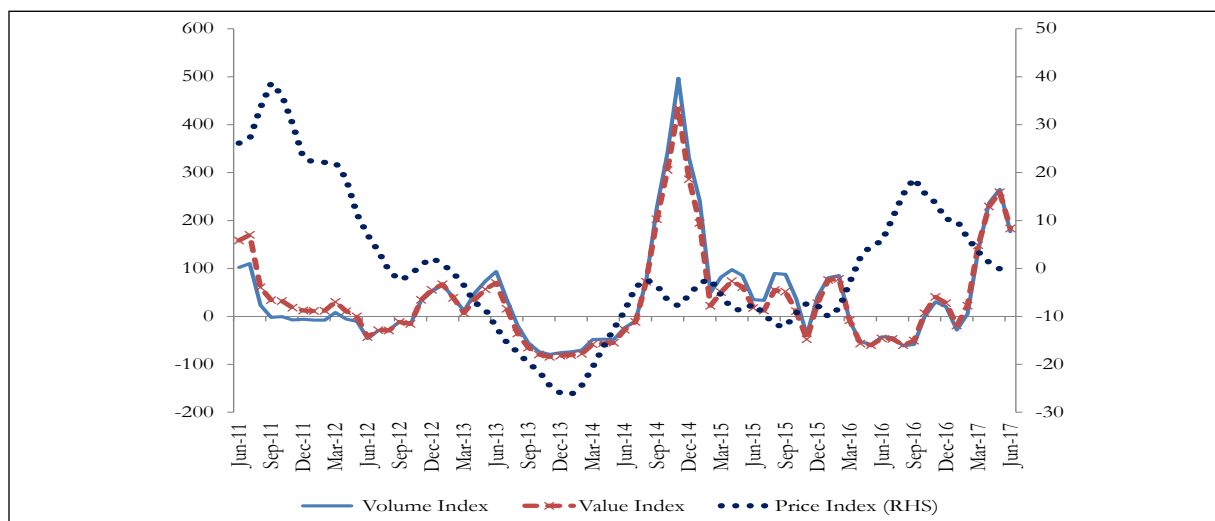
6.9 India's merchandise imports (on customs basis) also fell from a high level of US\$ 490.7 billion in 2012-13 to US\$ 381.0 billion in 2015-16 and registered a mild increase of 0.9 per cent to US\$ 384.3 billion

Figure 3. Growth in Volume Index of Exports: 3MMA(per cent) 2013-14=100

Source: In-house calculations. Monthly trade data of DGCI&S, World Bank monthly pink sheet for computing international price index in dollar terms, Ministry of Commerce & Industry wholesale price index and RBI exchange rate to convert the rupee index to dollar index.

in 2016-17. The slight increase in the value of imports in 2016-17 despite the decline in gold and silver imports by 17.3 per cent, was due to the rise in POL imports and a small increase in non-POL and non-gold and silver imports which had fallen in 2015-16. However in 2017-18 (April-June), imports grew by a whopping 32.8 per cent with POL import growth at 23.0 per cent mainly due to

rise in crude oil prices and non-POL import growth at 35.6 per cent which in turn is due to the high increase in gold & silver imports at 176.3 per cent and also non-POL and non-gold & silver imports by 25.0 per cent. Increase in value of gold imports was due to the rise in volume of gold imports. In fact gold import value index has been moving in tandem with gold volume index over the years (Figure 4)

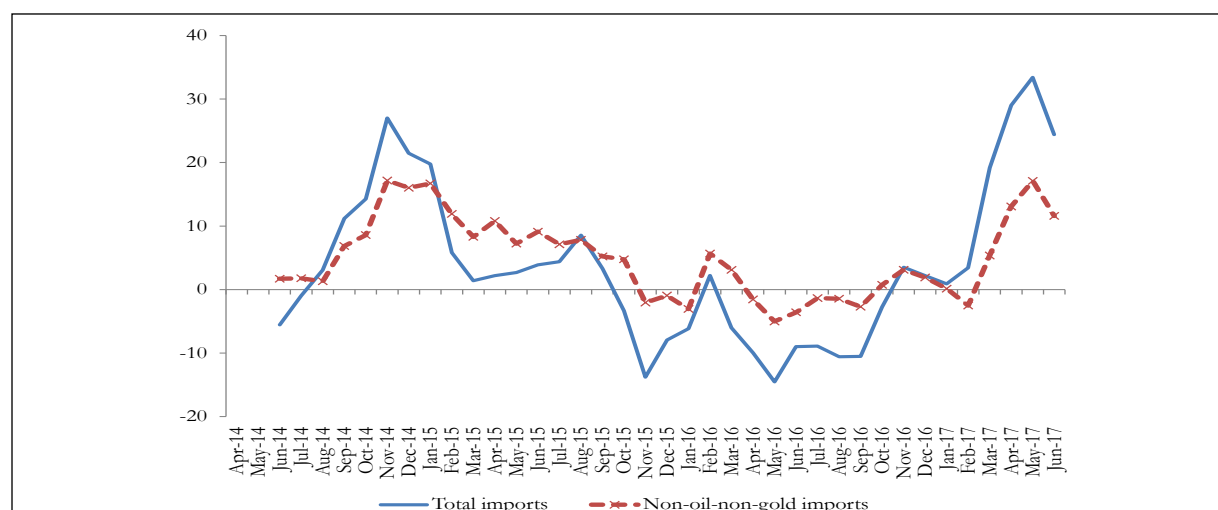
Figure 4. Growth in Import of Gold Volume/Value & Gold Price, 3MMA (per cent) (2010-11=100)

Source: Calculated from the DGCI&S monthly data.

The high increase in non-POL & non-gold & silver imports was mainly due to the growth in imports of capital goods, pearls & semi-precious stones and chemicals needed for industrial activity and exports.

6.10 Import volume growth, both total and non-oil non-gold (3MMA) have been in positive territory since October 2016, though there has been a slight deceleration in June 2017 (Figure 5).

Figure 5. Growth in Volume Index of Imports: 3MMA (per cent) 2013-14=100



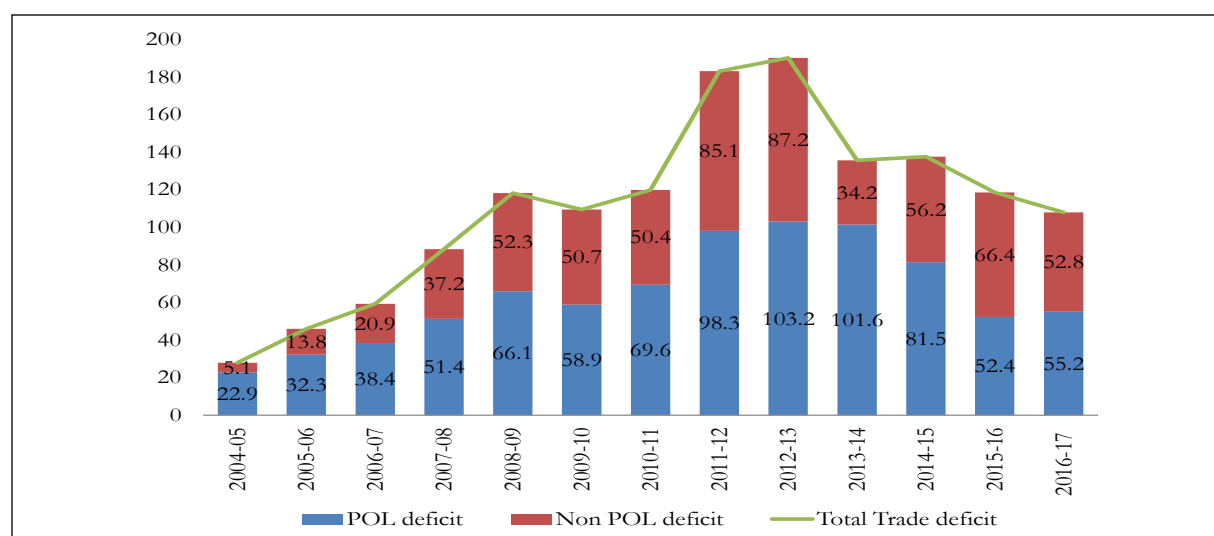
Source: Same as for figure 3.

Trade Deficit

6.11 India's trade deficit (on customs basis) which increased steadily from 2004-05 and reached the highest level of US\$ 190.3 billion in 2012-13, registered continuous decline since 2014-15, reaching a level of US\$ 108.0 billion in 2016-17. There has been a general

decline in both POL deficit and non POL deficit since 2013-14 though there were variations in some years in both (Figure 6). The fall in non POL deficit was mainly due to the fall in net gems and jewellery deficit from US\$ 21.1 billion in 2014-15 to US\$ 17.2 billion in 2015-16 and further to US 10.3 billion in 2016-17.

Figure 6. POL and Non POL Trade deficit (US\$ billion)



Source: Computed from DGCI&S data.

However in 2017-18 (April-June) trade deficit increased by 108.2 per cent with high import growth while export growth was moderate as indicated earlier.

6.12 Among India's trading partners, the top five countries with which India's bilateral trade balance is negative are

China, Switzerland, Saudi Arabia, Iraq and Indonesia, while the top five countries with which it has surplus trade balance are USA, UAE, Bangladesh, Hong Kong and Nepal. The major contributor for India's total trade deficit is its trade deficit with China, the share of which increased from 19.9 per cent in 2011-12 to 47.3 per cent in 2016-17.

Table 3. Bilateral Trade Surplus/Deficit (US\$ billion)

| | | 2011-12 | 2014-15 | 2015-16 | 2016-17 (P) |
|----------------------------|-------------|---------|---------|---------|-------------|
| Trade Surplus Countries | U S A | 11.4 | 20.6 | 18.6 | 20.0 |
| | U A E | -0.8 | 6.9 | 10.8 | 9.8 |
| | Bangladesh | 3.2 | 5.8 | 5.3 | 6.0 |
| | Hong Kong | 2.5 | 8.0 | 6.0 | 6.0 |
| | Nepal | 2.2 | 3.9 | 3.5 | 5.0 |
| Trade Deficit Countries | China | -36.6 | -48.5 | -52.7 | -51.1 |
| | Switzerland | -34.1 | -21.1 | -18.3 | -16.3 |
| | Saudi Arab | -26.4 | -16.9 | -13.9 | -14.8 |
| | Iraq | -18.2 | -13.4 | -9.8 | -10.6 |
| | Indonesia | -8.2 | -11 | -10.3 | -9.9 |
| Total Trade Deficit | | -183.4 | -137.6 | -118.7 | -108.0 |

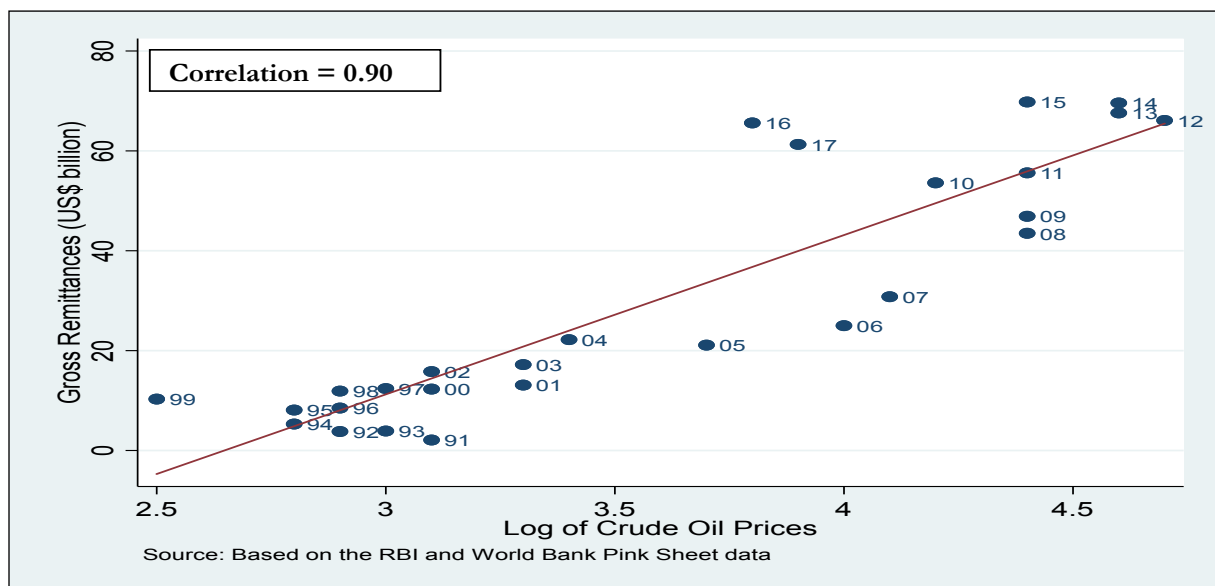
Source: Based on Department of Commerce Data.

Invisibles and Investment Income

6.13 Net invisibles receipts at US\$ 97.1 billion fell by 10 per cent in 2016-17 with both net services and net private transfers falling. Net services which act as a cushion to moderate the effect of trade deficit declined by 3.2 per cent to US\$ 67.5 billion primarily led by a decline in net receipts of software, insurance & pension services and net payments on account of financial services, charges for the use of intellectual property rights and personal, cultural and recreational services. Subdued income conditions in source countries, particularly in the gulf region due to downward spiral in oil prices continued to weigh down on remittances by Indians employed overseas.

A simple correlation analysis shows a strong positive correlation between oil prices and remittances (Figure 7). As per the World Bank's Migration and Development Brief 27 (April 2017), there was decline for two successive years for the first time in history of remittances flows to developing countries with remittances estimated to have declined by 2.4 percent, to US\$ 429 billion in 2016, after a decline of 1 percent in 2015. During the global financial crisis in 2009, though remittances flows to developing countries fell by about 5 percent, they bounced back within a year. In line with the general trend, net private transfers to India also fell from US\$ 66.3 billion in 2014-15 to US\$ 63.1 billion in 2015-16 and to US\$ 56.6 billion in 2016-17.

Figure 7. Remittances and Log of Oil Prices



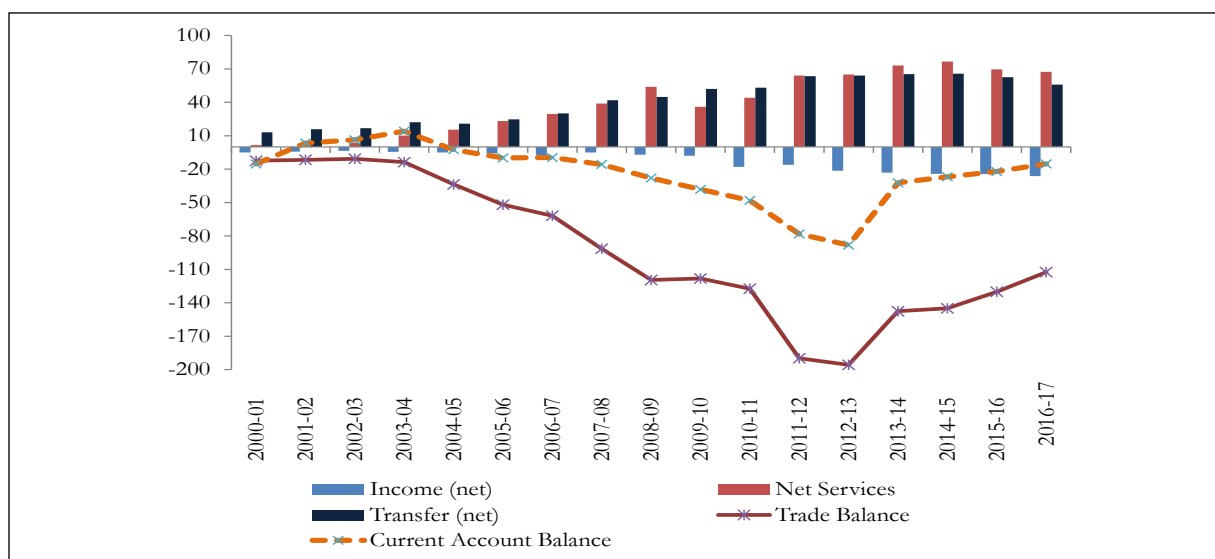
6.14 Outflows on account of net investment income which has been increasing steadily over the years, increased further by 7.9 per cent to US\$ 26.3 billion. Lower trade deficit resulted in CAD narrowing to US\$ 15.3 billion (0.7 per cent of GDP) in 2016-17 (Figure 8).

Capital/Financial Accounts Developments in 2016-17

6.15 The CAD was comfortably financed

by net capital flows in 2016-17 which was dominated by foreign direct investment. Gross FDI inflows to India increased significantly to US\$ 60.2 billion in 2016-17 from US\$ 55.6 billion in 2015-16. Net FDI inflows (i.e. net of outward FDI) at US\$ 35.6 billion, however, moderated marginally by 1.1 per cent from US\$ 36.0 billion in 2015-16. Net foreign portfolio investment flows remained prone to both global and domestic developments causing volatility in

Figure 8. Components of Balance of Payments



Source: Based on RBI data

domestic capital market. Transient volatility was evident around the period of the Brexit, US Presidential election outcome, demonetisation and hike in US Fed policy rate. Portfolio investments recorded a net inflow of US\$ 7.6 billion in 2016-17 as against a net outflow of US\$ 4.1 billion a year ago. The investment interest of portfolio buyers in the domestic capital market increased in Q4 of 2016-17 after significant outflow during April-December of 2016-17. In 2017-18 (upto July 14, 2017), net FPI inflows of US\$ 13.5 billion were higher than the US\$ 2.1 billion in the corresponding period of

2016-17. Among other forms of capital flows in 2016-17, banking capital recorded net outflow of US\$ 16.6 billion, primarily on account of building up of overseas assets by banks and redemption of FCNR (B) deposits during September to November 2016. In the case of external commercial borrowings (ECBs) there was a net outflow of US\$ 6.1 billion in 2016-17 as repayments were higher than fresh borrowings. Since net capital inflows adequately financed the CAD, there was a net accretion to India's foreign exchange reserves (Table 4).

Table 4. Summary of India's Balance of Payments

(US\$ billion)

| Item | 2014-15 | 2015-16 | 2016-17 P |
|--|---------|---------|-----------|
| I Current Account | | | |
| i. Exports | 316.5 | 266.4 | 280.1 |
| ii. Imports | 461.5 | 396.4 | 392.6 |
| iii. Trade Balance | -144.9 | -130.1 | -112.4 |
| iv. Invisibles (net) | 118.1 | 107.9 | 97.1 |
| A. Services | 76.5 | 69.7 | 67.5 |
| B. Transfers | 65.7 | 62.6 | 56 |
| C. Income | -24.1 | -24.4 | -26.3 |
| Current Account Balance | -26.9 | -22.2 | -15.3 |
| II Capital Account | | | |
| i. External Assistance (net) | 1.7 | 1.5 | 2.0 |
| ii. External Commercial Borrowings (net) | 1.6 | -4.5 | -6.1 |
| iii. Short-term credit | -0.1 | -1.6 | 6.5 |
| iv. Banking Capital(net) of which: | 11.6 | 10.6 | -16.6 |
| Non-Resident Deposits (net) | 14.1 | 16.1 | -12.4 |
| v. Foreign Investment(net) of which: | 73.5 | 31.9 | 43.2 |
| A. FDI (net) | 31.3 | 36 | 35.6 |
| B. Portfolio (net) | 42.2 | -4.1 | 7.6 |
| vi. Other Flows (net) | 1.0 | 3.2 | 7.5 |
| Capital Account Balance | 89.3 | 41.1 | 36.5 |
| III Errors and Omission | -1.0 | -1.1 | 0.4 |
| Capital Account Balance (including errors & omissions) | 88.3 | 40.1 | 36.8 |
| IV Overall Balance | 61.4 | 17.9 | 21.6 |
| V Reserves change [increase (-) / decrease (+)] | -61.4 | -17.9 | -21.6 |

Source: RBI

Note: P: Provisional

6.16 The lower CAD, rising gross FDI inflows, the smooth and successful redemption of FCNR(B) dollar funds and strong build up of foreign exchange reserves-all indicate that India's balance of payments may have stabilized for the better. Even if on the flip side, the trade deficit which fell on account of favourable terms of trade starts increasing with rise in global commodity prices, there could be an almost commensurate rise in remittances.

COMPOSITION OF TRADE

6.17 Export growth in 2016-17 was broad based with positive growth in major items except for the fall in leather & leather products by 4.1 per cent, textiles by 2.2 per cent and marginal fall in electronic goods and

drugs & pharmaceuticals (Table 5). Among the six major export sectors, there was good growth in engineering goods and gems & jewellery sectors; low growth in petroleum crude & products and chemicals and related products; marginal positive growth in agricultural and allied products; and marginal negative growth in textiles & allied products. Other export sectors with high growth were marine products and minerals. In terms of the point contribution to export growth by sectors in 2016-17, the highest contribution was from engineering goods (46.9 per cent) followed by gems & jewellery (29.9 per cent), ores & minerals (8.4 per cent), marine products (8.1 per cent), and petroleum products (7.3 per cent).

Table 5. Sector wise share and growth rate of exports

| Sl. No. | Sector | Share (per cent) | | Growth rate (per cent) | |
|---------|---|------------------|-------------|------------------------|-------------|
| | | 2015-16 | 2016-17 (P) | 2015-16 | 2016-17 (P) |
| 1 | Engineering goods | 23.1 | 24.3 | -17.2 | 10.8 |
| 2 | Gems and Jewellery | 15.0 | 15.8 | -4.8 | 10.9 |
| 3 | Chemicals and related products ** | 14.7 | 14.3 | 0.6 | 2.1 |
| | <i>of which</i> | | | | |
| | Drugs & pharmaceuticals | 6.5 | 6.1 | 9.6 | -0.4 |
| 4 | Textiles & allied products | 13.7 | 13.0 | -3.2 | -0.1 |
| | <i>of which</i> | | | | |
| | Textiles | 5.6 | 5.2 | -8.5 | -2.2 |
| | Clothing | 8.1 | 7.8 | 0.8 | 1.3 |
| 5 | Petroleum crude & products | 11.7 | 11.5 | -46.2 | 3.7 |
| 6 | Agriculture and allied products * | 9.9 | 9.5 | -17.6 | 0.9 |
| 7 | Electronic goods | 2.2 | 2.1 | -5.3 | -0.1 |
| 8 | Marine products | 1.8 | 2.1 | -13.5 | 24.2 |
| 9 | Ores and minerals | 0.8 | 1.2 | -16.4 | 59.1 |
| 10 | Leather & leather products | 2.1 | 1.9 | -10.3 | -4.1 |
| | Total exports (including others) | 100 | 100 | -15.5 | 5.3 |

Source: Computed from Department of Commerce data.

Note: *: including plantation. **: including plastic and rubber products

P : Provisional

6.18 Sector-wise, one of the major import items, POL imports increased by 4.8 per cent in 2016-17, mainly due to the mild recovery in international crude oil price (Indian Basket) from US\$ 46.2 /bbl in 2015-16 to US\$ 47.6 /bbl in 2016-17 after the sharp falls in 2013-14 and 2014-15. Among the other important import items in 2016-17, low growth was registered by electronic goods; ores & minerals though coal, coke and briquettes registered high growth; and

high growth in agriculture & allied products. Negative growth was registered by chemicals & related products. Capital goods imports fell marginally though the sub-category transport equipments registered high positive growth. Gems & jewellery imports fell by 4.9 per cent due to negative growth in gold and silver imports despite pearls and precious stones imports used mainly for exports and manufacturing registering high positive growth (Table 6).

Table 6. Sector wise share and growth rate of imports

| Sl. No. | Sector | Share (per cent) | | Growth rate (per cent) | |
|---------|---|------------------|-------------|------------------------|-------------|
| | | 2015-16 | 2016-17 (P) | 2015-16 | 2016-17 (P) |
| 1 | Petroleum Oil and Lubricants | 21.8 | 22.6 | -40.0 | 4.8 |
| 2 | Capital goods | 21.1 | 20.7 | -2.5 | -1.5 |
| | <i>of which</i> | | | | |
| | Machinery | 8.7 | 8.5 | 3.7 | -1.3 |
| | Base metals | 6.5 | 5.6 | -8.7 | -12.8 |
| | Transport equipment | 4.0 | 5.1 | 0.7 | 27.3 |
| 3 | Gems and Jewellery | 14.8 | 14.0 | -9.4 | -4.9 |
| | <i>of which</i> | | | | |
| | Gold | 8.3 | 7.2 | -7.7 | -13.4 |
| | Pearls and semi precious stones | 5.3 | 6.2 | -11.2 | 18.6 |
| | Silver | 1.0 | 0.5 | -17.3 | -50.9 |
| 4 | Chemicals and related products ** | 13.3 | 12.4 | -4.2 | -5.8 |
| | <i>of which</i> | | | | |
| | Organic chemicals | 2.5 | 2.6 | -15.2 | 2.7 |
| | Fertilizers | 2.1 | 1.3 | 9.1 | -37.7 |
| 5 | Electronic goods | 10.5 | 11.0 | 8.6 | 4.8 |
| 6 | Agriculture & allied Products* | 5.7 | 6.3 | 7.7 | 11.4 |
| 7 | Ores and minerals | 5.4 | 5.6 | -23.2 | 4.5 |
| | <i>of which</i> | | | | |
| | Coal, Coke & Briquettes, etc. | 3.6 | 4.1 | -23.2 | 15.2 |
| | Total imports (including others) | 100 | 100 | -15.0 | 0.9 |

Source: Computed from Department of Commerce data.

Note: * : including marine products and plantation; **: including plastic and rubber products **P** : Provisional;

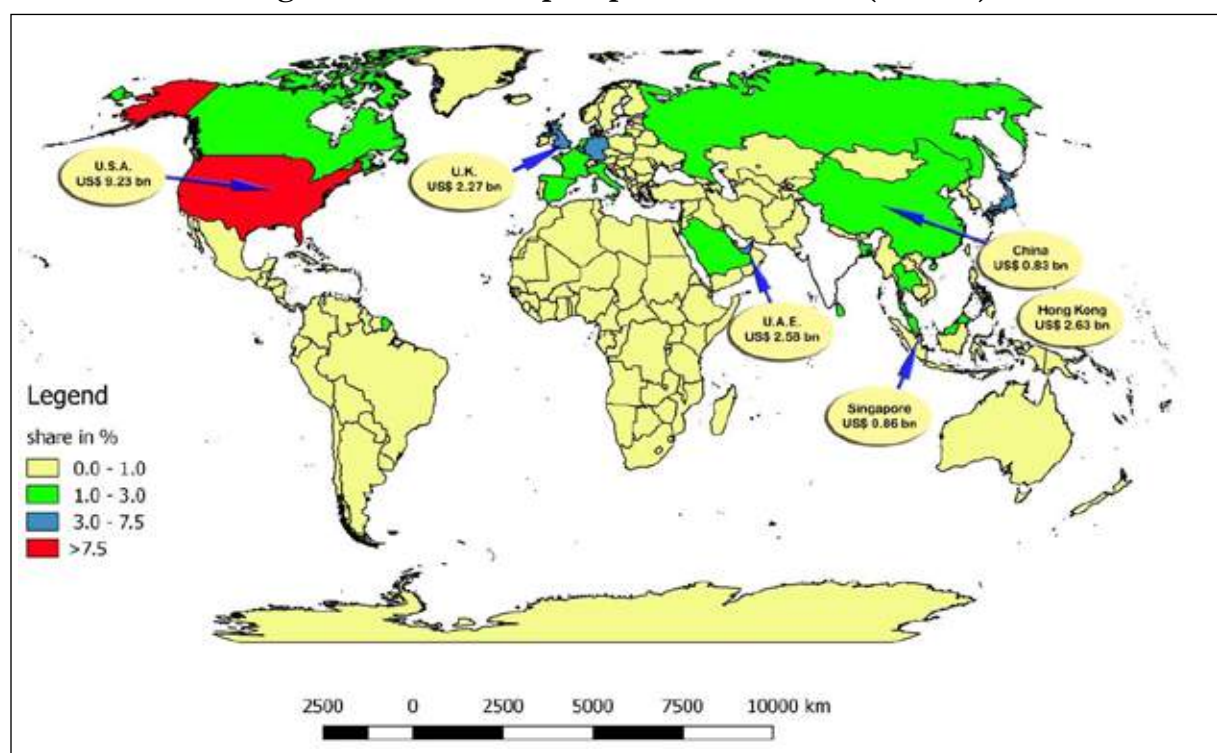
Direction of Trade

6.19 Region-wise in 2016-17, India's exports to Asia (with export share of 50 per cent) increased by 8.0 per cent. Similarly, India's exports to Europe, America and CIS& Baltics (with shares of 19.2 per cent, 19.9 per cent and 1.0 per cent respectively) grew by 5.5 per cent, 4.4 per cent and 16.8 per cent. However, India's exports to Africa witnessed negative growth rate. Among India's major export destinations, exports to all the top three destinations, i.e. the USA followed by the UAE and Hong Kong, registered positive growths of 5.0 per cent, 3.4 per cent and 17.1 per cent respectively in 2016-17. By contrast India's exports to the UK, Saudi Arabia and Japan declined by 3.1 per cent, 19.7 per cent and 17.3 per cent respectively. India's exports to China which is now the 4th major destination grew by 13.1 per cent. In fact, India's exports to only 2 countries have a share of above 7.5 per cent and 4 countries have a share of 3 to 7.5 per cent in total exports in 2016-17. The changes in India's

direction of trade between 2000-01 to 2016-17 have been mainly in the case of the UAE moving one step up to the above 7.5 per cent category and China and Singapore moving to the 3-7.5 per cent category (Figure 9 a & 9 b).

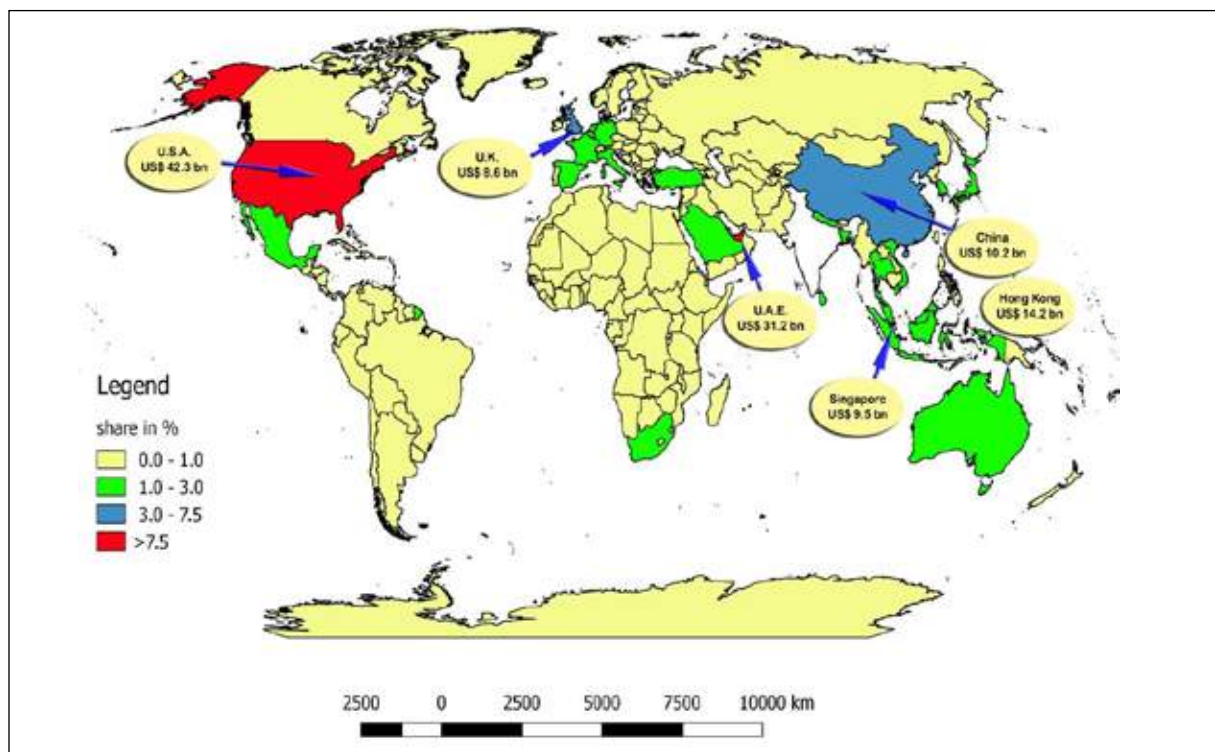
6.20 In the case of India's imports in 2016-17, Asia continued to be the major source of imports with a share of 60.0 per cent, followed by Europe (16.0 per cent share), America (12.2 per cent share) and Africa (7.5 per cent share). Country-wise, China remained the largest source with 16.0 per cent share in India's total imports followed by the USA (5.8 per cent), the UAE (5.6 per cent), Saudi Arabia (5.2 per cent) and Switzerland (4.5 per cent) in 2016-17. Among the top 5 sources of imports, India's imports from China, Saudi Arabia and Switzerland registered negative growths in 2016-17, while India's imports from the USA and the UAE registered a growth of 2.6 per cent and 10.6 per cent respectively.

Figure 9a. India's Top Export Destinations (2000-01)



Source: Based on DGCI&S data.

Figure 9b. India's Top Export Destinations (2016-17)



Source: Based on DGCI&S data.

TRADE POLICY

Recent Trade Policy Measures

6.21 The new Foreign Trade Policy (2015-20) launched on 1st April, 2015 links rules, procedures and incentives for exports and imports with other initiatives such as “Make in India”, “Digital India” and “Skills India”. It consolidates 5 different incentive schemes under the earlier policy for rewarding merchandise exports into a single scheme, namely the Merchandise Exports from India Scheme (MEIS). For the services sector, the Services Exports from India Scheme (SEIS) has been introduced replacing the Served from India Scheme. The Interest Equalisation scheme on pre and post shipment rupee export credit was also approved by the Cabinet Committee on Economic Affairs (CCEA) on 18th November 2015 w.e.f. 1st April 2015 for 5 years and will be evaluated after three years. A new scheme Trade Infrastructure for Export Scheme (TIES) has been approved

to be implemented from 2017-18 for 3 years. Besides many trade facilitation measures have also been taken like reducing the number of documents, introducing simplified IEC (Importer Exporter Code) from 1st April 2016, doing away with the issuance of physical copy of IEC, sharing export realization data with states and encouraging states to prepare their export strategies resulting in 17 states preparing their export strategies, simplifying *Aayat Niryat* forms, etc.

6.22 The exercise of mid-term review of FTP 2015-20, has been initiated and the reviewed FTP is likely to be announced shortly. While this review exercise is particularly important in the light of recent international developments, special efforts are needed to not only review but accelerate India's exports to reach a respectable share of at least 5 per cent in world exports from the present 1.7 per cent in 2016, which is very low compared to China's 13.2 per cent (See Box 2).

Box 2. Reviving and Accelerating India's Merchandise Exports: Policy Reforms

To achieve a respectable share of 5 per cent in World exports, India's export growth rate (CAGR) has to be around 26.5 per cent for at least 5 years (2017-2021) assuming that global growth continues at the CAGR of 1.5 per cent (2010-15). For this some major strategies and trade policy reforms are needed along with specific measures.

Major Strategies and Trade Policy Reforms

- Demand based export basket diversification rather than a mere supply based strategy as the ranks of items at 4 digit level in world top imports and ranks of India's exports of these items to the world show a great deal of mismatch with India exporting 96.5 per cent of items in the World's top 100 import items at 4 digit level and 83.2 per cent at 6 digit level in terms of numbers in 2015, which however constitute only 1.6 per cent of top 100 world imports in value terms.
- Rationalizing tariffs as the realized tariffs (BCD) is very low at 2.8 per cent in 2015-16 and less than one fourth the average applied tariffs due to various exemptions. If refunds and customs duty drawbacks are deducted from gross customs revenue then the net realized tariffs (BCD) would be still less. Though different rates of tariffs are levied for various reasons, there is scope for reducing average applied tariffs by selectively reducing tariffs across many lines, while retaining higher tariffs for sensitive and important items. Consequently WTO bound tariffs could also be reduced which can help India to take a more pro-active role in WTO and bilateral negotiations.
- Streamlining Export Promotion Schemes as many duties have been subsumed under GST and if tariffs are reduced to realized or near realized levels, some export promotion schemes can be phased out. The duty drawback rates can also be revised downwards. The revenue saved could be used for export marketing efforts.
- Developing on a war footing world class export infrastructure and logistics especially port-related
- FDI linked and Value Added Exports particularly high-tech exports as in China and some ASEAN countries.
- Having useful FTAs/CECA's with some major countries while actively expanding engagement with BRICS and ASEAN where India enjoys competitive advantage.
- National Priority Sector for Exports and greater States' participation in exports by linking devolution of funds to states with export effort of states.
- Formulating a clear-cut Agri Trade Policy

Besides the major strategies, there are many cross-cutting trade policy issues and sector-specific issues like making power available at competitive rates including lower rates for non-peak hours which can be a game changer for textiles exports; and giving a big push to electronics hardware exports including a Hardware-Software combination and moving from assembling to building a robust manufacturing base with a well settled value chain.

Source: Dr. H.A.C. Prasad along with Dr. R. Sathish, Vijay Kumar, S.S.Singh, R.K. Sharma: "Reviving and Accelerating India's Exports: Policy Issues and Suggestions" Working Paper No. 1/ 2017- DEA, January 2017.

Anti-Dumping Measures

6.23 In 2015, 230 anti-dumping investigations were initiated by all countries with USA overtaking India, initiating about 42 investigations (Table 7). However in 2016, India has again become the highest initiator of anti-dumping investigations initiating 69 out of a total of 228 investigations initiated by G-20 members, followed by the USA (37) and Australia (25) (WTO, 2017).

6.24 Since the global slowdown, complaints of dumping have been rising. India conducts

anti-dumping investigations on the basis of applications filed by the domestic industry with prima facie evidence of dumping of goods in the country, injury to the domestic industry and causal link between dumping and injury to the domestic industry. During the fiscal year 2016-17, India initiated 44 anti-dumping investigations and issued preliminary findings in 5 anti-dumping investigations, final findings in 28 anti-dumping investigations, and final finding in one anti-circumvention of anti-dumping duty investigation. The major products found to

Table 7. Investigations Initiated by some major users of Anti-Dumping Measures

| Country | India | USA | EU | Brazil | Argentina | Australia | China | All Countries including others |
|------------|-------|-----|-----|--------|-----------|-----------|-------|--------------------------------|
| 2009 | 31 | 20 | 15 | 9 | 28 | 9 | 17 | 217 |
| 2010 | 41 | 3 | 15 | 37 | 14 | 7 | 8 | 173 |
| 2011 | 19 | 15 | 17 | 16 | 7 | 18 | 5 | 165 |
| 2012 | 21 | 11 | 13 | 47 | 12 | 12 | 9 | 208 |
| 2013 | 29 | 39 | 4 | 54 | 19 | 20 | 11 | 287 |
| 2014 | 38 | 19 | 14 | 35 | 6 | 22 | 7 | 236 |
| 2015 | 30 | 42 | 12 | 23 | 6 | 10 | 11 | 230 |
| 2016 | 69 | 37 | 14 | 11 | 25 | 17 | 5 | 145* |
| 1995-2016* | 818 | 593 | 485 | 396 | 328 | 310 | 231 | 5132 |

Source: WTO**Note:** *Upto 30 June, 2016

have been dumped in India and in respect of which anti-dumping duty has been imposed fall in the product group of chemicals & petrochemicals, products of steel & other metals, fibre & yarns and consumer goods. The countries involved in these investigations include China, the European Union, Korea,

Indonesia, Malaysia, Russia, Japan, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, Saudi Arabia, Chinese Taipei and the USA. Countries and products involved in some recent anti-dumping initiations by India are given in Table 8.

Table 8. Anti-dumping Initiations since 2015-16-Countries and Products Involved

| Year | Major Countries | Major items targeted | Initiation of Anti-dumping investigations | Final Findings/ Termination |
|----------|---|--|---|-----------------------------|
| 2015-16 | China PR(23), Korea RP(5), Chinese Taipei(7), Thailand(8), Indonesia(4), USA(3), Russia(4), Malaysia(3), Vietnam(3), Pakistan(3), Iran(5) | Chemicals, Petrochemicals, Fibres and Yarns and Steel Products | 36 | 46 |
| 2016-17 | China PR(37), EU(5), Korea RP(5), Chinese Taipei(5), Thailand(3), Indonesia(7), Japan(7), USA(0), Russia(4), Malaysia(4), Iran(3), Saudi Arabia(2) | Chemicals, Petrochemicals, Fibres and Yarns and Steel Products | 44 | 29 |
| 2017-18* | China PR(8), EU(2), Korea RP(1), Chinese Taipei(1), Thailand(2), Singapore(1), Indonesia(2), USA(1), Malaysia(1), Vietnam, Turkey, UAE(1), Pakistan(1), Hong Kong, Iran(1), Saudi Arabia(1) | Chemicals, Petrochemicals, Fibres and Yarns and Steel Products | 10 | 11 |
| Total | | | 281 | 276 |

Source: Directorate General of Anti-Dumping and Allied Duties**Note:** 2017-18* (i.e. upto 30-06-2017), () No of initiations

6.25 On 12th April 2016, India initiated countervailing duty investigation concerning imports of certain hot rolled and cold rolled stainless steel flat products, originating in China. It has also initiated the process of making its investigation processes ISO 9001:2015 compliant.

MULTILATERAL AND BILATERAL/ REGIONAL NEGOTIATIONS AND INDIA

6.26 The US withdrawal from the Trans-Pacific Partnership (TPP), rising protectionism and opinion veering back to WTO negotiations in many countries have led to a window of opportunity for successful negotiations at WTO. The eleventh Ministerial Conference of the WTO (MC11) is scheduled to be held in December 2017 in Buenos Aires, Argentina. Discussions for an outcome in MC11 are underway in the WTO and in the various informal meetings at the level of Trade Ministers in the sidelines of major events. In all these meetings, India has underscored the need for implementation of Ministerial Decisions taken at previous WTO Ministerial Conferences in Bali and Nairobi, especially those relating to the issue of public stockholding for food security purposes and an agricultural Special Safeguard Mechanism for developing countries. India has also emphasized the need for outcomes on other issues in the Doha agenda, with special and differential treatment to the developing countries remaining at the core of any negotiations in the WTO.

6.27 The WTO's Trade Facilitation Agreement represents an important milestone by creating an international framework for reducing trade costs. The objectives of this agreement are in consonance with India's "Ease of Doing Business" initiative. India considers 'Trade Facilitation' to be particularly important for developing countries. Even modest reductions in the cost of trade

transactions would have a positive impact on trade for both the developed and the developing world. As per its commitment, India notified its category "A" commitments in March 2016 and later on ratified the Trade Facilitation Agreement (TFA) in April 2016. Approximately 70 per cent of the total provisions given under TFA have been notified as category "A". Remaining provisions have been classified under category "B" which are to be implemented after a transition period of 5 years. A National Committee on Trade Facilitation (NCTF) has been set up to facilitate both domestic coordination and implementation of the provisions of TFA. An Action Plan containing specific activities to further ease out the bottlenecks to trade, has also been prepared. Given the increasing importance of trade in services for the world as a whole, India has taken the initiative to launch discussions on Trade Facilitation in Services (TFS) Agreement at the WTO, as a counterpart of the goods-specific Trade Facilitation Agreement (TFA) (see chapter 9).

India has also been a part of many bilateral and regional cooperation agreements. Some recent developments related to bilateral and regional agreements of India are given in Box 3.

FOREIGN EXCHANGE RESERVES

6.28 Among the major economies running current account deficit, India is the second largest foreign exchange reserve holder after Brazil. The level of foreign exchange reserves can change due to change in reserves on BoP basis as well as valuation changes in the assets held by the Reserve Bank of India. During 2016-17, India's foreign exchange reserves increased by US\$ 21.6 billion on BoP basis (i.e., excluding valuation effect), while in nominal terms (i.e., including valuation effect) reserves increased by US\$ 9.8 billion as compared with an increase of US\$ 18.5

Box 3. Status of some recent Bilateral/Regional Cooperation Agreements of India

- **RCEP Agreement among ASEAN + 6 FTA Partners (Australia, China, India, Japan, South Korea and New Zealand):** Based on the Declaration of the Leaders during the ASEAN Summit in November, 2012, negotiations for a Regional Comprehensive Economic Partnership Agreement (RCEP) between the 10 ASEAN member states and its 6 FTA partners commenced in May, 2013. The 3rd Intersessional RCEP Ministerial was recently concluded in Hanoi from 21-22 May, 2017. India will be hosting the 19th RCEP Round from 18-28 July, 2017 in Hyderabad. The negotiations cover a number of areas like trade in goods, services, investment, intellectual property, economic & technical cooperation, competition and legal & institutional issues.
- **India-Sri Lanka ETCA:** India and Sri Lanka have an existing free trade Agreement, covering trade in goods, which was signed in 1998 and entered into force in March 2000. In December 2015, India and Sri Lanka agreed to start negotiations for a new comprehensive agreement titled 'Economic and Technology Cooperation Agreement (ETCA)'. The scope of the Agreement includes trade in services, investment issues and cooperation in various fields such as technology, customs, standards, etc apart from trade in goods. Four Rounds of Negotiations have been held so far with the latest Round held on 24th-26th April 2017 in New Delhi.
- **India - EU BTIA:** Negotiations were launched on 28th June 2007 in the areas of Goods, Services, Investment, Sanitary and Phyto-sanitary Measures, Technical Barriers to Trade, Trade Facilitation and Customs Cooperation, Competition, IPR & GIs. etc. The negotiations were revived with 4 stocktaking meetings in January, February, July and November, 2016.
- **India - Thailand CECA:** The 30th round of the Trade Negotiation Committee was held on 13-14 July, 2016 in New Delhi. The Early Harvest Scheme on 82 items has been implemented.
- **India-Korea CEPA review:** During the Joint Committee meeting at the Ministerial level held on 18 June, 2016 in New Delhi, the two sides declared commencement of negotiations for upgrading India-Korea CEPA. Two rounds of negotiations for upgrading India-Korea CEPA have been held so far with the 2nd round of negotiations held on 13-14 February, 2017 in New Delhi. .
- **India-EaEU FTA:** The joint feasibility study group (JFSG) report was finalised by India and EaEU (Eurasian Economic Union) in Sep, 2016. India has received approval from the competent authority to initiate the FTA negotiations. However, EaEU is still in the process of receiving the necessary approval from the competent authorities.

Source: Department of commerce

billion in 2015-16. The valuation loss mainly reflecting the appreciation of the US dollar against major currencies amounted to US\$ 11.8 billion during 2016-17 as against a gain of 0.6 billion in 2015-16 (Table 9). With the increase in reserves (in nominal terms) over March 2016 by US\$ 9.8 billion, the reserves cover for imports also increased from 10.9 months at end-March 2016 to 11.3 months as at-end March 2017.

6.29 RBI intervenes both in the spot and forward segments of the forex market in order to maintain orderly market conditions and curb excessive volatility. It undertakes sales and purchases of foreign currency in the forex market, basically to even out lumpy demand or supply. In the last few months,

forward purchases by RBI were higher than spot purchases. The choice of instrument (spot and forward) for intervention depends on the objective of intervention and the prevailing situation in the forex market. The decision on distribution of recent intervention operations between spot and forwards continue to be guided by a set of factors on a day-to-day basis, like rupee liquidity, impact on forward premia position of existing outstanding forward asset/liabilities, etc. During 2014-16 whenever the intervention was on the buy side, a conscious effort was made to have an appropriate portion of the purchases in forwards to cover the scheduled outflows on account of FCNR(B) and Overseas Foreign Currency Borrowings (OFCB) swap maturity.

Table 9. Summary of Changes in Foreign Exchange Reserves (US\$ billion)

| Year | Foreign Exchange reserves at the end of financial year (end March) | Total Increase (+)/ decrease (-) in reserves | Increase / decrease in reserves on a BoP basis | Increase/ decrease in reserves due to valuation effect |
|---------|--|--|--|--|
| 2007-08 | 309.7 | 110.5 | 92.2 | 18.3 |
| 2008-09 | 252.0 | -57.7 | -20.1 | -37.6 |
| 2009-10 | 279.1 | 27.1 | 13.4 | 13.7 |
| 2010-11 | 304.8 | 25.8 | 13.1 | 12.6 |
| 2011-12 | 294.4 | -10.4 | -12.8 | 2.4 |
| 2012-13 | 292.0 | -2.4 | 3.8 | -6.2 |
| 2013-14 | 304.2 | 12.2 | 15.5 | -3.3 |
| 2014-15 | 341.6 | 37.4 | 61.4 | -24 |
| 2015-16 | 360.2 | 18.5 | 17.9 | 0.6 |
| 2016-17 | 370.0 | 9.8 | 21.6 | -11.8 |

Source: RBI

6.30 As per data available with the RBI, the intervention from Jan to Mar 2017 was US\$ 18 billion, of which around US\$ 5 billion was in spot and the remaining US\$ 13bn through forwards. Higher intervention by way of forwards could be due to the fact that demonetisation had resulted in surplus liquidity with the banking system and any further spot intervention would only have resulted in adding to the surplus liquidity to the system.

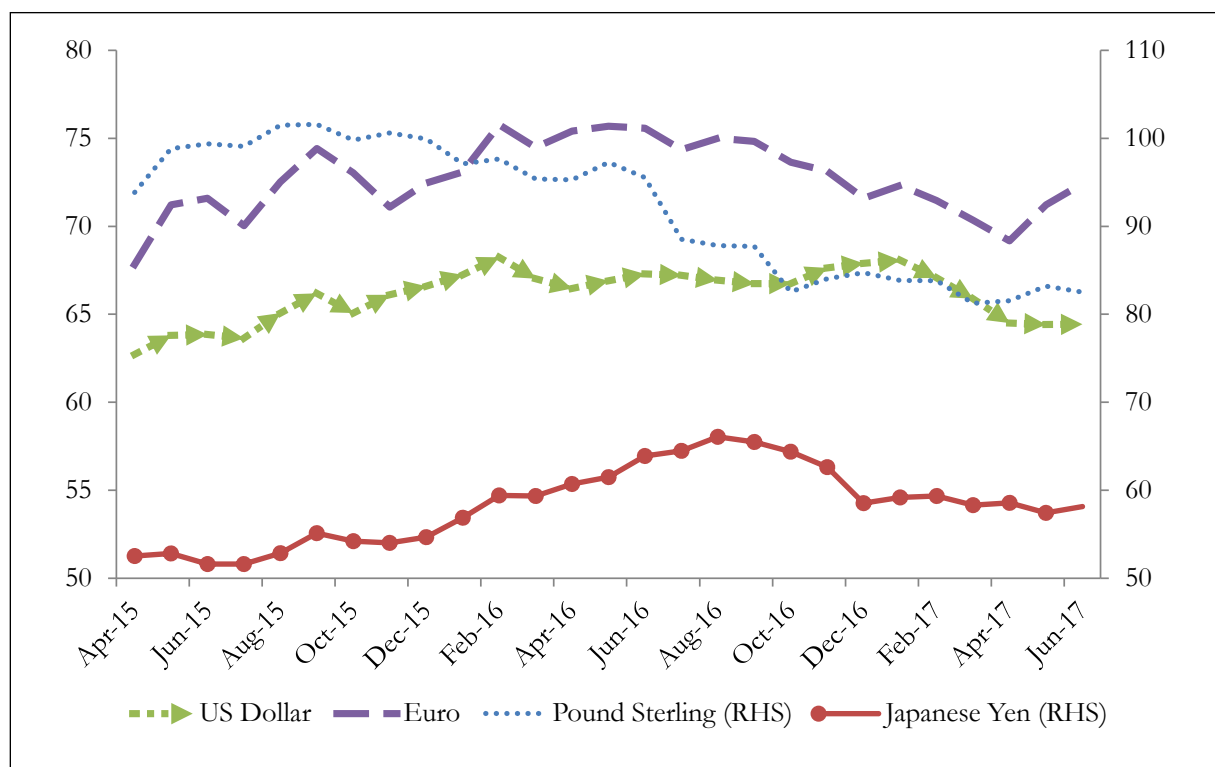
EXCHANGE RATE

6.31 The average annual exchange rate of the rupee depreciated from ₹65.5 per US dollar in 2015-16 to ₹67.1 per US dollar in 2016-17. In 2016-17, the rupee depreciated against the US dollar, Euro and Japanese Yen by 2.4 per cent, 1.8 per cent and 12.0 per cent respectively, while it appreciated against Pound Sterling by 12.6 per cent. The average monthly exchange rate of the rupee against the US dollar after depreciating continuously from November 2016 to January 2017, has

appreciated continuously from February to June 2017, while in the case of the Pound sterling, Euro and Japanese yen there have been monthly variations (Figure 10).

6.32 The rupee performed better than many other EME-currencies in 2016-17. While on a yearly average basis, the rupee depreciated against the US dollar by 2.4 per cent, there was higher depreciation against the US dollar in the case of Chinese Yuan (6.0 per cent), Argentina Peso (29.1 per cent), Malaysian Ringgit (3.7 per cent), Mexican Peso (13.5 per cent) and Turkish Lira (11.3 per cent). There was transitory downward pressure on the Indian rupee on account of uncertainty relating to post US presidential election results and demonetisation drive announced domestically in November 2016. However, the rupee has quickly recovered since December 2016, which strengthened further since February 2017 as foreign portfolio flows turned positive with receding of global risk aversion and pro-reforms Union Budget and decisive outcome of State elections.

Figure 10. Movement of Rupee against the US Dollar, Euro, Pound Sterling and Japanese Yen



Source: RBI

During 2017-18 (April-June), over the yearly average of 2016-17 the rupee appreciated against the US dollar by 4.0 per cent. While the Russian Rouble appreciated against the dollar by 10.3 per cent and the South African Rand by 6.2 per cent, the Chinese Yuan and Malaysian Ringgit depreciated by 1.9 per cent and 2.9 per cent respectively against the US dollar.

6.33 One of the recent developments in exchange rate front is the unfair currency policies to compete in trade unfairly and the monitoring of currency manipulators by the US. The US Treasury's focus is on the 12 largest trading partners of the United States which account for around 70 percent of the U.S. trade in goods which includes India. However, India is not in the monitoring list (Box 4).

6.34 During 2016-17, while on an average (on a y-o-y basis), the Indian rupee depreciated by 2.4 per cent against the US dollar, in terms of the nominal effective exchange rate (NEER) against a basket of 6 and 36 currencies, the rupee depreciated by 0.5 per cent and 0.1 per cent, respectively. However, in terms of the real effective exchange rate (REER) against a basket of 6 and 36 currencies, it appreciated by 2.7 per cent and 2.2 per cent, respectively in 2016-17. The 6-currency and 36-currency REER (Trade-based; Base year: 2004-05=100) appreciated by 7.6 per cent and 6.3 per cent, respectively as on March 2017 over March 2016. While the rupee has been one of the most stable currencies among EMEs, the appreciation of the REER indicates that India's exports have become slightly less competitive (Figure 11).

Box 4. Monitoring of Currency Manipulators by the US

To monitor the currency manipulating countries, the US Treasury has established thresholds for the three criteria specified in the Trade Facilitation and Trade Enforcement Act of 2015 and the US Treasury under the new administration has kept the status quo in terms of the rules classifying foreign exchange manipulators. The first criterion is significant bilateral trade surplus with the United States (at least US\$ 20 billion), while the second is Country's current account balance as per cent of GDP (at least 3 per cent of GDP) and the third is persistent one-sided intervention in the foreign exchange market and a total of at least 2 per cent of an economy's GDP on a net of 8 over a 12 month period (US Treasury report April 2017). As per the Treasury report of 2017, no major trading partners met all the three criteria for the current reporting period. However, an economy meeting two of the three criteria in the 2015 Act will be placed in the Monitoring list. Though China does not meet two out of the three criteria, the Treasury tweaked the conditions, stating that countries that account for a large and disproportionate share of the overall US trade deficit would be retained in the monitoring list. Now, countries like China, Japan, Korea, Taiwan, Germany, and Switzerland are in the Monitoring List in 2017 and will remain in the list at least for two consecutive reports. India is not in the monitoring list as it comes only under the first criteria of trade surplus with USA of US\$ 24.3 billion which is marginally higher than the threshold of US\$ 20 billion (Table 10)

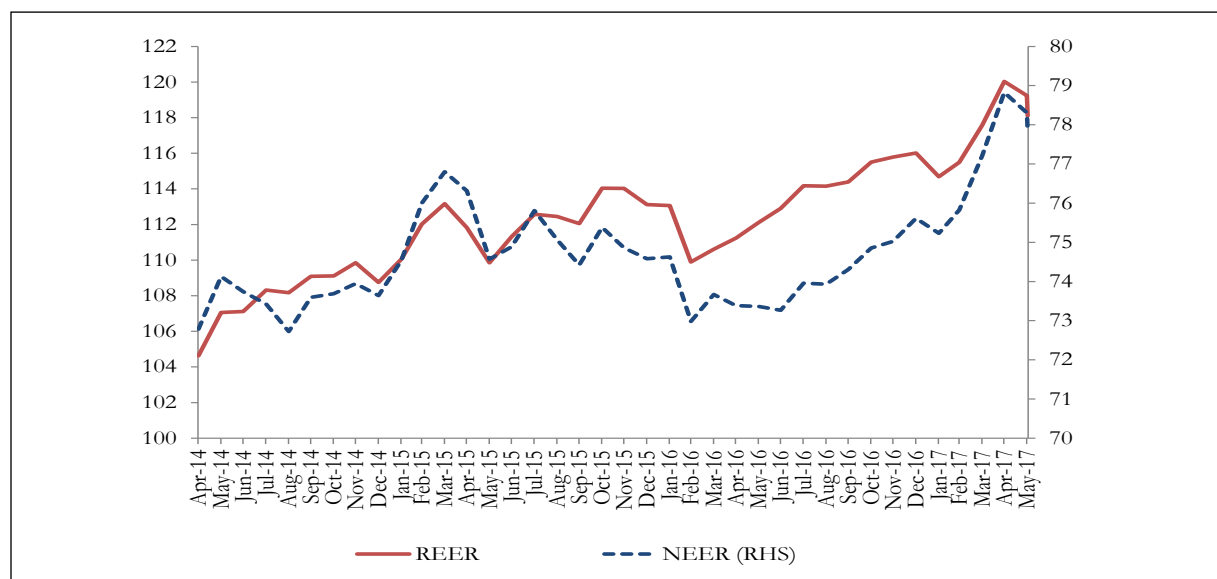
Table 10. Major Foreign Trading Partners' Evaluation Criteria by the US

| Countries | Bilateral Goods Deficit (US\$ Billion, Trailing 4Q) | Current Account | | | Foreign Exchange Intervention | | |
|------------------|---|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------|---------------------------------|---------------------------------|
| | | (Balance % of GDP, Trailing 4Q) | 3 Year Change in Balance (% of GDP) | Balance (US\$ Billion, Trailing 4Q) | Net FX purchases (% of GDP) | Net FX purchases (US\$ Billion) | Net FX Purchases 8 of 12 Months |
| China | 347.0 | 1.8 | 0.2 | 196 | -3.9 | -435 | No |
| Japan | 68.9 | 3.8 | 2.9 | 186 | 0.0 | 0 | No |
| Germany | 64.9 | 8.3 | 1.5 | 286 | - | - | No |
| Mexico | 63.2 | -2.7 | -0.2 | -28 | -0.5 | -6 | No |
| Italy | 28.5 | 2.8 | 1.8 | 51 | - | - | No |
| Korea | 27.7 | 7.0 | 0.8 | 99 | -0.5 | -7 | No |
| India | 24.3 | -0.5 | 2.1 | -11 | 0.4 | 10 | No |
| France | 15.8 | -1.2 | -0.3 | -30 | - | - | No |
| Switzerland | 13.7 | 10.7 | -0.8 | 71 | 10.0 | 66 | Yes |
| Taiwan | 13.3 | 13.4 | 3.4 | 71 | 1.8 | 10 | Yes |
| Canada | 11.2 | -3.3 | -0.1 | -51 | 0.0 | 0 | No |
| United Kingdom | -1.1 | -5.1 | -1.1 | -138 | 0.0 | 0 | No |
| Memo : Euro Area | 125.7 | 3.4 | 1.2 | 403 | 0.0 | 0 | No |

Source: Report to Congress, Foreign Exchange Policies of Major Trading Partners of the United States, April 2017, US Treasury Department.

Notes: Monitoring Criteria:

- Bilateral Trade Surplus with US (at least US\$ 20 billion)
- Current Account Balance (at least 3 per cent of GDP)
- Persistent one-sided intervention in the foreign exchange market and a total of at least 2 per cent of an economy's GDP on a net of 8 over a 12 month period

Figure 11. Movements in the Indices of NEER and REER (Trade based-36 currencies) 2004-05=100

Source: RBI

EXTERNAL DEBT

6.35 India's aggregate external debt stock at end-March 2017 stood at US\$ 471.9 billion registering a decline of US\$ 13.1 billion (2.7 per cent) over end-March 2016. Long term external debt at US\$ 383.9 billion at end-March 2017 registered a decline of 4.4 per cent over the end-March 2016 level while short term debt at US\$ 88.0 billion increased

by 5.5 per cent. The decline in external debt during 2016-17 was due to the fall in long-term external debt, particularly NRI deposits reflecting the redemption of FCNR (B) deposits (Box 5) and decline in commercial borrowings. The maturity pattern of India's external debt shows the predominance of long term borrowings at 81.4 per cent of total external debt at end-March 2017 (Table 11).

Table 11 Composition of India's External Debt

(per cent)

| Sl. No. | Component | March 2015 | March 2016 R | March 2017 P |
|---------|---------------------------|------------|--------------|--------------|
| 1 | Multilateral | 11.0 | 11.1 | 11.5 |
| 2 | Bilateral | 4.6 | 4.6 | 4.9 |
| 3 | IMF | 1.2 | 1.2 | 1.1 |
| 4 | Trade credit | 2.7 | 2.2 | 2.1 |
| 5 | Commercial borrowings | 38.0 | 37.3 | 36.7 |
| 6 | NRI deposits | 24.3 | 26.2 | 24.8 |
| 7 | Rupee debt | 0.3 | 0.3 | 0.3 |
| 8 | Long term debt (1 to 7) | 82.0 | 82.8 | 81.4 |
| 9 | Short term debt | 18.0 | 17.2 | 18.6 |
| 10 | Total external debt (8+9) | 100.0 | 100.0 | 100.0 |

Source: RBI

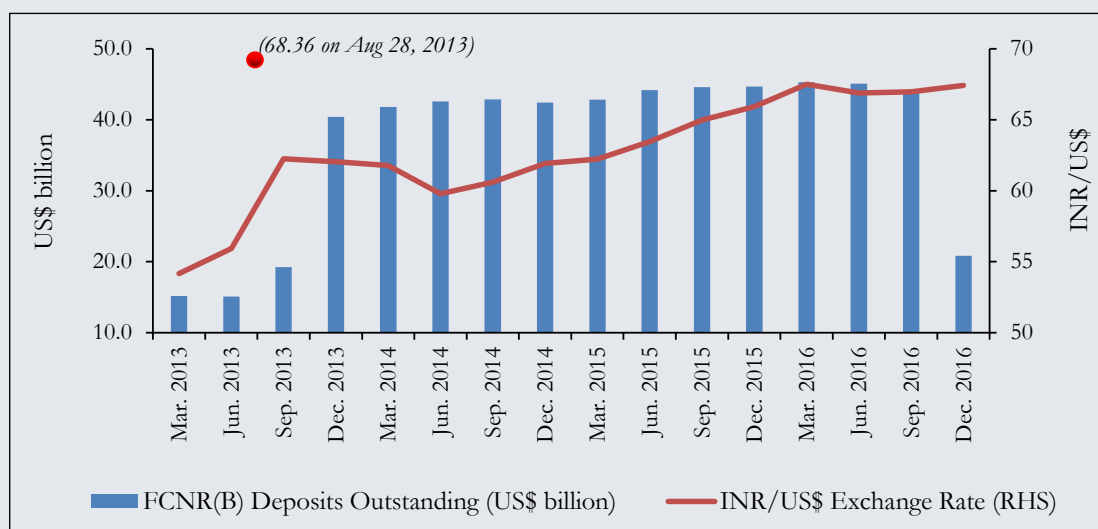
Note: R: Revised; P: Provisional.

Box 5. Redemption of FCNR (B) Dollar Funds

In May 2013, the US Fed's first indication of Quantitative Easing (QE) tapering caused sudden and large capital outflows from most emerging market economies (EMEs). These outflows caused downward pressure on EME-currencies, including India. In a span of three months since Fed's first indication of QE tapering, the exchange rate of the Indian rupee against the US dollar depreciated by around 19 per cent and recorded its lowest level of ₹68.36 on August 28, 2013.

Swap facility for FCNR (B) deposits: In order to rebuild buffers in the face of uncertainty regarding the global interest rate cycle and financial conditions, and contain the volatility in exchange rate, the RBI offered a window under a limited period special scheme (September 4–November 30, 2013) for the banks to swap the fresh FCNR(B) dollar funds with the RBI at a fixed cost of 3.5 per cent per annum, and increased their overseas borrowing limit from 50 to 100 per cent of the unimpaired Tier-I capital of banks (with the option of swap with the RBI). This resulted in capital inflows of US\$ 34.3 billion (both through FCNR (B) window and banks' overseas borrowing) under the swap facility, which helped in rebuilding foreign exchange reserves, and thus covering possible external financing requirements and concomitantly providing stability to the foreign exchange market. During the swap facility, India's external debt increased from US\$ 404.8 billion at end-June 2013 to US\$ 426.9 billion at end-December 2013 due to increase in FCNR (B) deposits (Chart 1). The swap facility for fresh FCNR (B) dollar funds mobilized was for a minimum tenure of three years. The outstanding FCNR (B) deposits which was at US\$ 15 billion at end-June 2013, increased to US\$ 40 billion at end-December 2013.

Chart 1. FCNR(B) Deposits Outstanding and Exchange Rate of Indian rupee vis-a-vis US dollar



Redemption of FCNR (B) dollar funds: The redemption of FCNR (B) dollar funds started in September–November 2016. In order to ensure smooth redemption of FCNR (B) deposits, the Reserve Bank frontloaded the liquidity provision through open market operations (OMO) and spot interventions/deliveries of forward purchases. During 2014–2016 whenever the intervention was on the buy side, a conscious effort was made to have an appropriate portion of the purchases in forwards to cover the scheduled outflows on account of FCNR(B) and OFCB (overseas foreign currency borrowings) swap maturities to avoid a sharp fall in foreign exchange reserves and also neutralize the impact on rupee liquidity. The liquidity impact was also managed by appropriately timing the OMO purchase. In 2014–15 and 2015–16, RBI made a net purchase of foreign assets to the tune of US\$ 54.8 billion and US\$ 10.2 billion respectively, so as to cover the outflows expected during the redemption period. In order to assure the market participants and discourage any volatility on account of large scale maturity of FCNR(B) and OFCB swaps, a press release was issued stating that these swaps are adequately covered by forward purchases. It was further informed that RBI is actively monitoring the on-going market developments and is ready to contain the associated market volatility, if any, in relation to completion of swap transactions as well as the concomitant changes in rupee liquidity. However, since forward purchases and the FCNR (B) swaps were not exactly synchronous in terms of maturity bands, the foreign exchange reserves witnessed significant accretions initially followed by a modest depletion during

the redemption period. This helped the RBI and Indian banking system in successfully redeeming the FCNR (B) funds during September-November 2016. Following the redemption, outstanding FCNR (B) deposits stood at US\$ 21 billion at end-December 2016, which also resulted in India's external debt stock falling by US\$ 29.0 billion (6.0 per cent) at end-December 2016 over the level at end-March 2016. The RBI maintained a comfortable foreign exchange reserves position throughout the year 2016 (Chart 2). Since the redemption period also partly coincided with the other adverse shocks such as uncertainty relating to post US presidential election results and demonetisation drive announced domestically, there was transitory downward pressure on the Indian rupee. However, Indian rupee has quickly recovered since December 2016, which strengthened further since February 2017 as foreign portfolio flows turned positive following the pro-reforms Union Budget and decisive outcome of States elections (Chart 3). Coupled with the above measures, a reduced current account deficit position and robust FDI inflows also helped in providing the cover for the outflows on account of the FCNR(B) deposits.

Chart 2. India's Foreign Exchange Reserves

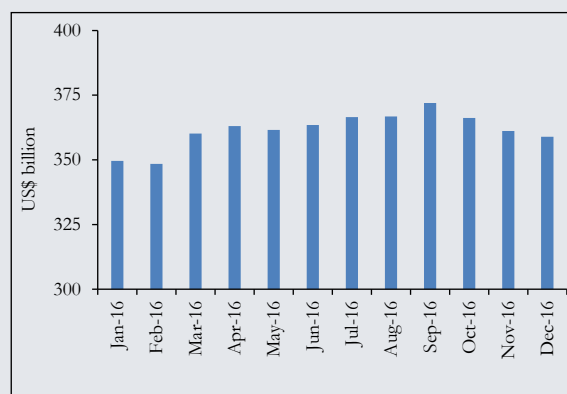
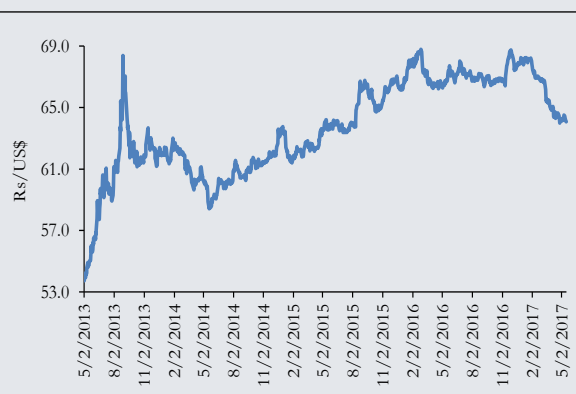


Chart 3. Exchange Rate of Indian rupee vis-a-vis US dollar



Source: RBI and Inhouse research

6.36 The currency composition of India's total external debt shows that the US dollar denominated debt accounted for 52.1 per cent of India's total external debt at end-March 2017, followed by the Indian rupee (33.6 per cent), SDR (5.8 per cent), Japanese Yen (4.6 per cent) and Euro (2.9 per cent). Government (sovereign) external debt was US\$ 95.8 billion with a share of 20.3 per cent and non-government external debt was at US\$ 376.1 billion at end-March 2017.

6.37 Over the years, the composition of the stock of India's external debt has undergone structural transformation. The proportion of concessional debt in total external debt has come down from an average 42.9 per cent during 1991-2000 to 11.7 per cent during 2011-2015 and to 9.3 per cent at end-March 2017. The share of non-government debt in total external debt increased from 45.3

per cent in the 1990s to 65.6 per cent in the decade of 2000s, and to an annual average of 80.1 per cent in the last five years with 79.7 per cent share at end-March 2017.

6.38 Most of the external debt indicators (Table 11) improved at end-March 2017 compared to end-March 2016 as given below.

- Outstanding external debt fell by 2.7 per cent (US\$13.1 billion) compared to a rise of 2.2 per cent in the previous year. Valuation loss due to depreciation of US dollar against the Indian rupee was US\$1.5 billion. Excluding valuation effect decline in external debt would have been higher at US\$14.6 billion instead of US\$13.1 billion.
- Ratio of external debt to GDP fell to 20.2 per cent from 23.5 per cent.
- Debt service ratio fell to 8.3 per cent

from 8.8 per cent.

- Ratio of foreign exchange reserves to total debt increased to 78.4 per cent from 74.3 per cent.
- Ratio of concessional debt to total external debt increased to 9.3 per cent from 9.0 per cent.
- Short term debt (residual maturity) to total external debt fell to 41.5 per cent from 42.7 per cent. This is because the increase in short term debt (original maturity) was more than offset by the fall in FCNR (B) deposits reflecting their redemption.
- Short term debt (residual maturity) to forex reserves also fell to 52.9 per cent from 57.4 per cent.

- Only Short term debt (original maturity) to forex reserves increased marginally to 23.8 per cent from 23.1 per cent and short term debt (original maturity) to total external debt increased marginally to 18.6 per cent from 17.2 per cent due to rise in trade related credits.

6.39 India's prudent external debt management policies with emphasis on sustainability, liquidity and solvency have successfully limited the rise in the magnitude of external debt to a modest level. The composition of external debt also reflects a well-maintained longer maturity profile and is broadly balanced in terms of sources.

International Comparison

6.40 Cross country comparison of external debt indicates that India continues to be

Table 11. India's Key External Debt Indicators (per cent)

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 R | 2016-17 P |
|--|---------|---------|---------|-----------|-----------|
| External Debt (US\$ billion) | 409.4 | 446.2 | 474.7 | 485.0 | 471.9 |
| Growth in External Debt (%) | 13.5 | 9.0 | 6.4 | 2.2 | -(2.7) |
| Total External Debt to GDP | 22.4 | 23.9 | 23.9 | 23.5 | 20.2 |
| Debt Service Ratio | 5.9 | 5.9 | 7.6 | 8.8 | 8.3 |
| Concessional Debt to Total External Debt | 11.1 | 10.4 | 8.8 | 9.0 | 9.3 |
| Foreign Exchange Reserves to Total External Debt | 71.3 | 68.2 | 72.0 | 74.3 | 78.4 |
| Short term External Debt ^a to Foreign Exchange Reserves | 33.1 | 30.1 | 25.0 | 23.1 | 23.8 |
| Short term External Debt ^a to Total Debt | 23.6 | 20.5 | 18.0 | 17.2 | 18.6 |
| Short term debt (Residual Maturity) to total debt | 42.1 | 39.7 | 38.5 | 42.7 | 41.5 |
| Short term debt (Residual Maturity) to foreign exchange reserves | 59.0 | 58.2 | 53.5 | 57.4 | 52.9 |

Source: RBI

Note: R: Revised; P: Provisional a: Short term debt is based on original maturity.

Debt Service Ratio is the proportion of gross debt service payments to current account receipts (net of official transfers)

among the less vulnerable countries. India's key external debt indicators compare well with other indebted developing countries. Among the top ten developing debtor countries, India's external debt stock to gross national income (GNI) at 23.4 per cent was the fifth lowest and in terms of the cover provided by foreign exchange reserves to external debt, India's position was the sixth highest at 69.7 per cent in 2015. (Table 12)

6.41 The Quarterly External Debt Statistics (QEDS) database, jointly developed by the World Bank and the International Monetary Fund, shows that though India is the third largest debtor country among developing countries, the share of short term debt to total external debt is only 16.8 per cent and 18.4 per cent in 2016 Q3 (end-September) and 2016 Q4 (end-December), respectively compared to the top debtor country, China's 56.7 per cent and 56.4 per cent for these periods. Among the top debtor countries in the World, the US continues at the top as at end-December 2016, followed by the

UK, France and Germany. China is at 13th position, while India is at a distant 24th position.

CONCLUSION

6.42 Some green shoots have started to appear on the trade horizon with world trade growth projected at 3.8 per cent and 3.9 per cent in 2017 and 2018, India's exports continuing to be in positive territory for the fourth consecutive month in May 2017 and in double digits in April-May 2017 and all external sector indicators like reserves cover for imports, external debt to GDP ratio, foreign exchange reserve cover for external debt and debt servicing ratio being in comfort zone. However, rising trade deficits on the domestic front and rising protectionist tendencies on the global front are things to watch in the short term. Meanwhile there is a need for a well thought out strategy for India to reach a respectable share of at least 5 per cent in world exports which at present has been stagnating at 1.7 per cent from 2011 to 2016 with intermittent falls to 1.6 per cent.

Table 12. International Comparison of Top Ten Developing Debtor Countries, 2015

| Sl. No. | Country | External Debt Stock to Gross National Income (per cent) | Debt Service Ratio (per cent) | Foreign Exchange Reserves to Total Debt (per cent) | Total External Debt Stock (US\$ million) |
|---------|-------------|---|-------------------------------|--|--|
| 1 | China | 13.1 | 4.7 | 235.9 | 1,418,291 |
| 2 | Bangladesh | 18.6 | 4.1 | 69.9 | 38,640 |
| 3 | Philippines | 22.0 | 9.9 | 95.2 | 77,725 |
| 4 | Pakistan | 22.9 | 12.9 | 27.2 | 65,482 |
| 5 | India | 23.4 | 10.9 | 69.7 | 479,559 |
| 6 | Brazil | 31.3 | 38.1 | 65.2 | 543,399 |
| 7 | Thailand | 35.2 | 6.9 | 116.7 | 129,654 |
| 8 | Peru | 35.6 | 11.5 | 91.6 | 65,938 |
| 9 | Indonesia | 37.0 | 32.1 | 33.5 | 308,540 |
| 10 | Mexico | 37.5 | 13.2 | 40.7 | 426,334 |

Source: World Bank, International Debt Statistics, 2017

Note: Countries are arranged based on ratio of external debt stock to GNI.

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Agriculture and Food Management

“Agriculture not only gives riches to a nation, but the only riches she can call her own.”

– Samuel Johnson

The dual economy model of Sir Arthur Lewis explores the inter relationship between the agriculture and industrial sectors during the process of economic development of a country. Lewis model shows that economic development always entails movement of labour from agriculture sector to the more productive industrial sector and the agriculture sector becomes over time a less important part of the economy in terms of its share of GDP. However, the dual economy model does not undermine the significance of agriculture sector in developing economies. Development must happen along with rapid productivity growth in agriculture, ensuring rising farm incomes and adequate food supplies for the people.

INTRODUCTION

7.1 In India's growth story, there are reasons to focus attention on agriculture and allied sector, which will continue to play a significant role in providing employment and sustainable livelihoods for the growing population in India. However, the agriculture sector is characterised by instability in incomes owing to various types of risks related to production, markets and prices.

OVERVIEW OF AGRICULTURE AND ALLIED SECTORS

7.2 In the recent past, growth rates of agriculture have been fluctuating at 1.5 per cent in 2012-13, 5.6 per cent in 2013-14, (-) 0.2 per cent in 2014-15, 0.7 per cent in 2015-16 and 4.9 per cent in 2016-17 (PE). The uncertainties in growth of agriculture are explained by the fact that shocks

emanate mainly from deficiency in rainfall since 55 per cent of agriculture in India is rainfall dependent and there have been two consecutive years of less than normal rainfall in 2014-15 and 2015-16.

Area, Production and Yield

7.3 As a result of good monsoon during 2016-17, area sown under most crops increased in 2016-17. The largest increase was recorded under pulses which is around 43.66 lakh hectares (around 17.5 percent) more over 2015-16. The area coverage under tur, gram, urad and moong increased by around 36 per cent, 14 per cent, 24 per cent and 12 per cent respectively, over 2015-16. The area coverage under wheat and coarse cereals also increased by 2.97 lakh hectares to 307.15 lakh hectares and by 2.94 lakh hectares to 246.83 lakh hectares in 2016-17 compared to 2015-16 respectively. However,

**Table 1. Agriculture Sector –Key indicators
(per cent change at constant 2011-12 prices)**

| Item | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (PE) |
|--|---------|---------|---------|---------|--------------|
| Growth in GVA in Agriculture & Allied Sectors # | 1.5 | 5.6 | -0.2 | 0.7 | 4.9 |
| Share of Agriculture & Allied Sectors in total GVA at current prices # | 18.2 | 18.6 | 18.0 | 17.5 | 17.4 |
| Share of Agriculture & Allied Sectors in total Gross Capital Formation * | 7.6 | 8.5 | 7.8 | 6.9 | n.a. |
| Share of Crops* | 6.4 | 7.1 | 6.4 | 5.7 | n.a. |
| Share of Livestock* | 0.7 | 0.8 | 0.8 | 0.7 | n.a. |
| Share of Forestry and logging* | 0.1 | 0.1 | 0.1 | 0.1 | n.a. |
| Share of Fishing * | 0.4 | 0.4 | 0.5 | 0.5 | n.a. |

Source: Central Statistics Office

Note: * in GVA of Agriculture and allied sectors; Calculations have been based on National Accounts Statistics, First Revised Estimates, 31st January 2017

Based on provisional estimates released on 31st May, 2017

there was a decline in the area under rice by 5.77 lakh hectares in 2016-17 as compared to the previous year.

7.4 As per the third Advance Estimates released on 9th May, 2017, (http://eands.dacnet.nic.in/Advance_Estimate/3rd_Adv_Estimates_2016-17_Eng.pdf) foodgrains production during 2016-17 is estimated at 273.38 million tonnes compared to 251.57 million tonnes during 2015-16. The total production of rice and wheat during 2016-17 is estimated at 109.2 million tonnes and 97.4 million tonnes respectively compared to 104.4 million tonnes (rice) and 92.3 million tonnes (wheat) in 2015-16. The production of pulses during 2016-17 is estimated at 22.4 million tonnes, sugarcane at 306.0 million tonnes, oilseeds at 32.5 million tonnes and cotton at 32.6 million bales of 170 kgs each. The percentage change in the yield of various crops in 2016-17 over 2015-16 shows an increase in all crops, except groundnut and sugarcane. The details of area, production and yield of different crops during 2016-17 are at Table 2 & Table 3.

7.5 The average yield of major crops has shown relatively higher growth over the decades in 1970-71 to 1990-91 (Table 3). The average yield of pulses registered negative growth rate during the period 1980-81 over 1970-71 and 2000-01 over 1990-91. The introduction of Bt. Cotton resulted in a spurt in yield of cotton during the period 2010-11 over 2000-01. The percentage change in average yields has been fluctuating as can be seen in Figure 1.

GROSS CAPITAL FORMATION IN AGRICULTURE AND ALLIED SECTOR

7.6 As per the Second Advance Estimates of National Income, released on 28th February 2017, growth in GVA in Agriculture & Allied Sectors (at 2011-12 prices) was 4.4 per cent in 2016-17. As per Provisional Estimates, it is 4.9 per cent in 2016-17 (as on 31.05.2017). The Gross Capital Formation (GCF) in Agriculture and Allied Sectors relative to GVA in this sector has been fluctuating from 16.6 per cent in 2012-13 to 16.3 per cent in 2015-16. The Gross

Table 2. Area, Production and Yield (2016-17*)

| Group/ Commodity | Area (Million ha) | Percentage change (as compared to 2015-16) | Production (Million tonnes) | Percentage change (as compared to 2015-16) | Yield (kg/ha) | Percentage change (as compared to 2015-16) |
|-------------------------|----------------------|---|-----------------------------------|---|------------------|---|
| Foodgrains ^a | 127.6 | 3.55 | 273.38 | 8.67 | 2142 | 4.94 |
| Rice | 42.9 | -1.33 | 109.15 | 4.54 | 2543 | 5.95 |
| Wheat | 30.7 | 0.98 | 97.44 | 5.58 | 3172 | 4.56 |
| Jowar | 5.1 | -15.59 | 4.74 | 11.85 | 924 | 32.51 |
| Maize | 9.8 | 10.79 | 26.14 | 15.83 | 2679 | 4.55 |
| Bajra | 7.5 | 4.78 | 9.86 | 22.18 | 1319 | 16.60 |
| Pulses | 29.3 | 17.52 | 22.40 | 37.03 | 765 | 16.59 |
| Gram | 9.5 | 13.57 | 9.08 | 28.59 | 951 | 13.22 |
| Tur | 5.4 | 35.92 | 4.60 | 79.57 | 854 | 32.11 |
| Oilseeds | 26.5 | 1.45 | 32.52 | 28.80 | 1229 | 26.95 |
| Groundnut | 5.3 | 15.21 | 7.65 | 13.62 | 1445 | -1.38 |
| Rapeseed and Mustard | 6.2 | 8.38 | 7.98 | 17.36 | 1281 | 8.29 |
| Cotton ^b | 10.8 | -12.14 | 32.58 | 8.57 | 513 | 23.57 |
| Sugarcane | 4.5 | -8.62 | 306.03 | -12.17 | 68# | -3.89 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Note: *Third Advance Estimates; # tonnes/ha, 'a' Includes cereals and pulses; 'b' Million Bales of 170 kg each

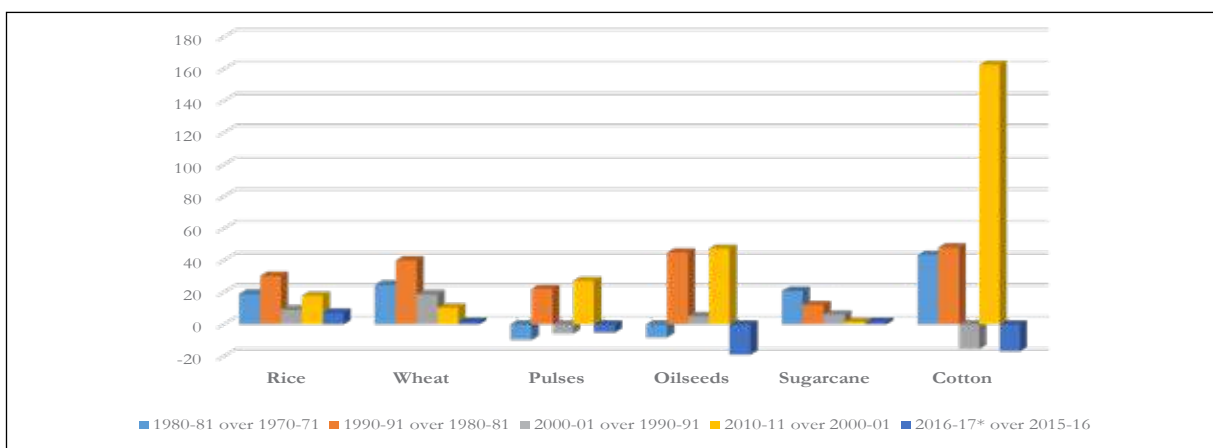
Table 3. Average Yields of Major Crops in India (kg/ha)

| Crops | 1970-71 | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2015-16 | 2016-17* |
|-----------------------|---------|---------|---------|---------|---------|---------|----------|
| Rice | 1123 | 1336 | 1740 | 1901 | 2239 | 2400 | 2543 |
| Wheat | 1307 | 1630 | 2281 | 2708 | 2989 | 3034 | 3172 |
| Pulses | 524 | 473 | 578 | 544 | 691 | 656 | 765 |
| Oilseeds | 579 | 532 | 771 | 810 | 1193 | 968 | 1229 |
| Sugarcane (tonnes/ha) | 48 | 58 | 65 | 69 | 70 | 71 | 68 |
| Cotton | 106 | 152 | 225 | 190 | 499 | 415 | 513 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Note: *Third Advance Estimates.

Figure 1. Percentage Change in Average Yields of major crops



Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Capital Formation (GCF) in agriculture as a proportion to the total GCF declined from 7.8 per cent in 2014-2015 to 6.9 per cent in 2015-16 at 2011-12 prices. As per the First Revised Estimates, the percentage share of GCF in agriculture & allied sector to GVA has also shown a declining trend from 17.3 per cent in 2014-2015 to 16.3 per cent in 2015-16 at 2011-12 prices (Table 4)

PATTERN OF AGRICULTURAL LANDHOLDINGS

7.7 The average farm size in India is small (1.15 ha) and has shown a steady declining

trend since 1970-71. The small and marginal land holdings (less than 2.0 ha) account for 72 percent of land holdings (Figure 2).

The predominance of small operational holdings is a major limitation to economies of scale in agriculture operations. Further, the small and marginal farmers have low bargaining power, since they have very little marketable surplus and are price takers in a market. The pre dominance of small operational holdings is a major limitation to reap the benefits of economies of scale in agriculture operations.

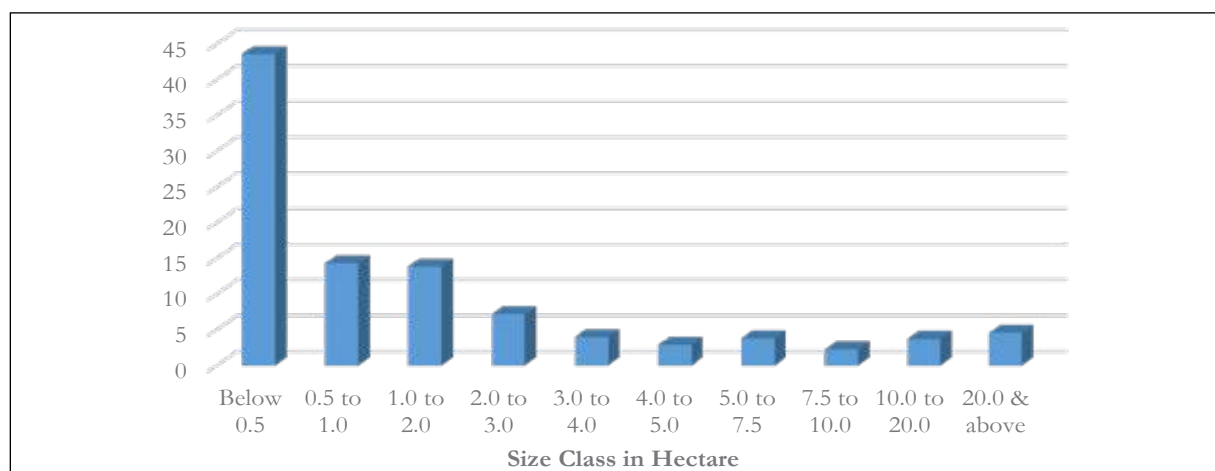
Table 4. GCF in Agriculture sector

| Period | GCF in Agriculture & Allied Sectors (in ₹ Crore) | | | GVA in Agriculture & Allied Sectors (in ₹ Crore) | GCF in Agriculture & Allied Sectors as percentage of GVA of Agriculture & Allied Sectors | | |
|----------|--|---------|--------|--|--|---------|-------|
| | Public | Private | Total | | Public | Private | Total |
| 2011-12 | 35715 | 238717 | 274432 | 1501816 | 2.4 | 15.9 | 18.3 |
| 2012-13 | 36077 | 217201 | 253279 | 1524398 | 2.4 | 14.2 | 16.6 |
| 2013-14 | 33882 | 250252 | 284134 | 1609061 | 2.1 | 15.6 | 17.7 |
| 2014-15 | 36725 | 240711 | 277436 | 1604259 | 2.3 | 15.0 | 17.3 |
| 2015-16* | 44852 | 218295 | 263147 | 1616461 | 2.8 | 13.5 | 16.3 |

Source: Central Statistics Office (CSO), M/o Statistics & Programme Implementation

*As per First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation 2015-16 (latest available) released on 31st January 2017

Figure 2. Percentage of Agricultural land holdings by size class



Source: DAC & FW, Agriculture Census 2010-11

PROFILE OF AGRICULTURAL HOUSEHOLDS

7.8 The median agricultural incomes (as measured by income from cultivation, net of cost and unsold produce valued at local market rates) at about ₹19,250 in 2012-13 or about ₹1600 per month, are still meagre (NSS, 2012-13).

Pattern of expenditure on productive assets by agricultural households

7.9 The percentage of monthly average household expenditure on productive assets shows that among the households that possess less than 0.4 hectares of land, almost 50 per cent of average expenditure is incurred on livestock and poultry (Table 5).

The marginal farmers as part of their income diversification strategy have productive assets like livestock and poultry. In a mixed (crop-livestock) farming production system, livestock can supplement incomes, provide replacement for manual labour, supplement nutritional needs and can also be used as collateral in times of financial distress.

Indebtedness among cultivator households

7.10 The indebtedness of households is an indicator of their vulnerabilities to shocks, poverty and economic insecurity. The data on indebtedness of cultivator households in India (Table 6) reflects the lack of economic security. The distribution of total rural household debts between the two categories

Table 5. Distribution of monthly average expenditure incurred on productive assets used for farm and non-farm business (in per cent)

| Size class of land possessed (in hectares) | Farm business | | | (in per cent) | |
|--|-----------------------|---------------------------------------|-------------------------|---------------|-------------------|
| | Livestock and poultry | Agricultural machinery and implements | Other productive assets | Total | Non-farm business |
| <0.01 | 66.8 | 5.6 | 6.5 | 79.2 | 20.8 |
| 0.01-0.40 | 48.3 | 13.1 | 19.9 | 81.5 | 18.5 |
| 0.41-1.00 | 15.8 | 41.4 | 36.1 | 93.3 | 6.7 |
| 1.01-2.00 | 11.1 | 16.3 | 66.3 | 93.6 | 6.3 |
| 2.01-4.00 | 21.4 | 45.6 | 28.7 | 95.8 | 4.2 |
| 4.01-10.00 | 14.9 | 56.6 | 26.2 | 97.6 | 2.4 |
| 10.00+ | 6.0 | 45.8 | 46.4 | 98.2 | 1.8 |
| All size | 18.2 | 32.8 | 42.0 | 93.2 | 6.8 |

Source: NSS Report No. 576, Income, Expenditure, Productive Assets and Indebtedness of Agricultural Households in India, July 2012-June 2013

Table 6. Incidence of Indebtedness (IOI) and percentage share of outstanding debt by occupational categories of the households in recent rounds of AIDIS (1991, 2002 and 2012)

| Year | Rural | | | |
|------|------------|-------------------------|----------------|-------------------------|
| | Cultivator | | Non-cultivator | |
| | IOI (%) | % of debt to total debt | IOI (%) | % of debt to total debt |
| 1991 | 25.9 | 79.5 | 18.5 | 20.5 |
| 2002 | 29.7 | 73.3 | 21.8 | 26.7 |
| 2012 | 35.0 | 73.6 | 25.6 | 26.4 |

Source: NSS Report No.577, Household Indebtedness in India- All India Debt and Investment Survey

of households in the rural sector, namely, cultivators and non-cultivators, shows that 74 percent of the total debt in 2012 was accounted for by the cultivator households, declining from 80 percent in 1991. However, the percentage of cultivator households indebted increased to 35 per cent in 2012 from 26 percent in 1991 and is a cause for concern.

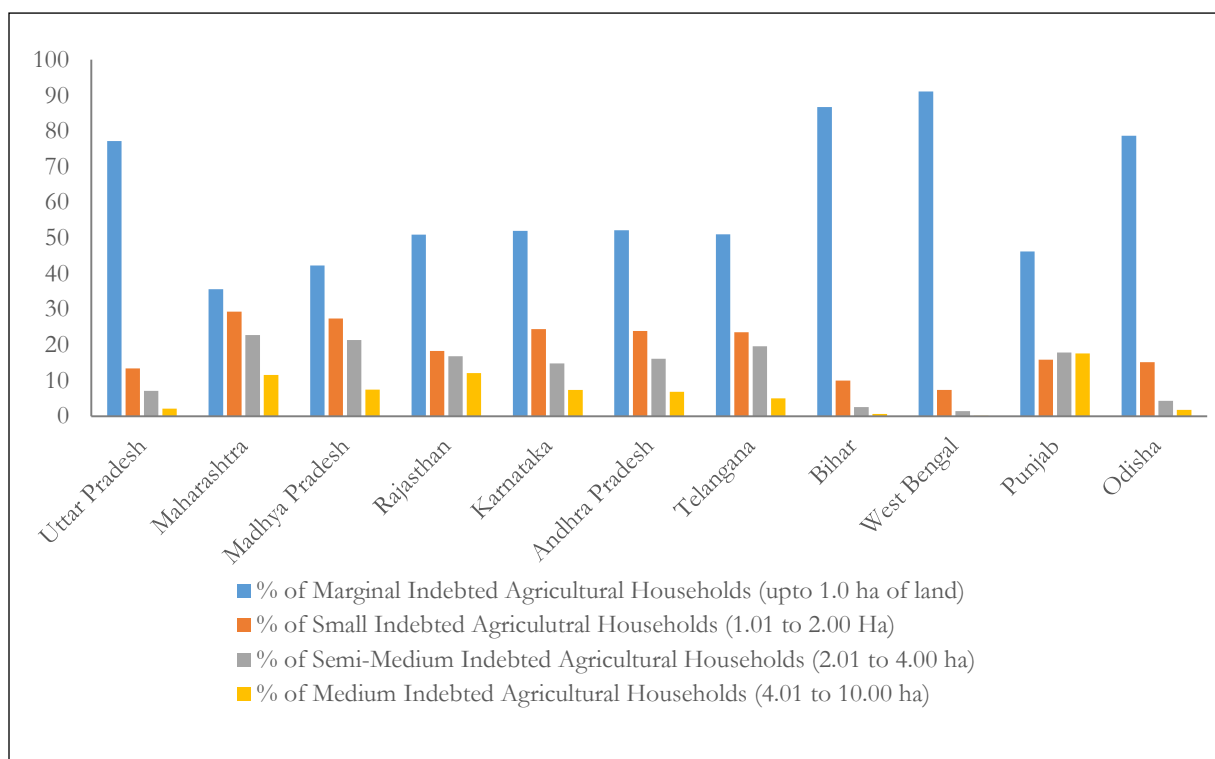
7.11 Further, the State level analysis of indebtedness among agricultural households based on the size of land holding possessed shows an inverse relationship between indebtedness and the size of land holding possessed by the agricultural households. In the States of Bihar and West Bengal, more than 80 percent of agricultural households with marginal land holdings are indebted. Indebtedness is lowest among the agricultural households with large size land holdings in all the States, as can be seen at Figure 3.

7.12 The pattern of agricultural holdings and the profile of agricultural households in India indicate that there is dominance of small farmers/small farm holdings in the agriculture sector, who are highly indebted and are vulnerable to shocks and poverty. In such a scenario, it is imperative to assess the various types of risks that farmers face in agriculture and suggest ways to reduce and mitigate risks to make agriculture an economic activity which will provide stable and sustainable incomes to the small farmers. The next section examines the various types of risks in agriculture.

RISKS IN AGRICULTURE

7.13 Agriculture, like other economic activity entails risks. Managing and reducing the risks in agriculture activities can increase the incomes, profitability, and ensure stable

Figure 3. Incidence of Indebtedness (Percentage of agricultural households) based on size of land possessed by agricultural households in select States and All India



Source: NSS Report No. 576, 2013

income flows to the farmers. In order to manage and reduce risks, there is need to analyze, categorize and address them. There are risks related to production owing to issues of inputs such as water management, market and price risks like sudden fall in prices due to bumper crop, as in the case of pulses last year, which are examined in the following section. The taxonomy of risks in agriculture is shown in Table 7.

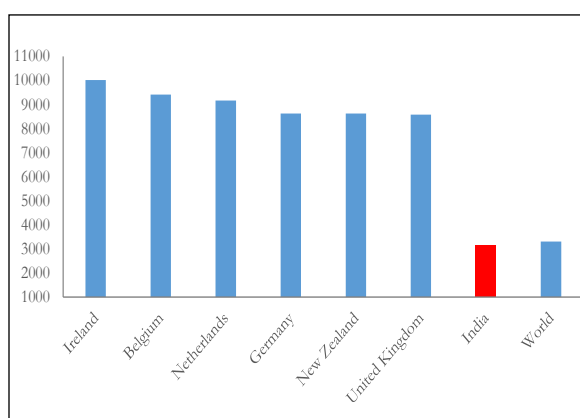
i. Production risks

7.14 The agriculture production is determined by factors like irrigation, availability of quality seeds and use/ overuse of fertilisers. The yield per hectare of wheat in India is less than the world average and less than one-third of the best performing nation, suggesting scope for significant improvement as a means to increase income of wheat farmers (Figure 4).

Table 7. Taxonomy of risks in agriculture

| Type of Risks | Causes | Reasons for Severity | Suggested Solutions |
|------------------------------------|---|--|--|
| Production risks | Pests, Diseases, Shortage of inputs like seeds/ irrigation | Low productivity, declining yield | Pest and disease resistant seeds, Free markets for inputs, Set and enforce standards for quality seeds |
| Weather and Disaster related risks | High share of rainfed agriculture, Low irrigation coverage, drought, flooding, hailstorm and unseasonal rains | Production loss, Lower than potential production | Increase share of irrigated agriculture, Restore and expand irrigation, especially small projects, Adopt outcome measure of performance such as level of water table, water management |
| Price risks | Lower than remunerative price | Absence of marketing infrastructure, Presence of and excessive profiteering by middlemen | Build marketing infrastructure along the value chain, Regime based on selective timely interventions |
| Credit risks | Predominance of informal sources of credit, money lenders, Lack of capital for short term and long term loans | Absence of stable incomes/ profits lead to defaults/ indebtedness | Increase availability of formal credit and institutional credit to farmers |
| Market risks | Changes in demand/ supply domestic or international | Loses market/ market share | Allow long term contracts for purchase on pre-determined prices, Start direct purchase from farmers by exempting Government purchases by PSU, Defence, Paramilitary etc. |
| Policy risks | Uncertain policies, regulations | Impact of Government policies, APMC Act and other regulations | Trade or policy changes to be announced well before sowing and to stay till arrivals and procurement is over |

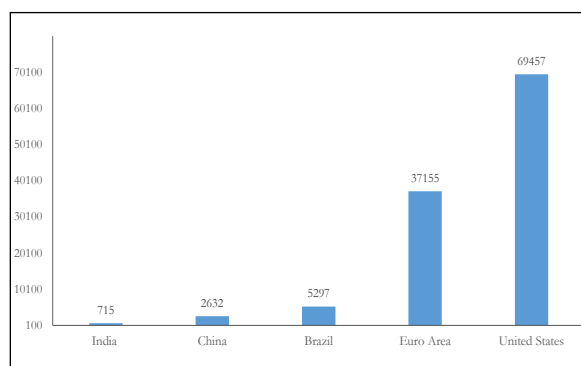
Figure 4. Comparison of Yields of Wheat (kg. /hectare)



Source: FAO Statistics

7.15 The overall agricultural labour productivity of India in terms of GVA per worker is less than a third of that in China and about 1 percent of that in the frontier countries (Figure 5).

Figure 5. Overall Agricultural Productivity: Still Very Far From Frontier (GVA per worker USD, 2005 prices)



Source: Food and Agriculture Organisation

Declining response ratio of inputs like fertilisers

7.16 The soil health is adversely impacted by the indiscriminate use of chemical fertilisers. The lower pricing of fertilisers by government has resulted in farmers resorting to larger use of fertilisers like urea. The skewed distribution of fertilizer subsidy, pricing policies, and the resultant imbalances in the use of fertilizer, require corrective measures to retain soil fertility. Towards

addressing these issues, the soil health cards initiative and the Direct Benefit Transfer (DBT) on fertilizer have been introduced on a pilot basis in selected districts, which are steps in the direction to correct distortions.

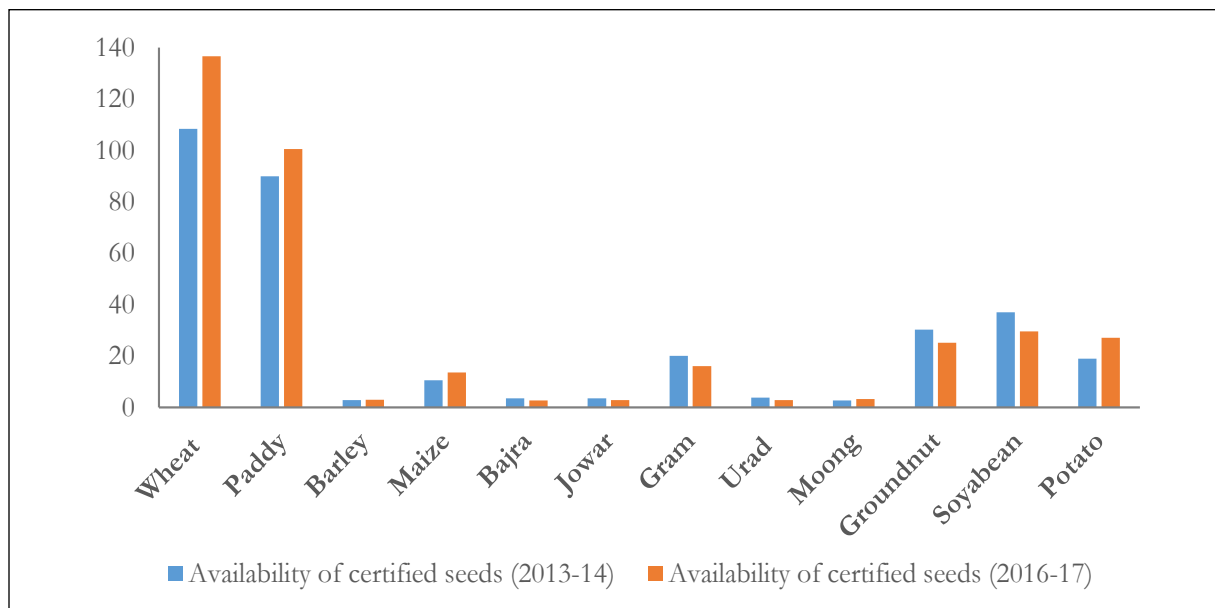
Skewed availability of certified quality seeds

7.17 The availability of quality seeds is critical for higher productivity and yield in agriculture. The availability of quality seeds in the country has increased from less than 40 lakh quintals during the decade of 60s to 380.29 lakh quintals in 2016-17. The crop wise availability of certified seeds may be seen at Figure 6. The availability of pulses' certified/quality seeds for kharif 2017 is 10,53,814 quintals, an increase of 18.06 per cent more than that of kharif 2016.

ii. Weather related environmental risks and water stress

7.18 Water is the most critical input for agriculture and the risks associated with agriculture are directly proportional to water stress. In a scenario of water stress, cultivation of water intensive crops like sugarcane/cereal/grain need to be replaced by less water intensive crops like pulses and vegetables and shifting of water intensive crops to less water-stressed regions. The cost based water pricing can help to correct water stress and increase availability of water.

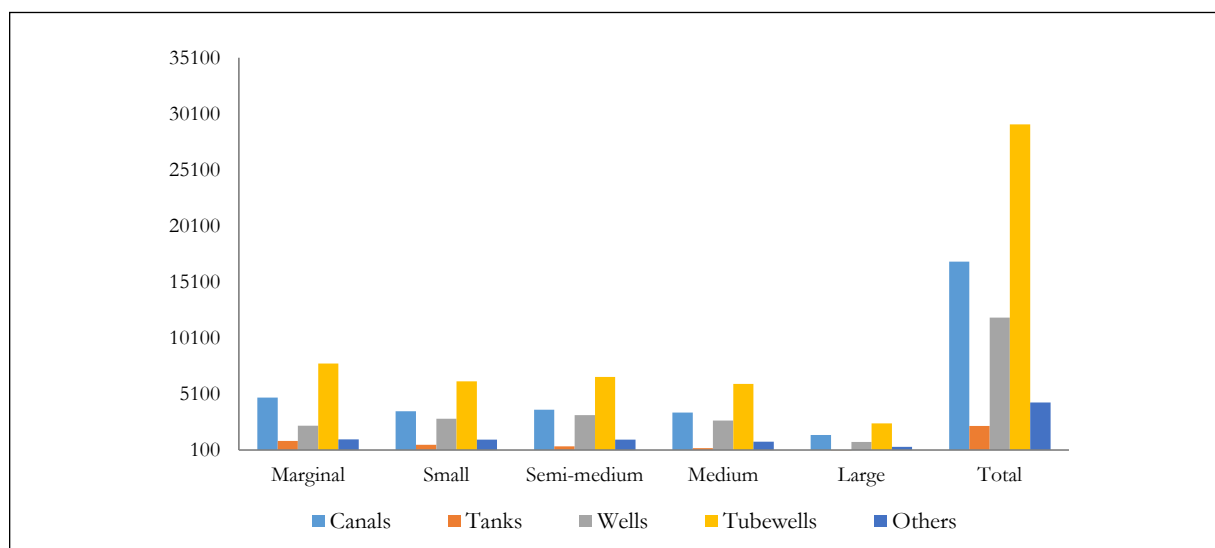
7.19 The water use efficiency in conventional irrigation ranges from 30 per cent to 50 percent against 80 per cent to 95 percent in the case of Micro Irrigation (MI) including drip irrigation. With MI system, irrigation costs across States have reduced by about 30 per cent and in case of fertilizer use, the saving is about 28 per cent in consumption in the surveyed states (PMKSY, 2015-pmksy.gov.in/microirrigation/Archive/August2015.pdf).

Figure 6. Crop wise Availability of Certified Seeds (in lakh quintals)

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

7.20 The Benefit Cost (BC) ratio of installing MI (micro irrigation) system is greater than “1” across states and across crops, signifying the importance of MI systems in enhancement of the farmers net income. The BC ratio was the highest in Odisha for fruits and vegetables whereas, in flowers, Rajasthan and Haryana beneficiary farmers achieved higher BC ratio.

7.21 The area irrigated by different sources in India shows that tube wells are the most common source of irrigation across farm holdings, followed by canals (Figure 7). Both types of irrigation systems rely on flood irrigation and waste water, suggesting the need for systems efficient in the use of water like drip and sprinkler irrigation.

Figure 7. Area irrigated by different source of irrigation by size classes (ha)

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

Agro-meteorological Advisory Services (AAS)

7.22 To reduce weather/climate/environmental risks, the effective use of weather-climate forecasts along with crop model and advanced IT and communication can benefit the farming community. A study aiming to assess Economic Impact of AAS (Agro-meteorological Advisory Service (AAS), a mechanism to provide relevant meteorological and agricultural practices information to help the farmer improve agricultural production; (both in quantity and quality) carried out during 2003 to 2007 in 15 districts covering 3 kharif and 3 rabi seasons, concluded that the farmers saved significant quantity of farm inputs like seeds, water, pesticides and fertilizers, reaped better harvest and made their farming more profitable by using the AAS. In general there was a net gain ranging from 8 to 10 percent to farmers who used the information provided by the AAS system.

iii. Price Risks

7.23 The Indian farmer faces price uncertainties, for his produce in seasons during a year, across years owing to supply and demand fluctuations, speculation and hoarding by traders. The price risks emanating from an inefficient APMC market, are severe for farmers in India since they have very low resilience owing to the perishable nature of produce, inability to hold produce, hedge in surplus/shortage scenarios or to insure against losses.

7.24 The market price determined by demand and supply, gets impacted by surplus and shortages, however, the response of the farmer, impacted by expectations is only with a lag. In year/season 1, if there is a shortage of a crop, the market price increases but the farmer does not necessarily benefit because his output is low and the price increase in the market, takes place in the post procurement

sale/transaction. In year/season 2, based on higher price in the previous year/season (in the market and not necessary of the procurement) the farmers expectations soar and he alongwith other farmers, increases the sown area and so supply. The increases in output in year/season 2, result in oversupply and reduction/sharp reduction in prices, at times below the MSP and the farmer loses. In year 3, there is a curtailment of sown area and so supply reduces but price increases. The farmer is still not able to benefit from higher prices because of curtailed supply. A farmer in the above scenarios can benefit only if his pattern of sowing is contra-cyclical, akin to trading in the stock market, for which he needs to be educated. The farmer should adopt a stable pattern of sowing so that in the long run he receives the average price of the produce.

7.25 In this context, the progress in area sown under kharif crops till 07.07.2017 (latest available), (Table 8), reflects the early sowing pattern, including a decline in area coverage under arhar by 6 per cent compared to previous year. If this pattern stays the same, it may be attributed to the fall in prices of arhar in the previous season owing to bumper production. It may be premature to make a judgement since the sowing season is still in progress. However, it is essential to watch the trend in sowing of arhar and take timely measures to offload the buffer stocks if sowing declines to very low levels and results in shortage in the coming months.

7.26 There have been several reports of distress sale by farmers, especially of perishables including in the last few years of tomatoes in Odisha, Maharashtra and Tamil Nadu, coconuts in coastal Andhra Pradesh, potatoes in Andhra Pradesh, Punjab and West Bengal, onions in Maharashtra, Madhya Pradesh and Odisha. Earliest memories recall distress sale of cane sugar in 1978-79

in Western Uttar Pradesh. This compilation only intends to highlight that large expansion of output accompanied by normal demand, leaves little room for MSP operations to maintain the floor level of prices. Possible solutions lie in increasing food processing in

conventional and modern forms; staggering sowing and so outputs, an option only in irrigated areas; introduce seed varieties that have longer shelf life, take shorter time to mature, and can be planted in different seasons, soils and regions.

Table 8. Progress in Area sown under Kharif crops as on 07.07.2017

| Sl. No. | Crops | Normal Area (DES)* | Normal of Corresponding week | Area Sown (in lakh hectares) | | Percentage increase in area sown | |
|--------------|-------------------------|--------------------|------------------------------|------------------------------|---------------|----------------------------------|-------------|
| | | | | 2017-18 | 2016-17 | Corresponding week | 2016-17 |
| 1 | Rice | 395.94 | 86.70 | 79.81 | 75.28 | -7.95 | 6.03 |
| 2 | Pulses | 105.58 | 22.00 | 44.11 | 35.88 | 100.53 | 22.92 |
| a | Arhar (Tur) | 39.25 | 9.11 | 14.25 | 15.10 | 56.37 | -5.65 |
| b | Urdbean | 24.80 | 4.32 | 10.13 | 7.40 | 134.74 | 36.81 |
| c | Moongbean | 23.41 | 6.25 | 12.49 | 10.08 | 99.72 | 23.96 |
| d | Kulthi | 2.41 | 0.06 | 0.04 | 0.01 | -33.33 | -60.00 |
| e | Other pulses | 15.71 | 2.25 | 7.20 | 3.20 | 219.38 | 124.95 |
| 3 | Coarse cereals | 192.15 | 63.77 | 80.78 | 70.11 | 26.68 | 15.23 |
| a | Jowar | 23.46 | 6.94 | 6.21 | 7.19 | -10.43 | -13.59 |
| b | Bajra | 76.67 | 16.38 | 30.35 | 18.88 | 85.28 | 60.72 |
| c | Ragi | 11.73 | 1.73 | 1.36 | 1.46 | -21.03 | -6.62 |
| d | Small millets | 6.95 | 1.44 | 1.37 | 1.35 | -5.16 | 1.65 |
| e | Maize | 73.34 | 37.28 | 41.49 | 41.23 | 11.28 | 0.64 |
| 4 | Oilseeds | 184.05 | 67.75 | 72.87 | 69.74 | 7.55 | 4.48 |
| a | Groundnut | 41.49 | 16.02 | 16.30 | 17.30 | 1.78 | -5.79 |
| b | Soybean | 110.37 | 47.96 | 53.57 | 48.56 | 11.69 | 10.31 |
| c | Sunflower | 2.29 | 0.59 | 0.53 | 0.91 | -10.69 | -41.73 |
| d | Sesamum | 15.37 | 2.48 | 2.11 | 2.51 | -14.93 | -15.98 |
| e | Niger | 2.74 | 0.15 | 0.07 | 0.14 | -56.02 | -52.78 |
| f | Castor | 11.79 | 0.55 | 0.29 | 0.32 | -46.55 | -7.82 |
| 5 | Sugarcane | 50.05 | 45.00 | 47.93 | 45.22 | 6.52 | 5.99 |
| 6 | Jute & Mesta | 8.39 | 7.74 | 6.95 | 7.27 | -10.20 | -4.39 |
| 7 | Cotton | 122.45 | 71.70 | 71.82 | 67.89 | 0.17 | 5.78 |
| Total | | 1058.62 | 364.66 | 404.27 | 371.39 | 10.86 | 8.85 |

Source: Crops Division, Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

Note: All figures are tentative and eye estimated by the States. *Normal Area- DES Avg. : 2011-2012 to 2015-2016

7.27 The Minimum Support Price (MSP) announced by the Government for 23 crops attempts to cover the price risks faced by the farmer. The MSP backed procurement of crops by government agencies, intends to benefit the farmers directly. However, the data on awareness of MSP and procurement among farmers as shown in Figure 8 suggests that the awareness of MSP and procurement operations is high only with regard to crops like paddy and wheat.

7.28 However, for an individual farmer who produces one or two crops, the benefits of MSP is more than offset since he consumes other crops also, for which he pays a higher price. In respect of the crop that he sells at MSP, in case he is a net buyer or a buyer at the margin, he ends up paying a higher price for the quantity purchased.

7.29 The entire focus of remunerating a

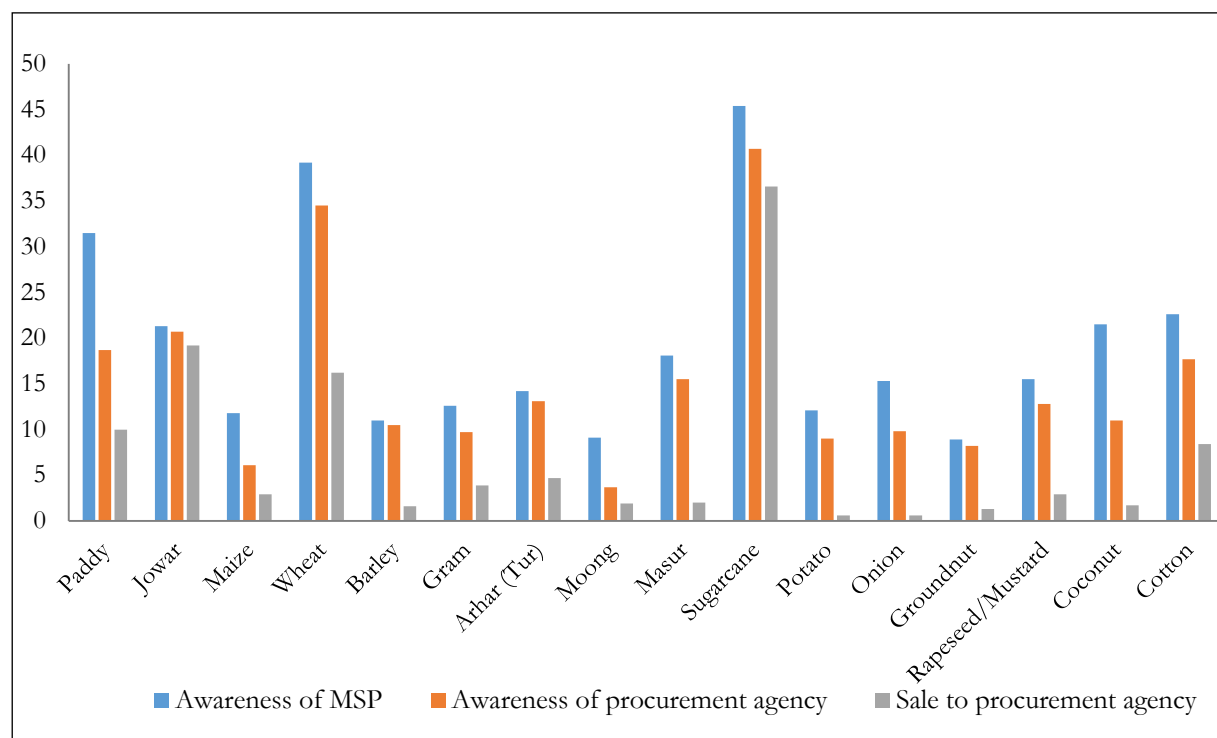
farmer with a higher income in the equation below is on increases in P. Previous section on production risk suggests large room for increasing Q. There is a need to shift the focus to Q and may entail a revisit on the present mechanism of CACP recommending MSP, on the assumption that input costs cannot be decreased and most, if not all increases in farmer income are to come from increases in P.

Net Revenue = Price x Quantity – Input Costs (NR = P x Q – IC)

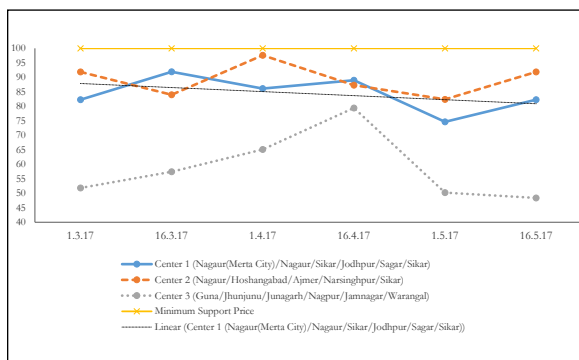
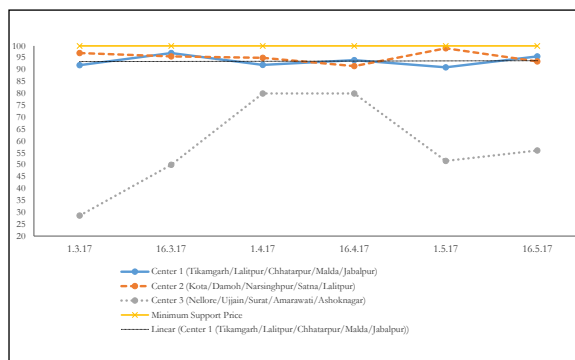
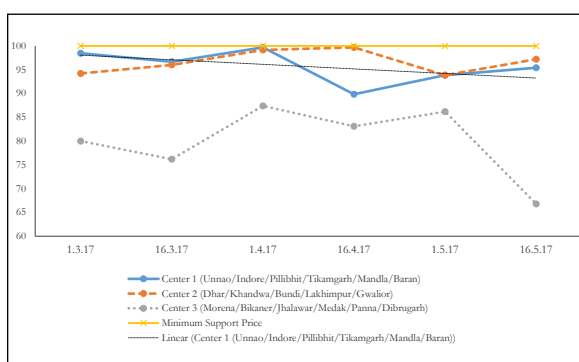
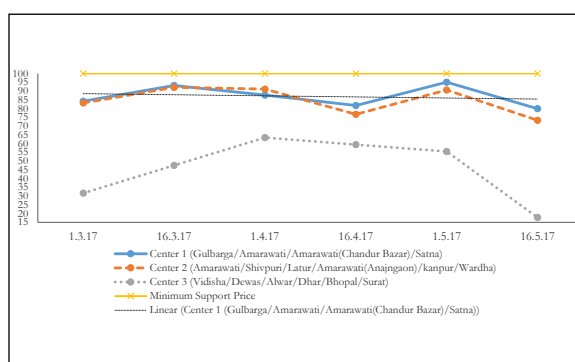
Pulses procurement during 2017

7.30 During the current year, despite significantly higher MSP for pulses and scaling up of pulses procurement to build a buffer stock close to 2 million, there were reports of sales below MSP in several markets during the procurement season as can be seen from the Figures 9 to 12 below.

Figure 8. Awareness of Minimum Support Prices (MSPs), Procurement operations and sale to procurement agency among agricultural households (in per cent)



Source: NSS Report No. 573, Some Aspects of Farming in India, January 2013 to June 2013

Figure 9. Tur Modal Price (% of MSP)**Source:** Agmarknet**Figure 10. Moong Modal Price (% of MSP)****Source:** Agmarknet**Figure 11. Urad Modal Price (% of MSP)****Source:** Agmarknet**Figure 12. Wheat Modal Price (% of MSP)****Source:** Agmarknet

7.31 Even in the case of wheat, there are reports of below MSP sales (Figure 12). This brings to the forefront the debate on the efficacy of MSP and procurement in respect of crops other than those for which there are NFSA commitments. Farmers need to be compensated for farming primarily because of inefficient markets for their inputs and outputs, which result in a high input cost and lower and volatile output price. To make farming remunerative, the delivery of inputs should be made cost effective through direct benefit transfer mode (DBT). Further, there are issues of procurement of perishables such as onions, potatoes and tomatoes for which timely disposal is necessary, and may be difficult for an agency to efficiently perform. After debating the same, support in the form of MSP for crops other than rice and wheat needs to be shifted to DBT format.

iv. Credit risks

7.32 Credit is an important mediating input for agriculture to improve productivity. Access to institutional credit enables the farmer to purchase inputs on cash, tide over periods till receipt of payment from sale of produce, which at times is delayed and staggered, and also to invest to enhance productivity and also output. Ground Level Credit (GLC) flow in absolute terms to agriculture has improved substantially over the years and stood at ₹9,59,826 crore (provisional) and the total number of agricultural loan accounts stood at ₹9.74 crore (provisional) as on 28 February 2017. Out of this, crop loan accounts stood at ₹8.09 crore (provisional). To improve agricultural credit flow, the credit target for 2017-18 has been fixed at ₹10, 00,000 crore as against ₹9,00,000 crore for 2016-17.

7.33 The predominance of informal sources of credit for farmers is a concern. As per the NSSO 70th round data (relating to January to December 2013), 40 per cent of the funds of farmers still come from informal sources. Local money lenders account for almost 26 per cent share of total agricultural credit. These borrowings are at significantly higher rates of interest. In addition to reducing the share of informal credit, there is a need to provide timely and affordable credit to the resource constrained group, the small and marginal farmer.

7.34 The ratio of agricultural credit to agricultural GDP has increased from 12 per cent in 2001-02 to around 40 per cent in 2016-17. The Government's priority to enhance capital formation in agriculture arrested the declining trend in the share of long term credit in agriculture over past few years in 2016-17, when it rose to 35 per cent. Towards this end, the corpus of Long Term Rural Credit Fund (LTRCF) of NABARD was increased to ₹15,000 crore in 2016-17.

7.35 The regional disparity in the distribution of agricultural credit also needs to be addressed. The coverage of agriculture credit is very low in the north-eastern and eastern regions of the country. Against the agricultural credit flow target of ₹ 8,737 crore in North Eastern Region (NER) for 2016-17, the achievement in terms of amount disbursed was only ₹4,756 crore (upto December 2016). The agricultural credit flow target for NER in 2017-18 has been fixed at ₹ 9,380 crore.

7.36 Crop Loans being short term in nature are meant to meet the current expenditure for raising crops on land till the crop is harvested and are for seasonal agricultural operations and do not result in major investments in agriculture. Under the Interest Subvention Scheme (ISS) in 2016-17, farmers availed crop loans up to ₹ 3 lakh at 7 per cent interest

and the effective rate of interest was lowered to 4 per cent for those who repaid their loans promptly.

v. Other risks (market and policy risks)

7.37 The market risks that arise in agriculture trade, both domestic and international are mainly due to uncertainty in the policies of agricultural trade and market policies pursued by the government from time to time. The agriculture markets under the Agricultural Produce Market Committee (APMC) Act of the State Governments, with around 2,477 principal regulated markets based on geography (the APMCs), and 4,843 sub-market yards are regulated by the respective APMCs. The posts in the market committee and the market board – which supervises the market committee are occupied by the politically influential, who enjoy a cosy relationship with the licensed commission agents, who in turn exercise monopoly power, at times by forming cartels. The farmers lose out in the APMC market dynamics.

7.38 There is need to remove all restrictions on internal trade on agricultural commodities and dismantle fragmented legislations that govern agriculture. At present, there are four legislations in existence/formulation to regulate agriculture markets,

- i. Model APMC Act, 2016 to replace the present state legislations on markets,
- ii. Agricultural Produce Trading (Development and Regulation) Act, 2017,
- iii. A law that would regulate contract farming and
- iv. A law/regulation that would regulate e-NAM.

7.39 Several legislations of the State and Centre ensure that the agricultural markets are fragmented and the benefits to the farmers remain low. The above legislations

need to be dismantled and move towards a Common National Agriculture Market as envisaged in the e-NAM initiative.

7.40 The perishable farm produce needs to be kept outside the purview of present APMC, Act/ proposed Model APMC, Act 2016 as has been stated in the Budget Speech (2017-18), in para 29, by the Finance Minister that, “Market reforms will be undertaken and the States would be urged to denotify perishables from APMC.” This will give opportunity to farmers to sell fruits and vegetables through the government created electronic trading portal and get remunerative prices.

Stock limits under the Essential Commodities Act (ECA), 1955

7.41 The stock limits imposed under ECA, 1955 end up curtailing demand for farm produce and so price. The analysis of the stock limits in select states indicates that a wholesaler is permitted a stock limit of around between 16 to 50 times in urban areas and between 10 and 80 times in other areas than the stock limits for the retailer, which is uniform for the entire year. This sharp difference needs to be rationalized by permitting the maximum limit commencing the sowing period till two months after procurement, to be gradually reduced to a ceiling of half. In the higher ceiling the farmer shall benefit due to higher demand and in the reduced ceiling the consumer shall benefit due to increased offloading. In contrast, requests for enhancing stock limits come when procurement process has commenced or is completed. However, the ideal situation relates to doing away with the stock holding limits along with the ECA, 1955 as envisaged in the ‘Removal of Licensing requirements, Stock limits and Movement Restrictions on Specified Foodstuffs Order, 2016,’ according to which all restrictions on permit/licensing requirements, stock limits and movement restrictions were to be removed.

High Yielding Variety (HYV) and Genetically Modified (GM) Seeds

7.42 An important measure that can reduce risk is the introduction of HYV and GM seeds that have been stuck in controversies over decades. Table 9 below suggests a matrix that can form a basis to resolve the same.

Table 9. Matrix on introduction of HYV and GM seeds

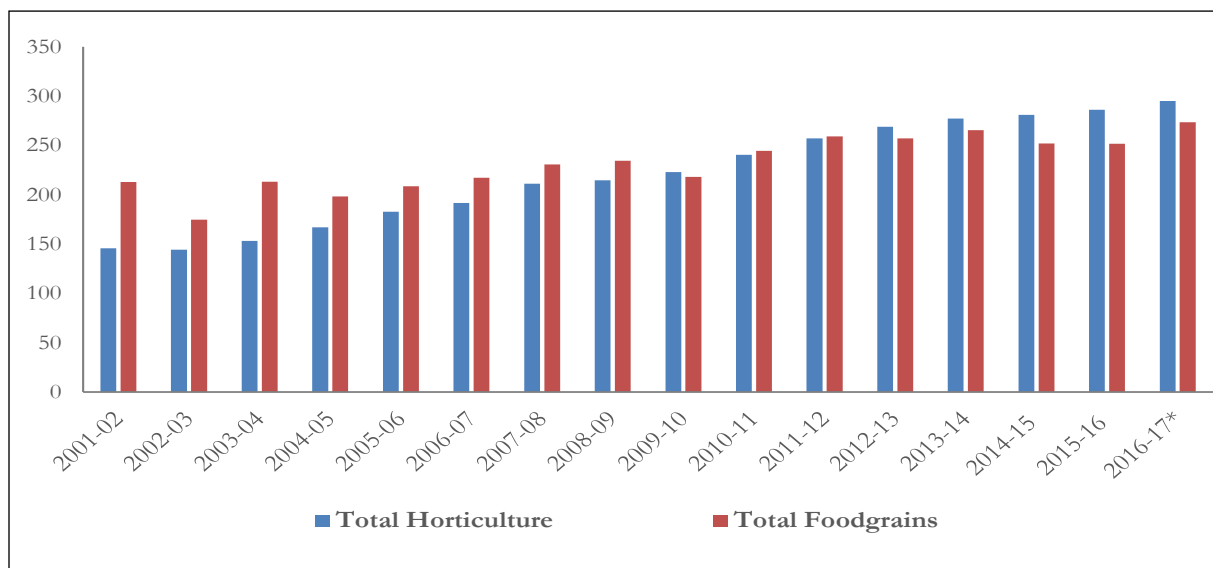
| Sl. No | Issue | Tick |
|--------|------------------------------|------|
| 1 | Terminator Gene | X |
| 2 | High cost | X |
| 3 | Disease and pest resistant | √ |
| 4 | Moisture variation resistant | √ |
| 5 | Resistant to soil variation | √ |
| 6 | Longer shelf life | √ |
| 7 | Shorter crop duration | √ |
| 8 | Tree format of crop | √ |
| 9 | Non food crops | √ |

HORTICULTURE

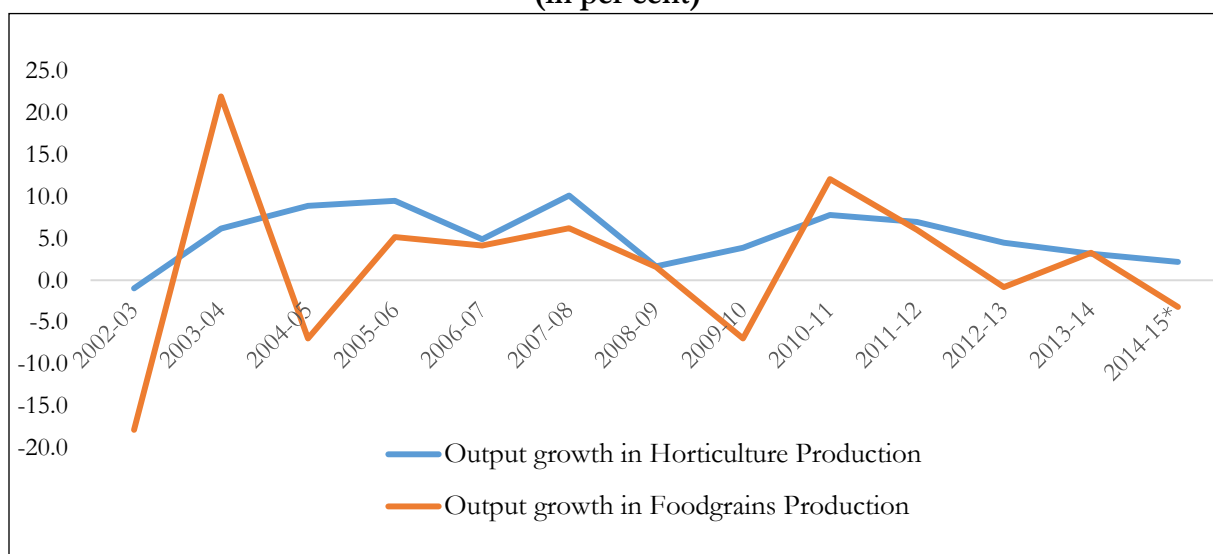
7.43 India witnessed sharper increase in acreage of horticulture crops compared to foodgrains over the last five years (from 2012 to 2014-15). Between 2012 to 2014-15 there has been an increase of 10 per cent in horticulture production compared to an increase of 6 per cent in foodgrains. Since 2012-13, the production of horticulture has outpaced the production of foodgrains (Figures 13 & 14).

7.44 Over the last decade, the area under horticulture increased by about 3.1 per cent per annum and annual production increased by about 6 per cent. During 2015-16 the production of horticulture crops was about 286.2 million tonnes from an area of 24.47 million hectares.

7.45 The production of fruits has increased from 28,632 thousand tonnes to 90,183 thousand tonnes and the production of vegetables has increased from 58,532

Figure 13. Production of Horticulture vis-à-vis Foodgrains (in Million Tonnes)

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

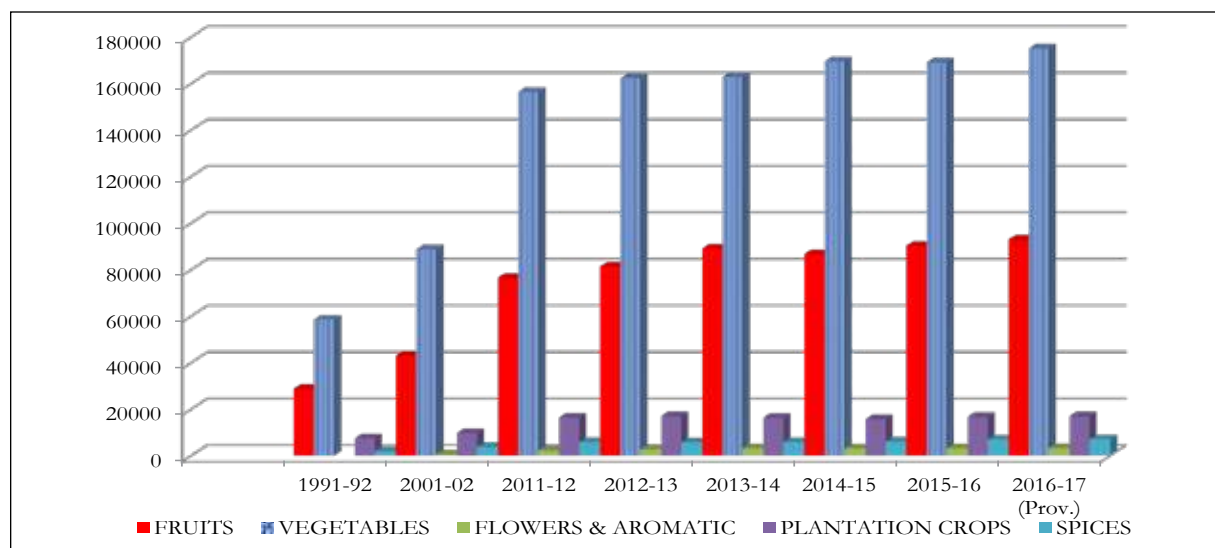
Figure 14. Growth rates in Horticulture production vis-a-vis Foodgrains production (in per cent)

Source: Central Statistics Office

thousand tonnes to 1,69,064 thousand tonnes since 1991-92 to 2015-16 as depicted in Figure 15. Among the horticulture crops, vegetables constitute more than 50 per cent of total horticulture production. The export growth of fresh fruits and vegetables in terms of value is around 14 per cent and of processed fruits and vegetables is around 16 per cent. The vegetable and fruit segments

of the horticulture sector can be key drivers of agricultural growth and can be further developed by appropriate investments in harvesting, low cost storage facilities and processing technologies along with development of marketing infrastructure.

7.46 The key challenge that the horticulture sector faces in India are post harvest losses, availability of quality planting material and

Figure 15. Production of various Horticulture Crops (in Thousand Tonnes)

Source: Department of Agriculture, Cooperation and Farmers Welfare.

lack of market access for horticultural produce of small farmers. The combined wastage (harvest and post harvest) for horticulture crops between 5 to 15 per cent in the case of fruits and vegetables is very high, compared to the range of 5 to 6 per cent in the case of cereals, around 6 to 8 per cent for pulses and 5 to 10 per cent for oilseeds (CIPHET, 2015). During 2016-17, 7554 post-harvest infrastructure, 801 markets infrastructure were established under MIDH (Mission for Integrated Development of Horticulture), to reduce wastages which range between 5 to 16 percent in the case of horticultural crops.

7.47 The availability of quality planting material, specially processable and exportable varieties, has been another area of concern in the horticulture sector. Under MIDH, financial assistance is provided for setting up and modernization of nurseries, tissue culture labs, seed and planting material production, seed processing infrastructure and import of planting materials. To further step up the availability of quality planting material, the fund allocation for interventions related to planting material under MIDH has been enhanced to about 10 per cent from

this financial year along with accreditation of nurseries.

7.48 The majority of the horticultural producers are small and marginal farmers. This, along with high perishability of the produce, present challenges to marketing of horticultural produce. The weakness in the horticultural supply generally results into cyclical glut/shortages and price spike/troughs. To improve the market access for horticulture producers, several steps have been initiated under MIDH. The small and marginal farmers have been mobilized to form Farmer Producer Organisation (FPO)/ Farmer Interest Group (FIG). From this year, the FPO model – enabling FPOs to directly market their produce – is being implemented on pilot basis.

ALLIED SECTORS: ANIMAL HUSBANDRY, DAIRYING AND FISHERIES

7.49 In India's predominantly mixed crop-livestock farming system, dairying has become an important secondary source of income for millions of rural families and has assumed the most important role in providing employment and income

generating opportunities particularly for marginal and women farmers. Most of the milk is produced by animals reared by small, marginal farmers and landless labourers. About 15.46 million farmers have been brought under the ambit of 165835 village level dairy corporative societies up to March 2015. Government of India is making efforts for strengthening the dairy sector through various Central sector Schemes like “National Programme for Bovine Breeding and Dairy Development”, National Dairy Plan (Phase-I) and “Dairy Entrepreneurship Development Scheme”.

7.50 India continues to be the largest producer of milk in world. Several measures have been initiated by the Government to increase the productivity of livestock, which has resulted in increasing the milk production significantly. During the years 2014-15 and 2015-16 the milk production registered an annual growth rate of 6.27 per cent. The per capita availability of milk is around 337 grams per day in 2015-16.

7.51 It is noteworthy that women have played a key role in the development of the dairy sector as producers, women cooperatives and in marketing. As per NDDB, the annual growth rate of all women Dairy Cooperative Societies is about 10 per cent. Hence measures to enhance women’s involvement in the dairy projects of the government needs emphasis through appropriate mechanisms and fund allocation earmarked for specific gender components. There are approximately 43.8 lakh women producers of which 3.29 lakh are Management Committee Members (2013, NDDB). Representation of women in Management Committees also needs to be increased.

7.52 The economics of livestock farming and the future of this source of livelihood depends on the terminal value of assets, in this case the no-longer-productive livestock.

If social policies drive this terminal value precipitously down, private returns could be affected in a manner that could make livestock farming less profitable. This declining terminal value arises both because of the loss of income from livestock as meat and the additional costs that will arise from having to maintain unproductive livestock. It is possible that social policies could affect social returns even more adversely. However, the cultural and social norms will influence to a great extent the behavior and choices made by the population.

7.53 The poultry production in India has taken a quantum leap in the last four decades, emerging from an unscientific farming practice to commercial production system with state-of-the-art technological interventions. The total poultry population in our country is 729.21 million (as per 19th Livestock Census) and egg production is around 82.93 billion during 2015-16 (Table 10). The per capita availability (2015-16) is around 66 eggs per annum.

Table 10. Production of Major Livestock Products and Fish

| Year | Milk (Million tonnes) | Eggs (Millions Nos.) | Fish (Thousand tonnes) |
|---------|-----------------------------|----------------------------|------------------------------|
| 1990-91 | 53.9 | 21101 | 3836 |
| 2000-01 | 80.6 | 36632 | 5656 |
| 2006-07 | 102.6 | 50653 | 6869 |
| 2007-08 | 107.9 | 53583 | 7127 |
| 2008-09 | 112.2 | 55562 | 7620 |
| 2009-10 | 116.4 | 60267 | 7914 |
| 2010-11 | 121.8 | 63024 | 8400 |
| 2011-12 | 127.9 | 66450 | 8700 |
| 2012-13 | 132.4 | 69731 | 9040 |
| 2013-14 | 137.7 | 74752 | 9572 |
| 2014-15 | 146.3 | 78484 | 10334 |
| 2015-16 | 155.5 | 82929 | 10795 |

Source: Department of Animal Husbandry, Dairying and Fisheries.

7.54 India is the second largest producer of

fish and also the second largest producer of fresh water fish in the world. Fish production has increased from 41.57 lakh tonnes (24.47 lakh tonnes for marine and 17.10 lakh tonnes for inland fisheries) in 1991-92 to 107.95 lakh tonnes (35.8 lakh tonnes for marine and 72.10 lakh tonnes for inland fisheries) in 2015-16.

FOOD MANAGEMENT

7.55 The main objectives of food management is procurement of foodgrains from farmers at remunerative prices, distribution of foodgrains to consumers, particularly the vulnerable sections of society at affordable prices and maintenance of food buffers for food security and price stability. The instruments used are Minimum Support Price (MSP) and Central Issue Price (CIP). The nodal agency which undertakes procurement, distribution and storage of foodgrains is the Food Corporation of India (FCI). Procurement at MSP is open-ended, while distribution is governed by the scale of allocation and its offtake by the beneficiaries. The offtake of foodgrains is primarily under the Targeted Public Distribution System (TPDS) and other welfare schemes of the Government of India.

7.56 To ensure adequate availability of wheat and rice in central pool, to keep a check on the open market prices, to augment the domestic availability and to ensure food security, the Central Government has taken following steps for prudent management of foodgrains stocks:-

- (a) Steps have been taken to maximize procurement of wheat and rice and MSP of wheat and paddy has been increased successively. (*Table on MSP fixed for main crops is at Appendix Table.*)
- (b) State Governments, particularly through the Decentralized Procurement (DCP) States are encouraged to maximize procurement of wheat and rice by taking

up procurement of paddy from farmers by State Agencies.

- (c) Strategic reserves of 5 million tonnes of food grains over the existing buffer norms has been maintained to be used in extreme situations.
- (d) Sale of wheat and rice was undertaken through Open Market Sale Scheme (OMSS) (Domestic) to check inflationary trend in food security.
- (e) Central Issue Prices (CIPs) of rice and wheat have not been revised since July, 2002.

Procurement of Foodgrains

7.57 Foodgrains, pulses and minor crops are procured at the Minimum Support Price (MSP) fixed by the Government. In the case of food grains, during Kharif Marketing Season (KMS) 2016-17, the procurement of rice/paddy is estimated to be 380.00 lakh tonnes of rice. Till 18.05.2017, a quantity of 359.58 lakh tonnes of rice has been procured. During the Rabi Marketing Season (RMS) 2016-17 (April 2016 to March 2017), 229.61 lakh tons of wheat was procured for the Central Pool against 280.88 lakh tonnes during RMS 2015-16.

Decentralised Procurement Scheme

7.58 The DCP has the objectives to ensure that MSP is passed on to the farmers, to enhance the efficiency of procurement of PDS and to encourage procurement in non-traditional States. The system enables extending the benefits of MSP to local farmers, to save on transit losses and costs and enables procurement of foodgrains more suited to local taste for distribution under the TPDS.

7.59 The DCP, introduced in 1997-98, is operationalised through food grains procurement and distribution by the State Governments themselves. Under this scheme, the designated DCP States procure,

store and issue foodgrains under TPDS and other welfare schemes of the Government of India. The Central Government undertakes to meet the entire expenditure incurred by the State Governments on the procurement operations as per the approved costing. While the Central Government monitors the quality of foodgrains procured under the scheme and reviews the arrangements made to ensure that the procurement operations are carried on smoothly, there have been instances of diversion of stocks. The States which are under DCP system are listed in the Table 11.

Table 11. States which adopted DCP system

| Crops | States with Decentralised Procurement (DCP) |
|-------------|--|
| Rice | A&N Islands, Karnataka, Kerala, Odisha, Tamil Nadu, Andhra Pradesh, Telangana, Maharashtra, Jharkhand (for 1 district) |
| Wheat | Gujarat, Punjab, Rajasthan (in 9 Districts) |
| Rice/ Wheat | Bihar, Chhattisgarh, Madhya Pradesh, Uttarakhand, West Bengal |

* Exempted for RMS 2017-18

Foodgrain stocking norms for the central pool (Buffer norms)

7.60 The main objectives of the foodgrain stocking Norms (Buffer Norms) is to meet the prescribed minimum stocking norms for food security, to ensure monthly releases of foodgrains for the TPDS/Other Welfare Schemes and to augment supply in eventualities like emergency situations arising out of unexpected crop failure, natural disasters etc. The Government of India has revised the Buffer Norms w.e.f. January, 2015 and the nomenclature of buffer norms has been changed to "Foodgrain Stocking Norms for the Central Pool". The Government has revised the norms for better management of foodgrain stocks. The minimum stocking norms of foodgrains in the Central Pool with effect from January, 2015 are as follows:

Table 12. Minimum Stocking norms of food grains (in million tonnes)

| As on | Rice | Wheat | Total |
|-----------|-------|-------|-------|
| 1st April | 13.58 | 7.46 | 21.04 |
| 1st July | 13.54 | 27.58 | 41.12 |
| 1st Oct | 10.25 | 20.52 | 30.77 |
| 1st Jan | 7.61 | 13.80 | 21.41 |

Source: Department of Food and Public Distribution

7.61 The above norms include a Strategic Reserve of 30 lakh tonnes of wheat and 20 lakh tonnes of rice.

National Food Security Act, 2013 (NFSA)

7.62 The National Food Security Act, 2013 (NFSA) is an important initiative for food security of the people. With a view to make receipt of foodgrains under TPDS a legal right, Government of India has enacted NFSA which came into force w.e.f. 5-7-2013. The Act provides for coverage of upto 75 per cent of the rural population and upto 50 per cent of the urban population for receiving subsidized foodgrains under Targeted Public Distribution System (TPDS), at Rs.1/2/3 per kg for coarse grains/wheat/rice respectively at 35 kg per family per month to households covered under Antyodaya Anna Yojana (AAY) and at 5 kg per person per month to priority households.

7.63 The Act is now being implemented in all the States/UTs, covering 80.54 crore persons, against the total targeted coverage of 81.35 crore persons. In Chandigarh, Puducherry and urban areas of Dadra & Nagar Haveli, the Act is being implemented in the cash transfer mode, under which food subsidy is being transferred into the bank accounts of beneficiaries who then have a choice to buy foodgrains from open market. There is a case for expanding the cash transfer to other states also.

7.64 During the Financial Year 2016-17, ₹2500 crore has been released to State

Governments as Central assistance to meet the expenditure incurred on intra-State movement of foodgrains and fair price shop dealers' margins. Such an arrangement has been made for the first time under the NFSA. Earlier, States/UTs were required to meet this expenditure or they could pass it on to beneficiaries (except AAY beneficiaries).

Allocation of foodgrains under NFSA/TPDS

7.65 As on 1st November, 2016, NFSA has been implemented in all the 36 States/UTs and they are receiving monthly allocation of foodgrains under NFSA. The States/UTs which had not implemented NFSA, 2013 were receiving foodgrains under erstwhile TPDS at 35 kg per family per month for AAY and BPL families and at 10-35 kg per family per month for APL families as per March, 2000 population estimates of Registrar General of India and 1993-94 poverty estimates of erstwhile Planning Commission. During the year 2016-17, Government of India allocated 628.91 lakh tonnes of foodgrains to States/UTs/Welfare Institutions, etc. (Table 13).

Table 13. Food grains allocation under NFSA/Non-NFSA

| Sl. No. | Category | Quantity (in lakh tonnes) |
|--------------|-------------------------|---------------------------|
| 1. | Non-NFSA | 29.27 |
| 2. | NFSA | 513.45 |
| 3. | Addl.APL/BPL Allocation | 1.87 |
| 4. | Festival calamity etc. | 29.03 |
| 5. | Other Welfare schemes | 55.29 |
| Total | | 628.91 |

Source: Department of Food & Public Distribution

Open Market Sale Scheme (Domestic)

7.66 In addition to maintaining buffer stocks and for making a provision for meeting the requirement of the TPDS and other

Welfare Schemes, FCI on the instructions from the Government sells excess stocks out of Central Pool through Open Market Sale Scheme (Domestic) (OMSS-D) in the open market from time to time at predetermined prices to achieve the following objectives:-

- To enhance the supply of food grains especially during the lean season and thereby to have a healthy and moderating influence on the open market prices.
- To offload the excess stocks in the Central Pool and to reduce the carrying cost of food grains to the extent possible.
- To save the food grains from deteriorating in quality and to use food grains for human consumption.
- To release valuable storage space for stocks procured during the ensuing marketing season of wheat/rice.

Sale of wheat and rice under OMSS (domestic) during 2016-17

7.67 A target of 65-75 lakh MT was set for sale of wheat by FCI out of Central Pool under OMSS-D during 2016-17. A target of 20 lakh MT of Grade 'A' rice was also kept for sale under OMSS (D) during 2016-17. The reserve for the sale of wheat under OMSS (D) in 2016-17 to private bulk buyers/traders was kept as ₹1640 per quintal. For sale from the depots of FCI outside surplus procuring States of Punjab, Haryana and Madhya Pradesh, freight/road transport charges upto the concerned depots of FCI, ex-Ludhiana were to be added in this reserve price. For sale under dedicated movement, the handling and transportation charges from FCI depot to the loading in Railway rake were also added in the reserve price. The overall reserve price for sale of Grade 'A' rice under OMSS (D) was kept at ₹2400 per quintal for 2016-17. The quantities of wheat and rice sold under the OMSS (D) during the last 5 years are at Table 14.

Table 14. OMSS (Domestic)
(Qty. in lakh MT)

| Year | Wheat | Rice |
|---------|-------|------|
| 2012-13 | 68.67 | 0.99 |
| 2013-14 | 61.16 | 1.68 |
| 2014-15 | 42.37 | *NIL |
| 2015-16 | 70.77 | 1.11 |
| 2016-17 | 45.67 | 1.78 |

Source: Department of Food & Public Distribution

Note: * Sale of rice was not conducted in 2014-15

Food Subsidy

7.68 The provision of minimum nutritional support to the poor through subsidized foodgrains and ensuring price stability in different states are the twin objectives of the food security system. In fulfilling its obligation towards distributive justice, the Government incurs food subsidy. While the economic cost of wheat and rice has continuously gone up, the issue price has been kept unchanged since 1st July, 2002. Due to implementation of NFSA, CIP has further gone down for APL and BPL categories. The Government, therefore, continues to provide large and increasing amounts of subsidy on food grains for distribution under the TPDS/NFSA and other nutrition-based welfare schemes and open market operations (Table 15).

Table 15. Quantum of food subsidies released by Government

| Year | Food Subsidy (₹ in crore) | Annual growth (in per cent) |
|----------|------------------------------|--------------------------------|
| 2010-11 | 62,929.56 | 8.05 |
| 2011-12 | 72,370.90 | 15.00 |
| 2012-13 | 84,554.00 | 16.83 |
| 2013-14 | 89,740.02 | 6.13 |
| 2014-15 | 1,13,171.16 | 26.11 |
| 2015-16 | 1,34,919.00 | 19.22 |
| 2016-17 | 1,05,672.96 | -21.68 |
| 2017-18* | 69,273.00 | |

Source: Department of Food & Public Distribution

Note: *Figures as on 08.05.2017

THE WAY AHEAD

7.69 The response to the agrarian distress needs to be addressed by increasing the productivity, mainly by increasing the coverage of water saving irrigation systems like micro irrigation systems and routing inputs through direct benefit transfer mode in a crop neutral manner. The progress needs to be evaluated in terms of outcomes such as catching up with global yields as a means to increase income of farmers. The dissemination of scale neutral technology suited to small scale farming and use of IT is necessary to improve the productivity of small farm holdings which dominate the Indian agriculture sector. The controversies on the adoption of HYV and GM seeds need to be resolved and extended to all crops, not just mustard.

7.70 To address the agrarian concerns, the primary among the changes required is to allow a greater role for market forces; recognizing that market does not necessarily have a physical form.

7.71 The stock limits imposed under ECA, 1955 end up curtailing demand for farm produce and so price. There is need to lift all restrictions on permit/licensing requirements, stock limits and movement restrictions alongwith the laws on which they are based.

7.72 The challenge of enhancing access to formal and institutional credit for farmers for long term investments needs to be addressed. Providing timely and affordable credit to the small and marginal farmers is the key to inclusive growth.

Industry and Infrastructure

A higher industrial growth supported by well-connected infrastructure facility is vital for India to maintain the momentum of higher sustainable economic growth. Moderation of industrial growth in 2016-17 can be attributed to decelerated global economic growth, twin balance sheet problem and depressed private investment cycle. Meanwhile, the eight core infrastructure supportive industries have achieved reasonable growth in the same period. The Government has initiated a number of measures in crucial sectors to accelerate higher manufacturing growth and create jobs for millions. The Government's commitment to provide qualitative physical infrastructure has been reflected in global ranking of the World Bank's 2016 Logistics Performance, where India jumped to 36th rank in 2016 from 58th rank in 2014. Although initiatives are being taken for bringing well-structured infrastructure projects, yet some issues continue to constrain the development of road, railways, port, civil aviation, telecom and power sector etc. It is some of these challenges that are discussed in the chapter. The chapter has also attempted to make an initial assessment of the programme Ujwal DISCOM Assurance Yojana (UDAY) in addressing some of the problems with the power sector.

TRENDS IN INDUSTRIAL SECTOR

8.1 The Industrial sector in India, including construction, is an important contributor to the growth with the sector accounting for 31.1 per cent of the total Gross Value Added (GVA) in 2016-17. A strong and a robust industrial and manufacturing sector helps in promoting domestic production, exports and employment, all of which can be catalysts for higher growth in the economy.

8.2 As per latest Central Statistics Office provisional data, the overall growth of GVA for 2016-17 is estimated at 6.6 per cent, and the industrial performance has declined from 8.8 per cent during 2015-16 to 5.6 per cent in 2016-17 (Table 1). This is against the

background of decelerated overall global economic activity.

8.3 The slowdown of manufacturing sector of the economy can be attributed to the Twin Balance Sheet (TBS) problem (Economic Survey 2016-17 Vol I, Ch.4). The TBS refers to impaired balance sheets of public sector banks due to higher Non-Performing Assets (NPAs) and precarious financial position of corporates slowing down credit offtake, thereby leading to a further slowdown in Gross Fixed Capital Formation (GFCF) and hence industrial growth. Credit to industry in 2016-17 has contracted by 1.6 per cent, while GFCF has slowed down to 2.4 per cent in 2016-17 as compared to 6.5 per cent last year.

Table 1. Gross Value Added Growth Rate at Constant Prices (per cent) 2011-12

| | 2015-16 | 2016-17 |
|---|---------|---------|
| Industry | 8.8 | 5.6 |
| <i>of which</i> | | |
| Mining & quarrying | 10.5 | 1.8 |
| Manufacturing | 10.8 | 7.9 |
| Electricity, gas, water supply & other utility services | 5.0 | 7.2 |
| Construction | 5.0 | 1.7 |

Source: CSO

8.4 However, industrial growth when seen in terms of Index of Industrial Production (IIP) which is the lead indicator of industrial activity shows positive growth (Table 2). As per the new series of 2011-12, overall IIP grew at 5.0 per cent in 2016-17 as compared to 3.4 per cent last year. The growth for April-May 2017-18 has been 2.3 per cent.

Table 2. Growth as per Index of Industrial Production (per cent) (Base Year 2011-12)

| | 2015-16 | 2016-17 |
|-----------------------------------|---------|---------|
| IIP General | 3.4 | 5.0 |
| Mining | 4.3 | 5.4 |
| Manufacturing | 3.0 | 4.8 |
| Electricity | 5.7 | 5.8 |
| Use Based Classification | | |
| Primary Goods | 5 | 4.9 |
| Capital Goods | 2.1 | 3.2 |
| Intermediate Goods | 1.5 | 3.4 |
| Construction/Infrastructure Goods | 2.8 | 3.9 |
| Consumer Durable Goods | 4.2 | 5.1 |
| Consumer Non-Durable Goods | 2.7 | 8.5 |

Source: CSO**Table 3. Comparison of Index of Industrial Production growth rates (Base year 2004-05 and 2011-12)**

| | General | | Mining | | Manufacturing | | Electricity | |
|---------|---------|---------|---------|---------|---------------|---------|-------------|---------|
| | 2004-05 | 2011-12 | 2004-05 | 2011-12 | 2004-05 | 2011-12 | 2004-05 | 2011-12 |
| 2012-13 | 1.1 | 3.3 | -2.3 | -5.3 | 1.3 | 4.8 | 4.0 | 4.0 |
| 2013-14 | -0.1 | 3.4 | -0.6 | -0.1 | -0.8 | 3.6 | 6.1 | 6.1 |
| 2014-15 | 2.8 | 4.0 | 1.5 | -1.4 | 2.3 | 3.9 | 8.4 | 14.8 |
| 2015-16 | 2.4 | 3.4 | 2.2 | 4.3 | 2.0 | 3.0 | 5.7 | 5.7 |
| 2016-17 | 0.7 | 5.0 | 2.2 | 5.4 | 0.0 | 4.8 | 4.7 | 5.8 |

Source: CSO

8.5 With the new base year of 2011-12, there has been an upward revision in IIP growth rates (Figure 1). The two series do not move in the same direction and show a contrasting trend in 2016-17 growth rates. In 2016-17 Q1, the new series showed a rise in growth to 7.8 per cent, while the old series showed deceleration to 0.7 per cent. The new series captured the slowdown in industrial growth in Q3 and Q4 post demonetization, while the old series showed an acceleration in growth in the same period. The improved data is a

reflection of expansion of the item basket, the frame of factories and revision of weights in the new IIP series.

8.6 Divergence between GVA (Manufacturing) and IIP (Manufacturing) has reduced with the new series as can be observed from Figure 2. It is also important to note that the difference between GVA (Manufacturing) and IIP (Manufacturing) has reduced to about 3 percentage points as compared to 8 percentage points earlier.

Figure 1. Comparison of growth rates between Index of Industrial Production (General) 2004-05 and Index of Industrial Production (General) 2011-12

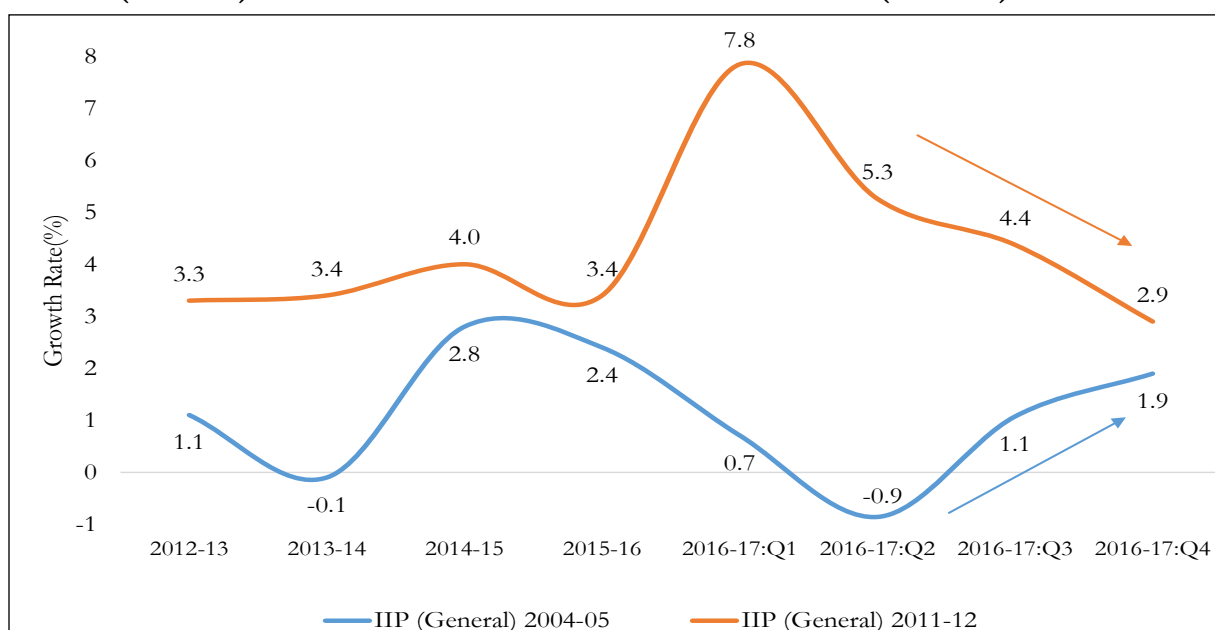
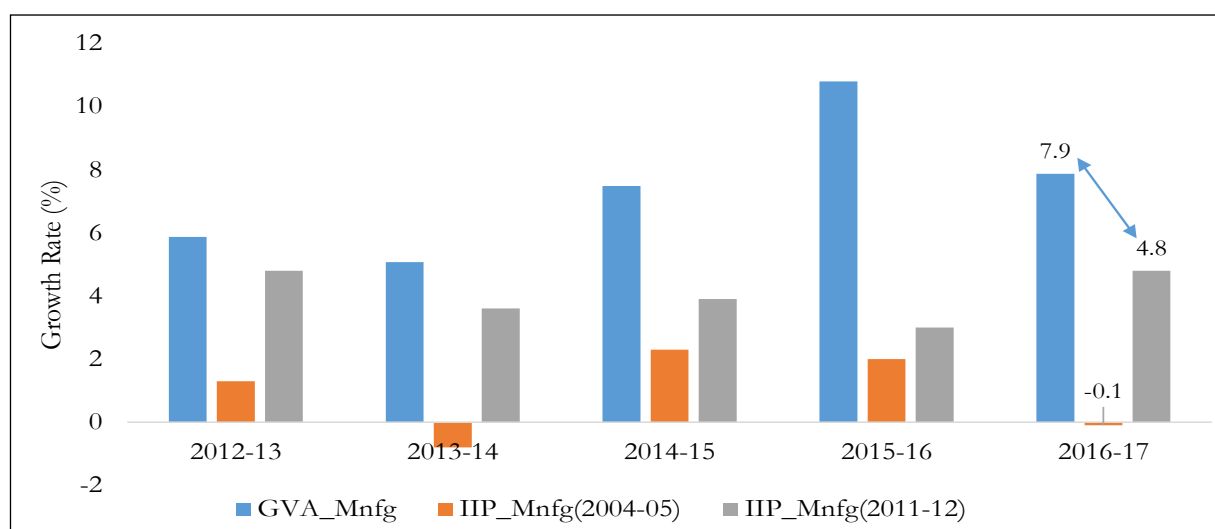


Figure 2. Comparison of Gross Value Added (Manufacturing) and Index of Industrial Production (Manufacturing)



Source: CSO

PERFORMANCE OF THE EIGHT CORE INDUSTRIES

8.7 The industries covered in the Index of Eight Core are namely Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity. The Base Year of the Index of Eight Core Industries has been revised from the year 2004-05 to 2011-12 from April, 2017 in line with the new base

year of Index of Industrial Production (IIP). The Index of Eight Core Industries growth during 2016-17 was 4.8 per cent as compared to 3 per cent in 2015-16 (Table 4). The first two months of 2017-18 has shown a growth of 3.2 per cent. The revised Eight Core Industries have a combined weight of 40.3 per cent in the IIP. Performance of some of the critical sectors is discussed in detail in the chapter subsequently.

Table 4. Growth Rates of Eight Core Industries (Base Year 2011-12) (per cent)

| Sector | Weight | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|-------------------|--------|---------|---------|---------|---------|---------|
| Coal | 10.3 | 3.2 | 1.0 | 8.0 | 4.8 | 3.2 |
| Crude Oil | 8.9 | -0.6 | -0.2 | -0.9 | -1.4 | -2.5 |
| Natural Gas | 6.8 | -14.4 | -12.9 | -5.3 | -4.7 | -1.0 |
| Refinery Products | 28.0 | 7.2 | 1.4 | 0.2 | 4.9 | 4.9 |
| Fertilizers | 2.6 | -3.3 | 1.5 | 1.3 | 7.0 | 0.2 |
| Steel | 17.9 | 7.9 | 7.3 | 5.1 | -1.3 | 10.7 |
| Cement | 5.4 | 7.5 | 3.7 | 5.9 | 4.6 | -1.2 |
| Electricity | 19.9 | 4.0 | 6.1 | 14.8 | 5.7 | 5.8 |
| Overall Index | 100.0 | 3.8 | 2.6 | 4.9 | 3.0 | 4.8 |

Source: Office of the Economic Adviser, DIPP

Box 1. Changes in new IIP series 2011-12

The basket of goods for Index of Industrial Production has been revised from the base year of 2004-05 to 2011-12. The methodological changes introduced are summarised as below:

The IIP in the new series consists of three sectors i.e. Mining, Manufacturing and Electricity. The new basket consists of 407 item groups with 259 item groups common with the old basket. The weights for the new series at the sectoral level have been calculated using the GVA figures from National Accounts Statistics (NAS) with base year 2011 – 12. Table 1 shows the comparative weights for two base years at sectoral level.

Table 1. Weights of the New and Old Series of IIP

| Sector | Base Year 2004-05 | Base Year 2011 - 2012 |
|---------------|-------------------|-----------------------|
| | Weight (%) | Weight (%) |
| Mining | 14.2 | 14.3 |
| Manufacturing | 75.5 | 77.6 |
| Electricity | 10.3 | 7.9 |
| Total | 100 | 100 |

In the revised IIP basket, data on a total of 109 item groups have been collected in value terms rather than in quantities. This is done so as to avoid jumps in data since many of these products have a life span of greater than one month. Such items have been classified as 'work under progress'. The value data collected for these item groups have been deflated using the Wholesale Price Index (WPI) 2011-12 in absence of a Producers Price Index. The Use based classification has replaced Basic Goods with Primary Goods. A new category named Infrastructure/ Construction Goods has been introduced. Weights of the new use based classification as compared to the old one are shown in Table 2.

Table 2. Weights for the New and Old Use Based Classification

| | Base Year 2004-05 | | Base Year 2011-12 | | |
|-----------------------|-------------------|-------------|-----------------------------------|-------------|-------------|
| | Item Groups | Weights (%) | | Item Groups | Weights (%) |
| Basic Goods | 88 | 45.7 | Primary Goods | 15 | 34.1 |
| Intermediate Goods | 106 | 15.7 | Intermediate Goods | 110 | 17.2 |
| Capital Goods | 73 | 8.8 | Capital Goods | 67 | 8.2 |
| NA | -- | -- | Infrastructure/Construction Goods | 29 | 12.3 |
| Consumer Durables | 43 | 8.5 | Consumer Goods | 86 | 12.8 |
| Consumer Non-Durables | 89 | 21.3 | Consumer Non-Durables | 100 | 15.3 |
| Total | 399 | 100 | Total | 407 | 100 |

CORPORATE SECTOR PERFORMANCE

8.9 The corporate sector sales have shown moderate growth since Q2 of 2016-17. Net profit shows high growth till Q3 (Table 5). However, the last quarter shows a decline in growth of net profits. This decline could be attributed to lower non-operating income for companies, as well as impact of transition to Indian Accounting Standards in line with International Financial Reporting Standards (IFRS).

Table 5. Growth of Sales and Profit 2016-17¹ (per cent)

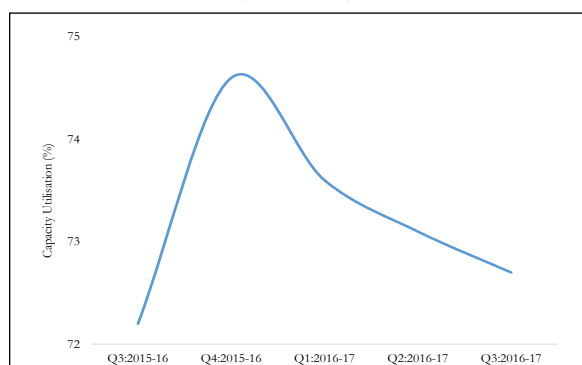
| | Q1 | Q2 | Q3 | Q4* |
|-------------|------|------|------|------|
| Sales | -1 | 3.7 | 4.9 | 18.8 |
| Net Profits | 28.8 | 27.5 | 57.5 | 6.6 |

Source: RBI

*Based on early results of Manufacturing companies available for Q4:2016-17 as of May 18, 2017

8.10 It is also noteworthy to mention that the capacity utilisation of the manufacturing industries has shown a declining trend since Q1 of 2016-17 (Figure 3). Capacity utilisation depicts the extent to which a manufacturing company uses its installed capacity, which in turn depends on the demand conditions as well as the level of inventory. Lower capacity utilisation reflects a slowdown in industrial activity and investment in the economy.

Figure 3. Capacity Utilisation in Industry (per cent)



Source: RBI

8.11 The industrial slowdown is also reflected in growth of credit to industry. Figure 4 shows that rate of growth of nominal credit to industries turned negative in August 2016, and has remained in the negative territory for most of the period, with a slight upward trend since February 2017. Growth of real credit has also been declining and became negative in July 2016. This may be due to movement of inflation based on the Wholesale Price Index (WPI) in the positive zone since July 2016. Real credit growth has remained negative since then. For the year as a whole, growth in credit flow to industrial sector including mining and manufacturing has declined in 2016-17 to (-) 1.6 per cent as compared to 4.9 per cent in 2015-16. Major sectors which are affected by the low credit disbursement are Power, Telecom, Textiles and Mining and Quarrying.

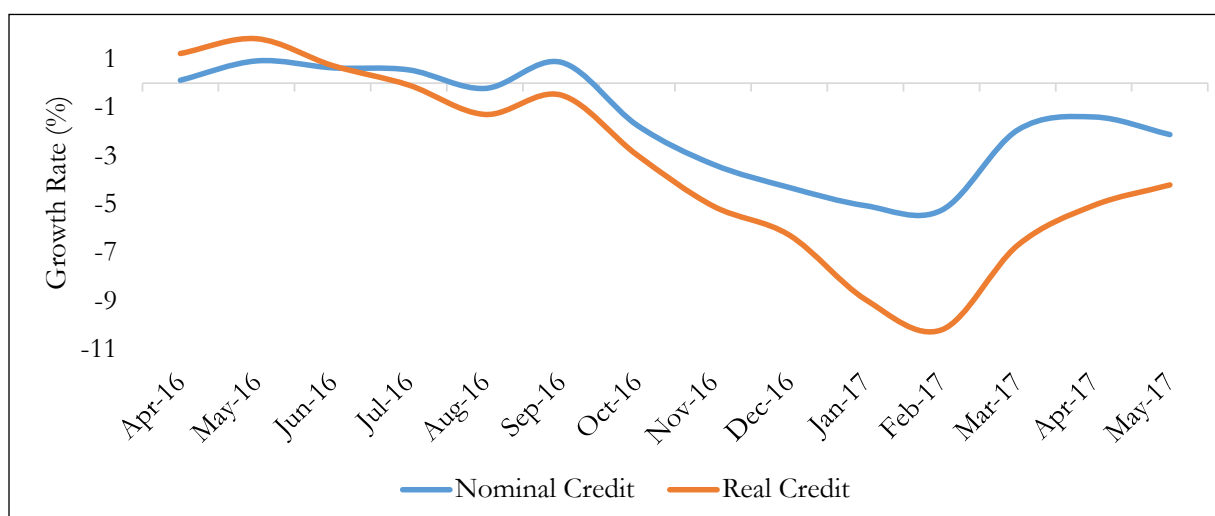
CENTRAL PUBLIC SECTOR ENTERPRISES

8.12 The Central Public Sector Enterprises (CPSEs) play a significant role in the growing Indian economy. In 2015-16, 165 CPSEs garnered a profit of Rs 1.4 trillion while there were 78 sick CPSEs in the economy, generating a loss of Rs 287.5 billion. The scale of such a magnitude of loss can lead to wastage of fiscal resources resulting in 'crowding out' of private investment. This is significant, especially when the banking sector is already riddled with a large amount of NPAs.

8.13 To address this problem, Department of Public Enterprises has issued guidelines on 07.09.2016 for "Time bound closure of Sick/ Loss Making Central Public Sector Enterprises (CPSEs) and disposal of Movable and Immovable assets". Under the scheme closure of Hindustan Cables Ltd, Tractor Unit of HMT Ltd, Kota Unit of Instrumentation Ltd, Indian Drugs and Pharmaceuticals Ltd,

¹ Number of firms for which the sample is taken- Q1-1808, Q2-1775, Q3-1818, Q4-389

Figure 4. Growth of Nominal and Real Credit (Deflated by WPI) to Industry (2016-17) (Month Wise)



Source: RBI

Rajasthan Drugs and Pharmaceuticals Ltd. National Jute Manufactures Corporation Ltd and Bird Jute Exports Ltd has been initiated.

SECTOR- WISE ISSUES AND INITIATIVES

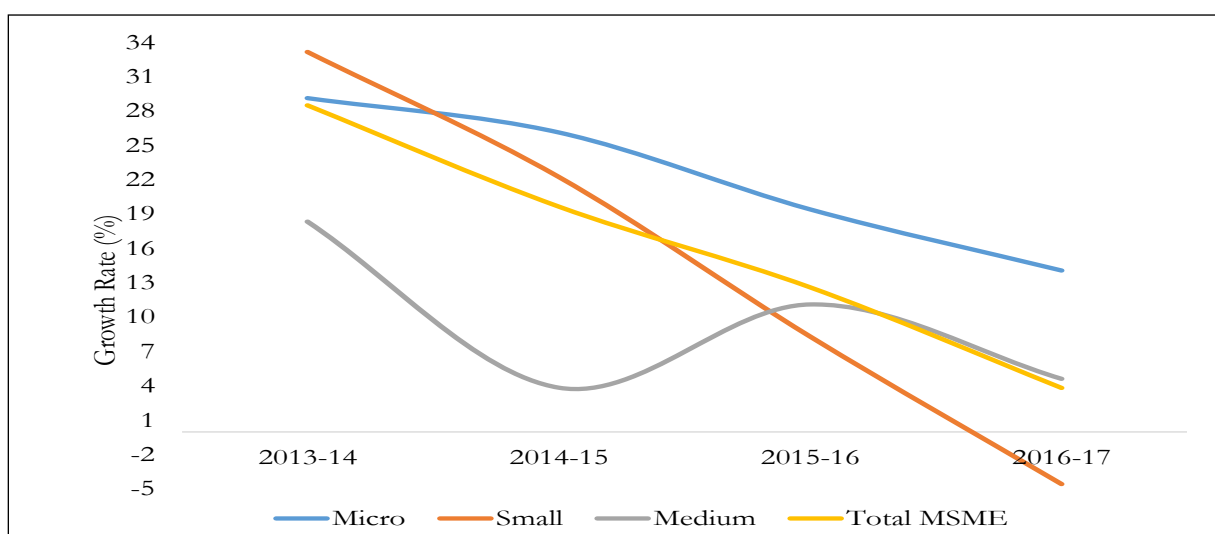
MSME Sector

8.14 The Micro, Small and Medium Enterprises (MSME) sector in India plays a crucial role by providing large employment opportunities, industrialization of rural areas, reducing regional imbalances etc. The MSME sector contributed 33% of industrial

GVA and 31% of industrial Gross Domestic Product (GDP) at constant prices (base 2011-12).

8.15 The sector faces problems in terms of getting adequate, cheap and timely availability of institutional credit. Figure 5 shows that rate of growth of credit to MSME sector as a whole, as well as sectorally to Micro, Small and Medium enterprises has been declining, and is negative for Small enterprises in 2016-17. The decline in credit to MSME sector can be attributed to deteriorating health of public

Figure 5. Rate of Growth of Total Credit to Micro Small and Medium Enterprises (per cent)



Source: RBI

sector banks due to piling up of NPAs.

8.16 In order to tackle this problem, Ministry of Micro, Small and Medium Enterprises along with Reserve Bank of India (RBI) have been continuously monitoring the progress of credit devolved to MSME sector. Recently RBI has brought some changes in priority sector lending guidelines for MSME Sector by including a sub-target of 7.5% of Adjusted Net Bank Credit for lending to 'Micro' enterprises. The Government has also initiated the Pradhan Mantri Mudra Yojana for development and refinancing activities relating to micro industrial units. The purpose of MUDRA is to provide funding to the non-corporate small business sector. The Government has also set up Micro Units Development and Refinance Agency (MUDRA) Bank.

Steel sector

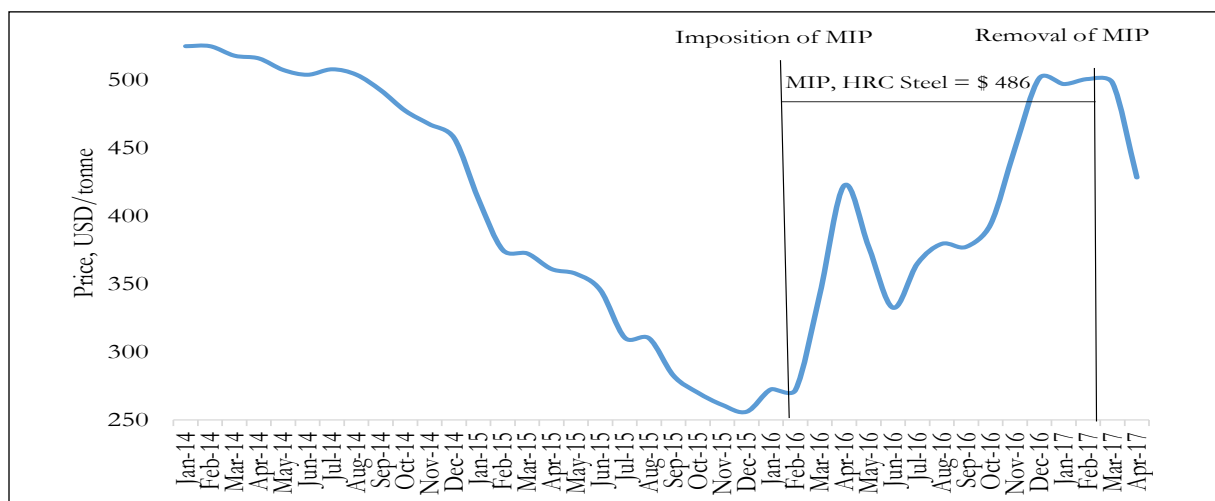
8.17 The steel sector is one of the core industries in the economy. India is the 3rd largest producer of Steel in the world. The domestic production of total finished steel in 2016-17 has been 101.3 million tonnes as compared to 91 million tonnes in 2015-16.

8.18 In the backdrop of China's recent

economic slowdown, the global steel industry has faced major distress due to decline in global demand including China's demand for steel. In addition, excess capacity in steel production led to dumping of steel by China, South Korea and Ukraine into Indian markets at low prices. In response to this, the Government in 2016, introduced a host of measures like raising Basic Customs Duty, imposition of Minimum Import Price (MIP) and anti-dumping duties in order to shield the domestic producers. The Indian Government notified the Minimum Import Price of steel in February 2016 for a period of one year (Figure 6).

8.19 These steps taken by the Government have borne fruit. During 2016-17 imports of steel have declined, while exports of steel have doubled (Table 6). It is interesting to note that Indian exports of steel have been growing amidst a stable exchange rate of the rupee. The rise in exports of steel may also wipe away the excess capacity built up in the steel sector. Due to rise in demand for steel globally and slowdown in imports, domestic production of steel has risen by 11 per cent after accounting for the possible excess capacity in the sector.

Figure 6. Price of Hot Rolled Steel in China, Minimum Import Price of Hot Rolled Steel in India (USD/tonne)

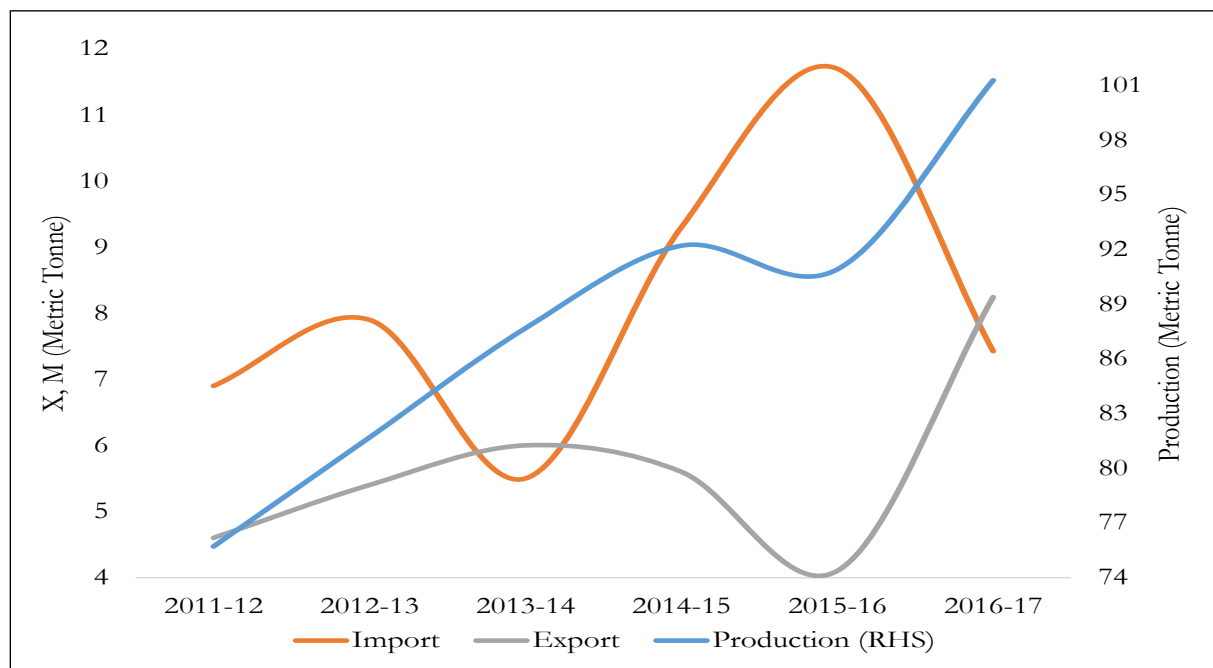


Source: Joint Plant Committee, Ministry of Steel.

Table 6. Production, Import & Export of Finished Steel

| | 2015-16 | 2016-17 | Growth (%) |
|-----------------|---------|---------|------------|
| Production (mt) | 91 | 101.3 | 11.3 |
| Import (mt) | 11.7 | 7.4 | -36.6 |
| Export (mt) | 4.1 | 8.2 | 102.1 |

mt - metric tonne

Source: Joint Plant Committee, Ministry of Steel.**Figure 7. Production, Import, Export of Steel for 2011- 2016 (Metric Tonne)****Source:** Joint Plant Committee , Ministry of Steel.

Clothing and Textiles Sector

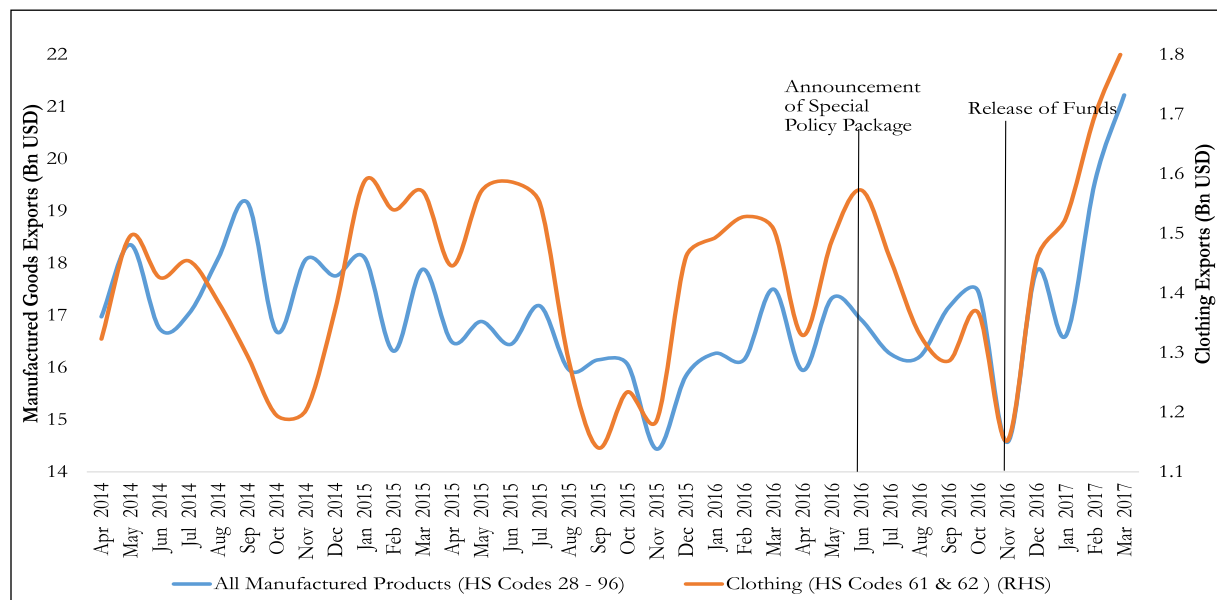
8.20 The Apparel sector is a highly employment intensive industry especially for women. In the perspective of China losing share in the global market for exports in the apparel sector on account of rising costs of production, the time is ripe for India to make forays into this market. However, various challenges exist before India can reap the benefits of this situation. India's competitors like Bangladesh and Vietnam's exports have duty free access to markets of USA, EU and Japan. Other challenges include, high domestic taxes on man-made fabrics vis a vis cotton based fabrics; stringent labour

regulations; and high logistics cost.

8.21 To address these constraints, the Government on 22nd June 2016 approved Rs.6,000 crore special package for textile & apparel sector to boost employment creation, exports and investment. Among other incentives, the subsidy under Amended Technology Upgradation Fund Scheme (ATUFS) was increased from 15% to 25% for the garment sector. A unique feature of the scheme is to disburse the subsidy only after the expected jobs are created.

8.22 A major component of the package announced for the textile and clothing sector is the Rebate on State Levies (ROSL)

**Figure 8. Exports of Clothing and Manufactured Goods (US\$ billion)
(April 2014- March 2017)**



Source: Ministry of Commerce and Industry data

Scheme. Disbursement under the scheme has been released to exporters in the month of November 2017. Figure 8 shows the exports of clothing and manufactured goods (Bn USD). Post the release of funds, it may be observed that there has been a marked rise in clothing exports, which is in fact more than overall growth in manufactured exports.

Leather and Footwear Sector

8.23 Just like the clothing sector, the leather and footwear sector is a highly employment intensive sector with lower capital requirements. With China ceding space, it is a favourable time to promote the footwear industry. However, many challenges persist. The global demand for footwear is moving towards non leather footwear, while Indian tax policies favour leather footwear production. India faces high tariffs in partner country markets in exports of leather goods and non-leather footwear.

8.24 In order to address these challenges, as also mentioned in the Economic Survey,

2016-17 (Vol I-Chapter 7), the Government has announced a special package for the leather sector in the Budget of 2016-17, the benefits of which will be visible in due course. Implementation of GST is expected to rationalize discrimination against non-leather footwear.

FOREIGN DIRECT INVESTMENT

8.25 Foreign Direct Investment (FDI) is an enabler of economic growth since it enhances productivity by bringing capital, skills and technology to the host country. In 2016, the Government has brought most of the sectors under automatic approval route, except a small negative list comprising atomic energy, manufacture of cigars and tobacco, real estate business, lottery, gambling and chit fund etc. With these changes, India is now one of the most open economy in the world for FDI. The Government has also abolished Foreign Investment Promotion Board (FIPB) as most of the sectors are under the automatic route now.

**Table 7. Foreign Direct Investment
(US\$ billion) (2012 to 2016)**

| Year | FDI in Manufacturing | FDI in Services |
|---------|-------------------------|--------------------|
| 2012-13 | 10.3 | 4.8 |
| 2013-14 | 15.6 | 2.2 |
| 2014-15 | 16.5 | 4.4 |
| 2015-16 | 13.4 | 6.9 |
| 2016-17 | 20.3 | 8.7 |

Source: DIPP

8.26 The measures taken by the Government has resulted in FDI equity inflow of 43.4 Billion USD in Financial Year 2016-17, which is not only an increase of 8 per cent over previous year but also highest ever FDI Equity inflows. Table 7 shows FDI Inflow segregated into Manufacturing and Services sectors respectively for the years 2012-13 to 2016-17. It can be observed that FDI in Manufacturing is substantially higher than FDI in Services. In terms of the sectors receiving FDI equity inflows, Services (Finance, Banking, Insurance etc.) sector received the highest FDI(19.9%) followed by Telecommunications (12.8%) and Computer Software & Hardware (8.4%). Looking at the source countries of FDI inflows, it may be noted that Mauritius, Singapore and Japan have been top three countries in India contributing 36.2 per cent, 20.0 per cent and 10.8 per cent respectively of the total FDI equity inflows during 2016-17.

IMPLEMENTATION OF GST AND ITS IMPACT ON INDUSTRY

8.27 The GST is a game changing reform introduced by the government. It is expected that implementation of GST will facilitate the creation of one common market in the country by removing tax barriers; eliminate cascading of taxes thereby reducing cost of production of manufacturing goods; and enhance ease of doing business by cutting down transaction costs associated with the complex tax regime. The implementation of GST is also going to cover the unorganized sector industries.

KEY INITIATIVES TAKEN BY THE GOVERNMENT TO BOOST INDUSTRIAL PERFORMANCE

Make In India

8.28 The 'Make in India' programme has been launched globally on 25th September 2014 which aims at making India a global hub for manufacturing, research & innovation and integral part of the global supply chain. This initiative is based on four pillars of New Processes, New Infrastructure, New Sectors and New Mindset.

Startup India

8.29 Startup India is a flagship initiative of the Government of India, intended to build a strong eco-system for nurturing innovation and Startups in the country that will drive sustainable economic growth and generate large scale employment opportunities. The Government through this initiative aims to empower Startups to grow through innovation and design.

Ease of Doing Business

8.30 The Government has taken up a series of measures to improve Ease of Doing Business. The emphasis has been on simplification and rationalization of the existing rules and introduction of information technology to make governance more efficient and effective. The "distance to frontier" (DTF) score measurement used by the World Bank to ascertain the distance between each economy and the best performance in that category has improved for seven of the 10 indicators in the World Bank's Doing Business report-2017, released in October, 2016. States too have been brought on board in the process to expand the coverage of these efforts.

Intellectual Property Rights (IPR) Policy

8.31 In May, 2016, Government for the first time adopted a comprehensive National Intellectual Property Rights (IPR) policy to lay future roadmap for intellectual property.

This aims to improve Indian intellectual property ecosystem, hopes to create an innovation movement in the country and aspires towards “Creative India; Innovative India” “रचनात्मकभारत; अभिनवभारत”.

Objective of this policy is to increase IPR awareness; stimulate generation of IPRs; have strong and effective IPR laws; modernize and strengthen service-oriented IPR administration; get value for IPRs through commercialization; strengthen enforcement and adjudicatory mechanisms for combating IPR infringements; and to strengthen and expand human resources, institutions and

capacities for teaching, training, research and skill building in IPRs.

8.32 A Cell for Intellectual Property Rights Promotion and Management (CIPAM) has been created under the aegis of Department of Industrial Policy and Promotion (DIPP) for addressing the 7 identified objectives of the Policy. An MOU has also been signed with U.K, Singapore and E.U in the field of Intellectual Property Trademark. Pendency in awarding patents has also come down from 3 months in 2015-16 to 1 month by the end of Financial Year 2016-17. In addition to this, India’s rank in Global Innovative Index has gone up from 81 in 2015 to 66 in 2016.

INFRASTRUCTURE SECTOR PERFORMANCE - ISSUES AND INITIATIVES

“You and I Come By Road Or Rail, But Economists Travel By Infrastructure”

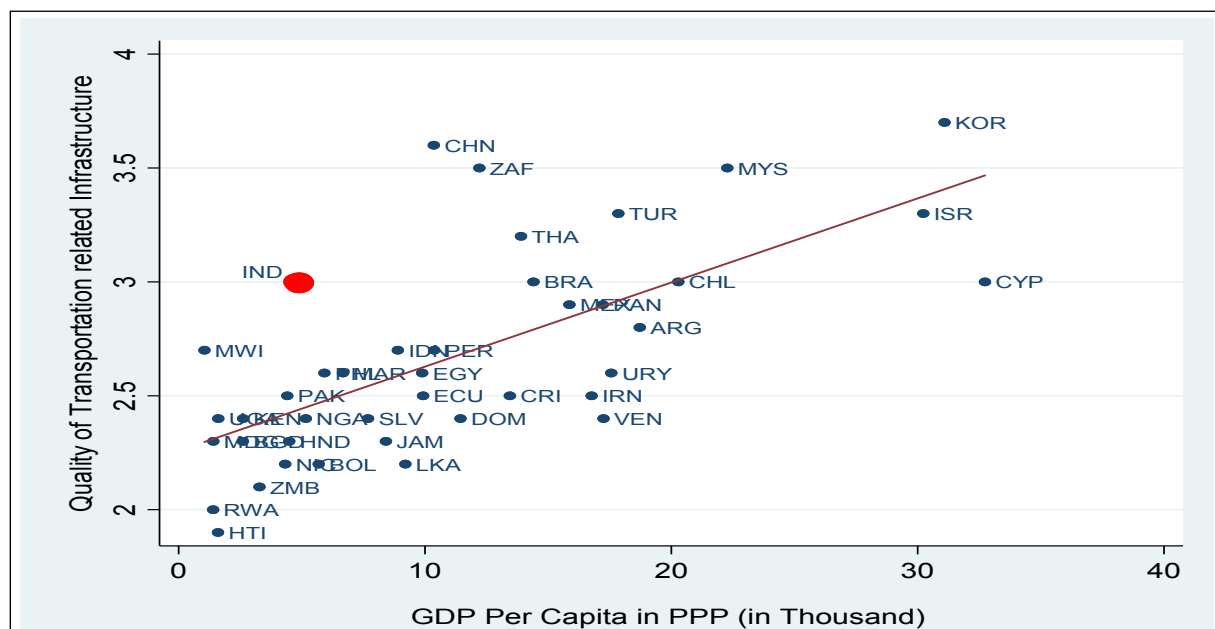
– Margaret Thatcher

8.33 To maintain the momentum of higher economic growth and to satisfy the expectations of all the diversified stakeholders of an emerging economy like India, it is indispensable to invest more on infrastructure sector. The Government is committed to invest more on qualitative infrastructure with an aim to make India an advanced, inclusive and a just economy. As per global ranking of the World Bank’s 2016 Logistics Performance, India jumped to 36th rank in 2016 from 58th rank in 2014 in terms of providing qualitative physical infrastructure, which is quite remarkable achievement. The infrastructure sector is still facing multiple issues, for which the Government has adopted a multi-pronged strategy to address them through various schematic interventions like UDAN and Bharatmala.

8.34 This chapter has made an assessment of UDAY in terms of its contribution in improving the health of power distribution companies. The chapter has also highlighted some issues in the critical sector like civil aviation with a positive outlook.

8.35 World Bank has rightly pointed out that ‘infrastructure development is critical to delivering growth, reducing poverty and addressing broader development goals. In a developing country like India, it is imperative to increase investment in infrastructure considering the infrastructure deficit in India to sustain a high economic growth momentum. A safe, inter connected and qualitative infrastructure is the key driver of growth and per capita income. Among emerging countries with same level of per capita income, India has performed significantly better in constructing qualitative infrastructure. Figure 9 shows how the quality of trade and transportation related infrastructure like road, railways, port and information technology has a positive relationship with the GDP per capita in emerging economies. In contrast to popular belief, though India’s per capita income is low, India is far ahead of many emerging economies in terms of providing qualitative transportation related infrastructure (Figure 9).

Figure 9. Infrastructure Status in Emerging Countries (2007-2016)



Source: World Bank's Logistics Performance Index, 2016-17 and World Development Indicators, World Bank.

Note: The full names of the emerging countries are in Appendix 1

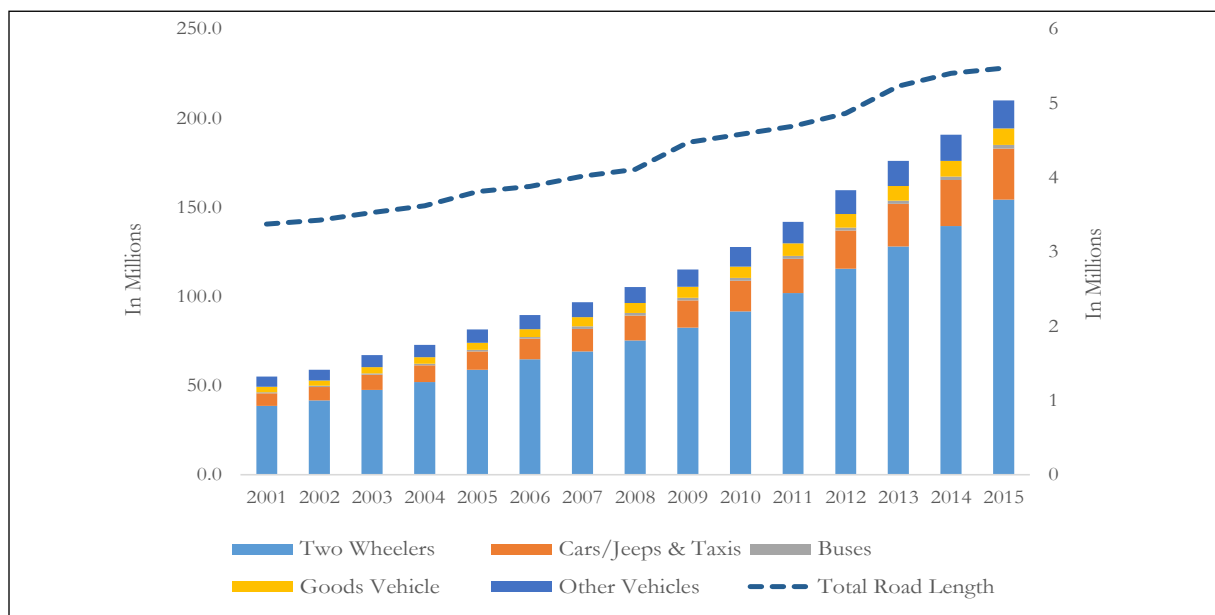
8.36 Both physical and social infrastructure has a big role in transforming the natural and human capital for the prosperity of society. The benefit of interstate trade and the success of 'Make in India' and other initiatives can only be gained, with the improvement of both hard and soft logistics infrastructure. Undoubtedly around the world, physical infrastructure like road, railways, port, civil aviation, telecom etc., have always opened up a range of new opportunities for developing the economy. In this backdrop, the following sections discuss the performance & issues in different infrastructure sectors.

Road

8.37 India has about 54.8 lakh kilometers of road network, which is the second largest in the world. As on 31st March, 2017, out of total road network the length of national highways comprises 1,14,158 km with 1,61,487 km of state highways and 52,07,044 km of other roads. In 2001 total road length was 33,73,520 km with total number of 55

million vehicles on the roads. In 2015, total road length increased to 54,72,144 km while the total number of motor vehicles grew by four times to 210 million. The composition of vehicle shows that the share of two wheelers and passenger cars, jeep & taxis has increased on Indian road while the share of public transport like buses and also goods vehicles contracted over the period (Figure 10). Both the two wheelers and passenger cars are putting pressure on Indian roads.

8.38 Realizing the need, the Government is developing more roads and taking a lot of major initiatives/programmes like National Highways Development Projects (NHDP), improvement of road connectivity in Left Wing Extremism (LWE) affected areas, Special Accelerated Road Development Programme for North-Eastern region (SARDP-NE), National Highway Interconnectivity Improvement Programme (NHIIP) under proposed World Bank Loan Assistance, and Bharatmala programme.

Figure 10. Road Network and Composition of Vehicle in India

Source: Ministry of Road, Transport & Highways

Note: Total Road Length in RHS.

8.39 The Government had proposed “Bharatmala Programme” with a view to develop the road connectivity to Border areas, development of Coastal roads including road connectivity for Non Major ports, improvement in the efficiency of National Corridors (the NHs developed under various phases of NHDP), development of Economic Corridors/ Feeder routes, removal of choke and congestion points, construction of ring roads, logistics parks, etc. The Government has initiated separate programme ‘Setu Bharatam’ in 2016 for construction, rehabilitation & widening of 1500 major bridges and 208 Railway Over Bridges (ROBs) / Railway Under Bridges (RUBs) on National Highways.

8.40 In the year 2016-17, around 88% of the projects involving around Rs 1,00,000 crores of investment have been appropriately re-engineered and restructured by proactive policy interventions and rigorous monitoring by the Ministry of Road, Transport and Highways (MORTH) and National Highways

Authority of India (NHAI). This sector is still facing constraints like availability of land for NH expansion and upgradation; significant increase in land acquisition cost; lack of equity with developers; too many bottlenecks and checkpoints on NHs which could adversely impact benefits of GST; higher cost of financing; and lesser traffic growth than expected shortfall in funds for maintenance.

Railways

8.41 Among different modes of transportation, Railways is still preferable means for majority of Indians for long distance travel. During 2016-17, Indian Railways (IR) carried 1106.6 million tonnes of revenue-earning freight traffic (P), as against 1101.5 million tonnes during 2015-16 translating into an increase of 0.5 per cent. However, during 2016-17, freight earnings at Rs.104339 crore (P), registered a negative growth of 4.5 per cent over 2015-16 due to carrying larger volume of low fare freight in the year. Passenger earnings at Rs.46280

crore (P) registered an increase of 4.5 per cent during 2016-17.

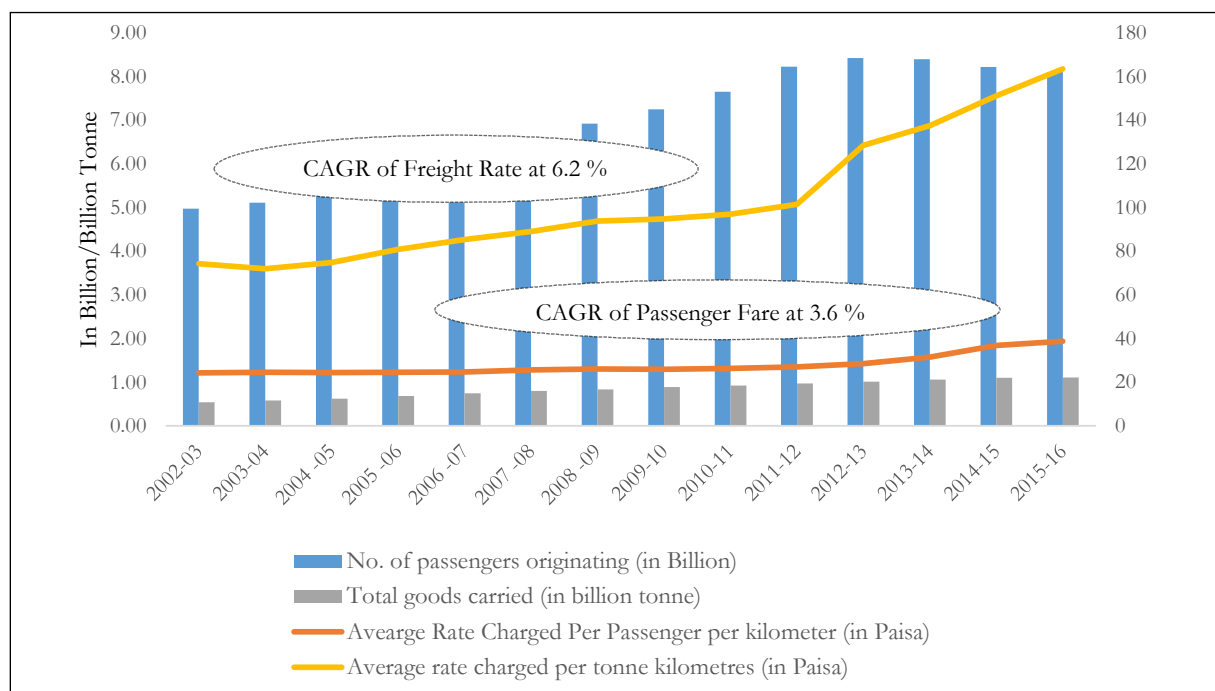
8.42 After a consistent rise from 2002-03 to 2012-13, the number of passengers travelling by train has started declining since 2013-14 while the freight traffic has increased over the years. However, during 2002-03 to 2015-16 while the passenger fare increased at a CAGR of 3.6 per cent, the freight fare increased at a CAGR of 6.2 per cent (Figure 11). Thus passenger fare has remained more or less flat, the freight fare has increased sharply since 2012-13.

8.43 The recently introduced dynamic pricing model is aimed at enhancing higher passenger revenue without compromising on the passenger volume. For generating revenue, the Railways should go for more non-fare sources along with station redevelopment and commercially exploiting vacant buildings at the station, monetizing land along tracks by leasing out to promote horticulture and

tree plantation, and through advertisement and parcel earnings.

8.44 In order to provide safe, secured and comfortable journey to passengers and attract more freight to be transported through rail, the Government has taken a number of steps like implementation of Safety Action Plans to reduce accidents caused by human errors; computerized Passenger Reservation System (PRS); Unreserved Ticketing System (UTS) through Smart card based Automatic Ticket Vending Machines (ATVM); fitment of Bio-toilets in order to improve cleanliness/sanitation in Indian Railways(IR); and electrification of the railway tracks with a view to make the Railway System more eco-friendly. As on 01.04.2017, 30,012 route kilometers (RKM) have been electrified which is 45% of the total network length of 66,687 route kilometers. During 2016-17, all-time record of 2,013 RKM have been electrified against the target of 2000 RKM.

Figure 11. Comparison of Passenger Fare and Freight Fare



Source: Railways Statistical Year Book, MOSPI and Ministry of Railways

Note: Average Rate charged per passenger per kilometre and per tonne kilometres in RHS

Civil Aviation: *Are Indian Air Carriers taking off?*

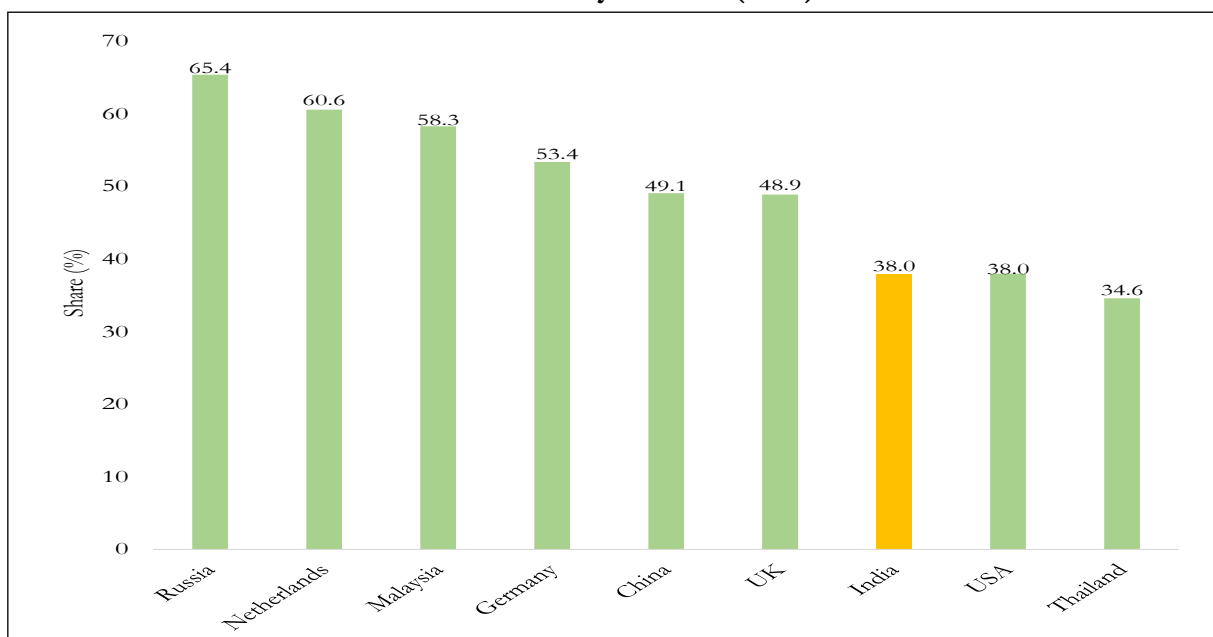
8.45 The civil aviation is a potential sector in the country which can be a sunrise sector of growth. Our country has favorable conditions which are highly conducive for the sector's growth i.e. favorable demographics, a rising middle class population, high disposable incomes, and faster economic growth. Since 2001, domestic air passengers have increased 6 fold to 85.2 Million, while passengers travelling internationally have risen 4 fold to 49.8 Million in 2015.

8.46 Despite a strong home market for air travel, Indian (domestic) airlines have not captured the Indian market for international travel unlike many other countries. Figure 12 shows that Indian (domestic) airlines are utilising only 38 per cent of its international Available Seat Kilometres (ASKs) in 2016 compared to 60.6 per cent for Netherlands, 49.1 per cent for China and 48.9 per cent for

UK. ASKs refer to the sum of the products obtained by multiplying the number of seats available for sale on each flight by the corresponding distance flown by the flight. In other words, Indian (domestic) airlines have not been able to carry out import substitution in the case of international air travel services to and from India.

8.47 In terms of passenger load, Indian (domestic) airlines carry only 36.6 per cent of international traffic to and from India in 2015 (Figure 13). It is surprising that a bulk of Indian traffic (to and from) are serviced by foreign airlines. Among foreign carriers, the countries of the Gulf and some of the South East Asian nations have proven to be our major competitors (for countries' names see footnote to Figure 13). The share of Gulf carriers in Indian traffic increased from 27 per cent in 2008 to 33 per cent in 2015. The share of the South East Asian countries increased over two times from 5.9 per cent in 2008 to 12.3 per cent in 2015.

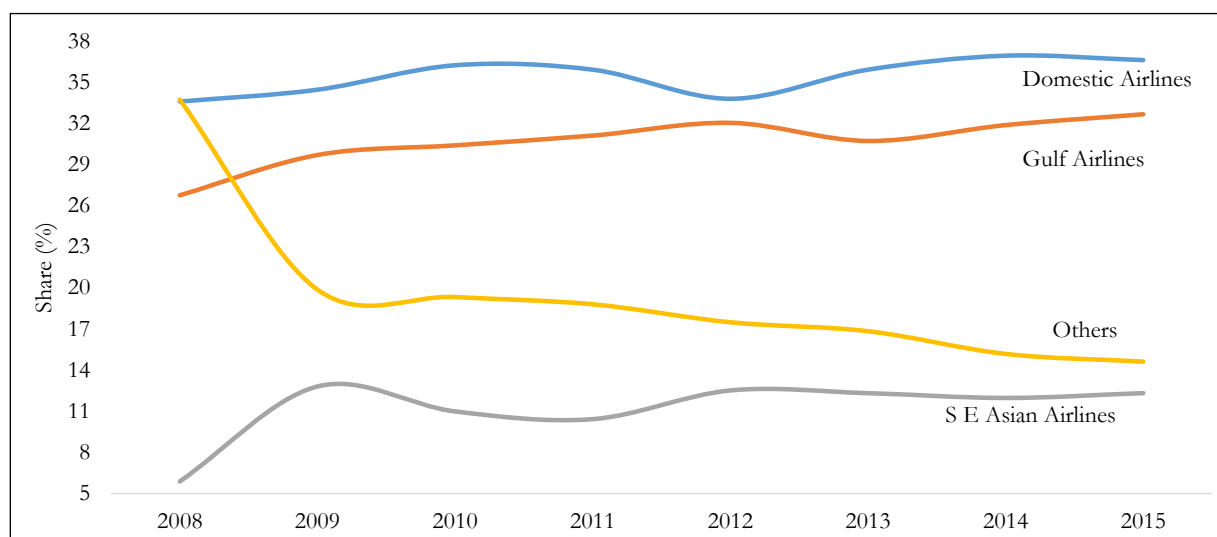
Figure 12. % Share of scheduled international ASKs* flown by home-country airlines (2016)



Source: IATA

*ASKs refer to the sum of the products of the number of seats available for sale on each flight multiplied by the corresponding distance flown by the flight. ASKs are a measure of supply of aviation service.

Figure 13. Share of International Passengers flown (to and from India), airline wise* (per cent)



Source: DGCA data

*Gulf Airlines include UAE, Bahrain, Oman, Qatar, Saudi Arabia, Kuwait; SE Asian Airlines include Singapore, Malaysia, Thailand & Hong Kong

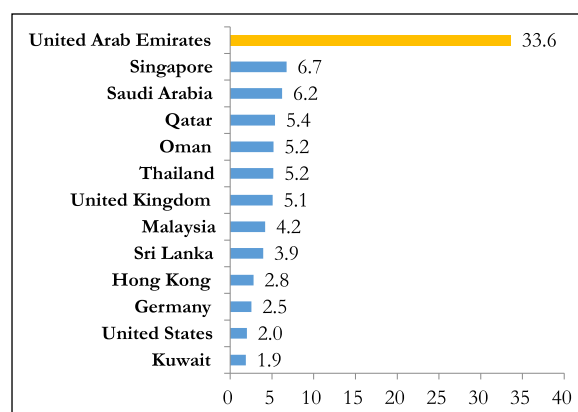
What can be the explanation for low share of Indian airlines in Indian origin international traffic?

A. Round Tripping of Passengers via international hubs of Dubai and Singapore, utilization of the 6th freedom of the air and increase in capacity entitlements under Bilateral Air Service Agreements (ASAs)

8.48 Figure 14 shows that top destinations of passenger traffic to and from India are the Gulf countries of UAE, Saudi Arabia, Qatar, Oman and the South East Asian countries of Singapore, Malaysia and Thailand. UAE alone accounts for 33.6 per cent of the total passenger flows. However, these countries are not the end destinations of all passengers. In fact, these countries are invariably being used as stop-overs/ hubs by their respective home airlines to carry passengers for onward destinations of USA, Canada, Europe etc. This is the 6th freedom of air which allows foreign airlines to fly from a foreign country to another while stopping in one's own country. The 6th freedom has to a large

extent been responsible for reducing the share of direct long haul flights for Indian carriers from 25 per cent in 2011-12 to 20.5 per cent in 2015-16.²

Figure 14. Destination Wise Share of Passengers to and from India (per cent) (2015)



Source: DGCA Data

8.49 Table 8 shows the total number of passengers flown by foreign airlines to their respective countries segregated into point to point traffic (i.e. direct traffic between India and the foreign country), and the 6th freedom traffic. The percentage of sixth

² Source: DGCA Database & Survey calculations; Definition of long haul flight taken to be greater than 4000 km.

freedom traffic for most of the Gulf and South East Asian airlines is greater than 50 per cent. For countries of Qatar and UAE, this figure is greater than 60 per cent. This large utilization of the 6th freedom in turn has been made possible due to expansion in capacity entitlements under Bilateral Air Service Agreements (ASAs). Air Service Agreements between two nations negotiate the right of the home and foreign country airlines to fly passengers between them. These rights are reciprocal in nature i.e. both countries grant each other the same quantum of rights.

8.50 During 2003 and 2017, the capacity entitlements (seats per week each direction) between Dubai and India have increased 6 fold (Table 9). The same for Oman and Qatar have increased 9 and 12 fold respectively. While capacity entitlements are reciprocal in nature, the benefit of such increases in capacity entitlements have accrued more to the foreign partner vis a vis India. This is because India's utilization of these rights is lower than the foreign counterparts (Figure 15).

Table 9. India's Capacity Entitlements with Select Countries

| Seats Per Week Each Direction (Summer Schedule) (In '000s) | | |
|--|--------------------------------|-----------------------------|
| | 2003 | 2017 |
| Dubai(UAE) | 10.4 | 66.5* |
| Oman | 3.8 | 27.4 |
| Kuwait | 5.2 | 12 |
| Bahrain | 11.2 | 11.5 |
| Qatar | 2.9 | 24.8 |
| Saudi Arabia | 8.5 | 20(seats) +DMM Open Sky# |
| Singapore | 23.05 units^ + 1650 seats @ | 29.4 seats@ |
| Thailand | 9.8 | 26.3 |
| Malaysia | 7 (+1500 negotiable) | 20.7 @ |

Source: CAG & MoCA

* However, 137.2 thousand seats are the capacity entitlement for UAE (including, Dubai, Sharjah and Abu Dhabi) as a whole in 2017

Open sky Agreement with Dammam city of Saudi Arabia as per which only India Airlines can fly unlimited seats to Dammam

^ 1 unit = 400 seats

@ 18 Destinations with unlimited seats on particular cities as agreed upon in the Bilateral ASAs

Table 8. Percentage of Sixth Freedom Passengers Carried by Foreign Airlines to and from India (2015-16)

| Name of Airline | Country | Total Passengers (Bidirectional) (Lakh) | Point to Point Passengers to & from India (Lakh) | 6th Freedom Passengers (Lakh) | Percentage (of sixth freedom carriage) |
|--------------------|-----------|---|--|-------------------------------|--|
| UAE Airlines* | UAE | 102.4 | 33.7 | 68.7 | 67.1 |
| Gulf Air (Bahrain) | Bahrain | 8.8 | 1.7 | 7.1 | 81.0 |
| Kuwait Airways | Kuwait | 6.0 | 3.5 | 2.5 | 41.6 |
| Oman Airways | Oman | 15.0 | 6.2 | 8.8 | 58.6 |
| Qatar Airways | Qatar | 18.3 | 3.8 | 14.5 | 79.4 |
| Malaysia Airlines | Malaysia | 8.9 | 3.7 | 5.2 | 58.7 |
| Singapore Airlines | Singapore | 15.0 | 6.3 | 8.7 | 58.3 |
| Thai Airlines | Thailand | 13.3 | 8.5 | 4.8 | 35.9 |

Source: CAG

*UAE Airlines include Air Arabia, Emirates, Etihad Airways and Fly Dubai

Thus, large increase in capacity entitlements under Air Service Agreements; the resultant use of the 6th freedom of the air by Gulf and South east Asian airlines; and underutilization of India's own entitlements are responsible for India's lower share in international traffic to a large extent.

B. The 5/20 rule and Fleet Constraints

8.51 The 5/20 mandates that for an airline to carry out international operations, it needs to have 5 years of domestic flying operations and would have to deploy 20 aircraft or 20 per cent of total fleet of aircraft, whichever is higher, towards domestic operations. As a result of this rule, only three private airlines had been eligible to fly abroad – Jet Airways, Spice Jet and Indigo. In 2016, the Indian Government had relaxed this rule to 0/20. It is expected that more private players will now take advantage of this relaxation and take to international flying operations, thereby contributing to increasing the share of domestic airlines in international operations to and from India.

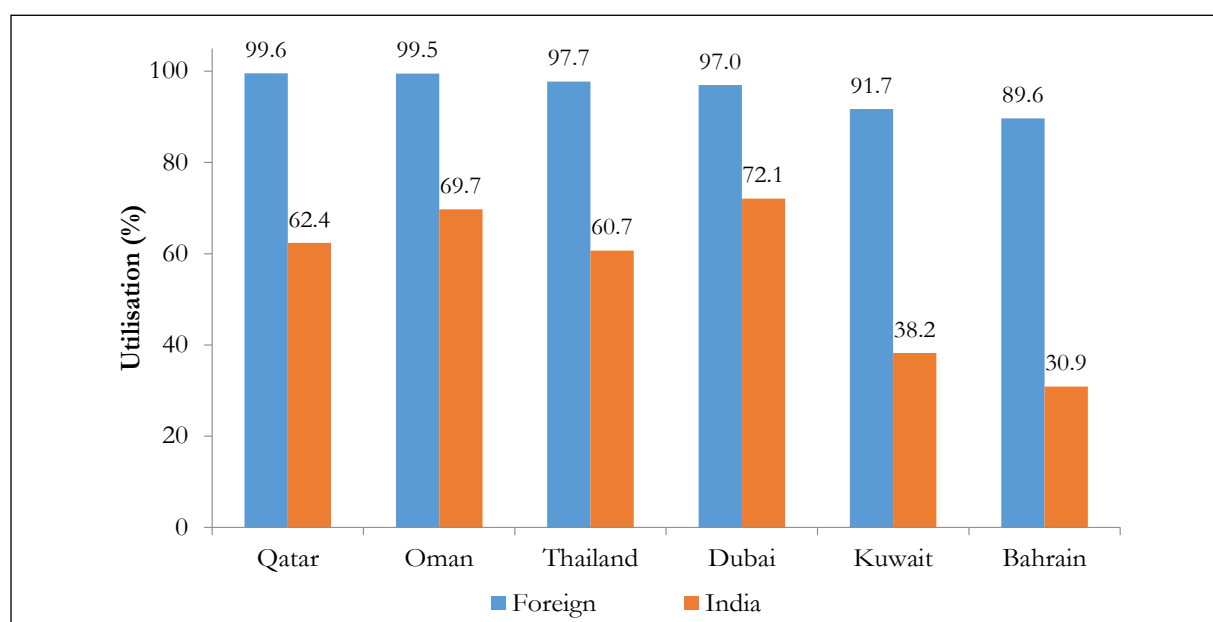
8.52 Another constraint has been that majority of fleet of Indian airlines consists largely of narrow body aircraft and not wide body aircraft, which are required for international long haul flights. With the exception of Jet Airways and Air India, which have 22 and 44 wide bodied aircrafts respectively in their fleet, all other Indian carriers have a narrow body fleet.

Policy Prescriptions

8.53 The following solutions are proposed for enhancing the Indian air carriers' share in international traffic:

- There is a need for committed action plan on privatization/ disinvestment of the national carrier Air India to enhance its operational and management efficiency because it is a major carrier of international traffic to and from India, accounting for 11.4 per cent of the total international travel. The recent announcement of the Government towards privatization of Air India is a

Figure 15. India's & Partner Country's Utilization of Capacity Entitlements (2017 Summer Schedule)



Source: MoCA

well thought out decision.

- There is need to reconsider the 0/20 rule so as to allow private airlines to fly abroad. In return, private airlines can be mandated to fly to under-served airports in Tier 2 and Tier 3 cities in order to have greater regional connectivity (UDAN is a good initiative in this direction).
- The Government may consider identifying major cities as aviation hubs because India is as advantageously placed in terms of geographic location as Dubai or Singapore.

Regional Connectivity through UDAN

8.54 UDAN (Ude Desh ka Aam Naagrik), a key element of National Civil Aviation Policy 2016, is an innovative Regional Connectivity Scheme to supplement air traffic growth in regional aviation through a market based mechanism. UDAN provides few seats at affordable passenger fares of Rs. 2,500 for an hour-long flight. Under UDAN, 70 airports and 128 routes are connected, and over 100 more unserved airports are to be connected in the next rounds of bidding of routes.

The Government offers fiscal support through Viability Gap Funding (VGF) and infrastructural development of under-utilized airport facilities to incentivize regional air

Map 1



Source: Ministry of Civil Aviation

traffic. UDAN ensures route profitability to airlines to sustain their operations through reducing operating costs by eliminating airport charges on UDAN routes, subsidizing ATF, providing market based subsidy for half of the seats, and guaranteeing three years exclusivity on routes. Under UDAN, 13 Regional Connectivity Scheme airports have been covered in the Eastern and North-Eastern regions, 12 each in Northern and Western regions, and 8 in the Southern Region in the first round.

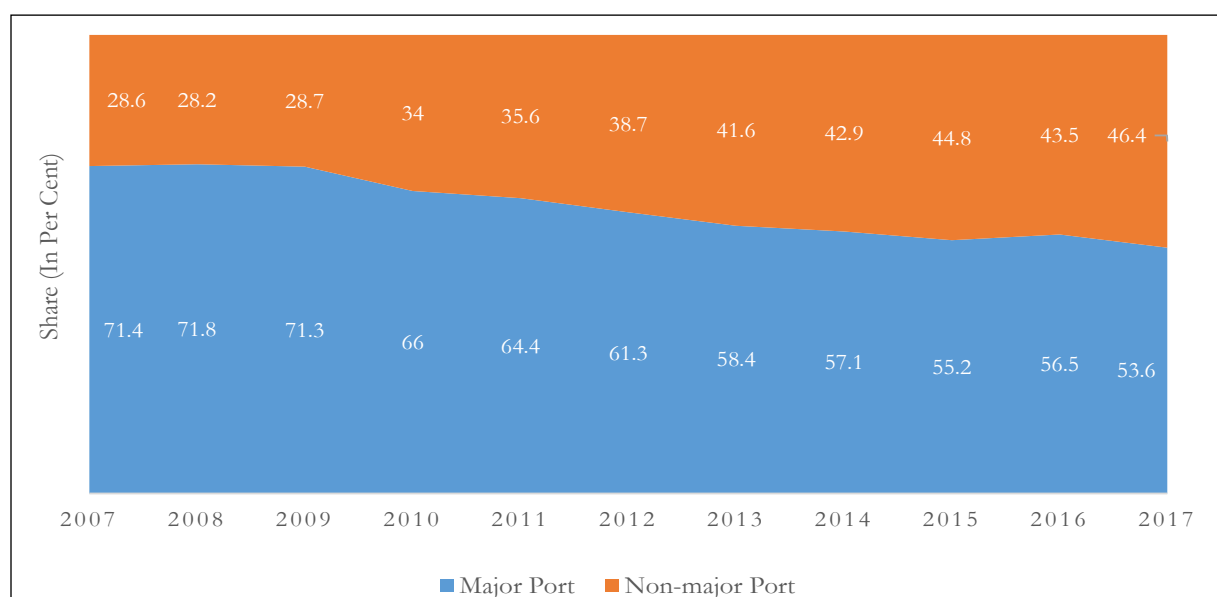
Port and Shipping

8.55 Connecting the non-major ports with hinterland: India having more than 7,517 KM coast line with more than 200 ports has both strategic and competitive advantages since most of the cargo ships that sail between East Asia & America, Europe & Africa pass through Indian territorial waters. Around 95% of India's trade by volume and 68% in terms of value is transported by sea. As on 30th April, 2017, India had a fleet strength of 1,323 ships with dead weight tonnage (DWT) of 17.50 million (11.70 million

Gross Tonnage) including Indian controlled tonnage, with Shipping Corporation of India (SCI) having the largest share of around 34%. Of this, around 410 ships of 15.79 million DWT (10.17 million Gross Tonnage) cater to India's overseas trade and the rest to coastal trade. The cargo traffic of Indian Ports increased by 5.9 per cent to 1135.63 million tonnes in 2016-17, of which the traffic at Major Ports was 647.63 million tonnes and approx. 448 million tonnes at non-Major Ports. During the last few years the non-major ports are gaining more share of cargo handling compared to major ports (Figure 16). The contribution of non-major port's traffic to total traffic rose to 43.5 per cent in FY 2016 from 28.6 per cent in FY 2007. It is required to develop non-major port and also enhance their efficiency and operational capacity. The focus will be to connect the non-major ports with hinterland since the share of non-major port cargo handling is rising.

8.56 The year 2016 saw Indian shipping industry once again expertly sail through the choppy waters of volatile freight rates,

Figure 16. Share of Major and Non-Major Port handling cargo



Source: Ministry of Shipping

IMO rulings with onerous commercial implications and an improving but still non-competitive operating environment. Some of the following issues related to Indian shipping sector need to be focussed:

- Globally, maritime freight rates in most shipping segments endured volatility and overall downward movements. Weak demand and high fleet growth pushed fleet utilizations further down and intensified deflationary pressure on freight rates in most markets, except for tankers.
- There has been a sharp decline in the share of Indian ships in the carriage of India's overseas trade from about 40 per cent in the late 1980s to 7 per cent in 2015-16.
- The existing Indian fleet is also ageing, with the average age increasing from 15 years in 1999 to 19.3 years as on 1 January 2017 (45.0% of the fleet is over 20 years old and 12.2% is in the 15 to 19-year age group).

8.57 To encourage the growth of Indian tonnage and for higher participation of Indian ships in Indian trade, the Government has implemented several measures which include making fuel tax free for all Indian flag coastal vessels engaged in container trade; giving income tax benefit to Indian seafarers working on Indian ships, thereby making the cost of personnel more competitive for the Indian shipping industry.

Time for Looking at Coastal Shipping and Inland Waterways

8.58 A vision for coastal shipping, tourism and regional development has been prepared, with a view to increasing the share of the coastal/inland waterways transport mode from 7 per cent to 10 per cent by 2019-20. Coastal cargo handled by ports in India in

2016-17 was 189.7 million tonnes. The key elements of the initiative include development of coastal shipping as an end-to-end supply chain, integration of inland water transport (IWT) coastal route development of regional centres to generate cargo for coastal traffic, development of lighthouse tourism.

8.59 However, certain intrinsic impediments such as additional cost due to first mile and last-mile connectivity, high duties on bunker fuel and other taxes and absence of assured return cargo that results in higher cost of transportation through coastal shipping thereby dissuading shipper's to prefer this mode. An analysis of the costs of coastal transportation by Indian ships as compared to foreign ships has indicated that operating costs of Indian ships are higher by 24% on account of duty on bunker (9%), Income Tax on Seafarers (6%), Service Tax (1%), Capital Gains Tax (5%) and Tonnage Tax (3%). Additionally, the cost due to inefficiency of Indian shipping companies is 6%.

8.60 To promote Inland Waterways Transport (IWT) several steps have been taken. The National Waterways Act, 2016 has been enacted and enforced to provide for the declaration of 106 additional inland waterways to be National Waterways (NWs) in addition to already existed five National Waterways.

8.61 The 'Jal Marg Vikas Project' (on NW-I: River Ganga), a large integrated IWT project, has been launched with the purpose of ensuring navigation of 1500 to 2000 tonne vessels by developing infrastructure and a fairway of 2.2 to 3 meters depth between Varanasi and Haldia covering a distance of 1380 kms at an estimated cost of Rs. 5369 crore. The project is being implemented by the Inland Waterways Authority of India (IWAI) and is to be completed in six years, with technical and investment support of World Bank.

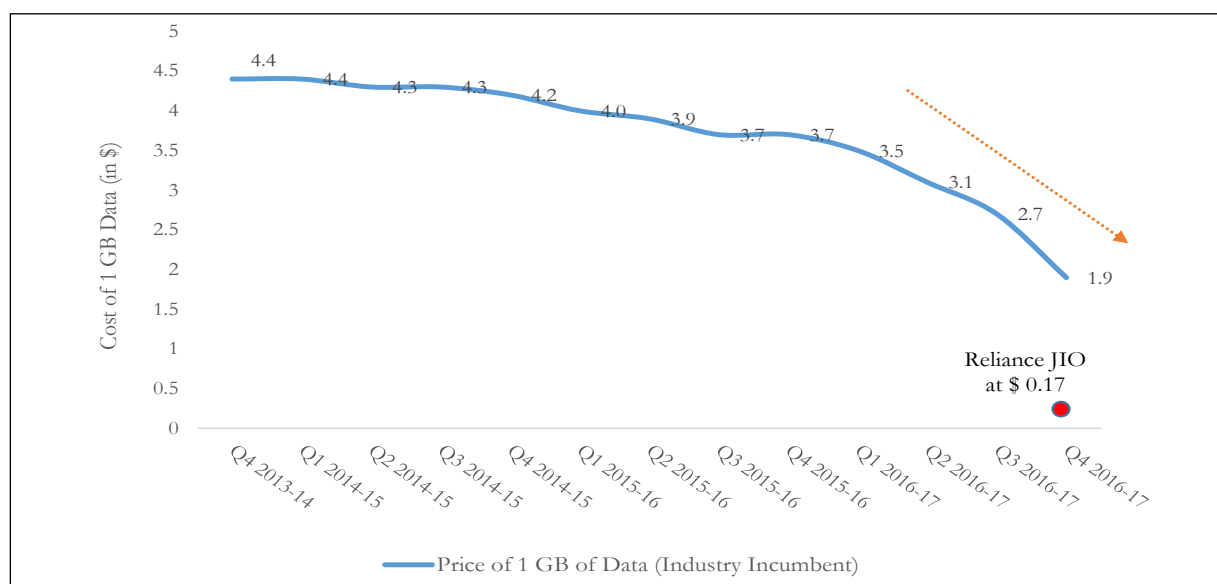
Telecom Sector

8.62 The Indian telecom sector has made rapid strides during the last few years because of several reforms and initiatives undertaken by the Department of Telecommunications. India now has the second largest network in the world, next only to China. India crossed the landmark of one billion telephone subscribers in the year 2015-16, and the total subscribers now stands at 1195.0 million as on 31.3.2017. Out of this, 501.8 million connections are in rural areas and 693.2 million in the urban areas. The wireless telephony constitutes 98.0 per cent (1170.6 million) of all subscriptions whereas share of the landline telephony now stands at only 2.0 per cent (24.4 million) at the end of March, 2017. The overall tele-density in India stands at 93.0 per cent as on 31.3.2017. In rural areas, tele-density was 56.9 per cent and in urban areas it was 171.5 per cent at the end of March, 2017. India, with 275 million smart-phone subscribers, has outpaced the United States to become the second largest smart-phone subscriber base

in the world. Since September 2015, 38 new mobile manufacturing units have been set up, which has ramped up the manufacturing of mobile phone units in 2015-16 by 90 per cent. The mobile industry in India, currently contributes 6.5 per cent (USD140 billion) to country's GDP, and employing over 4 million people (direct and indirect). It is projected to grow rapidly in the coming years.

8.63 With the introduction of the new entrant Reliance Jio Infocom Ltd. on 5 September 2016, the competition extended from cheaper calls to cheaper data. As per Telecom Regulatory Authority of India, the Q3 of 2016-17 had recorded 1,127.4 Million wireless subscribers, which is 7.7 per cent higher than the previous quarter Q2 of 2016-17. Reliance Jio Infocom Ltd. recorded the highest net addition of 56.2 million subscribers which is much higher than the others service providers like Idea with 11.7 million and Bharti Airtel with 5.9 million subscribers during Q3 of 2016-17. Reliance Jio's pricing scheme forced incumbent telecom firms to cut voice and data tariffs to

Figure 17. Data Prices per GB of Telecom Industry



Sources: JP Morgan, Bharti Airtel, Idea Cellular, Reliance JIO.

Note: Industry incumbent average calculated using weighted average cost of 1 GB of data realization from Bharti Airtel/Idea Cellular. Reliance JIO data assumed at 10 INR/GB based on March'17 Realization.

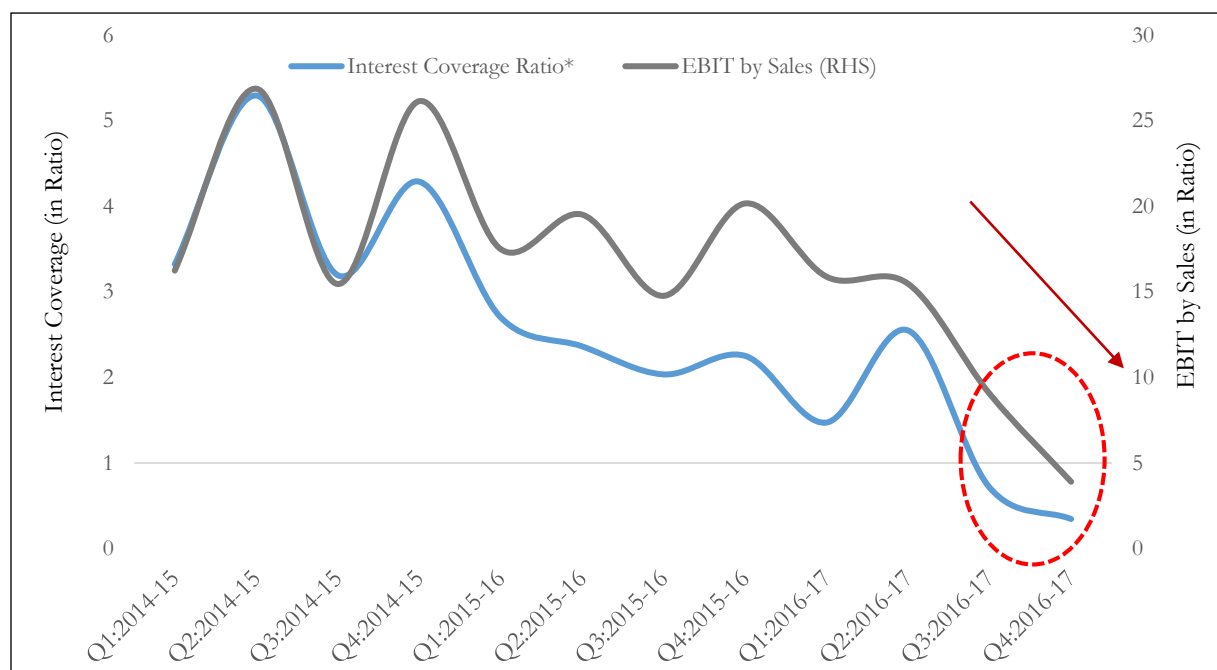
\$1.9 per 1 GB data during January-March of 2017 (Figure 17). The cut in tariff due to stiff competition with JIO, the revenue of other operators fell. The adjusted gross revenue of the top three telecom companies in India i.e., Bharti Airtel, Vodafone India and Idea Cellular decreased by 7.98 per cent, 5.14 per cent and 4.91 per cent respectively during Q3 of 2016-17 as compared to its previous quarter.

8.64 Stiff competition, price war, reduced revenue has trapped telecom sector into highly leveraged with interest coverage ratio turning less than 1 since Q3 of 2016-17 (Figure 18). It has also witnessed declining Earnings before Interest and Taxes (EBIT) by Sales ratio (Figure 18). The industry also faces the issue of higher spectrum charges. However, what's worrying is that the share of the telecom sector in the non-performing assets (NPAs) has now increased. Though the total NPAs of telecom sector in Public Sector Banks (PSBs) has fallen to Rs. 2,335

crores in 2016-17 from Rs. 3,465 crores in 2015-16, the share of NPAs of telecom sector in total NPAs of infrastructure sector increased to 8.7 per cent in 2016-17 from 5.0 per cent in 2015-16.

8.65 The Government has placed emphasis on growth of telecom sector in the country for the success of Digital India campaign. The Government has brought reforms in spectrum management through the process like spectrum sharing, spectrum trading, spectrum harmonization and most importantly, spectrum auction. The Government is also committed to extend the reach of the mobile network to all over India especially the remote and rural villages in order to convert India into a digital economy and knowledge society. For the deeper digital penetration in rural areas, the Government has taken up 'Bharat Net' programme, in mission mode to link each of the 2.5 lakh Gram Panchayats of India through Broadband optical fibre network. On its

Figure 18. Interest Coverage Ratio and Earnings before Interest and Taxes by Sales Ratio



Source: RBI

Note: EBIT by Sales in RHS

completion, Bharat Net would facilitate Broadband connectivity (with a 100 Mbps of bandwidth) for over 600 million rural citizens of the country. This is the largest rural connectivity project of its kind in the world, and is the first pillar of Digital India Programme. It will facilitate the delivery of various e-Services and applications including e-health, e-education, e-governance and e-commerce in the future.

Power Sector

8.66 The Government has unveiled an ambitious plan to provide electricity supply for all by 2019. India has already made a great effort in improving access to energy, by reducing the number of people without electricity. Power generation capacity has surged over the years, but the issue of power outages remains a major concern. According to the 'The Global Competitiveness Report 2016-17' released by World Economic Forum, India ranks 88th position out of 138 countries in terms of the quality of electricity supplied. Efforts towards 100 per cent village electrification, 24*7 power supply and clean energy cannot be successful without improving the performance of the electricity distribution companies (DISCOM). Power outages also adversely affect national priorities like 'Make in India' and 'Digital India'. In addition, default on bank loans by financially stressed DISCOMs tends to seriously impact the banking sector and the economy at large.

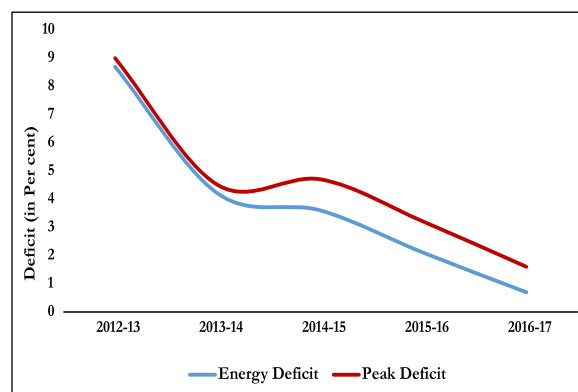
8.67 The growth rate in electricity generation was 4.7 per cent in 2016-17 as compared to 5.7 per cent in 2015-16 and 8.9 per cent in 2014-15. In 2013-14, total installed capacity was 2,45,259 MW in 2013-14 which increased to 3,26,649 MW as on March 2017. During the period 2012-2017, 1,00,468 ckm against the target of 1,07,440 ckm of transmission lines and 2,88,458 MVA against the target of 2,82,750 MVA of transmission capacity

have been completed. The peak deficit (the percentage shortfall in peak power supply vis-à-vis peak hour demand) has also shown a steep fall and was at (-) 1.6 per cent during 2016-17 as shown in Figure 19.

A special focus on the performance of Ujwal DISCOM Assurance Yojana (UDAY)

8.68 The Government formulated and launched the UDAY scheme for financial turnaround of power distribution companies on November 20, 2015. It is noteworthy to mention that the scheme envisages reduction in interest burden, cost of power and Aggregate Technical & Commercial (AT&C) losses. 27 states/UTs have already come under UDAY. A multilevel monitoring mechanism for UDAY has been put in place to ensure a close monitoring of performance of the participating States under UDAY. Also a web portal (www.uday.gov.in) has been created for monitoring purpose.

Figure 19. Reduction in Power Deficit (Per cent)



Source: Central Electricity Authority

8.69 As per UDAY scheme, the State Governments are allowed to take over 75 per cent of power distribution companies (DISCOMs) debt and pay back lenders by issuing bonds. The remaining 25 per cent of the debt to be paid back through DISCOMs issued bonds. As on 30.09.2015 total debt of all state owned DISCOMs was Rs. 3.95

lakh Cr. The 26 states and 1 UT which have joined the UDAY scheme account for total outstanding debt of Rs. 3.82 lakh Cr., which is 97 per cent of total outstanding debt of all state DISCOMs. So far, fifteen states have issued UDAY bonds totaling Rs.2.09 lakh Cr. and DISCOMs have issued Bonds worth Rs. 0.23 lakh Cr. A brief of issuance of bonds under UDAY is given in Table 10.

8.70 After the introduction of UDAY the states have made significant effort to reduce AT&C losses as shown in Figure 20. National average (all UDAY states) of

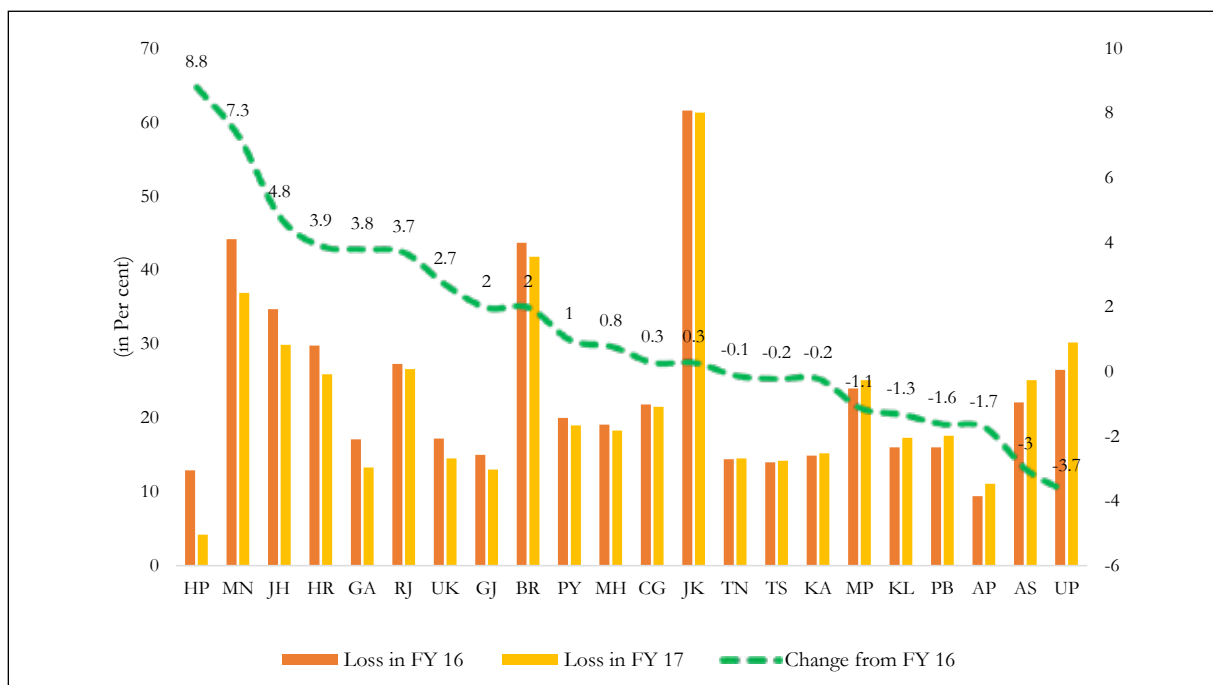
AT&C loss has come down to 20.2 per cent in FY 2017 from 21.1 per cent in FY 2016. Himachal Pradesh, Haryana, Goa, Rajasthan, Uttarakhand, Gujarat and Puducherry have shown significant improvement. States like Chhatisgarh, Maharashtra, Manipur, Jharkhand, and Bihar have also reduced the AT&C losses but needs further improvement. Thirteen DISCOMs have reported improved AT&C loss at the end of Q3 of FY 2016-17 from FY 2015-16 level. The performance of some DISCOMs is shown in Figure 21.

Table 10. Summary of Issuance of Bonds Under UDAY till 31st March 2017

| States | Net DISCOM Liabilities (to be restructured/Bonds to be issued) as on 30.09.2015 (in Rs. Crore) | Total Bonds Issued by States till Date (in Rs. Crore) | Total Bonds issued by DISCOM (in Rs. Crore) | Total Bonds issued under UDAY (in Rs. Crore) |
|------------------|--|---|---|--|
| Rajasthan | 76120 | 59722 | 12368 | 72090 |
| Uttar Pradesh | 49847 | 39133 | 10714 | 49847 |
| Chhatisgarh | 870 | 870 | - | 870 |
| Jharkhand | 6136 | 6136 | - | 6136 |
| Punjab | 20262 | 15629 | - | 15629 |
| Bihar | 3109 | 2332 | 777 | 3109 |
| Jammu & Kashmir | 3538 | 3538 | - | 3538 |
| Haryana | 34158 | 25951 | - | 25951 |
| Andhra Pradesh | 14721 | 8256 | - | 8256 |
| Madhya Pradesh | 11899 | 7360 | - | 7360 |
| Maharashtra | 6613 | 4960 | - | 4960 |
| Himachal Pradesh | 3854 | 2891 | - | 2891 |
| Telangana | 11244 | 8923 | - | 8923 |
| Assam | State Govt. Loan, Bonds not to be issued | | | |
| Tamil Nadu | 30420 | 22815 | - | 22815 |
| Meghalaya | 167 | 125 | - | 125 |
| Total | 273318 | 208641 | 23859 | 232500 |

Source: Ministry of Power

Figure 20. State wise AT&C Loss (in Per cent) of UDAY States

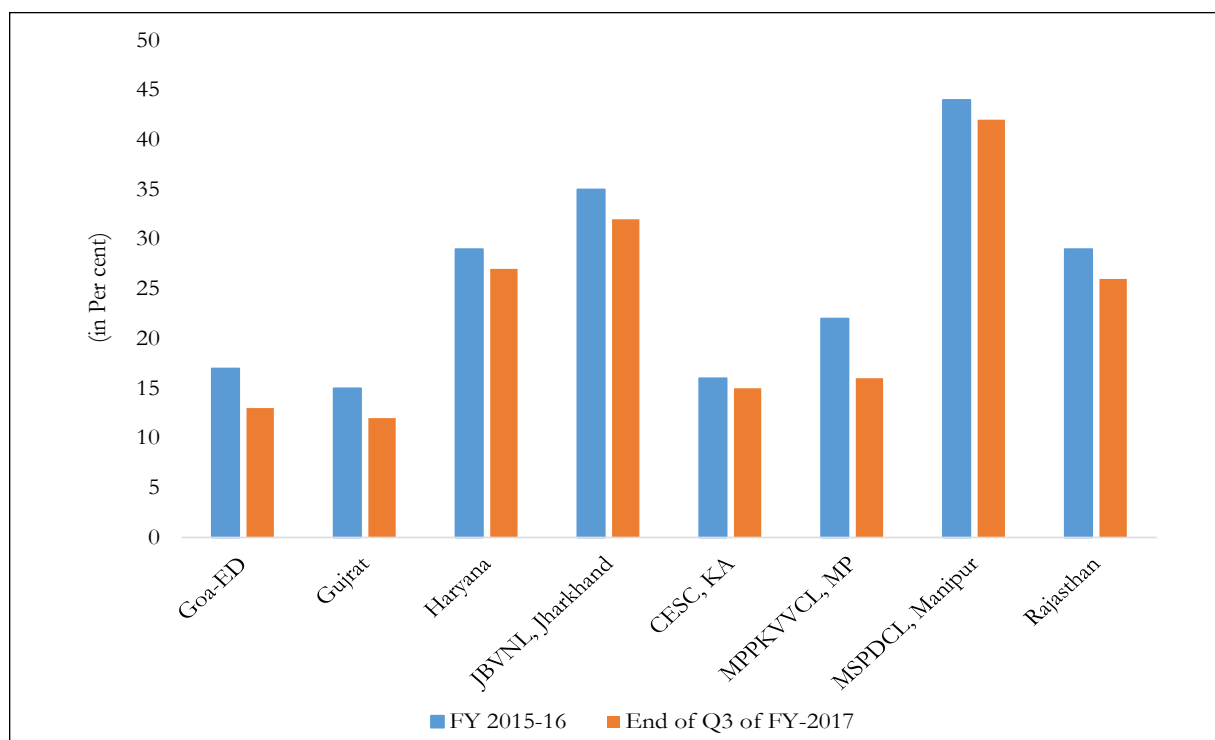


Source: UDAY Cell, REC

Note: Change of AT&C Loss from FY 16 in RHS

*Abbreviation of State Names in Appendix 2

Figure 21. Aggregate Technical & Commercial (AT&C) loss of DISCOMs (in %)



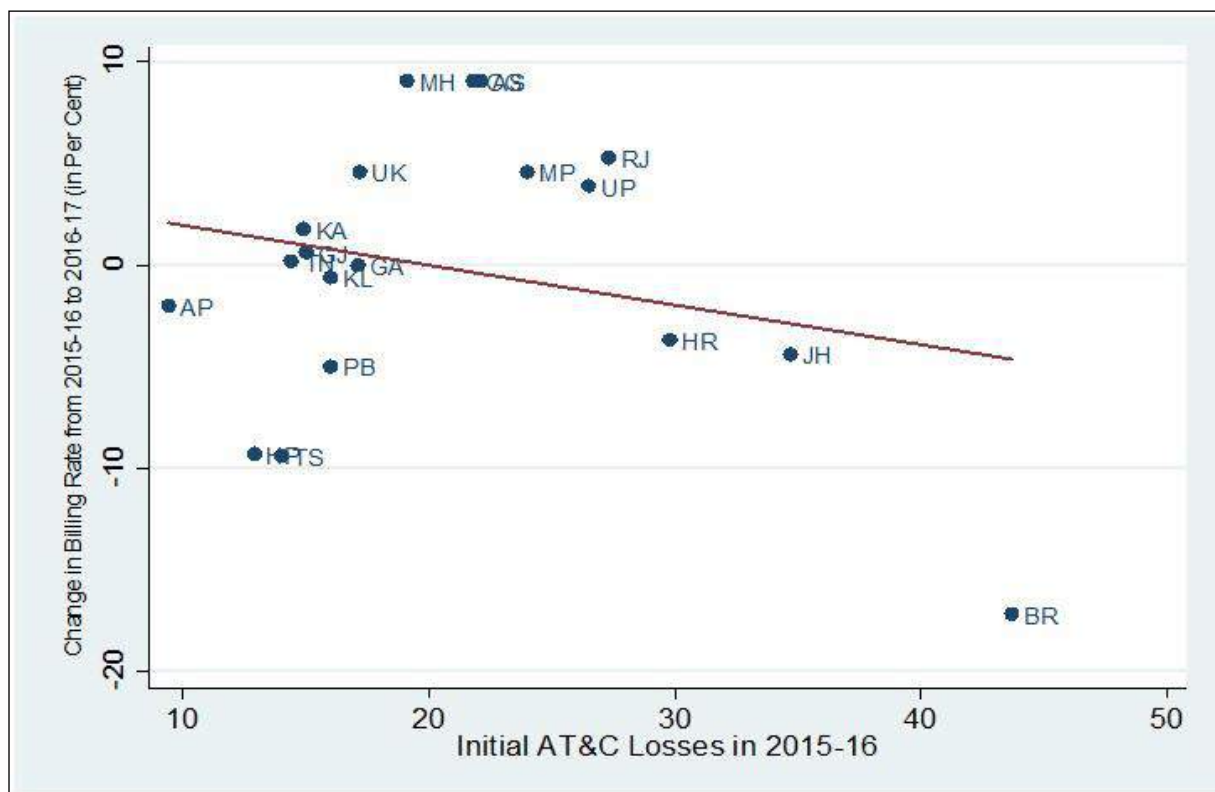
Source: Ministry of Power

8.71 After the introduction of UDAY, the primary focus has been given on billing and collection efficiency of DISCOMs. As per the information of Ministry of Power, at all India level, billing efficiency has been increased by 2 per cent from 81 per cent in 2015-16 to 83 per cent in 2016-17. The States with high AT&C losses should have increased their billing rate after the introduction of UDAY. Figure 22 shows the initial AT&C losses that prevailed in 2015-16 and change in billing rate from 2015-16 to 2016-17 in UDAY States. The expected relationship should have been positive. But many states with higher initial AT&C losses like Bihar, Jharkhand, Haryana and Punjab have not increased their billing rate, and in fact further reduced rates, Bihar being amongst the worst offender. However, States like Rajasthan, Uttar Pradesh and Madhya

Pradesh with higher initial AT&C losses have increased their billing rate from 2015-16 to 2016-17. Unless States make timely revision of tariff, the problem of losses and debts of DISCOMs may not be resolved.

8.72 Electricity is a merit good. The tariff structure must reflect this. States with the highest losses are those where tariffs fail to cover costs on average. In states such as Rajasthan, Tamil Nadu, Jharkhand, Madhya Pradesh and Uttar Pradesh (top ranking states in loss distribution), the per unit average tariff (AT) is lower than the average cost of supply (ACS). After the introduction of UDAY, 15 states have issued tariff-revisions for FY 2017-18 by their respective Commissions to cover cost of supplies till date. The tariff revision of all the UDAY states has been given in the Table 11.

Figure 22. Initial AT&C Losses and Change in Billing Rate



Source: UDAY Cell, REC

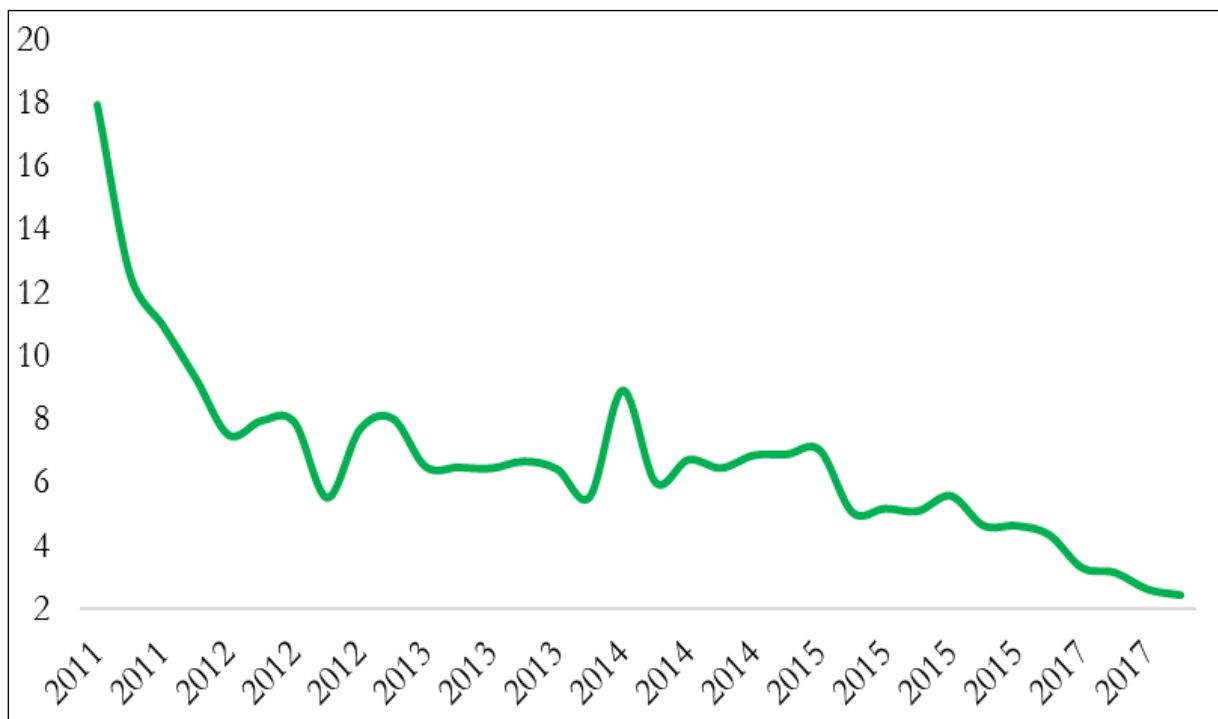
Table 11. Tariff Revision in 2017-18

| S.No. | Name of State | Tariff Order (Issued/Not Issued) | % Average tariff Hike | Applicable Date | MoU Tariff Hike Target for FY17-18 |
|-------|-------------------|----------------------------------|----------------------------|-----------------|------------------------------------|
| 1 | Bihar | Issued | 55% | 01-Apr-17 | 15.00% |
| 2 | Uttarakhand | Issued | 5.72% | 01-Apr-17 | 4.27% |
| 3 | Madhya Pradesh | Issued | 9.42% | 01-Apr-17 | 5.00% |
| 4 | Karnataka | Issued | 8% | 01-Apr-17 | 3%-4% |
| 5 | Gujarat | Issued | 0% | 01-Apr-17 | 0.50% |
| 6 | Andhra Pradesh | Issued | 3.60% | 01-Apr-17 | 5.00% |
| 7 | Chhattisgarh | Issued | 2.0-2.5% | 01-Apr-17 | 6.00% |
| 8 | Manipur | Issued | 5% | 01-Apr-17 | Rs. 5.13/KWH |
| 11 | Assam | Issued | 6% | 01-Apr-17 | 6.50% |
| 13 | Meghalaya | Issued | 5% (Approx) | 01-Apr-17 | 8.68% |
| 9 | Maharashtra | Issued | - | 01-Apr-17 | 9.01% |
| 10 | Himachal Pradesh | Issued | 0% | 01-Apr-17 | 3.00% |
| 12 | Telangana | Issued | 0% | - | 8.00% |
| 14 | Sikkim | Issued | - | 01-Apr-17 | 15.00% |
| 15 | Mizoram | Issued | - | - | 5.00% |
| 16 | Arunnchal Pradesh | - | No tariff Hike is proposed | - | 0.00% |
| 17 | Rajasthan | Not Issued | - | - | 8.00% |
| 18 | Haryana | Not Issued | - | - | Projection are not Given. |
| 19 | Punjab | Not Issued | - | - | 9.00% |
| 20 | Puducherry | Not Issued | - | - | 3.00% |
| 21 | Jharkhand | Not Issued | - | - | 9.60% |
| 22 | Jammu & Kashmir | Not Issued | - | - | 17.00% |
| 23 | Goa | Not Issued | No tariff Hike is proposed | - | 5.00% |
| 24 | Tamil Nadu | Not Issued | No tariff Hike is proposed | - | 8.00% |
| 25 | Tripura | Not Issued | - | - | 4.50% |
| 26 | Uttar Pradesh | Not Issued | - | - | 6.95% |
| 27 | Kerala | Not Issued | - | - | 0.00% |

Source: Ministry of Power

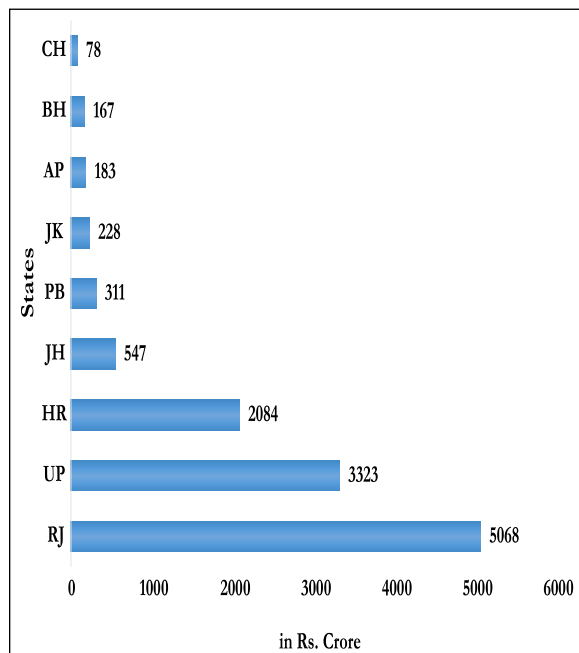
8.73 Tariff in many states have been increased due to tariff revision. But the higher tariff may face potential threat from lower solar and wind prices. As per latest

available information, the solar energy price is at Rs.2.5 per KWH and wind energy price is at Rs.3.4 per KWH. The falling trend in solar prices is shown in figure 23.

Figure 23. Price of Solar Energy (in Rs. per KWH)

Sources: MNRE

8.74 State power distribution companies have started reporting handsome savings and improvements in operational efficiency

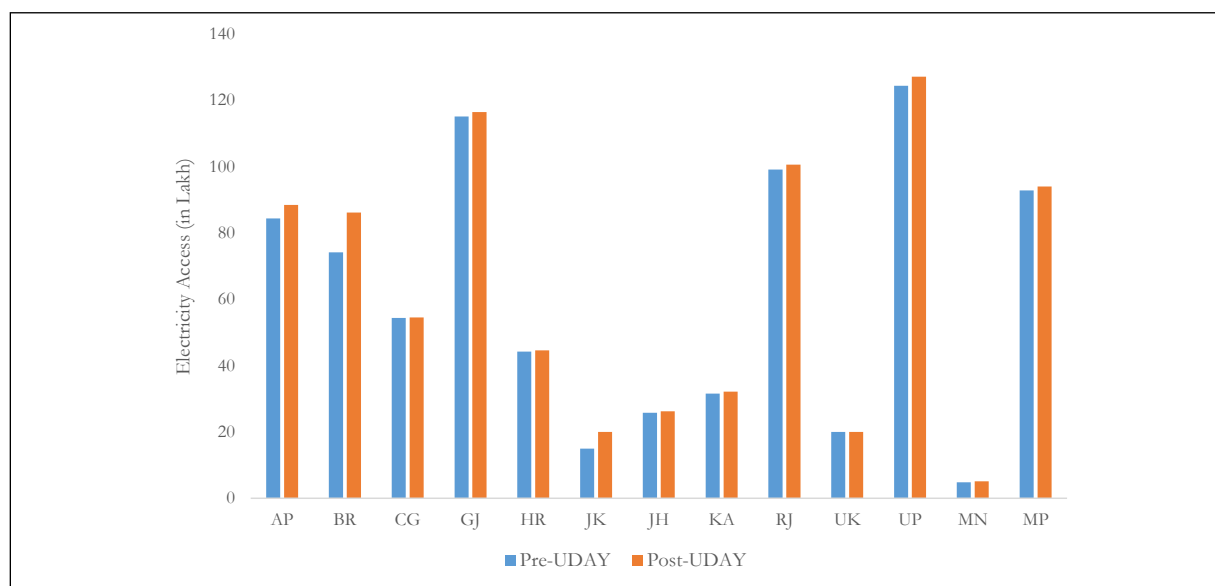
Figure 24. Estimated Savings in interest cost (in Rs. Crore)

Source: Ministry of Power

under the UDAY. Utilities in Rajasthan, Uttar Pradesh, Haryana, Jharkhand and Punjab are the major gainers in lowering their interest costs in 2016-17. DISCOMs of states have achieved an estimated savings of Rs.11,989 crore till December, 2016. Estimated savings in interest costs of different states are shown in Figure 24.

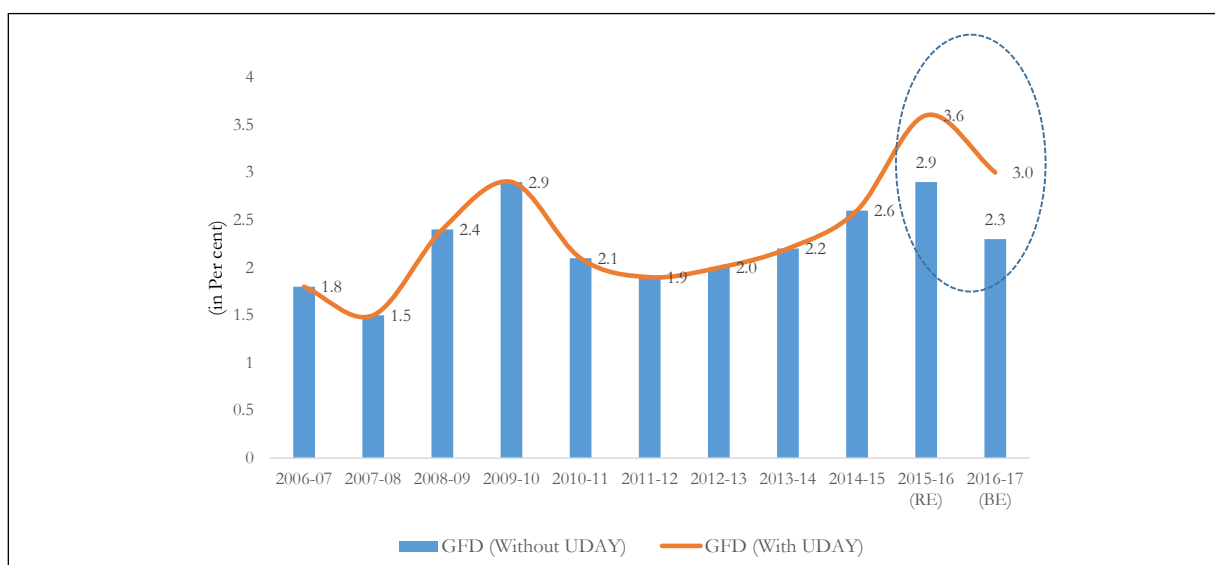
8.75 Apart from the above developments, many states have shown improvement in terms of electricity access to unconnected households, distribution of LEDs under UJALA, feeder metering and distribution transmission (DT) metering both in rural and urban area after the introduction of UDAY (Figure 25). States like Andhra Pradesh, Gujarat, Maharashtra, Karnataka have performed better in terms of operational aspects like electricity access, DT metering and Feeder Metering; but states like Uttar Pradesh, Tamil Nadu and Himachal Pradesh have not reported any improvement.

Figure 25. Change in Electricity Access to Un-connected Households due to impact of UDAY (in Lakh)



Source: Ministry of Power

Figure 26. States Gross Fiscal Deficit-GDP Ratio



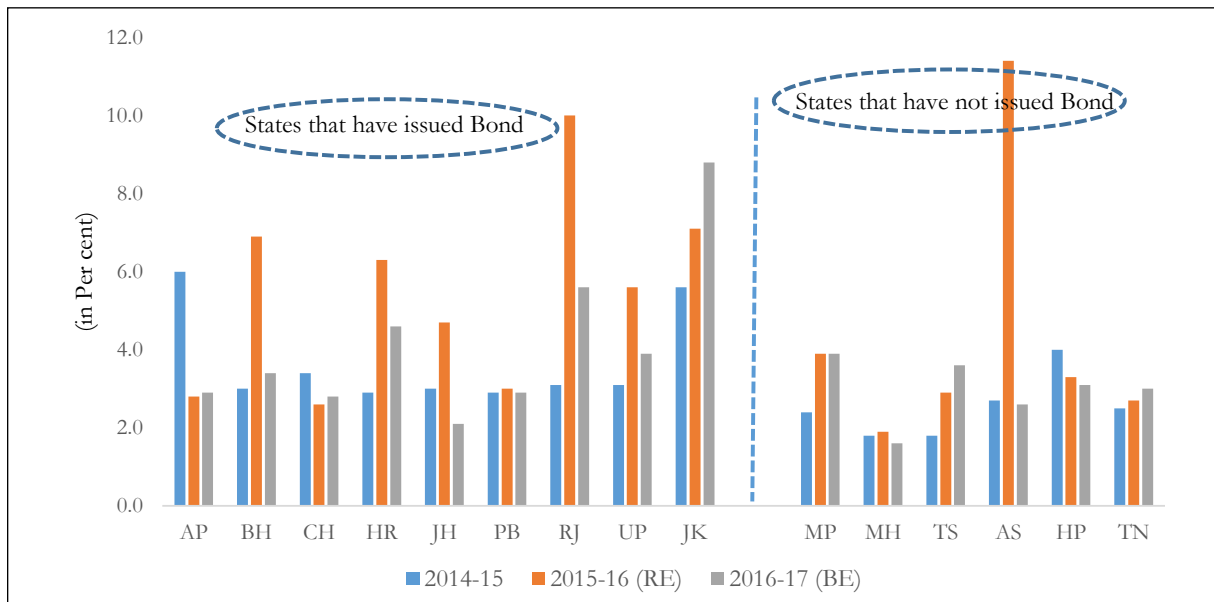
Source: RBI

Fiscal Burden on States

8.76 UDAY is not a panacea for addressing fiscal situations though it has had a significant impact on addressing the structural issues attached with the power sector. Under the UDAY scheme, states were allowed to issue non-SLR state development (SDL) bonds in the market or directly to banks or financial institutions holding the Discom debt. Due

to these bonds, the state Gross Fiscal Deficit/GDP ratio got increased by 0.7 percentage points to 3.6 per cent in 2015-16 from 2.9 per cent without UDAY (Figure 26). The GFD/GDP ratio of states who have issued UDAY bond is higher than the GFD/GDP ratio of states who have not issued UDAY bonds (Figure 27).

Figure 27. GFD/GSDP ratio of States with UDAY



Source: RBI

Petroleum and Natural Gas Sector

8.77 During 2016-17, crude oil production was 36.0 MMT as against the target of 37.1 MMT which is 97.1 per cent of the target. Similarly, the natural gas production target during 2016-17 was 34.1 BCM against which actual production was 31.9 BCM which is 93.5 per cent of the target. Shortfall in production both petroleum and natural gas was mainly due to declining production from old and marginal fields, delay in completion of some projects in western offshore, unplanned shutdown of wells, processing platform/plants, pipelines. The Government has taken various measures to transform hydrocarbon sector in India as follows.

- *Hydrocarbon Exploration and Licensing Policy (HELP)*: The policy envisages single license for exploration and production of conventional as well as non-conventional hydrocarbon resources, open acreage licensing system to select the exploration blocks without waiting for formal bid round, simply and easy to administer revenue sharing model. The National Data Repository has been developed to

support the process by providing quality data on the prospectivity of the basins to investors.

- *Discovered Small Field Policy 2016*: As a step to reduce India's energy imports by 10% by 2022, 31 contracts (23 on land and 8 offshore) were signed for awarded fields under the Discovered Small Field (DSF) Bid Round 2016. The production from these contract areas will supplement the domestic production of crude oil and natural gas.
- *Hydrocarbon Vision 2030 for North East*: The Vision aims at doubling Oil & Gas production by 2030, making clean fuels accessible, fast tracking projects, generating employment opportunities and promoting cooperation with neighbor countries. An investment of ₹1.3 lakh crore is envisaged till 2030 in North East India.
- *Pratyaksha Hanstantrit Labh (PAHAL)*: Government, as a measure of Good Governance has introduced well targeted system of subsidy delivery

to LPG consumers through PAHAL. The initiative of the Government was aimed at rationalizing subsidies based on approach to cut subsidy leakages, but not subsidies themselves. Since 2014-15, more than 17.5 crore LPG consumers have joined PAHAL scheme. PAHAL has entered into Guinness Book of World Records being largest Direct Benefit Transfer Scheme. So far, more than ₹50,000 crore have been transferred directly into the bank accounts of the consumers. Estimated savings in subsidy due to implementation of PAHAL during 2014-15, 2015-16 and 2016-17 is nearly ₹29446 crore.

- *Pradhan Mantri Ujjwala Yojana (LPG connections for BPL houses):* The Government has embarked upon providing 5 crore LPG connections to BPL families in the country with focus on States/ UTs having LPG coverage less than the National average of 61% as on 01.01.2016 with this scheme. The connections are released in the name of adult woman member of BPL family having no LPG connection either in the name of beneficiary or any other family members. Objective of the scheme is to provide clean cooking fuel solution to poor households, especially in rural areas. A target of 1.5 crore was fixed for the financial year 2016-17 and the connections released as on 31.03.2017 have surpassed the target at 1.98 crore.
- The first phase of 'Urja Ganga'- Jagdishpur – Haldia and Bokaro – Dhamra Pipeline project (JHBDPL) has been taken up since July 2015. The pipeline is being executed by GAIL (India) Limited as a part of National Gas Grid for extending the Gas Energy Corridor in Eastern India. The 2,539 km JHBDPL pipeline is being executed

with an investment of ₹ 12,940 crore, which includes 40 per cent capital grant of ₹ 5176 crore from the Government of India. Urja Ganga will pass through five States i.e. Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal covering 40 districts. It will also help in setting up of City Gas Distribution networks in 7 cities in the first phase. CGD Project will bring eco-friendly fuel natural gas to households, vehicles and industries. The Pipeline project will also be used for gas supply to 3 fertilizer plants in Gorakhpur, Barauni & Sindri in Eastern India, giving a new dimension to fertilizer & food processing industry.

URBAN INFRASTRUCTURE WITH A NOTE ON SMART CITY MISSION

8.78 Cities are regarded as “engines of growth” for economies. The confluence of capital, people and space in cities unleashes the benefits of agglomeration, creating a fertile environment for innovation of ideas, technologies and processes which produce huge economic returns. Cities in India generate two-third of national GDP, 90 per cent of tax revenues and the majority of formal sector jobs, with just a third of the country's population. Despite being centers of opportunity, the cities of India bring with them a host of environmental and infrastructure challenges, from pollution to lack of civic amenities like drinking water, sewage, housing and electricity, which disproportionately impacts the more vulnerable poor population. For addressing these issues, the Government has taken various steps to improve urban infrastructure like Swachh Bharat Mission (SBM, urban), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Heritage City Development and Augmentation Yojana (HRIDAY) and Smart Cities Mission.

Smart City Mission

8.79 India is witnessing rapid urbanization and the phenomenon requires a major policy response. As part of the policy response, the government conceived of the Smart City Mission. Let it be clear that “smartness” in this context should not be confined merely to the application of digital technologies. Right from the beginning, the definition of the “smart city” was left open. The real shift was to move from rigid master-plans and silos to a more ecosystem approach. The four key ingredients of a thriving urban ecosystem are institutional infrastructure, physical infrastructure, social infrastructure and economic infrastructure. So, the smart city approach aims to upgrade urban ecosystems either through targeted strategic interventions using one of the ingredients with city-wide impact (Pan City Initiatives) or through simultaneously upgrading more than one ingredient in a defined space (Area Based Project). It is understood that the exact implementation of such a strategy has to be customized to the specific context. A sibling programme called Heritage City Development and Augmentation Yojana (HRIDAY) has also been initiated to look at the special needs of heritage cities.

8.80 The Government of India launched the Smart Cities Mission on 25 June 2015. It was proposed to cover 100 cities over the period 2015-16 and 2019-20. Some of the unique features of the Smart Cities’ Mission in India are: (i) Selection of cities through a city challenge competition; (ii) Implementation by Special Purpose Vehicles- companies owned by municipal authorities; (iii) Central grant funds used for leveraging funds from other sources; (iv) Citizen participation in planning and implementation of the Mission to ensure sustainability and accountability.

8.81 Following this process, 60 cities (20 cities in Round 1 in January 2016, 13 cities

in fast track round in May 2016 and 27 cities in Round 2 in September, 2016) have been selected so far (See Appendix 3 for the list of Light House, Fast Track and Round 2 cities). The other 40 cities are expected to be selected in the 3rd round of the competition this year.

8.82 A total investment of ₹1,33,368.5 crore has been proposed by the 60 cities under their smart city plans. Projects focusing on revamping an identified area (Area Based Projects) are estimated to cost ₹1,05,621 crore. Smart initiatives across the city (Pan City Initiatives) account for the remaining ₹26,141 Crores of investments. Besides ABP and Pan city projects an amount of ₹1604.5 crore has been kept aside for O&M cost of the Mission and other contingencies.

8.83 Priority interventions at the city level include developing an integrated command and control centre, integrating data from multiple departments leading to better coordination and effective service delivery, smart water management through use of technology to reduce non- revenue water, smart roads, heritage and “place-making” projects (Also see Box 2).

8.84 57 projects worth ₹941 crore have already been completed as of April 2017. An estimated additional 462 projects worth ₹15307 crore are likely to be completed through 2018 provided all the projects that have commenced implementation and those that have been tendered stick to their timelines. In the best-case scenario, an additional 920 projects for which detailed project reports (DPRs) have already been prepared worth ₹24526 crore are estimated to be completed by the end of 2018 provided all timelines are adhered to. A quarterly break-up of the number and value of projects in the two scenarios is given in Table 13 below.

Table 12. Round- wise Project Implementation Details

| Rounds of selection | DPR/ RfP Preparation Stage | | Projects Tendered | | Projects- Work Commenced | | Projects- Work Completed | |
|---------------------|----------------------------|-----------------|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|
| | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) |
| ROUND 1 | 571 | 32,433 | 135 | 7,112 | 72 | 3,500 | 32 | 503 |
| FAST TRACK | 468 | 18,446 | 8 | 684 | 7 | 107 | 6 | 150 |
| ROUND 2 | 919 | 30,270 | 39 | 1,974 | 37 | 869 | 19 | 288 |
| Total | 1,958 | 81,150 | 182 | 9,769 | 116 | 4,476 | 57 | 941 |

Source: Ministry of Urban Development

Table 13. Estimated Minimum & Best Scenario of Smart Cities' Project Completion

| SCENARIO-1 (Minimum): PROJECTS LIKELY TO BE COMPLETED | | | | | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Jan- Mar' 18 | | April- June'18 | | July- Sept'18 | | Oct- Dec.'18 | | Grand Total | |
| | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) |
| ROUND 1 | 52 | 2652.9 | 72 | 3714.1 | 46 | 2334.6 | 58 | 2971.3 | 228 | 11673 |
| FAST TRACK | 2 | 79.1 | 2 | 118.6 | 3 | 158.2 | 8 | 434.9 | 15 | 791 |
| ROUND 2 | 33 | 426.5 | 44 | 568.6 | 55 | 710.8 | 88 | 1137.3 | 219 | 2843 |
| GRAND TOTAL | 86 | 3158.5 | 119 | 4401.3 | 103 | 3203.5 | 154 | 4543.4 | 462 | 15307 |

| SCENARIO-2 (Best): PROJECTS LIKELY TO BE COMPLETED | | | | | | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Jan- Mar' 18 | | April- June'18 | | July- Sept'18 | | Oct- Dec.'18 | | Grand Total | |
| | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) | No. of Projects | Value (₹ Crore) |
| ROUND 1 | 89 | 4680.0 | 122 | 6552.0 | 77 | 4118.4 | 98 | 5241.6 | 386 | 20592 |
| FAST TRACK | 9 | 86.1 | 13 | 129.1 | 17 | 172.2 | 47 | 473.5 | 85 | 861 |
| ROUND 2 | 67 | 460.9 | 90 | 614.6 | 112 | 768.2 | 180 | 1229.2 | 449 | 3073 |
| GRAND TOTAL | 165 | 5227.0 | 225 | 7295.7 | 206 | 5058.8 | 324 | 6944.3 | 920 | 24525 |

Source: Ministry of Urban Development

8.85 So far as the priority sector interventions are concerned, 22 of the 60 cities have already initiated the smart roads and 18 cities have initiated integrated command and control projects. Additionally, 20 cities have

initiated smart water projects and 26 cities have started implementing the solar roof top projects. Architectural, place-making and city beautification projects have been initiated in 18 cities.

EXAMPLE OF SMART CITY PROJECT: INTEGRATED COMMAND AND CONTROL CENTRE, PUNE

Name of the project: Transport Command and Control Centre

Sector: Integrated Command and Control Centre

Cost and Financing: ₹ 48 Crore

Brief Description: State of art Command and Control Centre for Traffic (2700 sqft) has been set-up at the PMPML Headquarter. The Command and Control Centre captures the real time movement of buses in the city based on the GPS tracker which is placed on the buses. The Office Space houses 4 servers and 20 computers which is managed by 21 people on the ground

Current Status of project implementation: Fully implemented with 1500+ buses being tracked on the system (see photograph below).



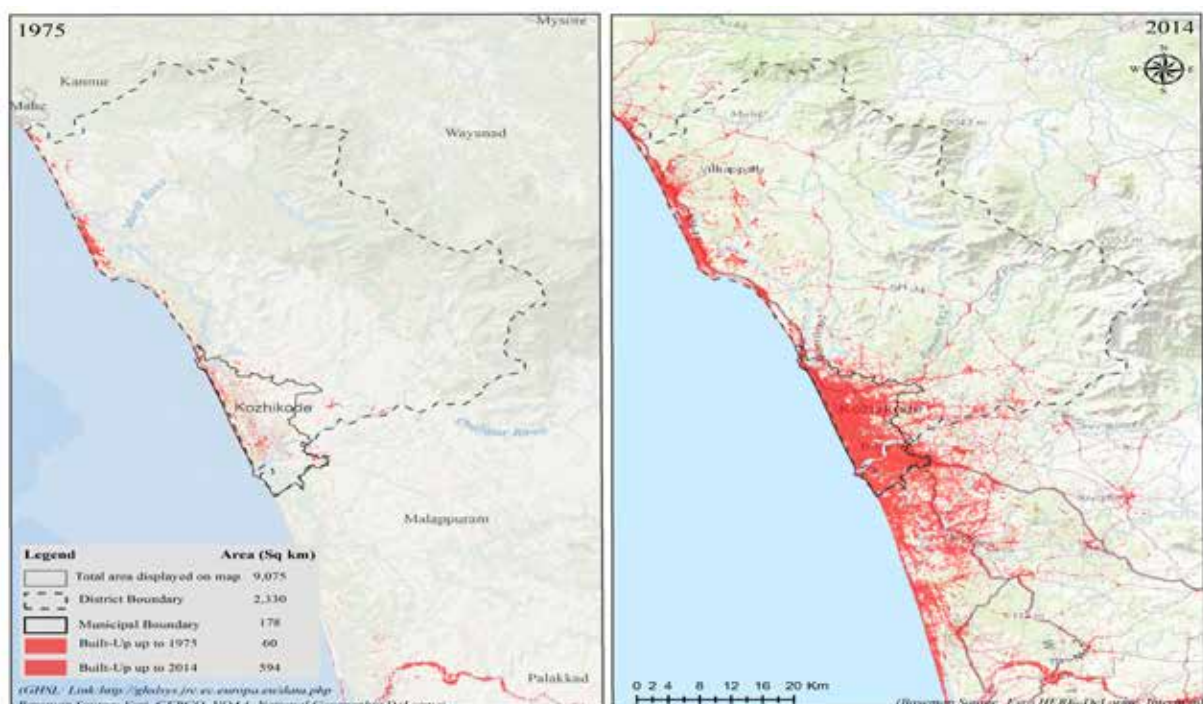
How Urban is India?

8.86 India is rapidly urbanizing, but does the 2011 census based urbanisation rate of 31.2% fairly capture it? Urbanisation in India is officially defined by two metrics: (i) Administrative definition: which considers the population living in areas governed by urban local bodies such as municipal corporations, municipal councils or notified town committees. These urban settlements governed by urban local bodies are referred to as “statutory towns”. Using the administrative definition, India was approximately 26% urban in 2011. State governments determine the administrative status of a settlement. By default all settlements are rural and become urban only after the state government converts them, following a requisite legal process. While there are guidelines for classifying a settlement as urban, these are not binding on state governments. (ii) Census definition: Under this definition, the population living in statutory towns described above as well as census towns together constitutes the

urban population. Census towns are a category created by the census that fulfill the following three criteria: population of at least 5,000; density of at least 400 persons per square kilometer, and at least 75% of the male main working population engaged in non-agricultural activities. India stood at 31.2% urban in 2011 according to the census definition.

8.87 As India rapidly urbanises, these traditional measures are inadequate to capture the complex phenomenon, especially when we study this at the state or local level. To begin with, there is a large difference between urbanization as defined by the two official definitions. For example, Kerala is 15% urban by the administrative definition, but 47.7% by the census definition. The built-up density on ground processed from the satellite map of Kozhikode shows how the urban expansion ignored the administrative boundary between 1975 and 2014. Other definitions reveal even larger gaps.

Map 2. Built-up Area in Kozhikode Metropolitan region 1975 vs 2014



Source: IDFC Institute, Mumbai.

8.88 In countries like Ghana and Qatar, all settlements with 5000+ population are deemed urban. India would be 47% urban in 2011 by this definition. In Mexico and Venezuela, a 2500+ threshold is employed. India would be 65% urban in 2011 by this definition. Kerala is 99% urban both by the 5000+ and 2500+ population definitions. A 2016 World Bank report uses an agglomeration index to measure urbanisation and finds that more than half the population in India is urban.³ Research by Jana, Sami, and Seddon finds that if we relax the population size and occupation categories and only use

the density criteria of 400 persons per square kilometer, India is around 78% urban.⁴ It finds that even if we use density criteria of 800 persons per square kilometer, India will still be more urban (55%); far more than the current official numbers suggest. The point is that different definitions give very different answers and the appropriateness of a particular framework really depends on the application. Also note that the urbanization is not black-and-white as there are many shades of semi-urban settlements. Thus, one needs to be careful of making blanket assumptions about the nature of urbanization in India.

Table 14. State Wise Urbanization Rate in 2011 as per different definitions

| State Names | Admin | Census | 5000+ pop | 2500+ pop |
|-------------------|-------|--------|-----------|-----------|
| Jammu & Kashmir | 23.44 | 27.38 | 40.35 | 61.58 |
| Himachal Pradesh | 9.59 | 10.03 | 10.02 | 15.82 |
| Punjab | 34.44 | 37.48 | 46.83 | 64.49 |
| Chandigarh | 91.11 | 97.25 | 99.21 | 100.00 |
| Uttarakhand | 24.66 | 30.10 | 40.22 | 51.20 |
| Haryana | 31.01 | 34.88 | 56.79 | 78.90 |
| Nct Of Delhi | 67.92 | 97.50 | 98.56 | 99.70 |
| Rajasthan | 22.93 | 24.87 | 35.08 | 52.69 |
| Uttar Pradesh | 20.37 | 22.27 | 37.10 | 60.12 |
| Bihar | 10.80 | 11.29 | 48.61 | 72.19 |
| Sikkim | 24.19 | 25.15 | 27.79 | 41.18 |
| Arunachal Pradesh | 22.66 | 22.94 | 21.50 | 24.60 |
| Nagaland | 25.55 | 28.86 | 38.75 | 56.84 |
| Manipur | 24.77 | 32.45 | 41.90 | 59.51 |
| Mizoram | 52.11 | 52.11 | 50.64 | 58.63 |
| Tripura | 18.26 | 26.17 | 57.77 | 85.26 |
| Meghalaya | 12.67 | 20.07 | 21.42 | 26.81 |
| Assam | 10.64 | 14.10 | 21.08 | 43.42 |
| West Bengal | 23.11 | 31.87 | 50.71 | 70.64 |
| Jharkhand | 16.08 | 24.05 | 29.54 | 44.22 |
| Odisha | 14.24 | 16.69 | 19.56 | 33.10 |
| Chhattisgarh | 22.27 | 23.24 | 25.19 | 38.92 |
| Madhya Pradesh | 25.85 | 27.69 | 33.24 | 46.34 |
| Gujarat | 38.37 | 42.60 | 56.71 | 74.55 |

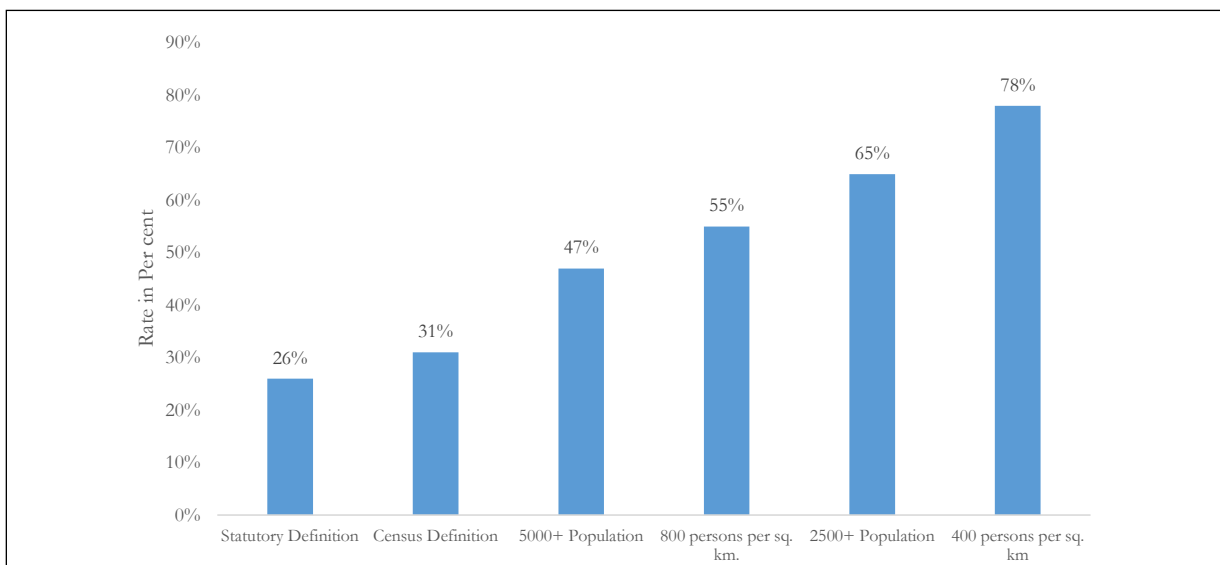
³ See: <http://www.worldbank.org/en/region/sar/publication/urbanization-south-asia-cities>.

⁴ See: <https://www.theigc.org/wp-content/uploads/2014/08/Arindam-Jana.pdf>.

| State Names | Admin | Census | 5000+ pop | 2500+ pop |
|---------------------------|-------|--------|-----------|-----------|
| Daman & Diu | 28.07 | 75.17 | 89.87 | 95.15 |
| Dadra & Nagar Haveli | 28.59 | 46.72 | 62.22 | 88.83 |
| Maharashtra | 41.63 | 45.22 | 56.39 | 69.55 |
| Andhra Pradesh | 27.20 | 33.36 | 57.31 | 77.88 |
| Karnataka | 36.28 | 38.67 | 51.35 | 67.17 |
| Goa | 27.56 | 62.17 | 66.64 | 85.74 |
| Lakshadweep | 0.00 | 78.07 | 82.88 | 95.85 |
| Kerala | 15.71 | 47.70 | 99.22 | 99.89 |
| Tamil Nadu | 41.35 | 48.40 | 65.86 | 83.73 |
| Puducherry | 59.96 | 68.33 | 86.02 | 96.33 |
| Andaman & Nicobar Islands | 28.39 | 37.70 | 40.35 | 56.53 |
| All India | 26.31 | 31.16 | 47.20 | 64.94 |

Source: IDFC Institute, Mumbai and Census of India, 2011.

Figure 28. Alternative Definitions of Urbanisation Rate



Source: IDFC Institute, Mumbai and Census of India, 2011

Note: Percentage of India that was Urban in 2011 according to the different definitions

Using Satellite Data

8.89 With recent advances in remote sensing technology and machine learning for processing satellite images, we can get much more granular data on how urbanisation is happening across India (see map 3). Based on publically available data from the Global

Human Settlement Layer (GHSL),⁵ we look at how built-up areas show the evolution of human settlements across India since 1975. It is also possible to disaggregate official census population numbers according to the density and form of these settlements to get granular population figures across the country.

⁵ See: <https://ec.europa.eu/jrc>.

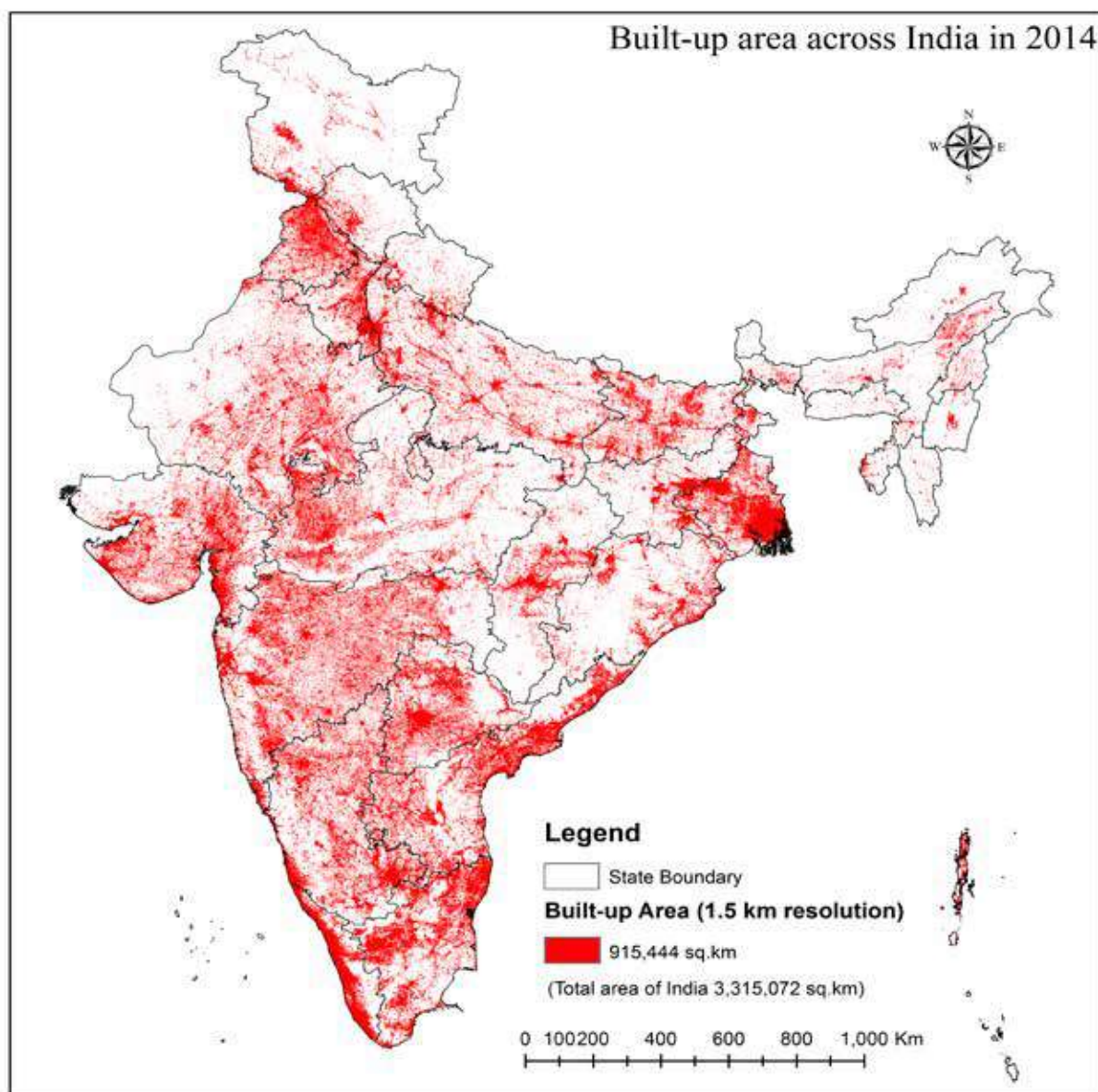
8.90 Using these satellite image datasets, we can then apply spatial definitions to classify urban areas. For instance, the Joint Research Center of the European Commission Science Hub, that generates the GHSL data, defines “high density clusters” (HDCs) as those areas that meet all of the following criteria:

- a) 4 contiguous cells with at least 1,500 persons per square kilometer,
- b) Minimum of 50,000 persons per cluster, and

- c) Density of built-up area greater than 50%

8.91 Based on this more detailed data and scientific definition of High Density Settlements, India was 63% ‘urban’ in 2015 -- more than double the urbanization rate estimated by the 2011 Census. Moreover, we can go into a much greater level of spatial detail with this data to uncover important insights for promulgating expeditious public policy at center, state and urban local body level.

Map 3. Built-up area across India in 2014



Box 2. Does India need a Transparency of Rules Act?

Almost everyone will agree that “rule-of-law” is fundamental to good governance. In turn, rule-of-law is based on the expectation that all citizens are aware of the country’s laws and will follow it. Ignorance of the law is not accepted as defense. The problem is that it is not easy for ordinary citizens (& businesses) in India to navigate the multitude of rules, regulations, forms, taxes and procedures imposed by various tiers of government. Moreover, these rules frequently change and sometimes contradict each other. Often the citizen has to follow a long paper trail of circulars and notifications to know the current requirements. Note that we are not concerned here about the content of the rules/regulations but solely about the ease of finding out what the citizen is expected to do.

The opaque mesh of rules is so complicated that even government officials struggle to keep up with the latest version. This is the cause of a lot of inefficiency, and delay. Arguably it is also an important source of corruption and endless litigation. This is why India would benefit enormously if the average citizen could easily access the latest rules and regulations in a comprehensible format.

One way to solve the above problem could be a Transparency of Rules Act (TORA). The proposed legislation would have the following three elements. Each element is necessary and that together they are sufficient to significantly resolve this problem:

- TORA would make it mandatory for all departments to place every citizen-facing rule, regulation, form and other requirement on its website (preferably in English, Hindi and regional language). Once a department is declared “TORA-compliant”, any rule that is not explicitly on the website would be deemed not to apply. No government official would be allowed to impose a rule, procedure or form that is not explicitly displayed on the website.

This is not an entirely new idea as all state and central laws are currently required to be published in the Gazette. The new legislation extends this principle to say that a rule only applies if the citizen can easily find it on the website of the relevant department or agency. Simply placing a circular in the large heap of updates and circulars in the Gazette is not good enough.

- TORA will further specify that all laws, rules and regulations need to be presented as an updated, unified whole at all times. Citizens should not have to wade through decades of circulars to find out the current state of play. This is already being done in some places on an ad hoc basis, but this is not useful if one is never completely sure that the so-called updated version has itself not been superseded. The format used by Wikipedia is a simple example of a format where the main text can be constantly updated but also allows people to look up document history in order to compare changes. A presentation of laws as an updated whole will have an additional benefit that it will make internal contradictions obvious.
- The third critical element of TORA is that the websites should clearly state the date and time when each change is made. This should be embedded in the software. Laws would normally be applicable after a specified time (say seven days) after the rule has been posted. The principle is that the government must give the citizen a reasonable time to comply. The date stamp means that officials cannot retrospectively change a regulation. Note that the text on the website is deemed the law even if it has a mistake, till the correction is made. The department, and not the citizen, must pay for the consequences of any error.

Note that TORA needs all three ingredients in order to work. Leaving aside any one of them will create a loophole that will quickly make the other elements unworkable.

The technology requirements of TORA are simple and well-established, and it fits well with the Digital India initiative. The cost of implementation too is likely to be trivial. Moreover, it can be implemented by one department at a time and does not need large-scale nation-wide coordination. Once a department has shifted to the platform, it can be deemed “TORA-compliant” and citizens can be sure that the information is authentic and updated.

It could be argued that such a system could be implemented administratively and does not need legislative backing. One can indeed get the project moving before the Act is passed. However, without legal backing, it will be too dependent on the executive leadership of the time and will not be a permanent change.

Abbreviations

| Country Name | Country Code |
|--------------------|--------------|
| Argentina | ARG |
| Bangladesh | BGD |
| Bolivia | BOL |
| Brazil | BRA |
| Chile | CHL |
| China | CHN |
| Costa Rica | CRI |
| Cyprus | CYP |
| Dominican Republic | DOM |
| Ecuador | ECU |
| Egypt, Arab Rep. | EGY |
| El Salvador | SLV |
| Haiti | HTI |
| Honduras | HND |
| India | IND |
| Indonesia | IDN |
| Iran, Islamic Rep. | IRN |
| Israel | ISR |
| Jamaica | JAM |
| Kenya | KEN |
| Korea, Rep. | KOR |
| Madagascar | MDG |
| Malaysia | MYS |
| Malawi | MWI |
| Mexico | MEX |
| Morocco | MAR |
| Nicaragua | NIC |
| Nigeria | NGA |
| Pakistan | PAK |
| Panama | PAN |
| Peru | PER |
| Philippines | PHL |
| Rwanda | RWA |
| South Africa | ZAF |
| Sri Lanka | LKA |
| Thailand | THA |
| Turkey | TUR |
| Uganda | UGA |
| Uruguay | URY |
| Venezuela, RB | VEN |
| Zambia | ZMB |

List of State Abbreviation

| Abbreviation | States/UT |
|--------------|-----------------------------|
| AP | Andhra Pradesh |
| AR | Arunachal Pradesh |
| AS | Assam |
| BR | Bihar |
| CG | Chhattisgarh |
| GA | Goa |
| GJ | Gujrat |
| HR | Haryana |
| HP | Himachal Pradesh |
| JK | Jammu and Kashmir |
| JH | Jharkhand |
| KA | Karnataka |
| KL | Kerala |
| MP | Madhya Pradesh |
| MH | Maharashtra |
| MN | Manipur |
| ML | Meghalaya |
| MZ | Mizoram |
| NL | Nagaland |
| OR | Orissa |
| PB | Punjab |
| RJ | Rajasthan |
| SK | Sikkim |
| TN | Tamil Nadu |
| TR | Tripura |
| UK | Uttarakhand |
| UP | Uttar Pradesh |
| WB | West Bengal |
| TN | Tamil Nadu |
| AN | Andaman and Nicobar Islands |
| CH | Chandigarh |
| DH | Dadra and Nagar Haveli |
| DD | Daman and Diu |
| DL | Delhi |
| LD | Lakshadweep |

APPENDIX 3. ADD TO STATISTICAL APPENDIX: ROUND- WISE CITIES

| # | Name of City | Name of State/UT |
|------------------------------|------------------|------------------|
| 20 Light House Cities | | |
| 1 | Bhubaneswar | Odisha |
| 2 | Pune | Maharashtra |
| 3 | Jaipur | Rajasthan |
| 4 | Surat | Gujarat |
| 5 | Kochi | Kerala |
| 6 | Ahmedabad | Gujarat |
| 7 | Jabalpur | Madhya Pradesh |
| 8 | Visakhapatnam | Andhra Pradesh |
| 9 | Solapur | Maharashtra |
| 10 | Davanagere | Karnataka |
| 11 | Indore | Madhya Pradesh |
| 12 | NDMC | Delhi |
| 13 | Coimbatore | Tamil Nadu |
| 14 | Kakinada | Andhra Pradesh |
| 15 | Belagavi | Karnataka |
| 16 | Udaipur | Rajasthan |
| 17 | Guwahati | Assam |
| 18 | Chennai | Tamil Nadu |
| 19 | Ludhiana | Punjab |
| 20 | Bhopal | Madhya Pradesh |
| 13 Fast Track Cities | | |
| 1 | Lucknow | Uttar Pradesh |
| 2 | Warangal | Telangana |
| 3 | Dharamshala | Himachal Pradesh |
| 4 | Chandigarh | Chandigarh |
| 5 | Raipur | Chhattisgarh |
| 6 | Newtown Kolkata | West Bengal |
| 7 | Bhagalpur | Bihar |
| 8 | Panaji | Goa |
| 9 | Port Blair | A & N Islands |
| 10 | Imphal | Manipur |
| 11 | Ranchi | Jharkhand |
| 12 | Agartala | Tripura |
| 13 | Faridabad | Haryana |
| 27 Round 2 Cities | | |
| 1 | Amritsar | Punjab |
| 2 | Kalyan-Dombivali | Maharashtra |
| 3 | Ujjain | Madhya Pradesh |

| # | Name of City | Name of State/UT |
|----|------------------|------------------|
| 4 | Tirupati | Andhra Pradesh |
| 5 | Nagpur | Maharashtra |
| 6 | Mangaluru | Karnataka |
| 7 | Vellore | Tamil Nadu |
| 8 | Thane | Maharashtra |
| 9 | Gwalior | Madhya Pradesh |
| 10 | Agra | Uttar Pradesh |
| 11 | Nashik | Maharashtra |
| 12 | Rourkela | Odisha |
| 13 | Kanpur | Uttar Pradesh |
| 14 | Madurai | Tamil Nadu |
| 15 | Tumakuru | Karnataka |
| 16 | Kota | Rajasthan |
| 17 | Thanjavur | Tamil Nadu |
| 18 | Namchi | Sikkim |
| 19 | Jalandhar | Punjab |
| 20 | Shivamogga | Karnataka |
| 21 | Salem | Tamil Nadu |
| 22 | Ajmer | Rajasthan |
| 23 | Varanasi | Uttar Pradesh |
| 24 | Kohima | Nagaland |
| 25 | Hubballi-Dharwad | Karnataka |
| 26 | Aurangabad | Maharashtra |
| 27 | Vadodara | Gujarat |

APPENDIX 4. EXPLANATION OF SATELLITE IMAGE EXTRACTION & PROCESSING

Primary Data Source: The built-up analysis has been conducted using the processed satellite imagery from the Global Human Settlements Layer (GHSL). Extracted and processed by the Group on Earth Observations at the European Commission, GHSL is constructed using a combination of different satellite imagery sources collected over the last several decades. This is in the form of built up maps, population density maps and settlement maps. This information is generated with evidence-based analytics and knowledge using new spatial data mining technologies. This framework uses heterogeneous data including global archives of fine-scale satellite imagery, census data, and volunteered geographic information. The GHSL data is processed fully automatically and generates analytics and knowledge reporting objectively and systematically about the presence of population and built-up infrastructures. The current study uses four widely-spaced time intervals: 1975, 1990, 2000 and 2014. The approach is still experimental and we hope to refine it and apply it in many new fields and geographies.

Services Sector

The services sector remains the key driver of India's economic growth, contributing almost 62 per cent of its gross value added growth in 2016-17. However, the growth of this sector has moderated to 7.7 per cent in 2016-17 compared to 9.7 per cent achieved in the previous year, though it continues to be higher than the other two sectors, agriculture and industry and nearly at the top among the 15 major economies. Services export growth decelerated sharply in the post crisis period, even turning negative in 2015-16 before returning to positive territory in 2016-17 with a tepid growth. The Government has initiated a number of schemes for different services like promoting digitalization, tourism and shipping related policies. These coupled with policies like GST and FDI liberalization have brightened the growth prospects for this sector.

INTERNATIONAL COMPARISON

World Services GVA

9.1 In 2015, among the World's 15 largest economies in terms of overall GDP, India's ranking improved to 7th from 9th position in 2014. However in terms of services gross value added (GVA), India's position slipped to 13th in 2015 from 10th position in 2014. In terms of both overall GDP and services GVA, the USA ranks first, while China is in 2nd and 6th positions. In the US\$ 70.6 trillion world GVA in 2015, the share of services (at current prices), improved to 67.2 per cent compared to 66.2 per cent in 2014, though it is still lower than the 68.8 per cent achieved in 2001.

9.2 Among these top 15 nations, in the period 2001-15, the highest increase in services share to GVA was recorded by China (8.9 pp), followed by Spain (8.1 pp) India (7.6 pp) and Russia (7.6 pp). However, during

the period 2010-15, the highest compound annual growth rate (CAGR) was achieved by India at 8.5 per cent, closely followed by China at 8.4 per cent. In 2015 as in 2014, services GVA growth rate (at constant prices), was 2.6 per cent for the world, while for India it was the highest both in 2014 and 2015 at 10.2 per cent and 9.0 per cent followed by China at 7.9 per cent and 8.3 per cent respectively (Table 1).

9.3 Latest GDP estimates available for some countries show moderation in the growth of services sector. In the US, the services sector growth decelerated to 1.9 per cent in 2016 from 2.8 per cent in 2015 mainly due to slowdown in sectors like real estate, professional and business services. In China also, there was slight deceleration in the growth rate of the services sector to 7.8 per cent in 2016 from 8.3 per cent in 2015. In India, following the general trend, the growth rate in the services sector decelerated

Table 1. Performance of Services Sector: International Comparison.

| Country | Rank in | | Services growth rate | | | Share of services in | | | Services export growth | | | |
|----------|-------------|--------------|----------------------|------|--------------|----------------------|-------------|---------------|------------------------|------|--------------|--------------|
| | Overall GDP | Services GVA | (per cent) Y-o-Y | | | GVA | employ-ment | total exports | (per cent) Y-o-Y | | CAGR 2001-08 | CAGR 2010-16 |
| | | | 2001 | 2015 | CAGR 2010-15 | | | | 2001 | 2016 | | |
| | | | | | | | | | | | | |
| USA | 1 | 1 | 2.0 | 2.8 | 1.6 | 79.3 | 80.0 | 33.5 | -3.6 | 0.3 | 9.5 | 5.1 |
| China | 2 | 6 | 10.3 | 8.3 | 8.4 | 49.7 | 42.4 | 9.0 | 9.1 | -4.3 | 23.6 | 2.6 |
| UK | 5 | 4 | 3.4 | 2.4 | 2.2 | 79.9 | 80.0 | 44.6 | -0.8 | -4.9 | 14.5 | 3.3 |
| India | 7 | 13 | 7.2 | 9.0 | 8.5 | 53.2 | 28.6 | 37.9 | 4.8 | 3.6 | 30.0 | 5.6 |
| Brazil | 9 | 10 | 2.2 | -2.7 | 1.3 | 72.0 | 68.9 | 14.9 | -2.7 | -1.3 | 18.6 | 1.8 |
| S. Korea | 11 | 12 | 4.9 | 2.9 | 3.0 | 59.7 | 70.2 | 15.6 | -4.9 | -5.0 | 17.4 | 1.8 |
| Mexico | 15 | 9 | 1.1 | 3.6 | 3.4 | 60.4 | 61.2 | 6.1 | -7.5 | 5.3 | 5.3 | 7.9 |
| World | | | 2.6 | 2.6 | 2.4 | 67.2 | 50.9 | 23.0 | 0.1 | 0.4 | 14.9 | 3.8 |

Source: Computed from UN National Accounts Statistics for GDP/GVA, ILO and World Bank database for employment and World Trade Organization (WTO) database for services trade.

Note: Rank and share are based on current prices (2015); growth rates are based on constant prices (US\$); construction sector is excluded in services GDP; * For employment data in 2016 for China, India and World, the available data of nearest preceding year is used.

from 9.7 per cent in 2015-16 to 7.7 per cent in 2016-17 a tad lower than China's, though compared to other countries it is still high.

World Services Employment

9.4 Among the top 15 services producer countries, the services sector accounts for more than two-thirds of total employment in 2016 in most of them except India, China, and Mexico where the shares are low. India has the lowest share of 28.6 per cent. Of the 15 countries, in the last 15-year period between 2001 and 2016, China had the highest increase in the share of services employment (14.7 pp) while for India, the increase was by only 4.6 pp (Table 1).

World Services Trade

9.5 The CAGR of world commercial services exports decelerated to 3.8 per cent during the post-crisis period (2010-2016) compared to the 14.9 per cent achieved during the pre-crisis period (2001-2008).

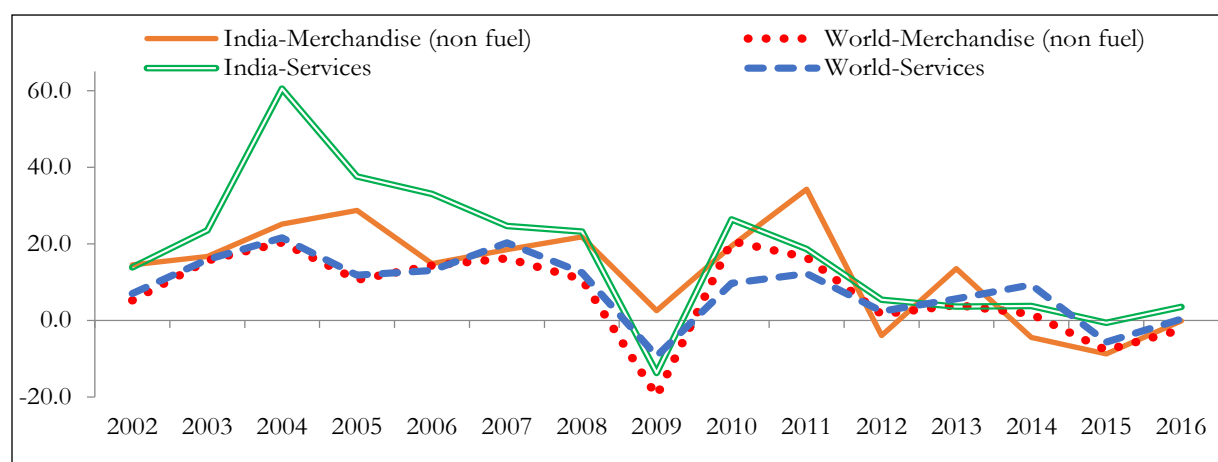
In the pre-crisis period, among the top 15 services producer countries, the services exports CAGR of India was the fastest at 30 per cent, followed by Russia at 26 per cent and China at 23.6 per cent. However, during the post crisis period (2010-16), services exports CAGR decelerated in all economies, with Mexico registering the highest growth at 7.9 per cent, followed by India at 5.6 per cent. China was a distant 8th with at 2.6 per cent growth. In 2015, while growth of world merchandise exports (both excluding and including fuel), world services exports, India's merchandise exports (both excluding and including fuel) and India's services exports were all in negative territory, it was only marginally negative in the case of India's services exports growth at -0.6 per cent compared to the -5.7 negative growth in the case of the world services exports (Figure 1a). However, the deceleration in India's services export growth over the years is more marked. Splitting the time series into two sub-

periods, i.e. post-crisis and pre-crisis shows that both India's and world's services exports trend growth were almost flat in the pre-crisis period, while in the post crisis period the deceleration in trend growth of India's services exports was sharper than world services export growth (Figure 1 b). While the deceleration was triggered by the general global environment including the 2008 global financial crisis, the rather subdued recovery of India's services exports in 2010 could not even be sustained with the tepid and even negative export growth in the following years

of major services like computer and financial services.

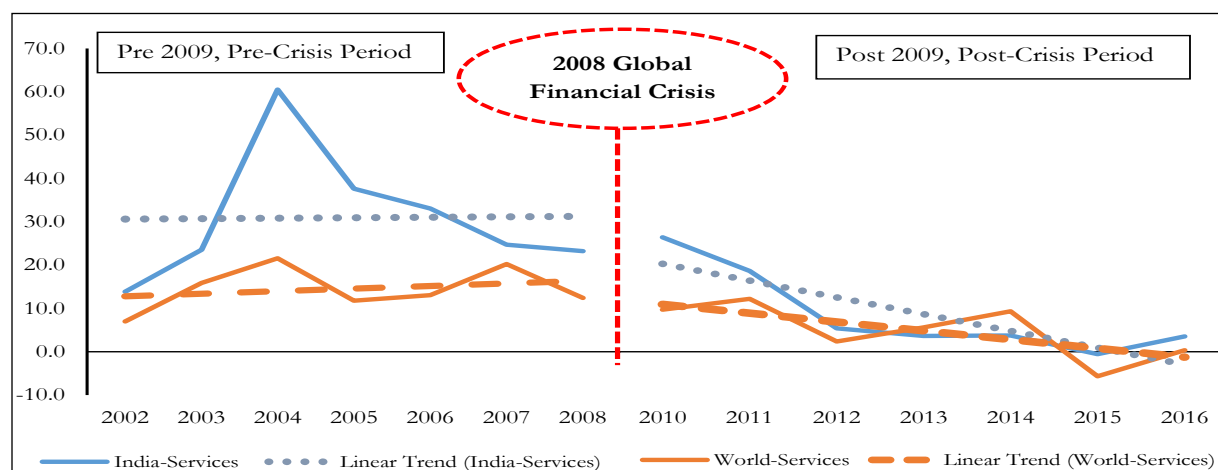
9.6 As per the latest World Trade Organization (WTO) data for 2016, services export growth is in negative territory for many economies, though for India it is positive at 3.6 per cent and higher than the 0.4 per cent global services export growth. While it is also positive and higher than that of India for countries like Japan, Australia, Spain and Mexico, it is negative for China at – 4.3 per cent.

Figure 1 a. Growth of Merchandise (Non-Fuel) and Services Exports: World and India (per cent)



Source: Based on ITC Trade Map and WTO data.

Figure 1 b. World and India Services Export Growth Rate: Pre & Post 2009 Comparison (per cent)



Source: Based on WTO data.

Foreign Direct Investment in World Services Sector

9.7 The services sector accounted for 65 per cent of global FDI stock in 2015, though a large part of this relates to affiliates of primary sector and manufacturing MNEs that perform services-like activities, and fall under services as a default category, thus overstating FDI in services by more than a third (World Investment Report 2017). As per the report, Executives' expectations for Global FDI activity in 2017-19 show that 65 per cent of the respondents expect an increase in services. With greater digitization, greater investment in services is expected. The overall sectoral patterns of inward investment are similar in developed and developing economies, but variations among developing regions are pronounced with developing Asia services accounting for a considerable share of services FDI, mainly owing to their predominance in Hong Kong (World Investment Report 2016).

9.8 According to the Global Investment Trend Monitor February 2017 Edition of the United Nations Conference on Trade and Development (UNCTAD), global foreign direct investment (FDI) flows fell by 13 per cent in 2016, reaching an estimated US\$1.52 trillion, as global economic growth remained weak and world trade volumes posted anemic gains. In line with this trend, global FDI in services sector is likely to have fallen.

INDIA'S SERVICES SECTOR

Services GVA and Gross Capital Formation

9.9 As per the provisional estimates (PE) of real gross value added (GVA) released by the Central Statistics Office (CSO) for the year 2016-17, services sector growth (i.e. GVA at constant (2011-12) basic prices), decelerated to 7.7 per cent from 9.7 per cent in the previous two years mainly due to deceleration in growth in two services categories- trade,

hotels, transport, communication and services related to broadcasting (7.8 per cent), and financial, real estate & professional services (5.7 per cent). However, there is acceleration in growth rate of Public Administration and other services category to 11.3 per cent from 6.9 per cent in the previous year mainly due to implementation of the recommendations of the 7th Pay commission. The share of services sector in total gross capital formation (GCF), at current prices has increased consistently over the last four years from 53.3 per cent in 2011-12 to 60.3 per cent in 2015-16. But the growth rate of services GCF at constant (2011-12) prices at 7.6 per cent in 2015-16 has nearly halved compared to 2014-15, mainly due to the negative growth of -2.4 per cent in GCF of real estate, ownership of dwellings & professional services. However services GCF growth continues to be higher than the total GCF growth (Table 2).

State-wise Comparison of Services

9.10 Out of the 32 states and union territories (UTs) for which data are released for new base 2011-12 series by CSO, data for only 10 states/UTs are available for 2016-17, and 23 states/UTs for 2015-16. Among these 32 states/UTs, the services sector is the dominant sector contributing more than half of the gross state value added (GSVA) in 16 states and UTs and more than 40 per cent in all states except Arunachal Pradesh, Chhattisgarh, Gujarat, Madhya Pradesh, Uttarakhand and Sikkim. The major services in most of the states are trade, hotels and restaurants, followed by real estate, ownership of dwellings and business services. Out of the 23 states and UTs for which data are available for 2015-16, Chandigarh is at the top in terms of share of services GSVA at 88.4 per cent, while Jharkhand is at the top in terms of services GSVA growth at 16.4 per cent (Figure 2).

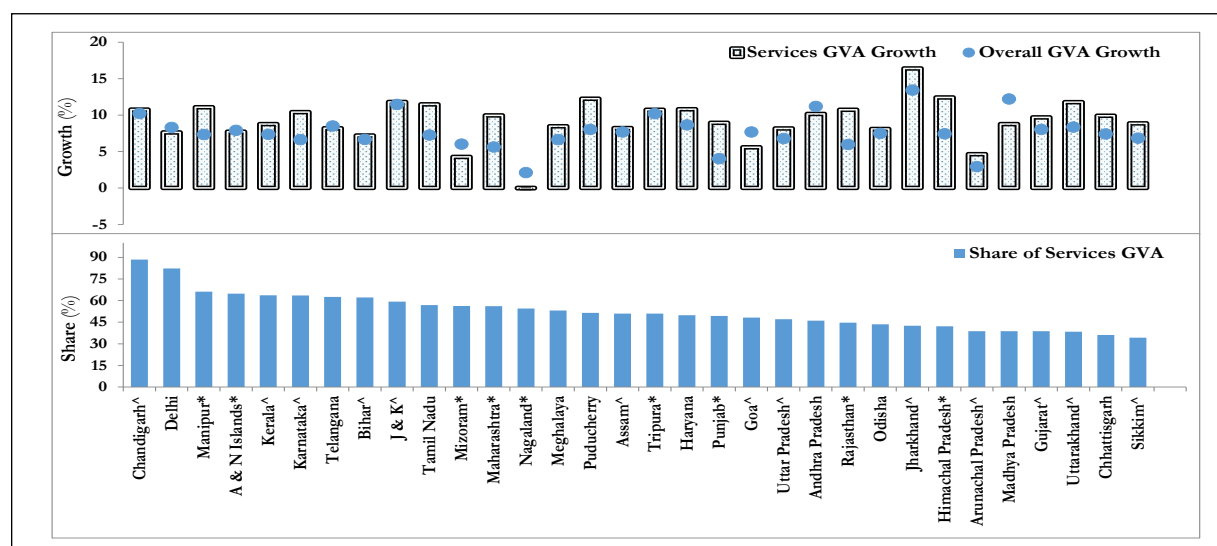
Table 2. Share and Growth of India's Services Sector (GVA at basic price)

| | GVA(per cent) | | | GCF(per cent) | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 2014-15 | 2015-16 | 2016-17@ | 2014-15 | 2015-16 |
| Total Services | 51.8(9.7) | 52.9(9.7) | 53.8(7.7) | 59.8(14.0) | 60.3(7.6) |
| Trade, repair, hotels and restaurants | 11.4(9.2) | 11.4(11.2) | 18.4(7.8)* | 9.4(57.6) | 10.1(16.1) |
| Trade & repair services | 10.4(9.4) | 10.4(10.9) | NA | 8.4(51.4) | 8.7(11.3) |
| Hotels & restaurants | 1.0(6.3) | 1.0(14.4) | NA | 1.0(140.1) | 1.5(56.8) |
| Transport, storage, communication & services related to broadcasting | 6.8(8.8) | 7.0(9.3) | NA | 6.1(-28.1) | 6.4(9.9) |
| Railways | 0.8(9.4) | 0.8(7.0) | NA | 1.7(43.1) | 1.9(14.7) |
| Road transport | 3.2(6.5) | 3.2(6.7) | NA | 2.0(43.1) | 2.0(5.5) |
| Air transport | 0.1(14.0) | 0.2(16.8) | NA | 0.2(21.6) | 0.0(-92.3) |
| Financial services | 5.7(9.0) | 5.8(6.8) | 21.1(5.7)^ | 1.6(67.4) | 1.8(16.8) |
| Real estate, ownership of dwelling & professional services | 14.8(12.1) | 15.3(12.5) | NA | 28.8(18.9) | 26.7(-2.4) |
| Public Administration and defence & Others | 13.0(8.1) | 13.4(6.9) | 14.2(11.3) | 13.8(9.1) | 15.4(20.2) |
| Construction | 8.6(4.7) | 8.1(5.0) | 7.6(1.7) | 5.5(25.0) | 5.0(-2.4) |
| Total Services (plus Construction) | 60.4(8.9) | 61.0(9.1) | 61.4(6.9) | 65.3(14.9) | 65.3(6.7) |
| TOTAL GVA/GCF at basic prices | 100.0(7.2) | 100.0(7.9) | 100.0(6.6) | 100.0(7.5) | 100.0(6.2) |
| GDP market Prices (Constant Prices) Y-o-Y | (7.5) | (8.0) | (7.1) | | |

Source: Computed from CSO data.

Note: Shares are in current prices and growth in constant 2011-12 prices; Figures in parentheses indicate growth rate; @ Provisional Estimate for 2016-17; * Also includes transport, storage, communication & services related to broadcasting; ^ Also includes Real estate, ownership of dwelling & professional services.

Figure 2. Share and Growth of Services in States (2016-17)



Source: Computed from CSO data.

Note: * 2014-15, ^-2015-16, Share in current prices and growth at constant prices (2011-12).

FDI in India's Services Sector

9.11 Though there is ambiguity in the classification of FDI in services, the combined FDI share of the top 10 service sectors such as financial and non-financial services falling under the Department of Industrial Policy & Promotion (DIPP)'s services sector definition; telecommunications; trading; computer hardware & software; construction; hotel & tourism; hospital & diagnostic centres; consultancy services; sea transport; and information & broadcasting can be taken as the best estimate of services FDI, though these could include some non-service elements. This share of these services is 55.3 per cent of the cumulative FDI equity inflows during the period April 2000-March 2017 and 60.7 per cent of FDI equity inflows during 2016-17. If the shares of another 5 services or service-related sectors like retail trading, agriculture services, education, ports

and air transport are included, then the total share of FDI equity inflows to the services sector would increase to 57.4 per cent and 62.4 per cent respectively for the above two periods.

9.12 There has been a significant growth in FDI equity inflows in 2014-15 and 2015-16 in general (27.3 per cent and 29.3 per cent) and to the services sector in particular (67.3 per cent and 64.3 per cent for top 15 services). However, in 2016-17, the growth rate of FDI equity inflows moderated, growing by 8.7 per cent to US\$43.5 billion and FDI equity inflows to the services sector (top 15 services) declining by 1.5 per cent to US\$ 27.2 billion. This negative growth in services FDI equity inflows is mainly due to negative growth in computer software & hardware, construction, trading and hotels & tourism (Table 3).

Table 3. FDI Equity Inflows to the Services Sector

| Sr | Sector | Value (in US\$ million) | Percentage to Total (%) | Growth Rate (%) | |
|---|-------------------------------|-------------------------|-------------------------|-----------------|-------------|
| | | 2016-17 | 2016-17 | 2015-16 | 2016-17 |
| 1 | Services Sector* | 8684 | 20.0 | 55.1 | 26.0 |
| 2 | Computer Software & Hardware | 3652 | 8.4 | 157.2 | -38.2 |
| 3 | Construction # | 1966 | 4.5 | 182.0 | -57.5 |
| 4 | Trading | 2338 | 5.4 | 41.0 | -39.2 |
| 5 | Hotels & Tourism | 916 | 2.1 | 71.5 | -31.3 |
| 6 | Telecommunications | 5564 | 12.8 | -54.3 | 320.1 |
| 7 | Information & Broadcasting | 1517 | 3.5 | 295.9 | 50.3 |
| 8 | Hospital & Diagnostic Centres | 747 | 1.7 | 30.7 | 0.7 |
| 9 | Consultancy Services | 261 | 0.6 | 13.0 | -49.5 |
| 10 | Sea Transport | 735 | 1.7 | 28.8 | 71.2 |
| Top 10 service categories (1-10) | | 26380 | 60.7 | 62.4 | -0.9 |
| Top 15 Services | | 27151 | 62.4 | 64.3 | -1.5 |
| Total FDI Inflows | | 43478 | 100.0 | 29.3 | 8.7 |

Source: Based on Department of Industrial Policy and Promotion (DIPP) data.

Note: * Financial, banking, insurance, non-financial business, outsourcing, R&D, courier, technology testing and analysis; #Combined with infrastructure activities and townships, housing, built-up infrastructure and construction-development projects.

9.13 In the last three years, the Government has undertaken a number of reforms to ensure that India remains an increasingly attractive investment destination. The scale of reforms can be gauged from the fact that during this period, 21 sectors also including services activities and covering 87 areas of FDI policy have undergone reforms. FDI policy provisions were radically overhauled across sectors such as construction development, broadcasting, retail trading, air transport, insurance and pension. Besides, initiatives were taken such as the introduction of composite caps in the FDI policy permitting 100 per cent FDI in retail trading of food products with unqualified condition that such food products have to be manufactured and/or produced in India, 100 per cent FDI under automatic route for any financial sector activity which is regulated by any financial sector regulator and above all the

recent measure of abolition of the Foreign Investment Promotion Board (FIPB).

India's Services Trade

9.14 India's services exports have been registering good growth for nearly a decade till the global financial crisis in 2008. Services export growth slowed down from 21.6 per cent CAGR during 1994-95 to 2004-05 to 11.9 per cent during 2005-06 to 2014-15. As a result of the uncertain global conditions and weak external demand, India's service export growth even turned negative at -2.4 per cent in 2015-16 after a span of five years. In 2016-17, services exports recorded a positive growth of 5.7 per cent with pick up in some major sectors like transportation, business services and financial services; and good growth in travel (Table 4). With a significant rise in foreign tourist arrivals, travel receipts, accounting for more than 14.2 per cent of

Table 4. Trade Performance of India's Major Services

| | Value (US \$ Billion) | Share (%) | Annual Growth (%) | |
|-----------------------------|--------------------------|--------------|----------------------|-------------|
| | 2016-17 | 2016-17 | 2015-16 | 2016-17 |
| Services Exports | 163.1 | 100.0 | -2.4 | 5.7 |
| Travel | 23.2 | 14.2 | 4.6 | 9.3 |
| Transportation | 15.9 | 9.7 | -19.9 | 13.2 |
| Miscellaneous | 121.2 | 74.3 | -0.9 | 4.1 |
| Software Services | 73.7 | 45.2 | 1.4 | -0.7 |
| Business Services | 32.9 | 20.2 | 2.0 | 13.6 |
| Financial Services | 5.1 | 3.1 | -12.7 | 3.1 |
| Services Imports | 95.7 | 100.0 | 3.7 | 13.0 |
| Travel | 16.4 | 17.2 | -3.4 | 11.1 |
| Transportation | 14.1 | 14.8 | -6.8 | -6.3 |
| Miscellaneous | 63.0 | 65.9 | 9.8 | 19.5 |
| Software Services | 3.6 | 3.7 | -0.3 | 32.9 |
| Business Services | 32.3 | 33.7 | 12.5 | 3.7 |
| Financial Services | 5.9 | 6.1 | -12.4 | 86.7 |
| Net Services Exports | 67.5 | 100.0 | -9.0 | -3.2 |

Source: Based on RBI's Balance of Payments (BoP) data (BPM-5).

services exports, witnessed a growth of 9.3 per cent in 2016-17 compared to 4.6 per cent in the previous year. Transportation services exports increased by 13.2 per cent in 2016-17 as against a decline of 19.9 per cent in 2015-16 reflecting the improving merchandise trade activity. Business services exports recorded a higher growth of 13.6 per cent compared to 2 per cent in the previous year and financial services exports increased by 3.1 per cent as against a decline of 12.7 per cent in the previous year. However, software services exports, accounting for around 45.2 per cent of total services, declined though marginally by 0.7 per cent as domestic software companies faced pricing pressure on traditional services and a challenging global business environment.

9.15 India's services imports registered higher growth of 13.0 per cent in 2016-17 with higher payments for two major services, travel services and miscellaneous services category mainly financial services and software. The fall in services exports and the rise in services import growth led to a decline in net services receipts in 2015-16 by 9.0 per cent. In 2016-17, despite a growth of 5.7 per cent in services exports, relatively higher growth in services imports led to a decline in net services receipts by 3.2 per cent. Net services surplus financed around 60 per cent of India's merchandise trade deficit.

Some Recent Developments in Services Trade Policies and Services Negotiations

Multilateral and Bilateral

9.16 These include the following.

India's Submission on Trade Facilitation in Services (TFS) at WTO: India tabled a draft legal text on TFS at the WTO on 22nd February 2017. The objective behind India's TFS proposal is to initiate discussions at the WTO on how to comprehensively address the numerous border and behind-the-border barriers,

across all modes of supply and address the key issues pertinent to facilitating trade in services, such as transparency, streamlining procedures and eliminating bottlenecks.

India's Submission on Mode 4 (trade through temporary movement of natural persons for supply of services) at the WTO: India submitted a paper on "Mode 4: Assessment of Barriers to Entry", in March 2016 at the WTO highlighting the increasingly complex nature of barriers to mode 4 entry. These include selective measures by our key trading partners' subjective definitions of sub-categories under the Intra-corporate transferees resulting in rejection of bonafide applications and undermining the commitments, and non-portability of social security contributions.

Trade in Services Agreement (TISA) and India's stand: At present there are 23 members participating in the plurilateral TISA discussion with none of the BRICS and ASEAN member states participating. India and some other like-minded developing countries have expressed concern from time to time on this plurilateral agreement as it will endanger the conclusion of the Doha Round by disturbing the delicate balance arrived at between Agriculture, NAMA and Services after years of intense negotiations at the WTO. With the withdrawal of the US from Trans-Pacific Partnership (TPP), the future of TISA, which is led by developed countries like the US has also become uncertain.

Bilateral/Plurilateral Agreements and India: India has signed comprehensive bilateral trade agreements, including Trade in Services, with the Governments of Singapore, South Korea, Japan, and Malaysia. A Free Trade Agreement (FTA) in services and investment was signed with the ASEAN in September, 2014 which came into effect from 1st July, 2015. India has since joined the Regional Comprehensive Economic Partnership (RCEP) plurilateral negotiations which is the

only mega-regional FTA of which India is a part. India is also engaged in bilateral FTA negotiations including trade in services with different countries`.

Developments in OECD: The OECD is preparing a Services Trade Restrictiveness Index (STRI) for different countries

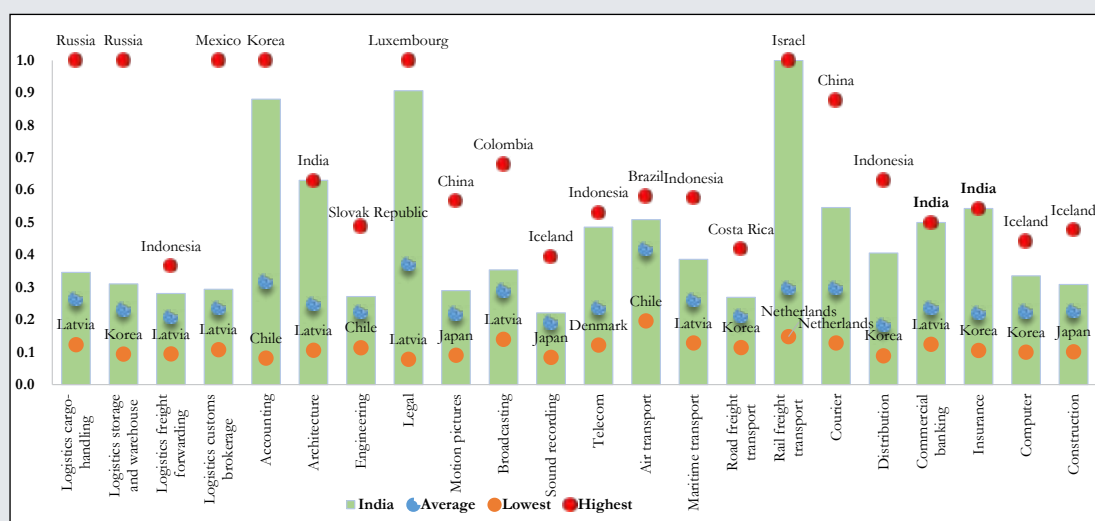
including India. While this is a new initiative, its suitability for trade negotiations and domestic policies needs to be examined as there are some concerns to be addressed. The STRI could also be modified to take note of concerns of India and other developing countries (Box 1).

Box 1. STRI and India

OECD's STRI helps to identify policy measures restricting trade, provide policy makers and negotiators with information and measurement tools to open up international trade in services and negotiate international trade agreements and also help governments identify best practices and then focus their domestic reform efforts on priority sectors and measures. It is intended to provide a quantitative measure of the level of trade restrictiveness in 22 services sectors and has been computed for 44 countries. The STRI scores are broken down on five policy areas: restrictions on market entry conditions, restrictions on the movement of people, other discriminatory measures, barriers to competition and regulatory transparency.

Among the 44 countries, India has a STRI score above average in all sectors and the highest in 3 services out of a total 22 (Figure 3). Sound recording, engineering and broadcasting are the three sectors with the lowest score relative to the average. All these three sectors follow the automatic route upto 100 per cent equity share. Accounting services, legal services and rail freight transport, are the three sectors with the highest scores relative to the average as accounting and auditing are reserved for licensed accountants and auditors and a license is required to own and manage an accounting or an auditing firm and only Indian nationals may obtain a license; legal services, both national and international law, are reserved for licensed Indian lawyers; and railway operations which are on the list of prohibited sectors and reserved for Indian Railways, a state-owned enterprise. These scores however have not considered some of the recent reforms in India like abolition of FIPB.

Figure 3. India's STRI compared with Highest, Lowest and Average STRIs (2016)



India has high STRI in many sectors. In the case of China, some sectors like motion pictures, broadcasting, and courier services have higher STRI than India.

STRI is a new initiative for services by OECD. However, there are some inherent weaknesses related to STRI and its use. Weightage and quality of regulations are important as domestic regulations are not uniform across countries and there is a need to distinguish between regulations that are needed and those that act as trade barriers. Since trade barriers even for same services are not the same in different countries, giving weightage to them even by experts becomes subjective.

While some restrictions in the STRI are not really restrictions and are just due to lack of development of infrastructure as in the case of non-availability of broadband, some may be due to government's policy of social and economic inclusion like banks requiring to allocate 40 per cent of their net credit to priority sectors like agriculture and SMEs, education and renewable energy in India. STRI cannot be extended for computing tax and tariff equivalents of regulations in services as indicated by OECD particularly when the data is imperfect and regulations are not uniform.

Thus, STRI at best could only be indicative and cannot be given numerical value particularly when the services data is at a rudimentary stage for many countries and the methodology is less perfect. TFS and Market Access are as important as removing domestic trade barriers. Infact there is a certain amount of overlapping between all the above three.

Source: Based on OECD STRI Reports and Internal Analysis.

Domestic

9.17 Recent domestic policies and measures taken by India for services sector include the following.

Trade policy measures: These include the Services Exports from India Scheme (SEIS), replacing the Served from India Scheme (SFIS) wherein reward of 3 per cent or 5 per cent of net foreign exchange earned is given for Mode 1 and Mode 2 services, schemes introduced for sectors like tourism and shipping and general measures like digitization and FDI liberalization including for services sectors.

Goods and Services Tax (GST): Under GST, exports would be zero rated. Some major highlights related to GST for services are the following. The GST rates are NIL for education and health services; 5 per cent for transport of passengers by air in economy class, transport of goods by rail and vessel, supply of tour operators services (without ITC); 12 per cent for supply of foods/drinks in restaurants not having A.C. or central heating and not having license to serve liquor (while it is 18 per cent for those having them), accommodation in hotels, inns, etc., for residential or lodging having room tariff between ₹1000 to ₹2500 per day per room (while it is 18 per cent for those between ₹2500 to ₹7500 per day per room), transport of passengers by air in other than economy class and construction of a complex, building, civil structure with no refund of

accumulated ITC. Only 4 services items are in the highest slab of 28 per cent which include among others entertainment events or access to amusement facilities including exhibition of cinematograph films, theme parks, water parks, joy rides, etc; and hotels, inns, for residential or lodging having room tariff above ₹7500 per day per room.

Promotional measures: Some promotional measures taken by the Government of India include organizing the third edition of multi-sectoral Global Exhibition on Services (GES) in April 2017 with participation from 73 countries and the second edition of Advantage Health Care India 2016, an international summit on Medical Value Travel, in October 2016 to promote India as a premier global healthcare destination.

MAJOR SERVICES: OVERALL PERFORMANCE

9.18 The performance of India's Services Sector has been subdued in 2016-17 in line with the global trend. However, some services continue to be key drivers of India's economic growth. Some available indicators of the different services sub sectors in India for 2016-17 (Table 5) along with the CMIE data (Table 7) show reasonably good performance in telecom with increase in telecom connections reflecting the Jio effect, aviation particularly domestic travel, tourism related services particularly in terms of foreign exchange earnings, and even information technology-business process

Table 5. Performance of India's Services Sector: Some Indicators

| Sector | Indicators | Unit | Period | | | | |
|------------|--|----------------|---------|---------|---------|---------|-------------------|
| | | | 2009-10 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| IT – BPM** | IT-BPM service revenues | US \$ billion | 64 | 106 | 119 | 143 | 154 |
| | Exports | US \$ billion | 50 | 87 | 98 | 108 | 117 |
| | Domestic | US \$ billion | 14 | 19 | 21 | 35 | 38 |
| Aviation* | Airline passengers (Total) | Million | 77.4 | 103.8 | 115.8 | 135.0 | 158.4 |
| | Domestic | Million | 45.3 | 60.7 | 70.1 | 85.2 | 103.7 |
| | International | Million | 32.1 | 43.1 | 45.7 | 49.8 | 54.7 |
| Telecom | Telecom connections (wireline and wireless) ^b | Million | 621.3 | 933.0 | 996.1 | 1058.9 | 1194.6 |
| Tourism | Foreign tourist arrivals ^a | Million | 5.2 | 7.0 | 7.7 | 8.0 | 8.8 |
| | Foreign exchange earnings from tourism ^a | US \$ billion | 11.1 | 18.4 | 20.2 | 21.1 | 22.9 |
| Shipping | Gross tonnage of Indian shipping ^b | Million GT | 9.7 | 10.5 | 10.5 | 10.5 | 12.0 [@] |
| | No. of ships ^b | Numbers | 998 | 1209 | 1210 | 1251 | 1338 [@] |
| Ports | Port traffic | Million tonnes | 850.0 | 972.5 | 1052.5 | 1072.5 | 1135.6 |

Source: Compiled from Telecom Regulatory Authority of India (TRAI), Ministry of Tourism, Ministry of Shipping, Directorate General of Civil Aviation, NASSCOM.

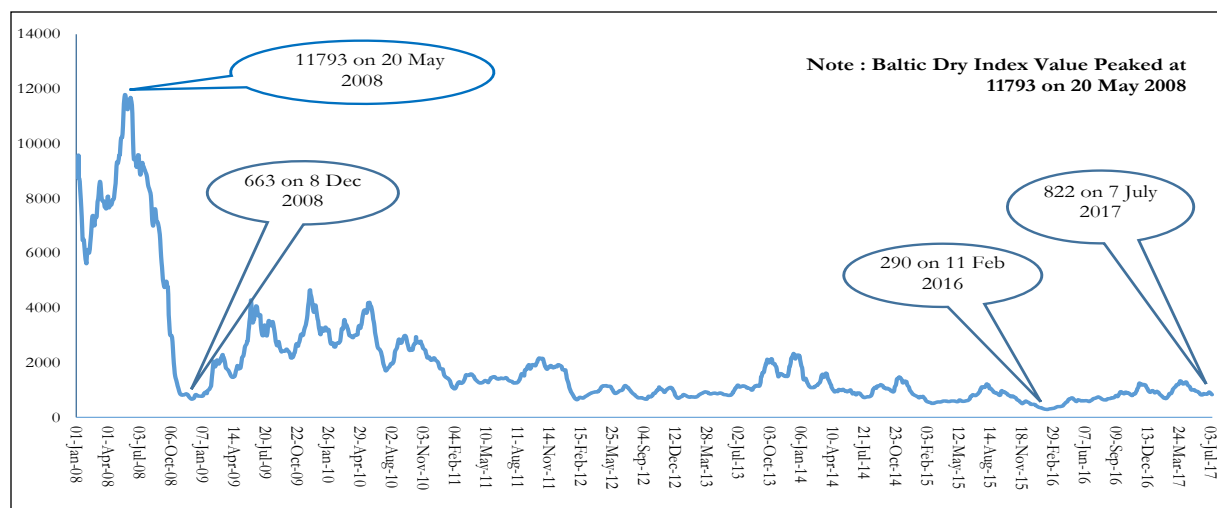
Note: ^a calendar years, for example 2009-10 for 2009; ^b As on 31 March of ensuing financial year; [@] data is as on 30 June 2017. GT=gross tonnage; MT=metric tonnes; ** excluding hardware. *Domestic Passengers carried by scheduled Indian carriers on scheduled domestic services only and International Passengers carried by scheduled Indian as well as foreign carriers to and from the Indian territory.

management (IT-BPM) despite fall in growth in computer software.

9.19 The aviation industry performed well during the year 2016-17, with the aggregate number of passengers (including international and domestic) registering a growth of 17.3 per cent over the previous year. Increase in capacities of airlines with the addition of new domestic and international routes and the launching of the UDAN (Ude Desh Ka Aam Naagrik) scheme a regional air connectivity scheme (RCS) that seeks to make flying affordable by connecting unserved and under-served airports where 50 per cent of the seats have a fare cap of ₹2500 per seat/hour, coupled with rise in disposable income of consumers and decline in air fares are likely to give further fillip to this sector. In the case of transport logistics services, the

performance has been good with increased focus of the Government on logistics. The impact of the GST is also anticipated to be positive with VAT related check posts disappearing which will result in reduction in turnaround time. Furthermore, the additional 2 per cent central sales tax levied on inter-state sales of goods would now cease to exist, having a favourable effect. However shipping services sector was adversely affected by the global slowdown as indicated by the sales & PAT figures for 2016-17. The Baltic Dry Index, a freight index and a good proxy for the robustness of trade and shipping services had fallen from a peak of 11,793 on 20 May 2008 to a low of 663 on 8 December 2008. Though it picked up slightly in the following years, it has been in the lower range since then and was in the red at 290 as on 11 February

Figure 4. Baltic Dry Index



Source: Based on data from <https://in.investing.com/indices/baltic-dry-historical-data>.

2016, which is even lower than the lows of 2008. It has improved slightly to 822 on 7 July 2017 (Figure 4).

9.20 The traffic handled by Ports has gone up from 606.5 MMT in 2015-16 to 647.7 MMT in 2016-17. The port related performance indicators of major ports also show substantial improvement with the ship berth day output increasing from 13156 tonnes in 2015-16 to 14576 tonnes during 2016-17, the average turnaround time and the average pre-berthing time falling to 2.05 days and 5.75 hrs during 2016-17 from more than 2.55 days and 12.17 hrs respectively in 2012-13 and operating surplus in the major Ports registering an increase of 14 per cent during 2016-17 over 2015-16 (Table 6).

9.21 An analysis of the results of services

sector firms in the fourth quarter of 2016-17, the quarter immediately following the demonetization period reveals that the only sector which showed signs of stress was the Construction and Real Estate sector, witnessing a year-on-year decline in both net sales (-5.1 per cent) and net profit (-34.9 per cent) during Q4. Even here, the stress cannot be attributed strictly to the impact of demonetization, given that the growth of this sector had already been in the negative domain even for the earlier two quarters.

MAJOR SERVICES: SECTOR-WISE PERFORMANCE AND SOME RECENT POLICIES

9.22 This section covers some of the important services for India based on their significance in terms of GDP/GVA,

Table 6. Some Performance Indicators of Major Ports in India

| Indicators | 2014-15 | 2015-16 | 2016-17 |
|---|---------|---------|---------|
| Traffic Handled (in MMT) | 581.3 | 606.5 | 647.7 |
| Average Output per-ship per berth day (in tonnes) | 12458 | 13156 | 14576 |
| Operating surplus (Rs. in Cr.) | 3599.4 | 4309.1 | 4919.4 |

Source: Based on inputs from Ministry of Shipping.

Table 7. Growth in Sales & Profits of select services: company based data

| Services | Net Sales | | | | | | Profit after Tax (PAT) | | | | | |
|----------------------------|-----------|---------|---------|-------|------|-------|------------------------|---------|---------|-------|-------|--------|
| | 2015-16 | 2016-17 | 2016-17 | | | | 2015-16 | 2016-17 | 2016-17 | | | |
| | | | Q1 | Q2 | Q3 | Q4 | | | Q1 | Q2 | Q3 | Q4 |
| Transport Logistics | 2.7 | 2.8 | 0.5 | 0.6 | 4.1 | 5.6 | 4.3 | -3.9 | -15.9 | -13.0 | -13.3 | 21.4 |
| Shipping | 2.5 | -10.9 | -17.4 | -22.0 | -1.4 | 0.6 | 37.2 | -8.7 | -29.4 | -48.5 | -29.8 | 434.1 |
| Aviation | 39.3 | 33.1 | 75.9 | 73.5 | 8.3 | 9.9 | -- | -12.8 | 178.9 | 168.3 | -40.5 | -51.0 |
| Retail trading | 22.3 | 61.9 | 38.2 | 35.9 | 34.4 | 178.1 | 2472.8 | 102.1 | -- | 14.5 | -45.0 | -- |
| Health services | 35.0 | 33.9 | 50.9 | 58.2 | 21.3 | 15.9 | 39.1 | 17.3 | 73.4 | 129.8 | -49.6 | -3.6 |
| Hotels & Restaurants | 6.5 | 2.8 | 0.8 | 6.0 | 3.9 | 1.0 | -- | 103.3 | -- | -- | -12.1 | 2543.7 |
| ITES | 12.7 | 10.5 | 18.7 | 7.9 | 6.4 | 10.1 | 22.5 | 6.3 | 34.9 | 18.9 | 20.1 | -28.3 |
| Software | 10.7 | 9.7 | 13.3 | 9.1 | 9.8 | 6.8 | 11.6 | 8.6 | 7.7 | 6.2 | 12.7 | 7.9 |
| Construction & Real Estate | 8.3 | -1.8 | 7.7 | -6.5 | -0.9 | -5.1 | -11.6 | 0.4 | -- | 18.5 | -- | -34.9 |

Source: Exim Bank Research (Data derived from CMIE).

employment, exports and future prospects. Some important services covered in other chapters have been excluded to avoid duplication.

Tourism

9.23 Tourism has great capacity to create large scale employment of diverse kind – from the most specialized to the unskilled; propel economic growth; and earn foreign exchange for the country. According to the World Travel and Tourism Council (WTTC), Travel & Tourism continued its resilience in 2016, generating US\$7.6 trillion (10.2 per cent of global GDP) and 292 million jobs, equivalent to 1 in 10 jobs in the global economy. The sector accounted for 6.6 per cent of total global exports and almost 30 per cent of total global service exports. The latest World Tourism Barometer of the United Nation's World Tourism Organization

(UNWTO) (March, 2017 edition) also shows that international tourist arrivals reached a total of 1.2 billion in 2016, 47 million more than in the previous year, though the growth rate of 3.9 per cent was slightly lower than in 2015 (4.5 per cent).

9.24 As per the UNWTO, International Tourist Arrivals to India (including NRI arrivals) was 13.3 million in 2015 with a growth of 1.4 per cent, while as per the Ministry of Tourism data Foreign Tourist Arrivals (FTAs)(excluding NRIs) during 2015 and 2016 were 8.0 million and 8.8 million with growth of 4.5 per cent in 2015 and 9.7 per cent in 2016. Foreign Exchange Earnings (FEEs) through Tourism, in US\$ terms during 2016 were US\$ 22.9 billion with a growth of 8.8 per cent over 2015. International Tourism Receipts (ITRs) as per UNWTO are almost similar to this (Table 8).

India's Untapped Tourism Potential: A Comparison

9.25 A comparison with other countries shows that India's share in international tourist arrivals (ITA) is a paltry 1.1 per cent with a rank of 24 compared to the 7.1 per cent of France which ranks 1st in 2015. China ranks 4th with a share of 4.8 per cent. In terms of International tourism receipts (ITR), India has a slightly higher share at 1.8 per cent and a better ranking of 14. But it is nowhere near the 17.1 per cent share of USA which ranks 1st and around half the share of China at 3.8 per cent with 4th rank (See Table 8).

9.26 Domestic tourism continues to be an important contributor to the sector with the CAGR of domestic tourist visits of 13.6 per cent from 1991 to 2016 and a growth of 12.7 per cent in 2016. The top 5 states in domestic tourist visits in 2016 were Tamil Nadu, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh and Karnataka. As per industry estimates, the total market size of Indian tourism and

hospitality sector stood at US\$ 117.7 billion in 2014 and is expected to touch US\$ 418.9 billion by 2022. Thus a goldmine of an opportunity awaits to be tapped.

9.27 In the Travel and Tourism Competitiveness Index 2017 (WEF, 2017) India has improved its ranking 12 places to reach the 40th position globally among 136 countries. India continues to charm international tourists with its vast cultural and natural resources (9th and 24th position respectively), and its price competitiveness advantage (10th) and its international openness (55th) which is up by 14 places reflecting the implementation of both visas on arrival and e-visa. But it is way behind others in health and hygiene (104th), ICT readiness (112th), security concerns (114th), human resources (87th), tourist service infrastructure (110th) and in prioritization of travel and tourism (104th).

9.28 A comparison of the number of UNESCO World Heritage sites and the total foreign tourist arrivals of different countries

Table 8. Tourism Performance: International Comparison 2015 and 2016

| | International Tourist Arrivals | | | | | International Tourism Receipts | | | | |
|-----------|--------------------------------|-------------------|--------------|--------------------|------|--------------------------------|---------------------|--------------|--------------------|-------|
| | Rank | Number (In Mn) | Share (%) | Growth Rate (%) | | Rank | Value (US \$ Bn) | Share (%) | Growth Rate (%) | |
| | 2015 | 2016 | 2015 | 2015 | 2016 | 2015 | 2016 | 2015 | 2015 | 2016 |
| World | | 1235 | 100 | 4.5 | 3.9 | | 1,194* | 100.0 | -4.5 | -- |
| France | 1 | 84.5* | 7.1 | 0.9 | -- | 3 | 43.1 | 3.8 | -21.0 | -6.1 |
| USA | 2 | 77.5* | 6.5 | 3.3 | -- | 1 | 206.8 | 17.1 | 6.9 | 1.1 |
| Spain | 3 | 75.6 | 5.8 | 5.5 | 10.4 | 2 | 60.3 | 4.7 | -13.2 | 6.7 |
| China | 4 | 59.3 | 4.8 | 2.3 | 4.2 | 5 | 44.4 | 3.8 | 2.3 | -1.3 |
| Turkey | 6 | 39.5* | 3.3 | -0.8 | -- | 12 | 18.7 | 2.2 | -10.1 | -29.7 |
| Thailand | 10 | 32.6 | 2.5 | 20.6 | 9.0 | 6 | 49.9 | 3.8 | 16.9 | 11.1 |
| Malaysia | 14 | 26.8 | 2.2 | -6.3 | 4.3 | 17 | 16.9 | 1.5 | -22.6 | -3.4 |
| India | 24 | 13.3* | 1.1 | 1.4 | -- | 14 | 22.4 | 1.8 | 6.6 | 6.7 |
| Singapore | 28 | 12.9 | 1.0 | 1.6 | 6.6 | 19 | 18.4 | 1.4 | -13.1 | 10.8 |

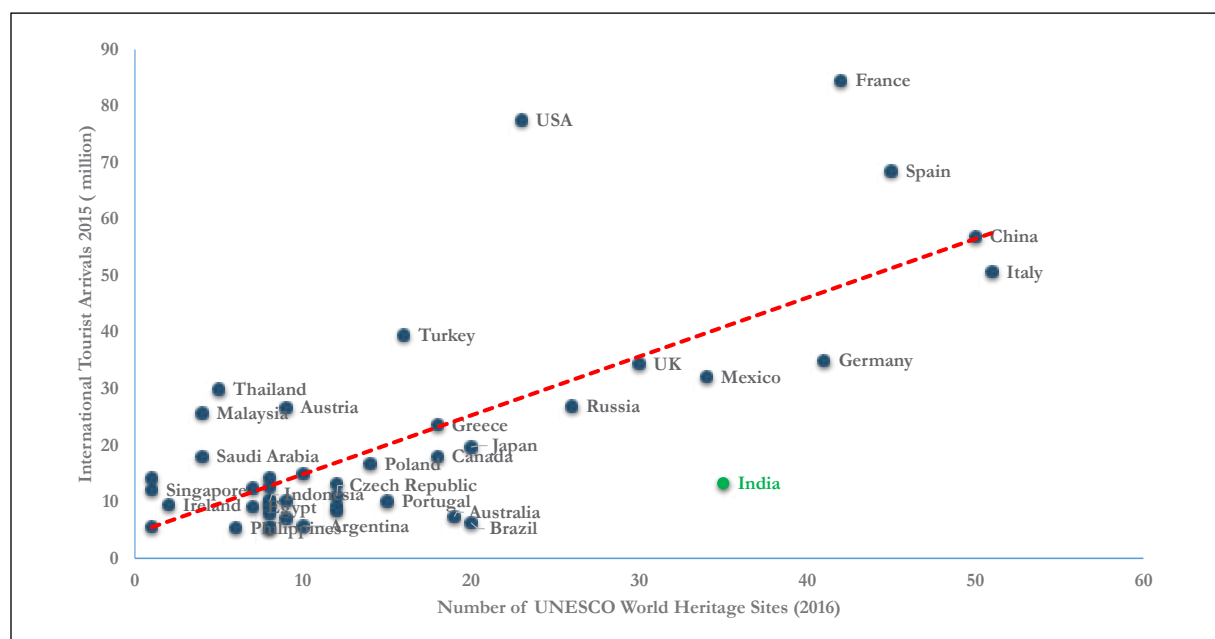
Source: Based on data given in UNWTO World Tourism Barometer and Statistical Annex, March 2017.

Note: *= 2015 data.

shows that despite having high number of UNESCO World Heritage sites (6th in position with 35 heritage sites), India attracts less foreign tourists compared to other countries and remains below the trend line (Figure 5).

9.29 As per many other indicators also like domestic tourism to population ratio, international conventions rankings, visitors to top heritage sites, foreign tourist arrivals in top cities, India is far behind USA and China (Table 9).

Figure 5. Number of World Heritage sites and International Tourist Arrivals 2015



Source: Based on UNWTO and UNESCO data.

Table 9. Comparative Tourism Performance Indicators

| Indicators | China | India | USA |
|--|---|---|--|
| Foreign Visitors to Heritage sites (Numbers) | Great Wall* (Total 10 million, 3 million Foreign) | Taj Mahal (Total 4.6 million, 0.5 million foreign) | Statue of Liberty* (Total 5 million, 2 million foreign) |
| Domestic Tourism (Numbers) | 3.6 billion | 1.7 billion | 2.2 billion |
| Ratio of Domestic Tourism to Population | 2.6 | 1.3 | 6.6 |
| Foreign Tourist arrivals in major cities | Beijing* (4.5 million foreign, 250 million domestic) | New Delhi* (2.4 million foreign and 25 million domestic) | New York* (10.1 million foreign, 50 million domestic) |
| International Conventions Rating | Rank 9 with 333 meetings | Rank 31 with 132 meetings | Rank 1 with 925 meetings |

Source: Compiled from various data sources like UNWTO, Ministry of Tourism, Report of International Congress and Convention Association's (ICCA).

Note:*= inputs from FAITH.

9.30 The above analysis and the indicators, though some are less perfect, show that India has a huge untapped tourism potential and a lot more needs to be done to make India a major tourist destination and major earner from tourism.

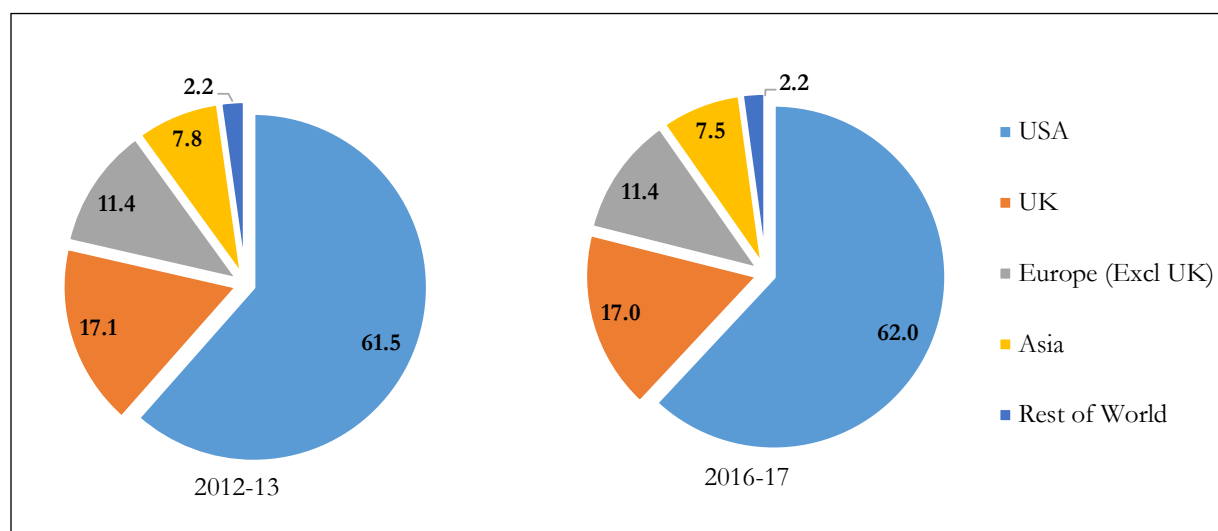
9.31 Various initiatives have been taken by the Government to promote tourism sector of the country that include e-Visa for the citizens of 161 countries, promotion of India as a 365 days destination, Swachhta Action Plan (SAP), Skill Development Initiative, launching of Multilingual Tourist Infoline, and Swachh Paryatan Mobile App. During January to December, 2016 a total of 10,79,696 e-Visa holders visited India registering a growth of 142.5 per cent over 2015. E- visa is allowed under three sub-categories – e-Tourist Visa, e-Business Visa, and e-Medical Visa. The window for application under e-Visa has been increased from 30 days to 120 days and the duration of stay in India under e-Visa has also been increased from 30 days to 60 days. Globally, the medical value travel (MVT) market is expected to cross US\$ 100 billion in 2019, growing at a CAGR of 19.4 percent and India accounted for 3.8 per cent of the global medical tourists and 5.5 per cent of the global revenue from medical tourism in 2014. The Government has initiated many policies to make India a Medical Value Travel destination which include constituting the National Medical and Wellness Tourism Promotion Board in 2015 and launching e-tourist visa and m-visa facilities.

IT –BPM Services

9.32 Global IT-BPM market including and excluding hardware stood at US\$ 2.2 trillion and US\$ 1.2 trillion respectively in 2016. Hardware segment was the largest with a

share of around 44 per cent, followed by IT services (more than 29 per cent), packaged software (around 19 per cent) and BPM (more than 8 per cent). While these remain the traditional segments, this industry is being disrupted by digital technologies that is leading to a wave of automation of processes, automation in manufacturing, and artificial intelligence that is replacing humans with robots.

9.33 The Indian IT-BPM industry is a global powerhouse today and its impact on India and the world has been unprecedented. India pioneered the offshoring model and is today seen as the partner of choice for technology and business solutions. This industry has evolved from a less than US\$ 1 billion industry in the 1980s to an over US\$ 154 billion behemoth. In the last decade, the industry has grown over six-fold in revenue terms. Providing employment for over 3.9 million people in 2016-17, this sector has also created employment in supporting sectors like transportation, hotels, infrastructure, security services. The Indian IT-BPM industry comprises of over 16,000 firms ranging from multi-billion dollar firms to start-ups, many MNCs including over 1,000 global in-house centres and around 4,750+ start-ups making India the world's 3rd largest start-up ecosystem. The start-up ecosystem comprises of firms catering to mature verticals (e-commerce, aggregators), emerging verticals (fin-tech, edu-tech, health-tech, etc.) and technology specialists around cloud, Internet of Things (IoT), machine learning, artificial intelligence, robotics, 3D printing, etc. USA is the major market of India for IT-BPM services followed by UK, Europe (excl UK) and Asia. These shares have not changed much in 2016-17 compared to 2012-13 (Figure 6).

Figure 6. India's IT-BPM Exports - Region Wise Share 2016-17(per cent)

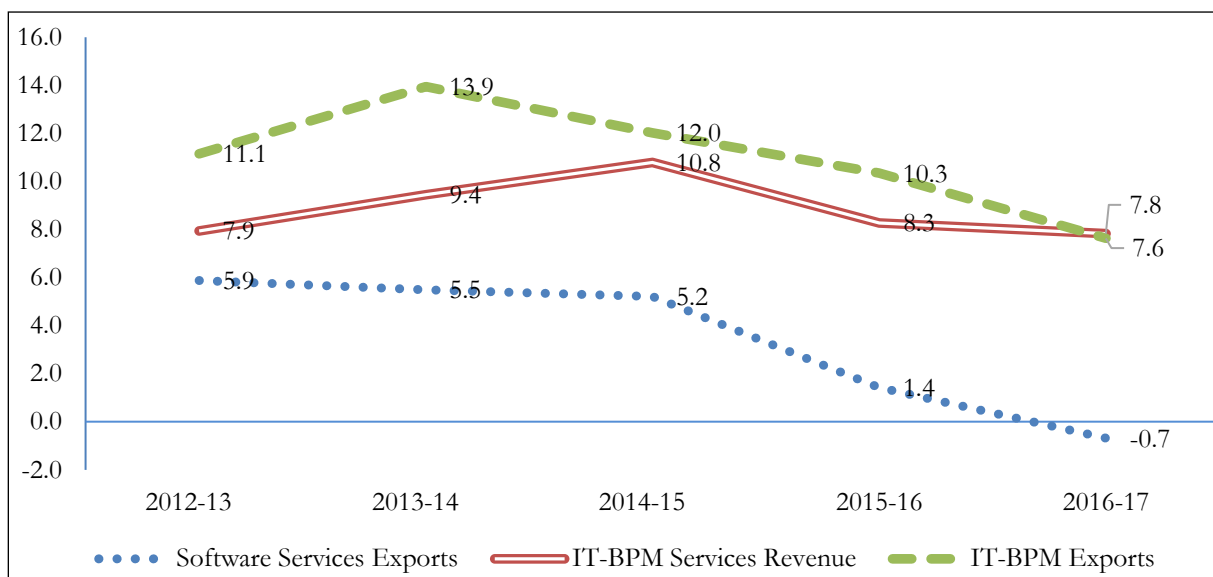
Source: NASSCOM.

9.34 As per NASSCOM in 2016-17 India's total revenue (exports plus domestic) of the IT-BPM sector including and excluding hardware is expected to touch US\$154 billion and US \$140 billion, with growths of 7.8 per cent and 8.1 per cent respectively. Exports including and excluding hardware are both likely to record 7.6 per cent growth to reach US\$117 billion and US\$116 billion respectively. The domestic market including hardware and excluding e-commerce is set to grow at 8.5 per cent to reach US\$38 billion, and excluding hardware and e-commerce, it is set to grow at 10.4 per cent to reach US\$ 24 billion. Software products, though, only one-third the size of IT services segment are estimated to grow at 10.4 per cent to US\$ 4.8 billion due to the ever growing demand for cloud-based solutions, particularly from Server Message Block (SMBs). E-commerce is expected to grow at 19.1 per cent to reach US\$33 billion.

9.35 India's software exports which were growing robustly at 27 to 38 per cent during 2002-03 to 2007-08 have slowed down in recent years with exports even falling. In

2016-17 software exports fell by 0.7 per cent to US \$ 73.7 billion compared to US 74.2 billion in 2015-16 as per RBI's BoP data, while IT-BPM exports are expected to reach USD 117 billion, with a growth of 7.6 per cent as per NASSCOM. IT-BPM export growth for 2017-18 has been pegged to 7-8 per cent by NASSCOM (Figure 7).

9.36 The fall in exports of India's computer services exports by 0.2 per cent in 2016 (as per WTO data) is happening even when the World computer services exports is growing at 5.8 per cent in 2016 and some advanced countries like USA, Israel and competing countries of South East Asia, Latin America and East Europe like Philippines, Brazil, Chile, Russia and Ukraine are having modest to robust growth (Table 10). India's computer services imports is also growing at 30.4 per cent resulting in negative net computer services export growth of (-) 1.7 per cent in 2016. This indicates that the IT-BPM sector is affected not just by the global slowdown and challenging market access situation, but other challenges as well (Box 2).

Figure 7. Growth of Software Services Exports and IT-BPM Revenue and Exports

Source: Software Services: RBI data and IT-BPM: NASSCOM data.

Table 10. Computer Services Export Growth: Selected Countries

| | Growth Rate (%) | | | | |
|-------------|-----------------|-------|-------|------|------|
| | 2009 | 2010 | 2014 | 2015 | 2016 |
| Australia | -13.1 | 12.2 | 7.1 | 16.5 | 3.1 |
| Brazil | 6.5 | -8.7 | 140.6 | 15.6 | 14.8 |
| Chile | 12.3 | 36.7 | 4.8 | 1.2 | 10.4 |
| India | -9.0 | 20.5 | 1.3 | 1.2 | -0.2 |
| Philippines | 35.3 | 24.1 | 10.1 | 1.3 | 63.6 |
| Russia | -21.8 | 5.0 | 5.7 | -7.4 | 8.5 |
| Ukraine | 9.5 | 24.7 | 16.1 | 11.2 | 18.4 |
| USA | 3.8 | 1.9 | 7.4 | 12.7 | 8.1 |
| Israel | 1.3 | -43.9 | 18.2 | -2.0 | 26.9 |
| World | NA | NA | NA | -3.6 | 5.8 |

Source: Based on WTO data.

9.37 Meanwhile, the Government of India's rapid adoption of technologies as a platform to delivery of government-to-government and government-to-citizen services is a tremendous push factor for the domestic IT-BPM market. The Government of India is also taking a lead in adopting digital technologies and is one of the most proactive users of social media as a means to communicate with the public. It has developed its own cloud platform – MeghRaj – that offers Platform-

as-a-Service (PaaS), Infrastructure as a Service (IaaS), Software as a Service (SaaS) and Storage as a Service (STaaS). The focus of this initiative is to accelerate delivery of e-services in the country while optimizing Information Communication & Technology (ICT) spending of the Government. It also intends to make India a hub for cyber security solutions for the world. Through long-term initiatives like Digital India, Make in India, Smart Cities, e-Governance, push

Box 2. IT-BPM: Slowdown Challenges

The IT-BPM industry is also feeling the pinch of the global slowdown and global political uncertainties as clients go slow on their decision-making and investment processes. Some challenges faced by India's IT-BPM sector in the major markets are the following.

Market Access: Misconstruing mobility of skilled people as an immigration issue is a deterrent to the growth of this global business resulting in many barriers to free movement of skill and data in the major markets.

In the USA, "Buy American, Hire American" Presidential executive order called for the collection of data, increased oversight and enforcement actions, and the development of administration plans to reform and curtail the high skill visa programs. Departments of Justice, Homeland Security, State, and Labor all have issued memos, policy guidance aimed at imposing new restrictions on the visa programs, enhancing enforcement, increasing scrutiny of sponsors, and enhancing penalties for violations. U.S. Citizenship and Immigration Services introduced a policy memo on H-1B usage, wherein "computer programmers" do not automatically qualify as specialty occupations. Additional details from visa applicants are required by the Department of State as part of Government's extreme vetting process. Significantly more details on the Labor Condition Applications (LCA) which companies must file before submitting H-1B petitions are now required as per Department of Labor's plans. Various bills relating to H-1B visas have been tabled in the U.S. Congress, the latest being the House Judiciary Committee Chairman Bob Goodlatte's twin bills which have been passed in the US congress on 29 June 2017 and is now going to the senate. One of the two bills would strip federal dollars from self-proclaimed 'sanctuary' cities that shield residents from federal immigration authorities, while the second bill (also called as Kates's Law) would stiffen punishments for people who re-enter the US illegally.

The UK has introduced the Migration Advisory Committee's recommendations with effect from 6th April 2017, entailing the changes like closure of Tier 2 Intra-Company Transfer (ICT) Short Term visa route, imposing Immigration Skills Charge (ISC) of £1,000 per migrant hire per valid visa year and Immigration Health Surcharge and also increase in the minimum salary threshold for Tier 2 (ICT) visas. The EU has also introduced Data Protection and Privacy Rules that effectively prevent Indian companies from providing services from India, while US has been given safe harbour status. In Australia, the Federal Government has announced that it would eliminate the 457 visa category and replace it with two new visa streams to protect the interests of Australian workers.

Competition from new entrants: Indian service companies gained scale over the last decade as the disrupters, creating the modern offshoring industry, but they are now the incumbents, challenged by a slew of specialized and niche start-ups bred in this new environment. The niche players are creating highly specialized solutions that address very specific use cases or problems for their clients. The horizontal or enterprise platforms like Salesforce.com create entire ecosystems that handle horizontal problems simply with intuitive cloud-based technology. India is facing increasing competition from new digital only entrants from Eastern Europe and Latin American countries including newer companies like Globant, EPAM, and Luxoft.

Job loss Challenges: The growth in digital technologies like cloud-based services is happening at a much faster pace and the companies have to learn the new technologies and reskill. As per a report of the World Bank (2016), Automation threatens 69 per cent of the jobs in India, while it threatens 77 per cent in China and 85 per cent in Ethiopia. As per Executive search firm Head Hunters India, the job cuts in IT sector will be between 1.75 lakh and 2 lakh annually for next three years due to under-preparedness in adapting to newer technologies. As per the McKinsey & Company report, nearly half of the workforce in the IT services firms will be "irrelevant" over the next 3-4 years and the bigger challenge ahead for the industry will be to retrain 50-60 per cent of the workforce as there will be a significant shift in technologies. There are also Reports of mass layoffs in the IT sector. However, NASSCOM categorically rejects this. As per NASSCOM, this largest private sector employer has added over 6 lakh new employees in the last 3 years and is expected to add over 2.5 to 3 million new jobs by 2025. However, the skills profile is set to undergo a rapid change as demand for skills around digital technologies grows exponentially. Many firms have established dedicated programs to re-skill their existing employees. In 2016-17 around 1.7 lakh jobs were created and in Q4 of 2016-17 alone, there was gross hiring of over 50,000 by top 5 companies. However, Labour Bureau of India data indicate that changes in employment in IT-BPO sector during April to December 2016 was only 0.22 lakhs. Thus there is a gentle deceleration in net hiring growth rate as also indicated by NASSCOM.

Domestic challenges: There are also some domestic challenges like shortage of skilled digital talent, under-developed infrastructure in Tier 2 & 3 cities and some restrictive regulations for product startups.

Source: Based on inputs from NASSCOM and Desk Research.

for digital talent through Skill India, drive towards a cashless economy, efforts to kindle innovation through Start-up India, etc., uptake of technology is expected to grow substantially in the future.

Real Estate and Housing

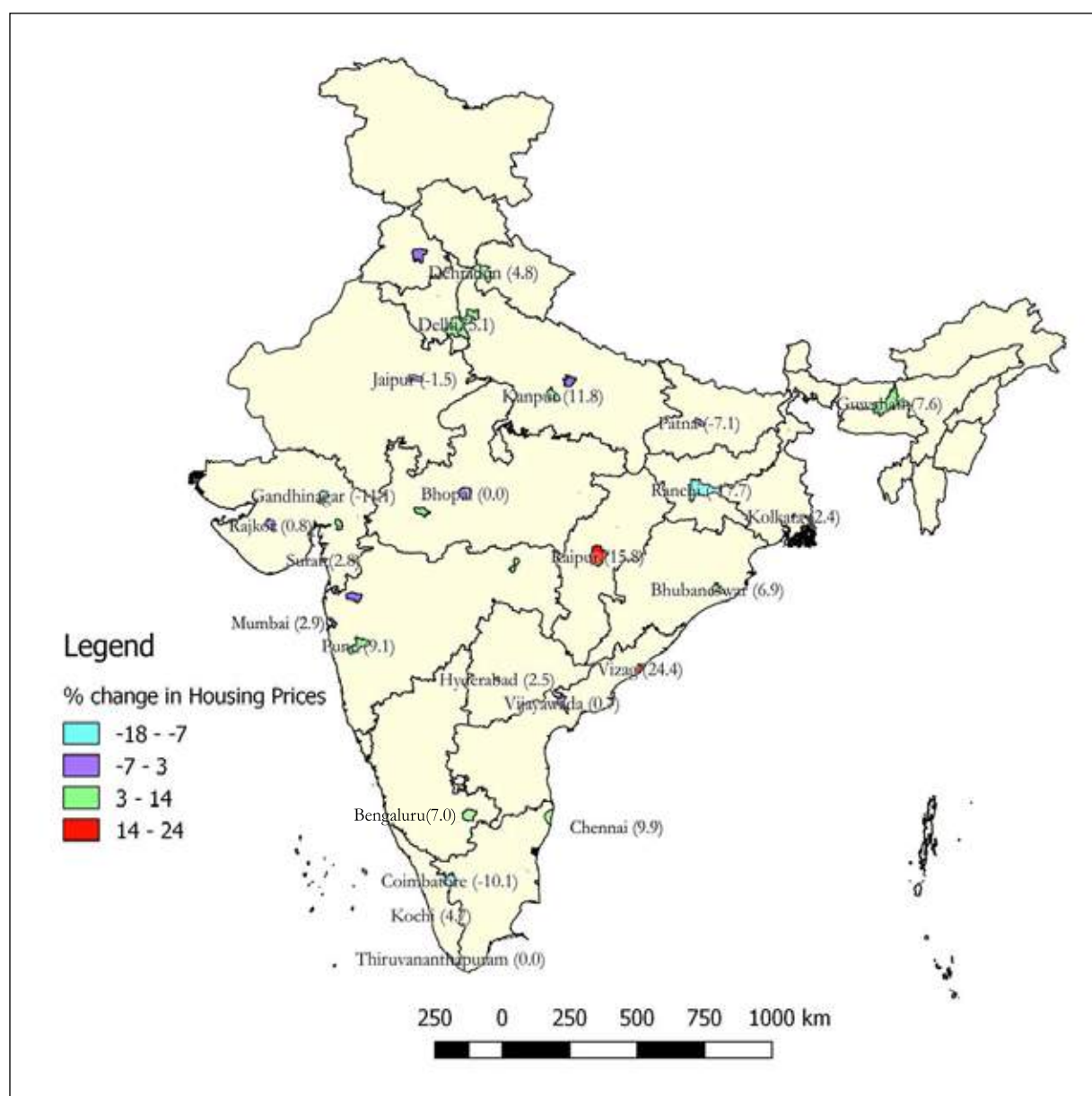
9.38 Real estate sector including ownership and dwellings accounted for 7.6 per cent share in India's overall GVA in 2015-16. The growth of this sector decelerated in the last three years from 7.5 per cent in 2013-14 to 6.7 per cent in 2014-15 and further to 4.5 per cent in 2015-16. This was mainly due to the ownership and dwelling segment having a share of 6.8 per cent in overall GVA decelerating from 7.1 per cent in 2013-14 to 3.2 per cent in 2015-16. The growth of the construction sector which includes buildings, dams, roads, bridges etc., has decelerated to 1.7 per cent in 2016-17 from 5.0 per cent in 2015-16.

9.39 Residential sales across top-eight cities in India in 2016 fell to a five-year low of about 2,45,000 units, due to subdued demand over the past three years. Similarly, new residential unit launches, too, fell to only 1,76,000 unit launches during 2016. The decline in unit launches was significant at 64 per cent, compared to the sales which was down by nearly one-third. This was primarily due to the prolonged slump and execution delays in project completion which resulted in inventory pile-up across all cities. Interestingly, amidst this prolonged slump, there was a positive development with real estate developers becoming more mature and limiting the new supply in the market, as a result of which residential sales outpaced the new supply consecutively for two years in 2015 and 2016. Demonetization in November 2016 possibly impacted the new launches and sales in the short term with several states recording drop in property registrations post-demonetization. Foreign Direct Investment

(FDI) inflows to the construction sector have also declined to US\$ 1.9 billion in 2016-17, as against US\$ 4.6 billion in 2015-16 even though there was relaxation of FDI norms for the construction development sector undertaken over the past two to three years. Despite the subdued demand, residential prices did not fall with the NHB RESIDEX, showing increase in prices in 33 cities out of 50 cities in 2016-17 Q4 over 2015-16 Q4. The highest increase over the year was observed in Vizag (24 per cent) followed by Raipur (16 per cent) (Figure 8). The 2016-17 average RESIDEX index over 2015-16 average also shows similar results with prices increasing in 42 cities out of 50 cities. Only the RESIDEX for 2016-17 Q4 compared to 2016-17 Q2 (i.e the quarter preceding demonetisation) shows that housing prices have fallen in 32 cities out of 50 cities. But this could also be due to the reason that housing prices had suddenly picked up in both 2016-17 Q1 and Q2 over the previous quarters with rise in prices in 41 and 31 cities out of 50 cities respectively.

9.40 Some of the issues and challenges affecting growth in real estate and housing sector include approvals of permits, high land registration costs including stamp duty, rising debt levels and NPAs, lack of skilled workforce and delayed delivery of houses by builders. As per the World Bank's 'Ease of Doing Business 2017', India ranks 185 out of 190 countries in dealing with construction permits. With over 30–35 regulatory approvals required to be obtained by a developer to develop a real estate project in India, it takes anywhere between six to twelve months or even higher in obtaining various approvals. As a result, the whole process becomes cumbersome and also leads to delays, which inflates the project cost by 20–30 per cent. India ranks 138 out of 190 countries, in registering a property. Bye-laws have also not been updated as per global benchmarks and best practices. Rising

Figure 8. Housing Price Changes (2016-17 Q4 over 2015-16 Q4)



Source: Based on NHB RESIDEX Index data.

non-performing assets (NPA), higher risk provisioning assigned to real estate sector by the RBI and dwindling profits in the real estate sector have affected bank lending to the sector. Among the major funding sources to real estate sector, bank lending to the real estate sector has significantly dropped from over 57 per cent in 2010, to less than 24 per cent in 2016, while private equity investment have increased (NAREDCO and KPMG). The total housing credit outstanding of

scheduled commercial banks (SCBs) in India as on March 31, 2017 was around ₹8.6 trillion, with growth (y-o-y) of 15.2 per cent while the total housing credit outstanding of housing finance companies (HFCs), was ₹5.0 trillion with a growth of 15.0 per cent during the same period. The real estate sector has also been grappling with liquidity issues and piling debt. The total outstanding debt of listed real estate developers in India has risen from ₹ 25,000 crore (US\$ 3.7 billion) in 2006-

07 to over ₹83,000 crore (US\$ 12 billion) in 2015-16 (NAREDCO and KPMG).

9.41 The Government has formulated many policies to help the real estate and housing sector. Some of the recent policy measures taken by the Government include Pradhan Mantri Awas Yojana (PMAY- Urban), Real Estate (Regulation & Development) Act, 2016, Smart Cities Mission, Real Estate Investment Trust (REITs) and Infrastructure Investment Trusts (InvITs), relaxation of conditions to claim tax incentive for affordable housing projects, and the Benami Transactions (Prohibition) Amendment Act, 2016.

Satellite Mapping and Launching Services

9.42 Indian Space Programme contributes to national development, through the application of space technology, comprising of communication, navigation and earth observation to address issues related to societal development and strategic requirements. Over the last three decades, space technology has matured from providing simple mapping applications to development of complex models, decision support and early warning systems, incorporating space and derived inputs. Many a times the benefits of space application are intangible in nature and are not quantifiable. However, in some cases, the economic benefits of certain space applications are quantifiable that indicate significant economic contribution from those applications, concurrent to its societal dimension. Satellite mapping and launching services are two areas in which India is making a mark and has huge potential for the future.

Satellite Mapping

9.43 Over the past decades, Earth Observation (EO) data, integrated with in-situ observations and tools, have been

supporting a host of applications in the areas of land & water, ocean & atmosphere, environment & eco-system, urban & rural applications and disaster risk reduction. Some space applications & services generate revenue and earn foreign exchange reserves for India. These include establishment of International Ground Stations (IGS) by providing necessary hardware and software to directly receive and process data from IRS satellites when the satellite passes over their ground station; access fee, based on actual data acquisition time at their ground station; royalty for the data licensed by these IGS to their customers; licensing of IRS satellite data products to developing countries directly or through resellers to international customers; etc.

9.44 The foreign exchange earned by India from satellite mapping in the last five years was more than ₹ 100 crores. Out of this, highest earnings were received from Germany (57.4 per cent), followed by Algeria (12.5 per cent) and China (6.5 per cent). However, there has been a decline in foreign exchange earnings in recent years (Table 11). Since 2014-15, China and Myanmar which were among the top four markets of India have stopped using these services. In the case of China, the agreements came to an end and China as a part of its Earth Observation Programme has developed series of satellites in optical and microwave, providing data in variety of spatial and spectral resolutions. In the case of Myanmar, Antrix the marketing arm of the Department of Space, is trying to renew the cooperation. Further, ISRO is pursuing a project to support ASEAN Member states including Myanmar to receive and process data from Indian remote sensing satellites (Resourcesat-2 and Oceansat-2) and also to provide training in space science, technology and applications for the benefit of the ASEAN Member countries.

Table 11. Satellite Mapping Services Exports (IRS Related Services)

| Foreign Exchange Earned (₹ in Crores) | | | | | | |
|---------------------------------------|---------|---------|---------|---------|---------|------------|
| | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Cumulative |
| Total | 38.09 | 14.82 | 28.84 | 25.10 | 11.38 | 118.23 |
| Germany | 20.86 | 9.88 | 11.52 | 17.97 | 7.57 | 67.80 |
| Algeria | 2.80 | 0.70 | 8.96 | 2.38 | -- | 14.84 |
| China | 6.74 | 0.87 | 0.11 | -- | -- | 7.72 |
| Myanmar | 2.64 | 2.16 | 2.40 | -- | -- | 7.20 |
| Iran | -- | -- | 0.88 | 3.52 | 2.48 | 6.88 |
| Norway | -- | -- | 4.15 | 1.23 | 0.63 | 6.01 |
| France | 2.19 | 1.17 | -- | -- | -- | 3.36 |
| USA | 2.80 | -- | -- | -- | -- | 2.80 |
| UK | -- | -- | 0.82 | -- | 0.70 | 1.52 |

Source: Antrix, ISRO.

9.45 Geospatial market basically comprises of data, hardware, software and services including mapping. Out of the above, data component is only 5 per cent. Out of this data component, Asia Pacific Region's contribution is 14 per cent. The market is highly competitive due to many high resolution data providers. ANTRIX, right now is able to market only medium and coarse resolution data products. Commercial potential for the medium and coarse resolution data segment is facing threat due to Free and Open data policy in many countries, especially with the availability of free data from Landsat-8 of US and Sentinel from the European Space Agency (ESA) resulting in this data being practically available free of cost to the entire globe. Many countries are currently treating the Remote Sensing data as societal or public goods. Only High and Very High Resolution data have commercial markets in the current scenario. This market is also highly competitive with many private satellite operators across the globe. Currently, ANTRIX, is marketing Cartosat-1 data (which offers 2.5 m stereo data) to various

users across the globe and the contribution by ANTRIX in this data segment is minimal (below 0.5 per cent). However, the situation is likely to improve with realization of High/Very High Resolution data satellites.

Satellite Launching

9.46 India started its launch vehicle development to orbit indigenous satellites in a self-reliant manner. India's operational workhorse vehicle, Polar Satellite Launch Vehicle (PSLV) is a four-stage vehicle primarily designed to carry Remote Sensing satellites into polar sun-synchronous orbit. As on 10 July, 2017, 40 launches of PSLV have taken place. The last 39 missions conducted provided a string of successes. Though initially designed for launching Remote Sensing Satellites in Polar Orbits, the vehicle has been tuned to launch Communication, Meteorological and Navigation satellites into Sub-Geo Transfer Orbit (Sub-GTO). Apart from launching indigenously built satellites, PSLV also offers satellite launch services to customers through commercial arrangements with ANTRIX. As on March

Table 12. Satellite Launch Services Exports

| Financial Year | Foreign Exchange earned (₹ in Crores) * | Countries that used satellite launch services | Global satellite launch services revenue (Million Euros) | India's share in the Global satellite launch services revenue (per cent) |
|----------------|---|---|--|--|
| 2012-13 | 136.18 | Canada, France, Japan, UK | 5160 | 0.4 |
| 2013-14 | -- | -- | 4800 | -- |
| 2014-15 | 149.41 | Canada, France, Germany, Singapore | 5250 | 0.3 |
| 2015-16 | 394.22 | Canada, Indonesia, Singapore, UK, USA | 4800 | 1.1 |
| 2016-17 | 274.66 | Algeria, Canada, Germany, Indonesia, Netherlands, USA | N.A | -- |

Source: ISRO based on “State of the Satellite Industry Report” published every year by “Satellite Industry Association”.

Note: * Earnings are recorded in the year of launch.

2017, PSLV has successfully launched 225 satellites. This includes 37 National Satellites, 8 student satellites built by universities/academic institutions, one re-entry mission and 180 foreign satellites from 23 Countries.

9.47 Towards providing launch services to international satellite customers, Antrix acts as the single nodal agency between customer and ISRO and provides end-to-end support to the customer. Foreign exchange earnings of India from export of satellite launch services has increased noticeably in 2015-16 and 2016-17 and consequently India's share in global satellite launch services revenue has also increased (Table 12). Foreign Exchange earnings in 2015-16 were higher than in 2016-17 as there were two dedicated Polar Satellite Launch Vehicle (PSLV) missions for launching international customer satellites in 2015-16, while in 2016-17 there was launching of international customer satellites only as co-passengers to the Indian national satellite missions.

9.48 With the successful track record of

PSLV and Geo-synchronous Satellite Launch Vehicle (GSLV) and the emergence of small satellites market globally, especially in the US and Europe, Antrix foresees greater utilization of PSLV and GSLV launch services by the international community for launching their low earth orbit (LEO) satellites involving constellations on-board PSLV and smaller communication satellites on-board GSLV as a dedicated launch option. Thus the market potential for providing PSLV and GSLV launch services to international satellite customers is high.

CONCLUSION

9.49 India's services sector growth, which was highly resilient even during the global financial crisis, has been showing moderation in recent times. However, pick up is seen in recent months with some segments of the sector showing better performance. This is also reflected in the Nikkei Services PMI of India which rose to 53.1 in June 2017, the strongest since October 2016 supported by strong upswing in inflows of new business.

Social Infrastructure, Employment and Human Development

10 CHAPTER

“The most distinctive feature of our economic system is the growth in human capital. Without it there would be only hard manual work and poverty....”

– T.W. Schultz

Investment in human capital like education and health are key ingredients for economic development. Much of the impoverishment in India today can be addressed by enhancing human capital by investing in nutrition, health, education and by providing appropriate skills for employment. Though India’s social policies have focussed on the welfare of the people and also human development, challenges remain in overcoming social and economic barriers to advance the capabilities of the marginalised, women and other weaker sections of the society. With India poised for higher growth anchored on a knowledge economy, there are benefits to be reaped by investing in human capital.

10.1 In a developing economy like India, human capital can play a significant role in lifting people out of poverty and enabling them to lead a healthy and productive life. Despite a significant improvement in HDI score over the years, India’s rank in Human Development Index (HDI) at 131 out of 188 countries as per HDR, 2016, leaves much to be desired. On the Global Hunger Index (GHI) 2016, India ranks 97 out of 118 developing countries with prevalence of stunting among children aged below 5 years at around 39 per cent, a serious cause of concern. In this scenario, India requires effective investments in social infrastructure in order to achieve the Sustainable Development Goals (SDGs).

TRENDS IN SOCIAL SECTOR EXPENDITURE

10.2 The public investment in social infrastructure like education and health is critical in the development of an economy.

The expenditure on social services by the Centre and States as a proportion of GDP which remained stagnant in the range of 6 per cent during 2011-12 to 2014-15, recorded an increase of 1 percentage point during 2015-16 (RE) and 2016-17 (BE). As a percentage of GDP, the expenditure on education which remained stagnant around 3.1 per cent during the period 2009-10 to 2013-14, however, declined to 2.8 per cent in 2014-15 (Table 1).

10.3 The State Governments also have schemes for education, health, for the marginalised groups, Scheduled Castes, Scheduled Tribes, women, and other disadvantaged sections of the society. At the State level, there was marginal increase in the share of expenditure on social services as a proportion of total expenditure till 2015-16 (Figure 1).

**Table 1. Trends in Social Services Expenditure by General Government
(Centre and States)**

| Items | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16(RE) | 2016-17(BE) |
|--|-----------|-----------|-----------|-----------|-------------|-------------|
| (₹ Crore) | | | | | | |
| Total Expenditure | 24,21,768 | 26,94,934 | 30,00,299 | 32,85,210 | 39,74,103 | 44,48,860 |
| Expenditure on Social Services | 5,80,868 | 6,58,320 | 7,46,391 | 7,67,622 | 10,02,591 | 11,18,094 |
| <i>of which:</i> | | | | | | |
| i) Education | 2,77,053 | 3,12,932 | 3,48,267 | 3,53,589 | 4,23,171 | 4,74,672 |
| ii) Health | 1,10,228 | 1,25,524 | 1,39,280 | 1,48,791 | 1,91,141 | 2,21,466 |
| iii) Others | 1,93,587 | 2,19,865 | 2,58,844 | 2,65,242 | 3,88,279 | 4,21,955 |
| As percentage to GDP | | | | | | |
| Total Expenditure | 27.7 | 27.1 | 26.7 | 26.4 | 29.1 | 29.5 |
| Expenditure on Social Services | 6.6 | 6.6 | 6.6 | 6.2 | 7.3 | 7.4 |
| <i>of which:</i> | | | | | | |
| i) Education | 3.2 | 3.1 | 3.1 | 2.8 | 3.1 | 3.2 |
| ii) Health | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 1.5 |
| iii) Others | 2.2 | 2.2 | 2.3 | 2.1 | 2.8 | 2.8 |
| As percentage to total expenditure | | | | | | |
| Expenditure on Social Services | 24.0 | 24.4 | 24.9 | 23.4 | 25.2 | 25.1 |
| <i>of which:</i> | | | | | | |
| i) Education | 11.4 | 11.6 | 11.6 | 10.8 | 10.6 | 10.7 |
| ii) Health | 4.6 | 4.7 | 4.6 | 4.5 | 4.8 | 5.0 |
| iii) Others | 8.0 | 8.2 | 8.6 | 8.1 | 9.8 | 9.5 |
| As percentage to total expenditure on social services | | | | | | |
| Expenditure on | | | | | | |
| i) Education | 47.7 | 47.5 | 46.7 | 46.1 | 42.2 | 42.5 |
| ii) Health | 19.0 | 19.1 | 18.7 | 19.4 | 19.1 | 19.8 |
| iii) Others | 33.3 | 33.4 | 34.7 | 34.6 | 38.7 | 37.7 |

Source: Budget Documents of Union and State Governments, Reserve Bank of India.

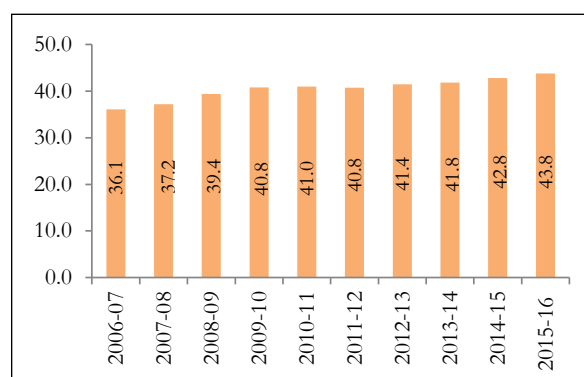
Notes: 1. Social services includes education, sports, art and culture; medical and public health, family welfare; water supply and sanitation; housing; urban development; welfare of SCs, STs and OBCs, labour and labour welfare; social security and welfare, nutrition, relief on account of natural calamities etc.

2. Expenditure on 'Education' pertains to expenditure on 'Education, Sports, Arts and Culture'.

3. Expenditure on 'Health' includes expenditure on 'Medical and Public Health', 'Family Welfare' and 'Water Supply and Sanitation'.

4. GDP data from 2011-12 is as per the new series with base year 2011-12. The GDP data for 2014-15 and 2015-16 pertain to the Second Advance Estimates of National Income released by the Central Statistics Office on February 28, 2017. GDP for 2016-17 is from the Union Budget 2016-17.

Figure 1. Trends in share of State Expenditure on Social Services (per cent)



Source: Reserve Bank of India.

10.4 An analysis of the State level budgets for 2014-15 and 2015-16 (RE) shows that the increase in share of social services varied widely across States. While the increase in social sector spending was in the range of 15 to 20 per cent in West Bengal, Kerala, Karnataka, Tamil Nadu and Gujarat, the increase was more than 45 per cent in the poorer States like Bihar (46 per cent) Chhattisgarh (49 per cent) and Jharkhand (53 per cent).

10.5 The increase in percentage of expenditure on social sector needs to be reflected in the outcomes of States, by way of improvements in learning and education, health, decline in diseases/morbidity and better standards of living. Towards identifying and addressing shortcomings in the desired outcomes, there is need to set up an appropriate monitoring system for social sector spending at the Centre and in the States. In this context, NITI Aayog monitors the Sustainable Development Goals tracking its progress at State levels on a regular basis. In addition, NITI Aayog along with Ministry of Human Resource Development (MHRD) developed a Social Education Quality Index (SEQI), which is a composite index to monitor and improve the learning outcomes among school children.

CHALLENGES IN EDUCATION

10.6 As India emerges as a knowledge-based economy, 'quality and relevant' education will play a significant role in economic development.

Primary Education

10.7 The primary level learning is the foundation on which a child's education is built and it is of great importance to get the same right. The Annual Status on Education Report (ASER) by the Pratham Education Foundation since 2005, highlights shortcomings in the school educational outcomes in India in rural areas.

10.8 As per ASER, 2016 at the all India level, the enrolment marginally increased for all age groups between 2014 and 2016. The enrolment for the age group 6-14 increased from 96.7 per cent in 2014 to 96.9 per cent in 2016. The enrolment for the age group 15-16 has also improved marginally for both boys and girls, rising from 83.4 per cent in 2014 to 84.7 per cent in 2016. However, in some states, the proportion of out of school children (age 6-14) increased between 2014 and 2016. These include Madhya Pradesh (from 3.4 per cent to 4.4 per cent), Chhattisgarh (from 2 per cent to 2.8 per cent), and Uttar Pradesh (from 4.9 per cent to 5.3 per cent). In 3 States, namely, Rajasthan (9.7 per cent), Uttar Pradesh (9.9 per cent) and Madhya Pradesh (8.5 per cent) the proportion of out of school girls (age group 11-14) remains more than 8 per cent.

10.9 Nationally, the reading ability has improved marginally in early grades in government schools. The proportion of children in Std III who are able to read at least Std I level text has gone up, from 40.2 per cent in 2014 to 42.5 per cent in 2016. The fact that the ASER report compares the skills of Std III children in Std I levels is an example

of the state of the learning outcomes of the primary education. The arithmetic skills have also shown marginal improvement in government schools in primary grades. The all India (rural) figures for basic arithmetic have improved slightly for Std III in 2016 as compared to 2014 from 25.4 per cent to 27.7 per cent. This is the first year since 2010, that there is an improvement in arithmetic learning outcomes, which is attributable to improved performance in government schools. However, the trend analysis of the ASER report indicates that the results of the reading and arithmetic skills of the class V Standard have not improved and is an area of concern (Figure 2).

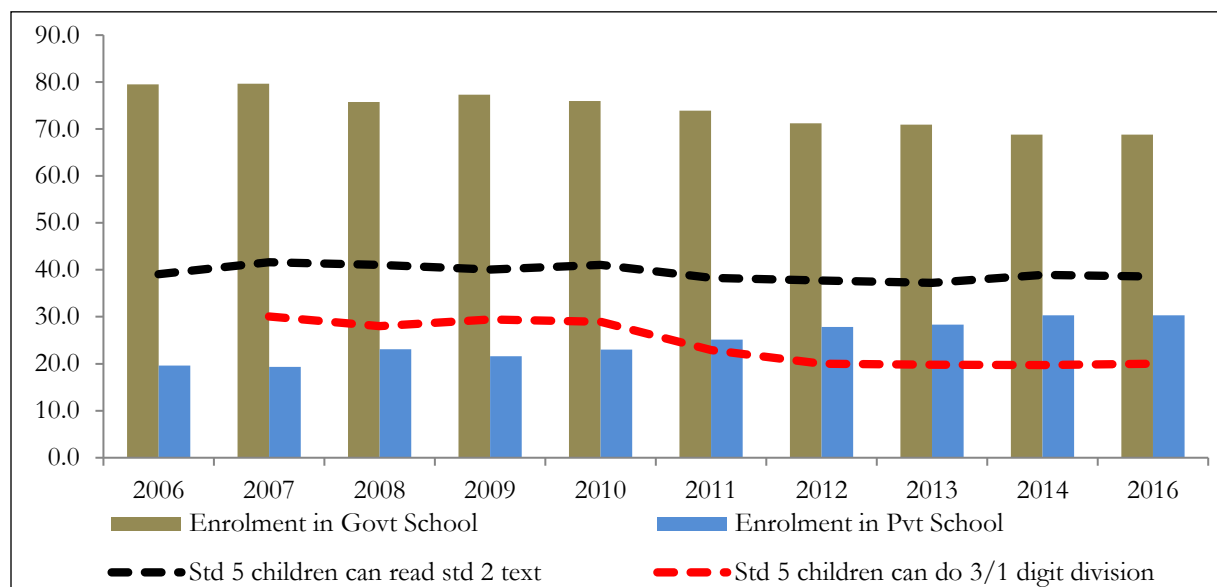
10.10 While ‘The Right of Children to Free and Compulsory Education Act’, 2009 (RTE), has significantly improved the enrolment level in primary schools across the country, the challenge of quality in terms of learning outcomes remains to be addressed, as is evident from data of rural India (Figure 2). The problem lies in the approach which focused almost

entirely on inputs such as specifications for infrastructure of schools, pupil-teacher ratios, teacher qualifications, teacher salaries, etc. Besides, the overburdening of teachers with administrative responsibilities of schools especially at primary levels has had an adverse impact on learning outcomes. There is a need to shift focus on quality of education by getting the input-outcomes matrix right.

10.11 One of the critical inputs needed for improving the learning outcomes is pupil teacher ratio (PTR) which the RTE Act has mandated for each school. However, ASER, 2016 report points out that there is no direct correlation between PTR and learning levels across primary schools in India (Figure 3). States complying with PTR provision of RTE Act have lower learning outcomes.

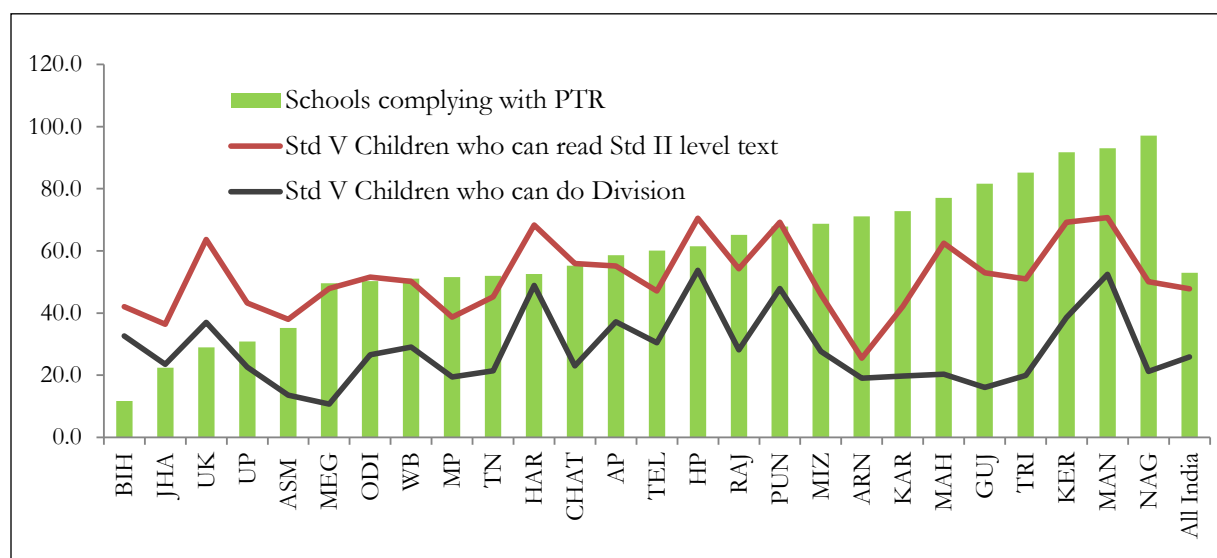
10.12 Further, the lower learning outcomes may be attributed to input factors such as the absence of professionally qualified and regular teachers, lack of remedial education for class appropriate learning, shortage of IT based teaching aids; performance in schools

Figure 2. Trends in Enrolment and Learning Status in Primary Schools (per cent) - Rural India



Source: ASER, 2016.

**Figure 3. Pupil Teacher Ratio and Learning Levels in Primary Schools, 2016
(per cent) - Rural India**



Source: ASER, 2016.

due to absence of teachers and also students, despite attempts to address the latter through mid-day meals.

Direct Transfer of Funds

10.13 The salaries to teachers/staff should be directly remitted like in DBT using the Aadhaar identity, linked to bio-metric attendance. DBT, presently being done for scholarship and other payments to students, should achieve a target of transfer of 100 per cent of the funds transferred. DBT will help prevent delays in transmission of resources, leakages and diversions. It will also address situations, where in some states there are arrears in the payment of salaries to teachers. Non-payment of salaries to teachers or delayed payments de-motivates them and directs them to alternative sources of income at the cost of their primary teaching function.

Pilot project on attendance in Schools

10.14 A pilot should be launched in six months, one school (one at all levels-primary, secondary and senior/higher secondary) in every block should be subject to biometric attendance system for teachers, staff and students, which will help to improve outcomes. This should be centered around each class/session and not on a daily basis. This should be accompanied with independent setting of examination papers and neutral evaluation. Based on the feedback of this pilot, the same should be modified and extended to all schools in all blocks in India before the end of 2021-22. Links to two of the several studies on impact of teacher absenteeism are given below.¹

Secondary Education

10.15 The secondary education is a stepping stone to higher education that equips and empowers students with skills important for the most important school

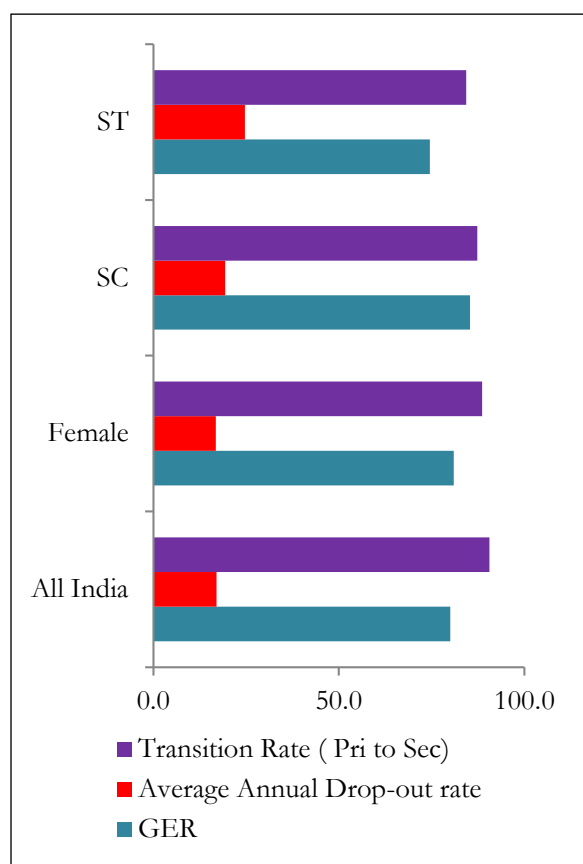
¹ (i) http://www.sas.upenn.edu/ppe/Events/uniconf_2011/documents/Saihjee.Aarti.FinalPaper.pdf

(ii) http://siteresources.worldbank.org/DEC/Resources/36660_Teacher_absence_in_India_EEA_9_15_04_-_South_Asia_session_version.pdf

level and the labour market. The Rashtriya Madhyamik Shiksha Abhiyan (RMSA)-Integrated, launched to enhance access and improve quality of education at secondary stage, envisages enhancing the enrolment for classes IX-X by providing a secondary school within a prescribed distance of every habitation, improving quality of education imparted at secondary level by making all secondary schools conform to prescribed norms, removal of gender, socio-economic and disability barriers, universal access to secondary level education by 2017, and universal retention by 2020.

10.16 The GER at all India level for

Figure 4. GER, Annual Average Drop-out Rate and Transition Rate in Secondary Schools (per cent)



Source: DISE, Secondary School Flash Statistics, 2015-16.

Note: Annual Average Drop-out Rate and Transition Rate are for 2014-15.

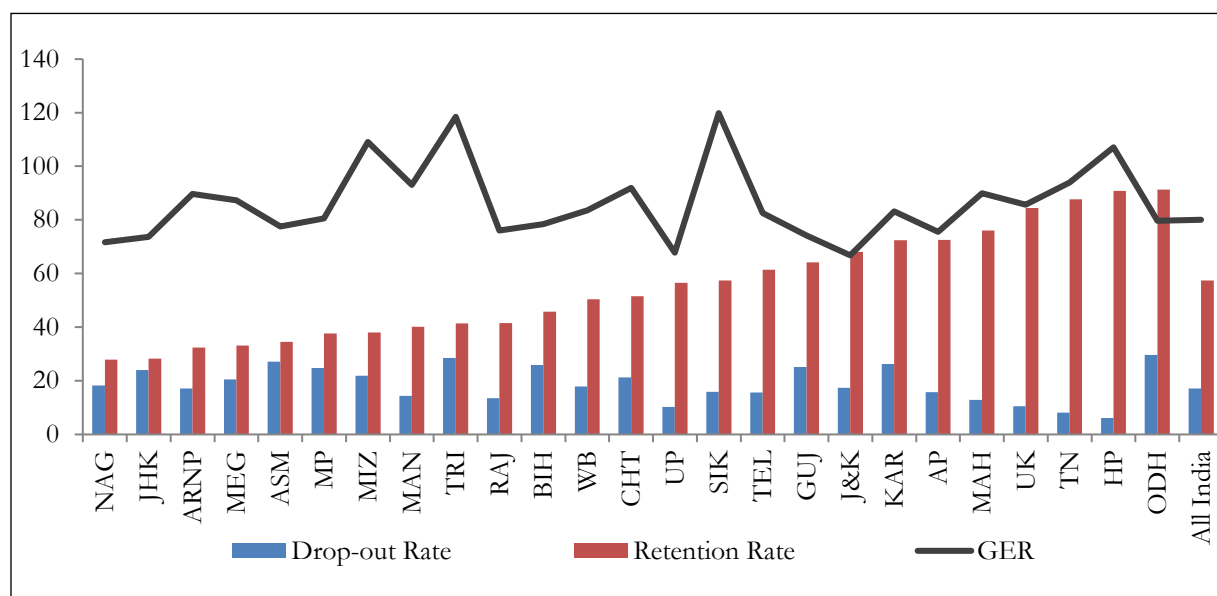
secondary schools is only 80 per cent, way below the target of providing universal access and reaching 100 per cent enrolment. The gross enrolment ratio (GER) at secondary level (includes class 12th) has increased from 56.8 per cent in 2011-12 to 65.3 per cent in 2014-15 (Provisional). However, this pattern is not uniform across India and across different social groups (Figure 4 and 5). It can be seen that the drop-out rate among ST students for 2014-15 is much higher at around 25 per cent compared to the all India annual average drop-out rate at 17.1 per cent.

10.17 The annual average drop-out rates in states like Odisha is as high as 30 per cent which require policy interventions (Figure 5). Similarly, the retention rates in secondary schools is less than 50 per cent in Bihar, Rajasthan, Tripura, Manipur Mizoram, Madhya Pradesh, Assam, Meghalaya, Arunachal Pradesh, Jharkhand and Nagaland. At the all India level the retention rate at 57 per cent in secondary schools, (Figure 5) suggests the need to improve the delivery of the schemes/programmes.

10.18 There is a need to work for a GER of 100 per cent by the target year of 2020-21. A target GER of 100 per cent should also be accompanied with Net Enrolment Ratio (NER) target of 100 per cent, along with a transition rate of 100 per cent from both primary to secondary and then to higher/senior secondary. This should be accompanied with targets on learning outcomes to be assessed for the same standard and not in comparison to lower standard, as done in the ASER survey.

10.19 It will be worthwhile to map GERs, NER, transition rate from secondary to higher/senior secondary, other parameters for input, access, output, efficiency and outcome indicators, with an integrated education index at disaggregated levels (district and

Figure 5. State-level disparities in GER, Average Annual Drop-out Rate and Retention Rate (per cent)



Source: DISE, Secondary School Flash Statistics, 2015-16.

Note: Annual Average Drop-out Rate is for 2014-15.

below district –sub-division, block, tehsil, panchayat, etc), for tracking their progress, to identify shortfalls and to devise measures to address them and improve efficiency of expenditure.

10.20 The focus of school education so far has been on creating physical infrastructure, which is underutilized and needs to shift to improving utilization of assets. A list of schools that are working in single shift needs to be prepared and steps be taken to identify potential utilization of the second/ additional shift for either a separate girls'

primary school/senior secondary school, etc. Advantages of the same are listed below in Box 1.

10.21 Each school that is being funded under any scheme/programme should have an identity tag/ number, akin to a Corporate Identity Number (CIN), that shall help to track resources received from the Centre/ State/Other sources that have tax concessions under section 80 G (and other sections) of the Income Tax Act. This tagging should be accompanied with details of the resources provided, infrastructure and other facilities

Box 1. Optimizing use of infrastructure in schools

- Reap gains from the synergy and efficiency of co-location of schools at all levels of schooling
- Improve utilisation of physical infrastructure – classrooms, science labs and equipment, different course streams, computers/computer rooms, IT infrastructure, arts/crafts/culture room/s, toilet and drinking water facility, playground and equipment, counsellor and principal rooms, etc.
- Continuity for students when they move from primary to secondary and then to higher/senior secondary and so improve the transition rate from primary to secondary and then to higher/senior secondary
- Single school for siblings amongst others things facilitate safe movement/transport to and within the school
- Improved teacher retention by ensuring their progression including their promotions at three levels of schooling

available, which should be in public domain.

Gender Parity Index (GPI)

10.22 The Gender Parity Index (GPI) measures the relative participation in education of male and female students at different levels of attendance. At the above higher secondary level, the GPI based on Net Attendance Ratio (NAR) is much lower than the parity line, which is also the case in rural India compared to urban India (Figure 6). The lower NAR of girls in the higher secondary levels can be corrected by improving accessibility to higher secondary schools. The 'Digital Gender Atlas for Advancing Girls' Education', an important aid that provides rank comparison of States under various indicators defined for upper primary and secondary schools from 2012-2013 to 2013-14 needs to be updated on a regular/annual basis to take further corrective measures by identifying the most backward districts to make education more inclusive.

Higher Education

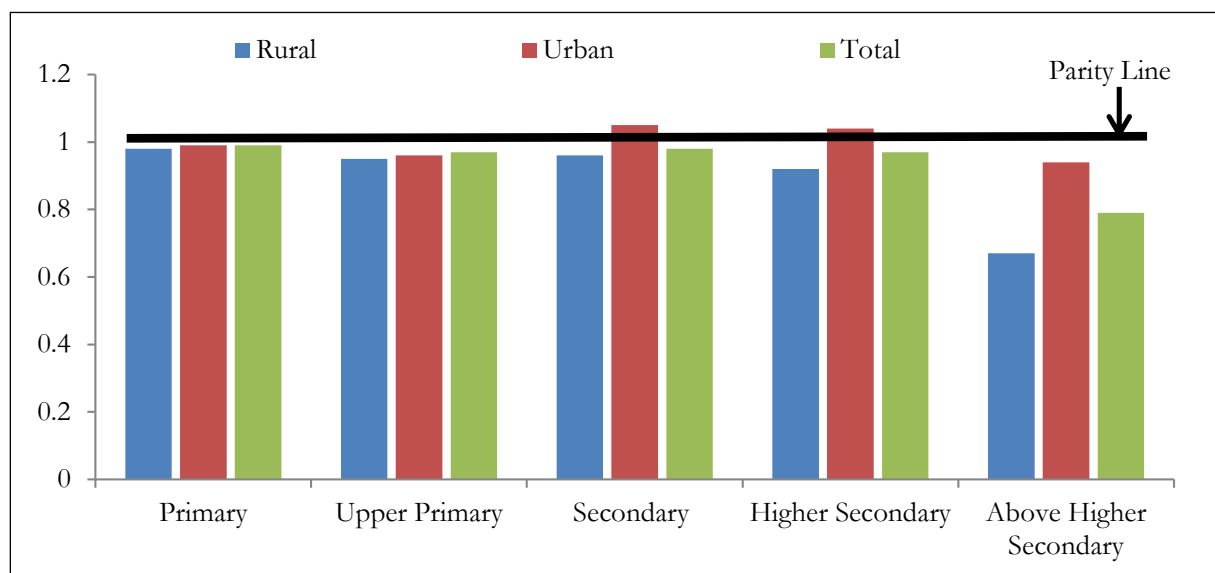
10.23 In the tertiary level education in India, on the one hand there is an increase in the

number of degree, technical/professional colleges while on the other hand the labour market is unable to get appropriately skilled labour force to meet its demand in various sectors. There is a disconnect between higher education in terms of several parameters that go beyond the award of a degree, namely inadequate learning, inappropriate learning, old curriculum, focus on general as opposed to specialized learning and last but most importantly quality of learning. The degree, technical/professional colleges should offer value added learning, which is not only state of the art but also ensures that degree holders are employable.

Expenditure on Education

10.24 The NSS report on education, 2014 notes that the main reason for discontinuance or dropping out for the males is engagement in economic activities (31 per cent). For women, the reasons for dropping out were reported to be engagement in domestic activities (30 per cent) followed by not interested in education (16 per cent) and financial constraints (15 per cent). This

Figure 6. Gender Parity Index (GPI) based on Net Attendance Ratio in 2014



Source: Education in India, NSS 71st Round (January - June, 2014).

suggests that the cost of education is a key determinant in the completion of education.

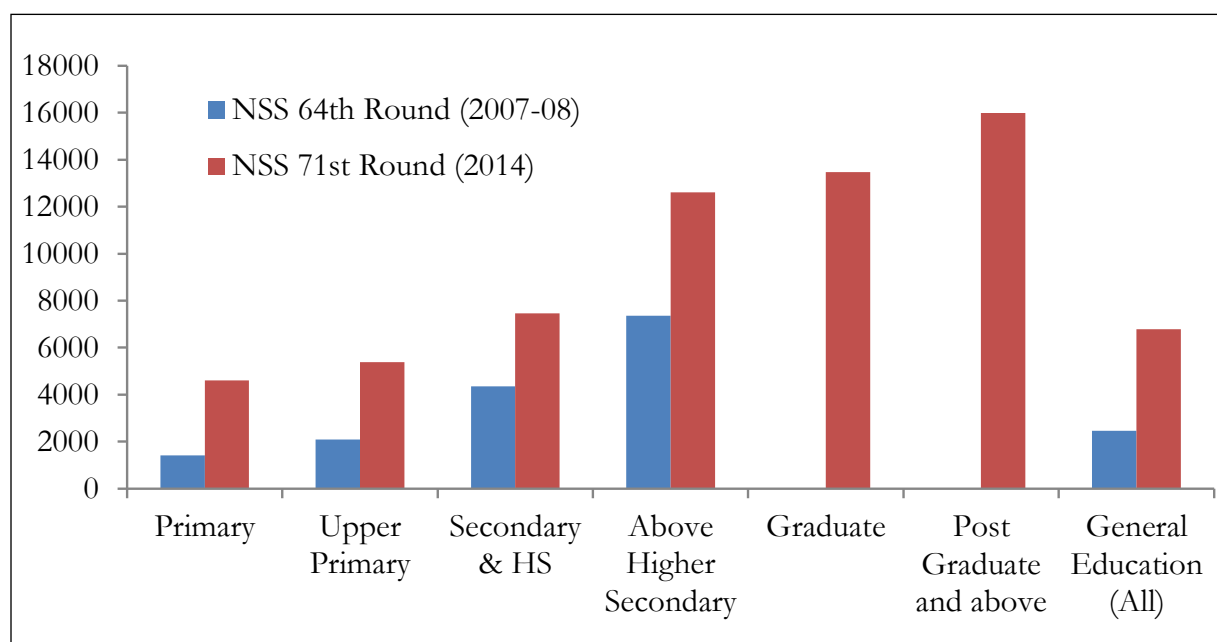
10.25 As per the 71st report of the NSSO (January 2014 to June 2014), the costs of education have increased substantially over the years. The costs of education have been increasing for both general and technical/professional education across all levels. The average annual private expenditure on general education per student (primary & above) has increased from ₹2,461 in 2007-08 to ₹6,788 per student in 2014 (Figure 7).

10.26 The average expenditure on education varies depending on the type of institution, course, level, etc. The differences in expenditure become starker in the case of professional/technical education. The average expenditure on technical/professional education in private aided and unaided institutions was 1.5 to 2.5 times that in government institutions and is mainly on account of the huge gap in the course fees between government and private institutions.

In addition to the rising costs of education in private institutions, private coaching has also emerged as a major component of educational expenditure other than course fees. The share of private coaching in the educational expenditure is around 30 per cent in secondary levels in rural areas and around 45 per cent in higher secondary levels in urban areas among the students attending government institutions.

10.27 With increase in costs of education (course fees and private coaching), to incentivise households with financial constraints to continue sending children to schools and colleges and to complete the desired levels of education, it is imperative that the government take appropriate measures to maintain quality of education and impart skills through education which ensure employability and returns to their investments. The education sector faces significant challenges in this regard (Box 2).

Figure 7. Average Expenditure per student pursuing General Education (in ₹)



Source: Education in India, NSS 71st Round (January - June, 2014).

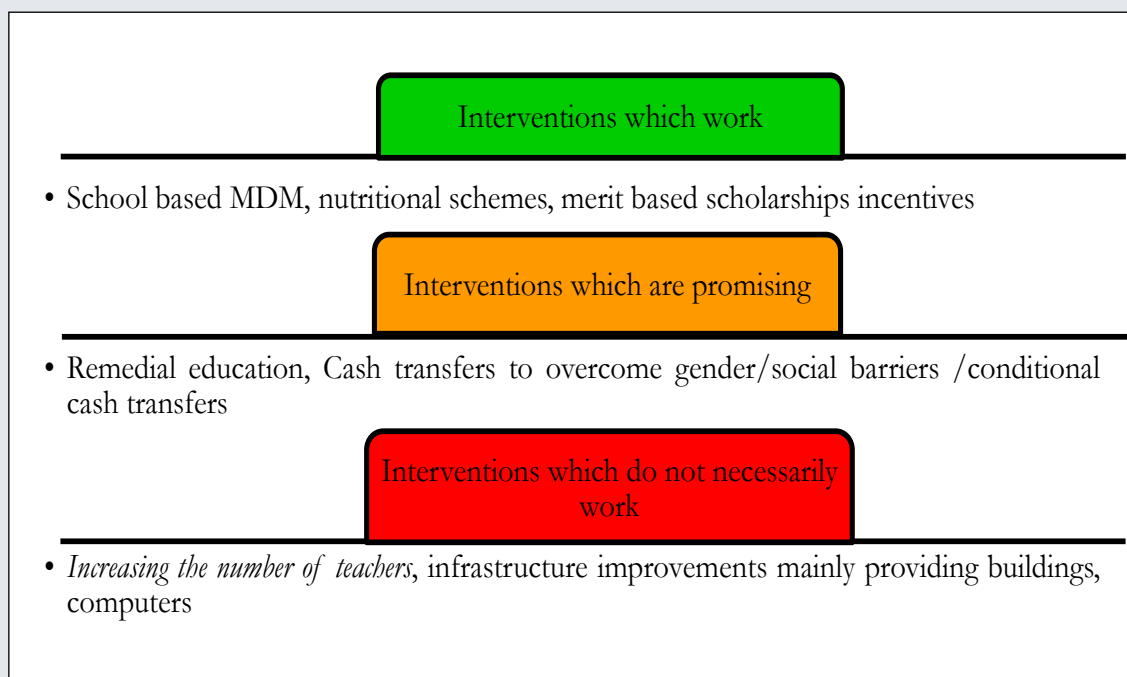
Note: Disaggregation of Graduation and PG & above is made available only in the NSS 71st Round.

Box 2. Interventions to Improve learning: What needs to be learnt?

In India, the schemes like Mid-Day Meals (MDMs) were adopted to increase enrolment rates in schools. Along with the RTE Act, Sarva Shiksha Abhiyan (SSA) there has been substantial increases in enrolment ratios, especially at the primary level. However, there are barriers and constraints that prevent households from sending children to schools and results in non-completion at various levels of education.

To improve the efficiency of expenditure on various interventions, it will help to analyse what kind of policies have worked more efficiently to improve educational outcomes. Such an analysis can point to areas requiring investment to deliver improved learning. Given the resource constraints, it will be worthwhile to drop interventions that do not achieve the intended outcomes. Figure 8 is based on the analysis of some of the schemes of Centre and States, which highlights, the interventions that have brought the intended results in India and which of these interventions still hold promise.

Figure 8. Policy Interventions and Educational Outcomes: A Traffic Lights Approach



The substantial increase in enrolment, of both boys and girls, especially at primary levels was mainly due to nutritional schemes provided at the schools like MDM. The direct cash transfers to girls' families implemented by some of the State governments have also yielded positive response. However, providing stationery, computers, focusing on infrastructure have not resulted in commensurate improvements in learning outcomes. Further, such interventions created leakages in delivery owing to governance issues. The educational schemes should be brought under the 'traffic lights' approach, which will highlight which interventions should have a go ahead in 'green box', and which should be stopped and put under 'red box'. And those interventions which are in 'amber box' should be continued in States/regions where it works and need not be adopted across the country.

Note: Effectiveness of schemes is categorised based on several studies including studies conducted by IIPS, 2015; ASER, 2010, World Bank and PROBE reports.

EMPLOYMENT & SKILL DEVELOPMENT

10.28 The debate on the measurement issues on employment and unemployment estimates have been ongoing for some time. The lack of reliable estimates on employment

in recent years has impeded its measurement and thereby the Government faces challenges in adopting appropriate policy interventions. The existing data sources on employment and their limitations are given in Table 2.

Table 2. Existing data sources on employment and unemployment

| Agency | Sectors/Areas | Limitations |
|---|--|---|
| Labour Bureau Quarterly Quick Employment Survey (QES) | 8 selected labour- intensive and export-oriented sectors. | Partial coverage, inadequate sample size, low frequency, long time lags, double counting, conceptual differences and definitional issues, rarely used for the purpose of employment estimation etc. |
| Labour Bureau Annual Employment-Unemployment Survey (EUS) | Household sample surveys | |
| CSO, MoSPI Annual Survey of Industries (ASI) | Data on employment, absenteeism, labour turnover, earnings and labour cost by components in manufacturing sector. | |
| NSSO, MoSPI Quinquennial Employment and Unemployment Survey | Household sample surveys | |
| O/o RGI & Census Commissioner Population Census Report | Covers all types of workers at 10 years interval | |
| O/o RGI & Census Commissioner Population Census Report | Covers all non-agricultural enterprises regardless of size or sectors. Irregular frequency | |
| NSSO, MoSPI Unorganized Sector Surveys of Industries and Services | Covers un-organized non-agricultural enterprises across manufacturing, services and trade. Based on sample frame of Economic Census having low and irregular frequency | |
| Ministry of MSME MSME Census | So far, only four surveys have been conducted. Last survey was conducted in 2006-07 | |
| Administrative Sources EPFO, ESIC, NPS and private sector | Includes only formal sector | |

10.29 To address the deficiencies in the existing data on employment, a Task Force was set up under the chairmanship of the Vice Chairman, NITI Aayog. The Task Force is mandated to assess the existing data collection on employment and unemployment, examine the prospects for using any existing data sources to obtain quick estimates of jobs created in recent years and recommend roadmap for future data collection so as to place employment estimates on sound footing.

10.30 Employment in India poses a great challenge in terms of its structure which is dominated by informal, unorganised and seasonal workers, and is characterised by high levels of under employment, skill shortages, with the labour markets impacted by rigid labour laws, and the emergence of contract labour. In order to make the labour market system dynamic and efficient, the government has taken several reforms/ initiatives, both legislative as well as technological. Technological reforms include

the notification of “Ease of Compliance to maintain Registers under various Laws Rules, 2017” wherein 56 forms/register prescribed under 9 Central Laws and Rules made there under, into 5 common registers/forms. Besides, a common registration form for registering of a new firm has been provided on e-Biz Portal. These registers/forms can also be maintained in a digitized form.

10.31 Public employment generation programmes have also continued to be a major tool for creating additional jobs and promoting inclusiveness. The Government has increased budgetary allocations for anti-poverty programmes and employment-generation schemes with a view to supplement the efforts for job creation. There has been highest ever allocation under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) during 2017-18. About 5.12 crore households were provided employment totaling 235.4 crore person days during 2016-17. Out of this 56 per cent were generated by women, 21 per cent by SCs and 18 per cent by STs. The work completion rate during 2016-17 was also highest since its inception, with focus on natural resource management and agricultural and allied activities.

10.32 During FY 2016-17, an amount of ₹3,000 crore has been allocated to Deendayal Antyodaya Yojana -National Rural Livelihoods Mission (DAY-NRLM), and 52 lakh households through 4.5 lakh new SHGs were added. Presently there are 3.5 crore households in 31 lakh SHGs. Similarly, for urban poor, Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) imparts skill training for self and wage-employment through setting up self-employment ventures by providing credit at subsidized rates of interest. The Government has now expanded the scope of DAY-NULM from 790 cities to 4,041 statutory towns in

the country. So far, 8,37,764 beneficiaries have been skill-trained, 4,27,470 persons have been given employment, 1,90,224 Self-Help Groups (SHGs) have been formed, 1,26,399 SHGs have been given Revolving Fund and 2,66,443 SHGs have been given bank linkages.

10.33 Skilled labour force is essential to meet diversified demands of a growing economy, to tap the benefit of demographic dividend. As per the India Skill Report 2016, the present demographic advantage of India is predicted to last only till 2040.

10.34 A sector wise study, commissioned by National Skill Development Corporation (NSDC), estimated the incremental human resource requirement of 103.4 million across 24 high priority sectors by 2022. Based on these numbers, MSDE held protracted discussion across 34 sectors/sub-sectors with the Ministries/Departments concerned, with detailed sub-sector wise analysis to validate the employment projections, identify the sectoral/sub-sectoral Training Needs. The Training Need was estimated to be 126.87 million by 2022.

10.35 To meet the requirement, the Government imparts short term skill training through Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and long term training largely through Industrial Training Institutes (ITIs). Model Skill Centers are being set up in every district of the country while ensuring coverage of all the parliamentary constituencies under Pradhan Mantri Kaushal Kendra Scheme.

10.36 The focus currently is on enhancing the quality of Skill Training Programs and making Vocational Training aspirational. National Skill Qualification Framework (NSQF), a competency-based framework,

was notified in 2013. NSQF focuses on learning outcomes and gives individuals an option to progress through education and training and gain recognition for their prior learning and experiences.

10.37 The present measure of outcomes in skill training includes only number of persons trained, which is uni-dimensional. The outcome measures for skill training should take into account parameters to make it multi-dimensional, by including person days, person hours, weighting for level of training, weighting for duration of training and other appropriate weighting.

TOWARDS A HEALTHY INDIA

10.38 The Government is committed to achieving the Sustainable Development Goal (SDG-3) for health - “Ensure healthy lives and promoting wellbeing for all at all ages” by 2030. Towards this, the Government has formulated the National Health Policy, 2017, which aims at attaining the highest level of good health and well-being, through preventive and promotive health care orientation in all developmental policies, and universal access to good quality health care services, without anyone having to face financial hardship as a consequence (Box 3).

Box 3. Salient features of the National Health Policy, 2017

- Raising public health expenditure to 2.5 per cent of the GDP in a time bound manner. The States would be incentivised for incremental State resources for public health expenditure. General taxation will remain the predominant means for financing health care.
- Providing larger package of assured comprehensive primary health care through the Health and Wellness Centers, which includes geriatric health care, palliative care and rehabilitative care services.
- Provide at the district level most of the secondary care which are currently provided at a medical college hospital.
- Every family would have a health card that links them to primary care facility and be eligible for a defined package of services anywhere in the country.
- Free drugs, free diagnostics and free emergency care services in all public hospitals.
- Supports voluntary service in rural and under-served areas on pro-bono basis by recognized healthcare professionals under a ‘giving back to society’ initiative.
- Establishment of National Digital Health Authority (NDHA) to regulate, develop and deploy digital health across the continuum of care.
- Setting up of a separate, empowered medical tribunal for speedy resolution to address disputes /complaints regarding standards of care, prices of services, negligence and unfair practices. Standard Regulatory framework for laboratories and imaging centers, specialized emerging services such as assisted reproductive techniques, surrogacy, stem cell banking, organ and tissue transplantation and Nano Medicine will be created as appropriate.
- Strengthening regulation of medical devices and establishing a regulatory body for medical devices to unleash innovation and the entrepreneurial spirit for manufacture of medical device in India. The policy supports harmonization of domestic regulatory standards with international standards.
- With the objective of ensuring the rights, safety and well-being of clinical trial participants, the policy recommends that specific clause(s) be included in the Drugs and Cosmetics Act for its regulation.
- Timely revision of National List of Essential Medicines (NLEM) along with appropriate price control mechanisms for generic drugs.
- Establishing federated national health information architecture, to roll-out and link systems across public and private health providers at State and national levels consistent with Metadata and Data Standards (MDDS) & Electronic Health Record (EHR), will be supported by the policy.
- Creation of registries (i.e. patients, provider, service, diseases, document and event) for enhanced public health/big data analytics, creation of health information exchange platform and national health information network, use of National Optical Fibre Network, use of smartphones/tablets for capturing real time data, are key strategies of the National Health Information Architecture.

Source: Ministry of Health & Family Welfare.

Health in India: Select Indicators

10.39 An overview of India's demographic and health indicators throws light on the overall health status of various segments of the population. The select indicators such

as TFR, CBR and CDR have been declining (Table 3).

10.40 However, in comparison to the major emerging economies, India has to scale up efforts to reduce under 5 mortality and neonatal mortality rate (Table 4).

Table 3. Trends in Select Health Indicators

| Sl. No. | Parameter | 1981 | 1991 | 2001 | Current level |
|---------|---|-----------|-----------|---------------|---------------|
| 1. | Crude Birth Rate (CBR) (per 1000 population) | 33.9 | 29.5 | 25.4 | 20.8 (2015) |
| 2. | Crude Death Rate (CDR) (per 1000 population) | 12.5 | 9.8 | 8.4 | 6.5 (2015) |
| 3. | Total Fertility Rate (TFR) | 4.5 | 3.6 | 3.1 | 2.3 (2015) |
| 4. | Maternal Mortality Ratio (MMR) (per 1,00,000 live births) | NA | NA | 301 (2001-03) | 167 (2011-13) |
| 5. | Infant Mortality Rate (IMR) (per 1000 live births) | 110 | 80 | 66 | 37 (2015) |
| 6. | Life Expectancy at Birth | (1981-85) | (1989-93) | (1999-2003) | (2011-15) |
| | Total | 55.4 | 59.4 | 63.4 | 68.3 |
| | Male | 55.4 | 59.0 | 62.3 | 66.9 |
| | Female | 55.7 | 59.7 | 64.6 | 70.0 |

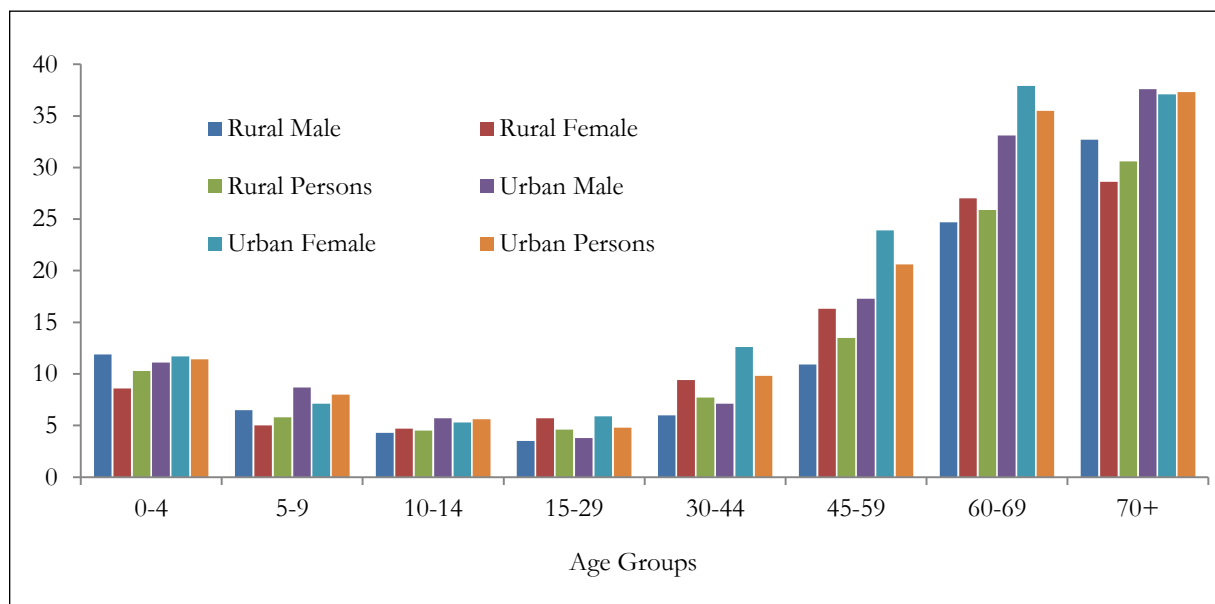
Source: Sample Registration System (SRS), Registrar General of India.

Table 4. India and Emerging Economies: Select Indicators

| Country | Life Expectancy at Birth (Years) | Maternal Mortality Ratio (per 100,000 live births) | Births attended by skilled health personnel (per cent) | Under 5 mortality Rate (per 1000 live births) | Neonatal Mortality Rate (per 1000 live births) |
|--------------|-------------------------------------|---|---|--|---|
| | 2015 | 2015 | 2006-2014 | 2015 | 2015 |
| Brazil | 75 | 44 | 99 | 16.4 | 8.9 |
| China | 76.1 | 27 | 100 | 10.7 | 5.5 |
| Colombia | 74.8 | 64 | 99 | 15.9 | 8.5 |
| India | 68.3 | 174* | 74 | 47.7 | 27.7 |
| Indonesia | 69.1 | 126 | 87 | 27.2 | 13.5 |
| Malaysia | 75 | 40 | 99 | 7 | 3.9 |
| Nepal | 69.2 | 258 | 48 | 35.8 | 22.2 |
| Pakistan | 66.4 | 178 | 52 | 81.1 | 45.5 |
| Philippines | 68.5 | 114 | 73 | 28 | 12.6 |
| Russia | 70.5 | 25 | 100 | 9.6 | 5 |
| South Africa | 62.9 | 138 | 94 | 40.5 | 11 |
| Sri Lanka | 74.9 | 30 | 99 | 9.8 | 5.4 |
| Thailand | 74.9 | 20 | 100 | 12.3 | 6.7 |
| Vietnam | 76 | 54 | 94 | 21.7 | 11.4 |
| World | 71.4 | 216 | 73 | 42.5 | 19.2 |

Source: Monitoring Health for SDGs report, World Health Statistics, 2016.

Note:* as reported in World Health Statistics, 2016. As per RGI, MMR is 167.

Figure 9. Morbidity (proportion of ailing persons) in India (per cent)

Source: Health in India, NSS 71st Round, (January - June, 2014).

Morbidity

10.41 The self-reported morbidity data (proportion of persons ailing) is another important indicator of the status of health and wellbeing of a population. Within the same age groups, there are male-female and rural-urban disparities in morbidity. The morbidity/ailments reported are higher at the upper end of the age spectrum (Figure 9), after the age of 60 years. Before the age of 5 years, rural males report the highest percentage of ailments at 11.9 per cent. There is a gradual increase in morbidity from the age group 45 years onwards. The highest percentage of ailments is reported by urban females in the age group 60 to 69 years. It is noteworthy that only 29 per cent rural females aged above 70 years reported ailments, in comparison to 38 per cent urban males and 37 per cent urban females reporting ailments.

Expenditure on Health

10.42 As per the NSS 71st Round (January 2014 to June 2014) private doctors were the most important single source of treatment in

both the rural and urban areas. More than 70 per cent (72 per cent in the rural areas and 79 per cent in the urban areas) of the spells of ailment were treated in the private sector which entails higher out of pocket expenses in comparison to those treated in public health facilities.

10.43 India has emerged as the country with the largest out of pocket (OoP) expenditure on health, among the BRICS economies consistently higher at more than 60 per cent since 2008. While in developing countries like Brazil, the percentage of OoP expenditure is less than 32 per cent, in South Africa, it is less than 10 per cent (Figure 10).

10.44 The higher OoP expenditure on health leads to the impoverishment of poorer sections of society and widens inequalities. OoP expenditure for the poor is a double whammy because, one, adverse health conditions impact their productivity and ability to earn their daily incomes and second, payments to get themselves treated adds to their 'financial distress' and impoverishes them. It is necessary to expand provision of

Box 4. Cardiovascular Diseases, a Public Health Issue and Pricing of Stents

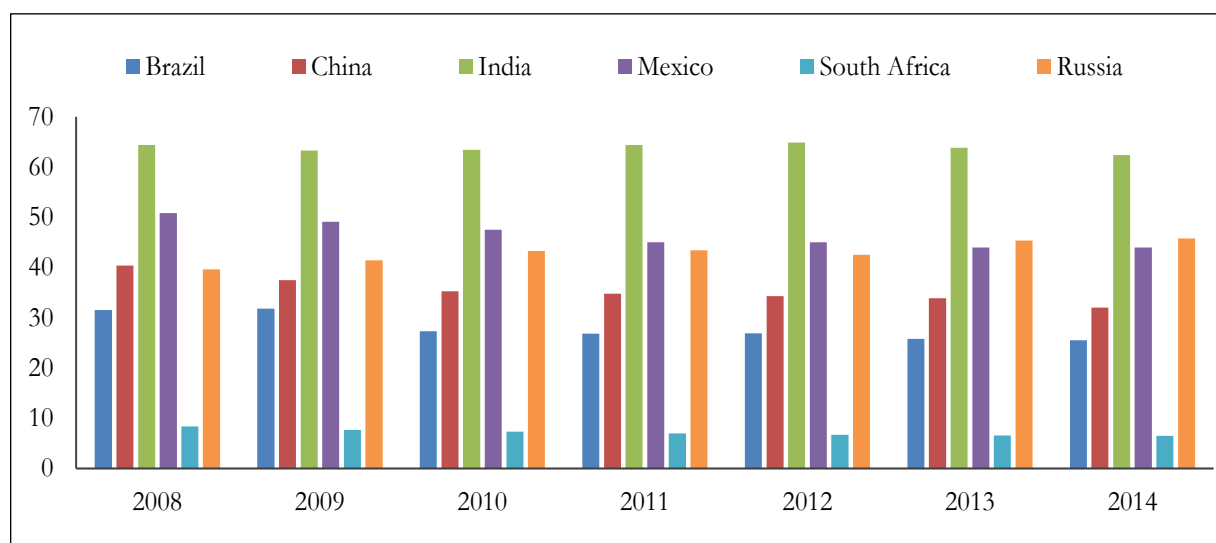
Cardiovascular Diseases (CVDs) are responsible for a quarter of all mortality in India. CVD death rate of 272 per 100,000 population in India is higher than the global average of 235 per 100,000 population as per Global Burden of Diseases Report and requires attention. This problem needs to be addressed by generating awareness about alternative health systems for treatments, healthy diets and significance of exercise/physical activities among all age groups in the population and through surgical treatment. A Core Committee which examined the issues relating to the essentiality of Coronary stents in its report to the Government in April 2016 observed that there is very high incidence of Coronary Artery Disease (CAD) in India. This was followed by a notification of coronary stents as 'essential medicine' in July, 2016 and its inclusion in Schedule 1 of Drugs (Prices Control) Order, 2013, an order which aims to ensure that essential drugs are available to all affordable prices in December, 2016.

National Pharmaceutical Pricing Authority (NPPA) carried out an exercise of consultation with stakeholders during January, 2017 for fixing the ceiling price of Coronary Stents, and analysed available information and data on prices of Coronary Stents. It was found that huge unethical mark-ups were being charged at every stage in the supply chain of Coronary Stents resulting in irrational, restrictive and exorbitant prices in a failed market system driven by information asymmetry between the patient and doctors pushing patients to financial misery.

Under such extraordinary circumstances and in public interest, NPPA vide its notification on 13th February, 2017 fixed the ceiling price of the Coronary Stents at ₹7,260 for Bare Metal Stents and ₹29,600 for Drug Eluting Stents (including BVS/Biodegradable). The fixation of the ceiling price of coronary stents has resulted in the saving of ₹4,450 crores annually.

Source: National Pharmaceutical Pricing Authority.

Figure 10. Out of Pocket Expenditure (as a per cent of total expenditure on health)



Source: World Development Indicators, World Bank.

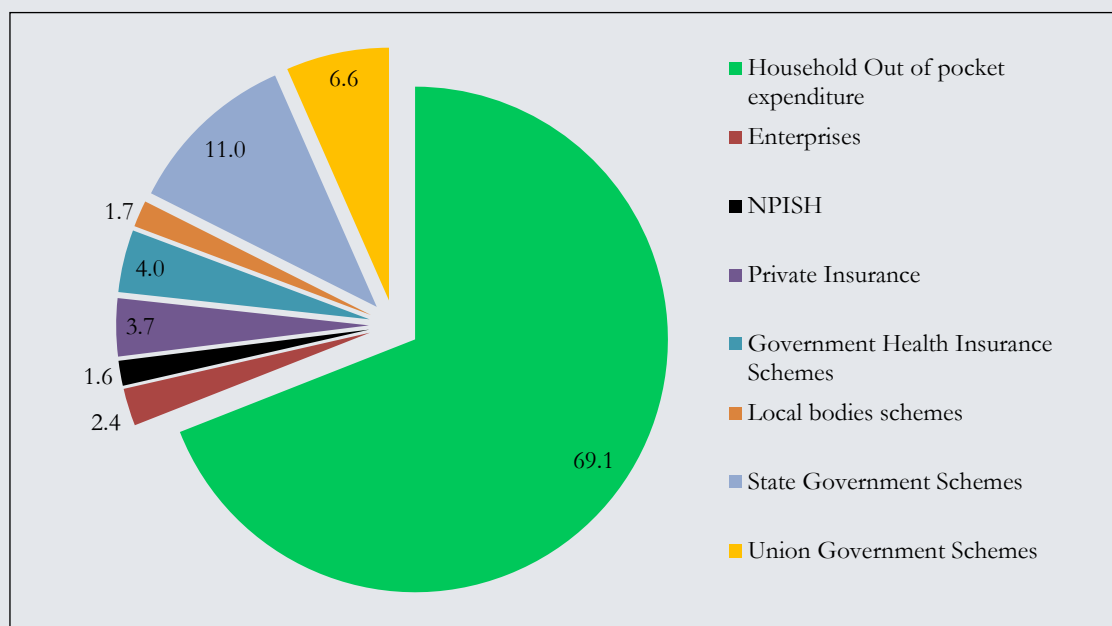
quality public health services to low income groups to prevent impoverishment of large sections of population owing to ill health. Further details on health expenses in India

have been brought out by the National Health Accounts (NHA) of Ministry of Health and Family Welfare (Box 5).

Box 5. Financing health care in India: Too much drain on the pockets?

The National Health Accounts (NHA) estimates tracks the flow of funds from Union, State, local governments, external donors, non-profit institutions and households. As per NHA estimates (2013-14), the components of Current Health Expenditure (CHE) shows that the Union government schemes constitute 6.6 per cent, State government schemes 11 per cent, and local bodies schemes 1.7 per cent. The outlier is that of the household OoP expenditure which forms 69 percent of CHE and is the largest component for a developing country like India (Figure 11). The high OoP expenditure calls for reforms in health sector.

Figure 11. Components of Current Health Expenditure in India (in per cent)



Source: National Health Accounts, 2013-14, M/o Health and Family Welfare.

10.45 The patent drugs and medicine providers in India have large players, enjoy a monopoly position, and so make excess profits at the cost of the consumer. This position needs to be countered in several ways. First, the government and public purchases need to mandatorily shift to generic drugs to reduce demand for patented drugs and cost to the government. The second is to equip the consumer with information including in the form of concordance tables that provide the generic equivalent of patented drugs in all the forms – paper, at public places including hospitals, on the website of the Ministry of Health and Family Welfare, through mobile phones as apps and over the telephone. An endorsement of these tables shall enthuse confidence in the consumer. The role of the

government in this information war should be of a facilitator as in the case of Arthapedia modelled on Wikipedia, where information can be added in an open format, with some moderation and verification. A third could take the form of an AYUSHPEDIA that would offer, native solutions including information on indigenous medicine to common problems, also to be hosted on the website of the Ministry of Health and Family Welfare, and through mobile phones as apps and over the telephone.

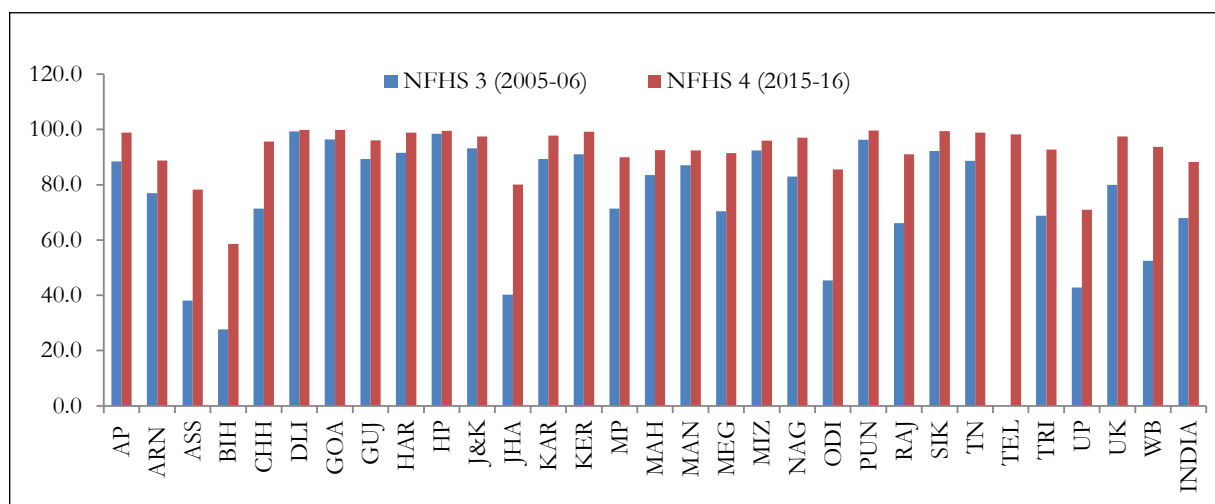
Standard of living indicators

10.46 The Gross Domestic Product (GDP) of a country does not fully reflect the quality of life of a country. There are other factors like housing, access to public transport, air

quality and access to drinking water which determine the standards of living. The standards of living can be measured using multiple indicators as done by the National Family Health Survey-4 (NFHS-4) (2015-16), which throw light on certain aspects of quality of living in India (Figures 12 to 14). At the all India level, the percentage of households with electricity, clean cooking fuel and improved drinking water source

has registered an increase from 68 to 88 per cent, 25 to 44 per cent and 88 to 90 per cent, respectively during the period 2005-06 (NFHS-3) to 2015-16 (NFHS-4). However, there are notable regional disparities in access, as in the case of clean cooking fuel in Assam, Bihar, Odisha, Chhatisgarh and Meghalaya and Jharkhand, which have only around 18.25 per cent households using clean cooking fuels in 2015-16.

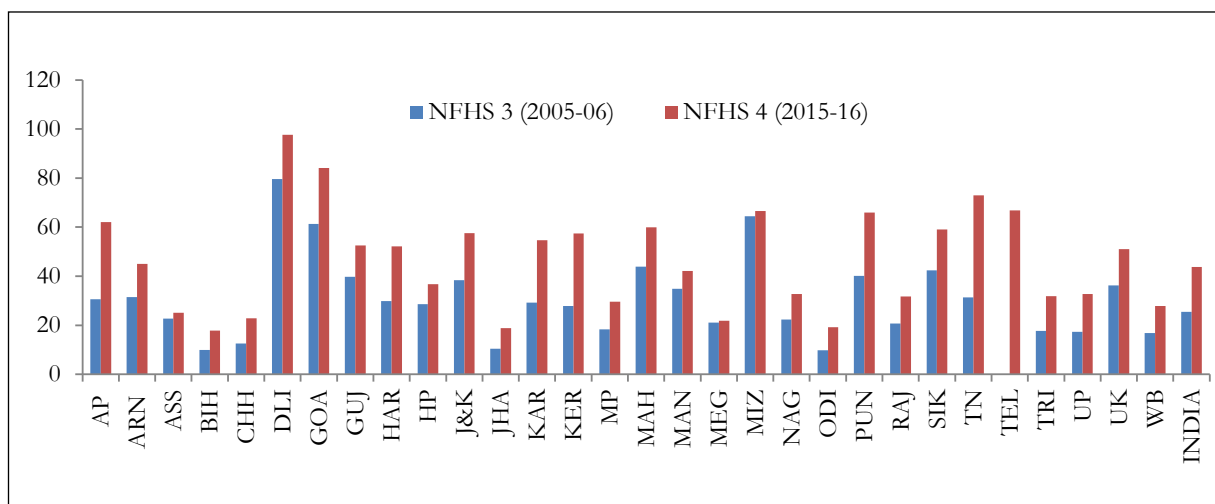
Figure 12. Households with Electricity (per cent)



Source: National Family Health Surveys.

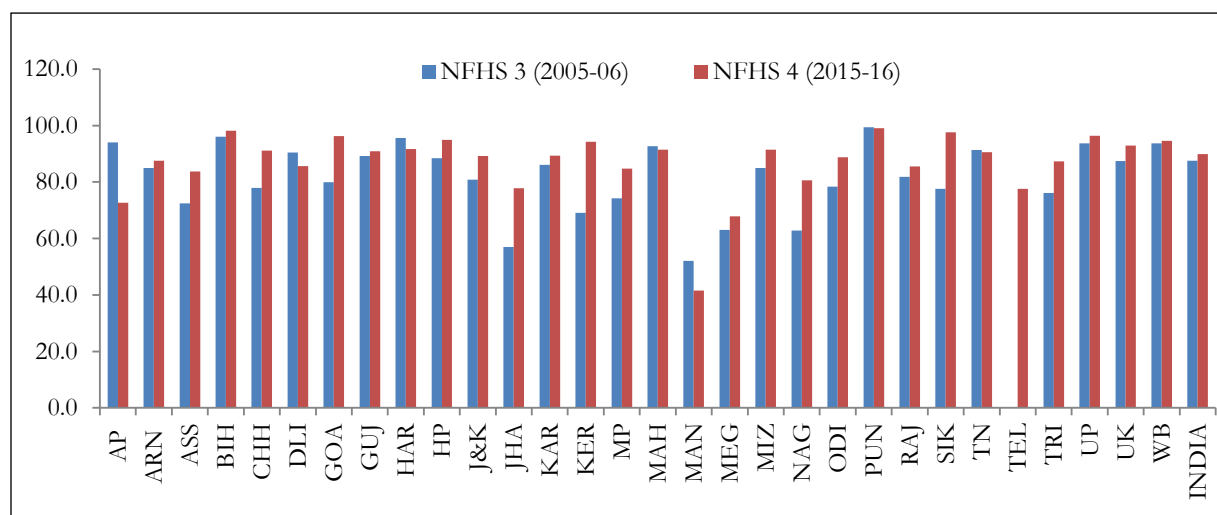
Note: During NFHS-3, Telangana was included in Andhra Pradesh.

Figure 13. Households using Clean Cooking Fuel (per cent)



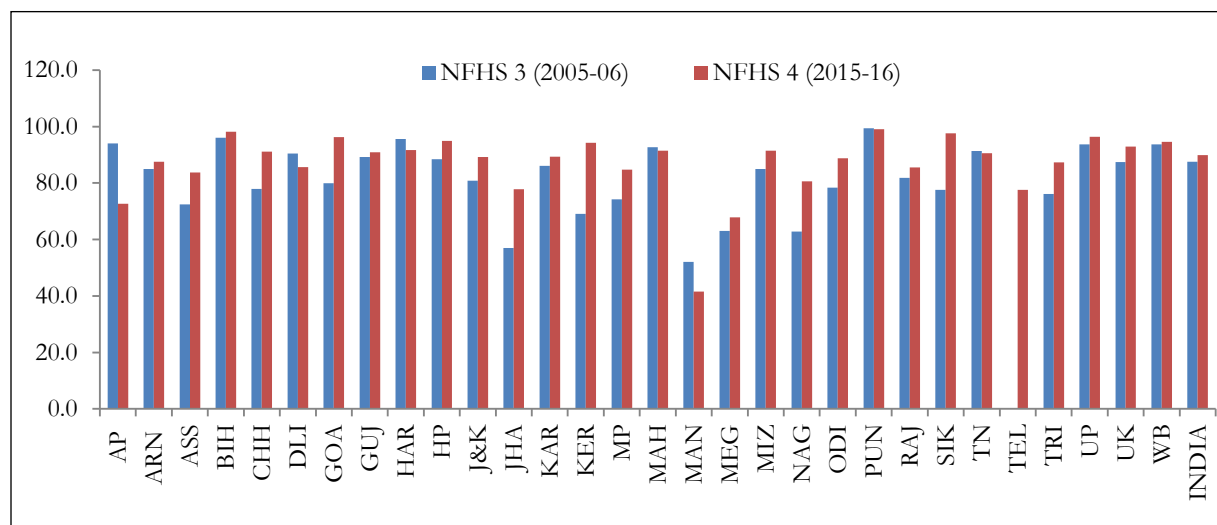
Source: National Family Health Surveys.

Note: During NFHS-3, Telangana was included in Andhra Pradesh.

Figure 14. Households using improved Drinking Water Source (per cent)

Source: National Family Health Surveys.

Note: During NFHS-3, Telangana was included in Andhra Pradesh.

Figure 15. Households with improved Sanitation Facility (per cent)

Source: National Family Health Surveys.

Note: During NFHS-3, Telangana was included in Andhra Pradesh.

10.47 In the case of households using improved drinking water source the States like Manipur, NCT Delhi, Haryana, Tamil Nadu, Maharashtra and Punjab, have reported decline in the percentage over the period 2005-06 to 2015-16. In Manipur, the depleting water levels and drying up of major rivers, the *Imphal* and the *Iril* owing to paucity of rains have been the main reason

for declining access to drinking water. In Delhi, wastage of water and drying up of river *Yamuna* are main reasons for shortage of water. Similar situation prevails in other cities also. To prevent wastage of water, individual household metering, pricing including differential pricing needs to be adopted and water harvesting structures need to be built across the country.

10.48 At the start of the Swachh Bharat Mission-Gramin (SBM-G) of Government of India in 2014, an estimated 55 crore people defecated in the open. With its focus on cleanliness and Open Defecation Free (ODF) India, there has been a significant decline in the number of people who defecate in the open, which is estimated at less than 35 crore. The rural sanitation coverage has increased significantly from 42 per cent in October, 2014 to 63 per cent as on 1st April 2017, which is an increase of 21 percentage points in just two and a half years. In addition, there are 1.87 lakh villages, 129 districts and 3 States which have been declared Open Defecation Free (ODF) with over 3.8 crore toilets already built across India. During the NFHS-3, the percentage of households with access to improved sanitation facility was 29 per cent, which has increased to 48 per cent by NFHS-4 (Figure 15). The improvement in the sanitation cover needs to be sustained by maintaining and using the facilities.

HUMAN DEVELOPMENT : INTERNATIONAL COMPARISONS

10.49 Given that human choices are infinite, it is recognized that at all levels of development, the three essential ones are for people to lead a long and healthy life, to acquire knowledge and to have access to resources needed for a decent standard of living. If these essential choices are not available, many other opportunities remain inaccessible. The Human Development Index (HDI) captures these basic dimensions of human development and is an important indicator of standard of living in a country based on the indices for life expectancy, educational attainment and per capita income.

10.50 India's rank of 131 out of 188 countries in the latest Human Development Report (HDR) 2016 with the HDI value for 2015 at 0.624 has slid one rank from 130 in 2014 (HDR, 2015). In comparison to other

nations in the BRICS grouping, India has the lowest rank, Russia at 49, Brazil at 79, China at 90 and South Africa at 119 (Table 5).

10.51 India's HDI of 0.624 is also below the average of countries in the medium human development group (0.631) but marginally higher than the HDI average of South Asian countries (0.621). Between 1990 and 2015, India's HDI value increased from 0.428 to 0.624, an increase of 45.8 percent. The mean years of schooling for India is the lowest in comparison to other BRICS nations. The Life Expectancy at Birth (LEB) is also lower than that of Bangladesh, Brazil, China, and Russia, but higher than that of South Africa (Table 5).

10.52 The two indicators of income inequality, namely the Income Gini coefficient and the quintile income ratio show that there is increase in inequalities over time in India. For India, the Income Gini coefficient is 35.2 during 2010-15 which is higher than 33.6 reported during 2005-13 (HDR, 2015), reflecting an increase in the income inequality, while the quintile income ratio also has registered a marginal increase from 5.0 in 2005-2013 to 5.3 in 2010-2015 (Table 5). The inequality indicators of India are lower than that for many other developing countries like South Africa (63.4), Brazil (51.5), Malaysia (46.3), China (42.2), the Russian Federation (41.1), Indonesia (39.5) and Sri Lanka (39.2), as well as countries like the USA, Chile and Argentina. It is necessary to address the issues causing widening of inequalities across various sections for equitable development and progress of the country.

10.53 The Gender Development Index (GDI) which is calculated for 160 countries in 2015, has placed India into Group 5, with GDI value at 0.819 (Table 5). The HDI value for females in India is 0.549 in contrast with 0.671 for males, and the female HDI value is higher than that of 2014 at 0.525. Though

Table 5. HDI Components Indices of Selected Countries 2015

| Country | HDI 2015 | | Change in rank | GNI per capita (\$) | LEB (years) | Expected years of schooling | Mean years of schooling | Income Inequality | | Gender Development Index 2015 | |
|---------------|--------------|------------|----------------|---------------------|-------------|-----------------------------|-------------------------|-----------------------|-------------------------|-------------------------------|----------|
| | Value | Rank | | | | | | Quintile Income Ratio | Income Gini-Coefficient | | |
| | | | 2010-15 | 2015 | 2015 | 2015 ^a | 2015 ^a | 2010-15 | | Value | Group |
| Norway | 0.949 | 1 | 0 | 67,614 | 81.7 | 17.7 | 12.7 | 3.8 | 25.9 | 0.993 | 1 |
| Germany | 0.926 | 4 | 0 | 45,000 | 81.1 | 17.1 | 13.2 | 4.6 | 30.1 | 0.964 | 2 |
| United States | 0.920 | 10 | -3 | 53,245 | 79.2 | 16.5 | 13.2 | 9.1 | 41.1 | 0.993 | 1 |
| U K | 0.909 | 16 | -4 | 37,931 | 80.8 | 16.3 | 13.3 | 5.3 | 32.6 | 0.964 | 2 |
| Russian Fed. | 0.804 | 49 | 5 | 23,286 | 70.3 | 15.0 | 12.0 | 8.2 | 41.6 | 1.016 | 1 |
| Malaysia | 0.789 | 59 | 1 | 24,620 | 74.9 | 13.1 | 10.1 | 11.3 | 46.3 | | ... |
| Sri Lanka | 0.766 | 73 | -2 | 10,789 | 75.0 | 14.0 | 10.9 | 6.6 | 39.2 | 0.934 | 3 |
| Brazil | 0.754 | 79 | 7 | 14,145 | 74.7 | 15.2 | 7.8 | 15.5 | 51.5 | 1.005 | 1 |
| China | 0.738 | 90 | 11 | 13,345 | 76.0 | 13.5 | 7.6 | 9.2 | 42.2 | 0.954 | 2 |
| Egypt | 0.691 | 111 | -3 | 10,064 | 71.3 | 13.1 | 7.1 | | | 0.884 | 5 |
| Indonesia | 0.689 | 113 | 3 | 10,053 | 69.1 | 12.9 | 7.9 | 6.6 | 39.5 | 0.926 | 3 |
| South Africa | 0.666 | 119 | 2 | 12,087 | 57.7 | 13.0 | 10.3 | 27.9 | 63.4 | 0.962 | 2 |
| India | 0.624 | 131 | 4 | 5,663 | 68.3 | 11.7 | 6.3 | 5.3 | 35.2 | 0.819 | 5 |
| Bangladesh | 0.579 | 139 | 2 | 3,341 | 72.0 | 10.2 | 5.2 | 4.7 | 32.1 | 0.927 | 3 |
| Pakistan | 0.550 | 147 | 2 | 5,031 | 66.4 | 8.1 | 5.1 | 4.4 | 30.7 | 0.742 | 5 |
| World | 0.717 | | | 14,447 | 71.6 | 12.3 | 8.3 | | | 0.938 | |

Source: HDR, 2016.

Notes: (1) ^a- Data refers to 2015 or the most recent year available. \$: Gross National Income (GNI) per capita is based on 2011 dollar purchasing power parity (PPP). LEB is Life Expectancy at Birth.

(2) For measuring GDI, Countries are categorized into five Groups based on their absolute deviations of HDI values between men and women. Group 5 represents low equality of HDI values between men and women with above 10 per cent absolute deviations.

the mean years of schooling for girls in India at 4.8 in 2015 has registered an increase from 3.6 years reported in the year 2014, it is lower than that for males. The male–female disparities in access to education persist in the society and interventions are needed to overcome the social barriers to equalize opportunities for learning.

GENDER ISSUES

10.54 Empowering women to participate fully in economic life across all sectors

is essential to build stronger economies, achieve internationally agreed goals for development and sustainability, and improve the quality of life for women, men, families and communities (UN Women, 2011).

10.55 The findings of the NFHS-4 (2015-16) show an increase in empowerment of women aged 15-49 years across major indicators. There is an improvement in the indicators that reflect empowerment with an increase in the percentage of women having savings

account and increase in the percentage of women having a say in household decision making.

10.56 Among the States, Goa has the maximum number of women with a bank or savings account that they themselves use. Women have also started having a say in decision making process with Sikkim having the largest percentage of women having

a say in household decision making. In majority of the States, more than 80 per cent of married women participate in household decision making process which is a reflection of greater autonomy and it is a pathway to empowerment in other spheres of life.

10.57 However, there are indicators of empowerment which need to be addressed (Box 6), as in the case of spousal violence.

Box 6. Women and 'Development as Freedom'

There are major 'roadblocks' to 'development as freedom' in the case of 'women folk' who constitute around fifty percent of the India's population. The growing number of incidents of kidnapping, sexual assaults on girls and women, point to the appalling levels of crime and so insecurity that women have to face in public spaces in India. The lack of access to property rights (land ownership is predominantly with men), presence of retrograde social customs like dowry, and constraints on mobility along with the absence of collective mobilisation and lack of socialisation have affected the capacity of women to negotiate and bring about changes that are necessary for equality in the private and public domains of life.

The basic rights to dignified life are violated by the increasing crimes against women in India wherein the security and safety of women in public spaces are being challenged on a regular basis. It is a situation in India, wherein to borrow from Nobel Laureate Kahneman, '*we can be blind to the obvious, we are also blind to our blindness.*'

The National Crime Records Bureau (NCRB), 2015 reports less than 22 per cent conviction rate in cases involving crimes against women in India, a reflection on the failure of governance. The proportion of IPC (Indian Penal Code) crimes committed against women with respect to total IPC crimes has increased during the last 5 years from 9.4 percent in 2011 to 10.7 percent during 2015 (Table.6).

Table 6. Crimes against women and children, 2015

| Crime Head | Total crimes reported | IPC component of crimes committed against women and children | Proportion of IPC crimes committed against women and children with respect to total IPC crimes* | Rate of crime | Charge-sheeting rate | Conviction rate |
|--|-----------------------|--|---|---------------|----------------------|-----------------|
| Crimes against women# | 3,27,394 | 3,14,575 | 10.7 | 53.9 | 89.4 | 21.7 |
| Crimes against children (below 18 years) | 94,172 | 68,889 | 2.3 | 21.1 | 85.6 | 35.6 |
| Indian Penal Code(IPC) | 29,49,400 | - | 100 | 234.2 | 77.7 | 46.9 |

Source: Figures at a glance, 2015, National Crime Records Bureau (NCRB). <http://ncrb.gov.in/>

Note-1 # : Crime against women include cases reported under rape(Sec. 376IPC), Attempt to commit Rape(Sec. 376/511 IPC), Kidnapping & Abduction of women(Sec. 363,364, 364A, 365-369 IPC), Dowry Deaths(Sec. 304B IPC), Assault on women with intent to outrage her modesty (Sec. 354 IPC), Insult to the modesty of women(Sec. 509 IPC), Cruelty by husband or his relatives(Sec. 498A IPC), Importation of girls from foreign country(Sec. 366B IPC), Abatement of suicides of women(Sec. 306 IPC), cases under the Commission of Sati Prevention Act, the Indecent Representation of Women Act, the Dowry Prohibition Act, the Protection of Women from Domestic Violence Act and the Immoral Traffic (Prevention) Act.

Note-2 *: Proportion of IPC (Indian Penal Code) crimes committed against women with respect to total IPC crimes exclude cases registered under the Commission of Sati Prevention Act, the Indecent Representation of Women Act, the Dowry Prohibition Act, the Protection of Women from Domestic Violence Act and the Immoral Traffic (Prevention) Act.

The redressal through the judicial system for the rights for women requires a quantum improvement in the delivery of justice. This needs to go beyond the setting up of special courts/tribunals to fast track judgements, through a system that monitors performance and outcomes. To monitor performance and outcomes of the same, indicators such as time taken to deliver judgement/decision from the initial date of filing of an FIR, petition, etc., number of days to deliver a judgement, number of days it takes to implement the judgement in full, number of appeals filed after the initial judgement and the time taken for finalising the same and the number of adjournments before a matter is listed for final hearing etc. should be adopted.

Although data shows that for most of the States, the percentage of married women who have experienced spousal violence has decreased from NFHS-3 to NFHS-4, the decrease from 37.2 per cent in NFHS-3 to 28.8 per cent in NFHS-4 at the all India level is not very sharp given the span of 10 years. On the contrary, there are States like Chhattisgarh, Haryana, NCT Delhi, Manipur and Meghalaya where incidents of spousal violence have increased in the past 10 years.

THE WAY FORWARD

10.58 India, is emerging as a knowledge based economy, poised for double digit growth, and needs to strengthen social infrastructure by investing in health and education.

10.59 The education policies need to be designed with ultimate focus on learning outcomes and remedial education with interventions which work and maximises the efficiency of expenditure. However, merit and class appropriate learning outcomes should be given top priority and the quality of education at all levels should be maintained and monitored on a continuous basis by using ICTs across schools in the country. Focus should be on bio-metric attendance of school staff, independent setting of examination papers, neutral examination and

for DBT for schools. There is need to adopt outcome measures for the education and skilling activities to ensure improvement in delivery of schemes/ programmes.

10.60 The health sector in India faces many challenges in the form of declining role of public delivery of health services, high OoP expenses on health and issues of accessibility and affordability of health services for many. There has to be concerted efforts by the Central and State governments to reform the health sector, by addressing quality issues, standardising rates for diagnostic tests, generating awareness about alternative health systems and introduction of punitive measures like fines on hospitals and private health providers for false claims through surgery, medicines, etc. For more equitable access to health services, government should provide health benefits and risk cover to poorer sections of the society.

10.61 Addressing the social security of large number of vulnerable workers in the informal economy should be prioritised by the Government along with ensuring the safety and security of women to raise their participation in economic activities. Reducing all major forms of inequalities should be the goal of India's social development strategy.

ECONOMIC SURVEY 2016-17

STATISTICAL APPENDIX

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Table 1.1. Gross National Income and Net National Income

| Year | Gross national income (₹ crore) | | Net national income (₹ crore) | | Per capita net national income (₹) | |
|----------------|------------------------------------|--------------------|----------------------------------|--------------------|---------------------------------------|--------------------|
| | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1950-51 | 10360 | 292996 | 9829 | 269724 | 274 | 7513 |
| 1951-52 | 11019 | 302010 | 10443 | 279256 | 286 | 7651 |
| 1952-53 | 10825 | 310068 | 10241 | 287818 | 275 | 7737 |
| 1953-54 | 11791 | 329250 | 11235 | 307397 | 296 | 8111 |
| 1954-55 | 11141 | 344902 | 10635 | 326057 | 276 | 8447 |
| 1955-56 | 11361 | 356460 | 10819 | 337156 | 275 | 8579 |
| 1956-57 | 13530 | 376234 | 12944 | 356008 | 323 | 8878 |
| 1957-58 | 13931 | 374503 | 13277 | 353525 | 325 | 8644 |
| 1958-59 | 15516 | 402020 | 14802 | 379855 | 354 | 9087 |
| 1959-60 | 16327 | 412031 | 15564 | 389080 | 365 | 9133 |
| 1960-61 | 17870 | 434497 | 17062 | 411519 | 393 | 9482 |
| 1961-62 | 18912 | 450212 | 18016 | 426103 | 406 | 9597 |
| 1962-63 | 20321 | 463161 | 19350 | 437686 | 426 | 9641 |
| 1963-64 | 23350 | 491049 | 22266 | 464130 | 480 | 10003 |
| 1964-65 | 27222 | 527153 | 25982 | 498287 | 548 | 10512 |
| 1965-66 | 28693 | 512985 | 27300 | 482480 | 563 | 9948 |
| 1966-67 | 32439 | 512781 | 30806 | 480102 | 622 | 9699 |
| 1967-68 | 38003 | 552429 | 36136 | 517516 | 714 | 10228 |
| 1968-69 | 40257 | 571460 | 38259 | 534677 | 739 | 10322 |
| 1969-70 | 44334 | 608809 | 42035 | 569591 | 795 | 10767 |
| 1970-71 | 47354 | 640275 | 44550 | 596470 | 823 | 11025 |
| 1971-72 | 50708 | 650938 | 47630 | 605211 | 860 | 10924 |
| 1972-73 | 55912 | 647647 | 52487 | 600195 | 926 | 10585 |
| 1973-74 | 68095 | 669444 | 63983 | 619883 | 1103 | 10688 |
| 1974-75 | 80479 | 678151 | 75182 | 625455 | 1268 | 10547 |
| 1975-76 | 86452 | 740806 | 80189 | 685230 | 1321 | 11289 |
| 1976-77 | 93189 | 753348 | 86382 | 694149 | 1393 | 11196 |
| 1977-78 | 105615 | 808500 | 98287 | 746719 | 1550 | 11778 |
| 1978-79 | 114491 | 854867 | 106380 | 790566 | 1642 | 12200 |
| 1979-80 | 125882 | 811357 | 115995 | 743925 | 1747 | 11204 |
| 1980-81 | 149987 | 866338 | 138565 | 795193 | 2041 | 11711 |
| 1981-82 | 175845 | 917272 | 161924 | 842429 | 2340 | 12174 |
| 1982-83 | 196010 | 946491 | 179895 | 867337 | 2541 | 12251 |
| 1983-84 | 228077 | 1015342 | 210108 | 932241 | 2906 | 12894 |
| 1984-85 | 255187 | 1052643 | 234211 | 963767 | 3169 | 13041 |
| 1985-86 | 288095 | 1108266 | 262958 | 1013410 | 3483 | 13423 |
| 1986-87 | 322144 | 1160809 | 293806 | 1060195 | 3811 | 13751 |
| 1987-88 | 365592 | 1204856 | 332400 | 1097111 | 4218 | 13923 |
| 1988-89 | 432397 | 1317940 | 393546 | 1204380 | 4889 | 14961 |
| 1989-90 | 496197 | 1396154 | 450949 | 1275833 | 5486 | 15521 |
| 1990-91 | 578667 | 1470766 | 526017 | 1342031 | 6270 | 15996 |
| 1991-92 | 663798 | 1485707 | 599171 | 1348043 | 7000 | 15748 |
| 1992-93 | 762900 | 1567944 | 688762 | 1422097 | 7899 | 16308 |
| 1993-94 | 879275 | 1644886 | 796418 | 1492864 | 8928 | 16736 |

Contd....

Table 1.1. Gross National Income and Net National Income (Contd....)

| Year | Gross national income (₹ crore) | | Net national income (₹ crore) | | Per capita net national income (₹) | |
|-----------------------|------------------------------------|--------------------|----------------------------------|--------------------|---------------------------------------|--------------------|
| | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1994-95 | 1032507 | 1755272 | 935759 | 1592980 | 10283 | 17505 |
| 1995-96 | 1213241 | 1888228 | 1100655 | 1715639 | 11861 | 18487 |
| 1996-97 | 1406195 | 2032837 | 1276347 | 1849226 | 13492 | 19548 |
| 1997-98 | 1559189 | 2118975 | 1411922 | 1920927 | 14646 | 19927 |
| 1998-99 | 1788410 | 2250012 | 1624669 | 2038124 | 16528 | 20734 |
| 1999-00 | 2007699 | 2448654 | 1821227 | 2220003 | 18194 | 22178 |
| 2000-01 | 2154680 | 2535911 | 1947788 | 2291795 | 19115 | 22491 |
| 2001-02 | 2335777 | 2661819 | 2106928 | 2401875 | 20259 | 23095 |
| 2002-03 | 2519637 | 2766298 | 2273456 | 2492931 | 21529 | 23607 |
| 2003-04 | 2820795 | 2983497 | 2548640 | 2692470 | 23775 | 25116 |
| 2004-05 | 3219835 | 3219835 | 2899944 | 2899944 | 26629 | 26629 |
| 2005-06 | 3667253 | 3518348 | 3303532 | 3167455 | 29869 | 28639 |
| 2006-07 | 4261472 | 3841974 | 3842743 | 3456274 | 34249 | 30805 |
| 2007-08 | 4966578 | 4233768 | 4481882 | 3806140 | 39384 | 33446 |
| 2008-09 | 5597140 | 4390966 | 5031943 | 3922062 | 43604 | 33987 |
| 2009-10 | 6439827 | 4763090 | 5780028 | 4241183 | 49402 | 36249 |
| 2010-11 | 7702308 | 5227739 | 6942089 | 4657438 | 58534 | 39270 |
| 2011-12 | 8932892 | 5586683 | 8052996 | 4958849 | 66997 | 41255 |
| 2011-12 Series | | | | | | |
| 2011-12 | 8659505 | 8659505 | 7742330 | 7742330 | 63462 | 63462 |
| 2012-13 | 9827250 | 9104662 | 8766345 | 8094001 | 70983 | 65538 |
| 2013-14 | 11093638 | 9679027 | 9897663 | 8578417 | 79118 | 68572 |
| 2014-15 | 12297698 | 10412280 | 10953761 | 9231556 | 86454 | 72862 |
| 2015-16 | 13522256 | 11246305 | 12076882 | 9982112 | 94130 | 77803 |
| 2016-17 (PE) | 14994109 | 12034713 | 13408211 | 10686776 | 103219 | 82269 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.

Table 1.2. Annual Growth Rates of Gross National Income and Net National Income

(Per cent)

| Year | Gross national income | | Net national income | | Per capita net national income | |
|----------------|-----------------------|-----------------|---------------------|-----------------|--------------------------------|-----------------|
| | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1951-52 | 6.4 | 3.1 | 6.2 | 3.5 | 4.5 | 1.8 |
| 1952-53 | -1.8 | 2.7 | -1.9 | 3.1 | -3.8 | 1.1 |
| 1953-54 | 8.9 | 6.2 | 9.7 | 6.8 | 7.7 | 4.8 |
| 1954-55 | -5.5 | 4.8 | -5.3 | 6.1 | -7.1 | 4.1 |
| 1955-56 | 2.0 | 3.4 | 1.7 | 3.4 | -0.1 | 1.6 |
| 1956-57 | 19.1 | 5.5 | 19.6 | 5.6 | 17.3 | 3.5 |
| 1957-58 | 3.0 | -0.5 | 2.6 | -0.7 | 0.6 | -2.6 |
| 1958-59 | 11.4 | 7.3 | 11.5 | 7.4 | 9.1 | 5.1 |
| 1959-60 | 5.2 | 2.5 | 5.1 | 2.4 | 3.2 | 0.5 |
| 1960-61 | 9.5 | 5.5 | 9.6 | 5.8 | 7.6 | 3.8 |
| 1961-62 | 5.8 | 3.6 | 5.6 | 3.5 | 3.2 | 1.2 |
| 1962-63 | 7.5 | 2.9 | 7.4 | 2.7 | 5.0 | 0.5 |
| 1963-64 | 14.9 | 6.0 | 15.1 | 6.0 | 12.6 | 3.8 |
| 1964-65 | 16.6 | 7.4 | 16.7 | 7.4 | 14.2 | 5.1 |
| 1965-66 | 5.4 | -2.7 | 5.1 | -3.2 | 2.7 | -5.4 |
| 1966-67 | 13.1 | 0.0 | 12.8 | -0.5 | 10.6 | -2.5 |
| 1967-68 | 17.2 | 7.7 | 17.3 | 7.8 | 14.8 | 5.4 |
| 1968-69 | 5.9 | 3.4 | 5.9 | 3.3 | 3.4 | 0.9 |
| 1969-70 | 10.1 | 6.5 | 9.9 | 6.5 | 7.6 | 4.3 |
| 1970-71 | 6.8 | 5.2 | 6.0 | 4.7 | 3.6 | 2.4 |
| 1971-72 | 7.1 | 1.7 | 6.9 | 1.5 | 4.4 | -0.9 |
| 1972-73 | 10.3 | -0.5 | 10.2 | -0.8 | 7.7 | -3.1 |
| 1973-74 | 21.8 | 3.4 | 21.9 | 3.3 | 19.2 | 1.0 |
| 1974-75 | 18.2 | 1.3 | 17.5 | 0.9 | 14.9 | -1.3 |
| 1975-76 | 7.4 | 9.2 | 6.7 | 9.6 | 4.2 | 7.0 |
| 1976-77 | 7.8 | 1.7 | 7.7 | 1.3 | 5.5 | -0.8 |
| 1977-78 | 13.3 | 7.3 | 13.8 | 7.6 | 11.3 | 5.2 |
| 1978-79 | 8.4 | 5.7 | 8.2 | 5.9 | 5.9 | 3.6 |
| 1979-80 | 9.9 | -5.1 | 9.0 | -5.9 | 6.4 | -8.2 |
| 1980-81 | 19.1 | 6.8 | 19.5 | 6.9 | 16.8 | 4.5 |
| 1981-82 | 17.2 | 5.9 | 16.9 | 5.9 | 14.7 | 3.9 |
| 1982-83 | 11.5 | 3.2 | 11.1 | 3.0 | 8.6 | 0.6 |
| 1983-84 | 16.4 | 7.3 | 16.8 | 7.5 | 14.4 | 5.3 |
| 1984-85 | 11.9 | 3.7 | 11.5 | 3.4 | 9.1 | 1.1 |
| 1985-86 | 12.9 | 5.3 | 12.3 | 5.2 | 9.9 | 2.9 |
| 1986-87 | 11.8 | 4.7 | 11.7 | 4.6 | 9.4 | 2.4 |
| 1987-88 | 13.5 | 3.8 | 13.1 | 3.5 | 10.7 | 1.2 |
| 1988-89 | 18.3 | 9.4 | 18.4 | 9.8 | 15.9 | 7.5 |
| 1989-90 | 14.8 | 5.9 | 14.6 | 5.9 | 12.2 | 3.7 |

Contd....

Table 1.2. Annual Growth Rates of Gross National Income and Net National Income (*Contd....*)

| (Per cent) | | | | | | |
|--|-----------------------|-----------------|---------------------|-----------------|--------------------------------|-----------------|
| Year | Gross national income | | Net national income | | Per capita net national income | |
| | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1990-91 | 16.6 | 5.3 | 16.6 | 5.2 | 14.3 | 3.1 |
| 1991-92 | 14.7 | 1.0 | 13.9 | 0.4 | 11.6 | -1.5 |
| 1992-93 | 14.9 | 5.5 | 15.0 | 5.5 | 12.8 | 3.6 |
| 1993-94 | 15.3 | 4.9 | 15.6 | 5.0 | 13.0 | 2.6 |
| 1994-95 | 17.4 | 6.7 | 17.5 | 6.7 | 15.2 | 4.6 |
| 1995-96 | 17.5 | 7.6 | 17.6 | 7.7 | 15.3 | 5.6 |
| 1996-97 | 15.9 | 7.7 | 16.0 | 7.8 | 13.8 | 5.7 |
| 1997-98 | 10.9 | 4.2 | 10.6 | 3.9 | 8.6 | 1.9 |
| 1998-99 | 14.7 | 6.2 | 15.1 | 6.1 | 12.8 | 4.1 |
| 1999-00 | 12.3 | 8.8 | 12.1 | 8.9 | 10.1 | 7.0 |
| 2000-01 | 7.3 | 3.6 | 6.9 | 3.2 | 5.1 | 1.4 |
| 2001-02 | 8.4 | 5.0 | 8.2 | 4.8 | 6.0 | 2.7 |
| 2002-03 | 7.9 | 3.9 | 7.9 | 3.8 | 6.3 | 2.2 |
| 2003-04 | 12.0 | 7.9 | 12.1 | 8.0 | 10.4 | 6.4 |
| 2004-05 | 14.1 | 7.9 | 13.8 | 7.7 | 12.0 | 6.0 |
| 2005-06 | 13.9 | 9.3 | 13.9 | 9.2 | 12.2 | 7.5 |
| 2006-07 | 16.2 | 9.2 | 16.3 | 9.1 | 14.7 | 7.6 |
| 2007-08 | 16.5 | 10.2 | 16.6 | 10.1 | 15.0 | 8.6 |
| 2008-09 | 12.7 | 3.7 | 12.3 | 3.0 | 10.7 | 1.6 |
| 2009-10 | 15.1 | 8.5 | 14.9 | 8.1 | 13.3 | 6.7 |
| 2010-11 | 19.6 | 9.8 | 20.1 | 9.8 | 18.5 | 8.3 |
| 2011-12 | 16.0 | 6.9 | 16.0 | 6.5 | 14.5 | 5.1 |
| 2011-12 Series | | | | | | |
| 2012-13 | 13.5 | 5.1 | 13.2 | 4.5 | 11.9 | 3.3 |
| 2013-14 | 12.9 | 6.3 | 12.9 | 6.0 | 11.5 | 4.6 |
| 2014-15 | 10.9 | 7.6 | 10.7 | 7.6 | 9.3 | 6.3 |
| 2015-16 | 10.0 | 8.0 | 10.3 | 8.1 | 8.9 | 6.8 |
| 2016-17 (PE) | 10.9 | 7.0 | 11.0 | 7.1 | 9.7 | 5.7 |
| Annual Average Growth Rates | | | | | | |
| First Plan (1951-52 to 1955-56) | 2.0 | 4.0 | 2.1 | 4.6 | 0.3 | 2.7 |
| Second Plan (1956-57 to 1960-61) | 9.6 | 4.1 | 9.7 | 4.1 | 7.5 | 2.1 |
| Third Plan (1961-62 to 1965-66) | 10.0 | 3.4 | 10.0 | 3.3 | 7.6 | 1.0 |
| Three Annual Plans (1966-67 to 1968-69) | 12.0 | 3.7 | 12.0 | 3.5 | 9.6 | 1.3 |
| Fourth Plan (1969-70 to 1973-74) | 11.2 | 3.2 | 11.0 | 3.0 | 8.5 | 0.7 |
| Fifth Plan (1974-75 to 1978-79) | 11.0 | 5.1 | 10.8 | 5.0 | 8.4 | 2.7 |

Contd....

Table 1.2. Annual Growth Rates of Gross National Income and Net National Income (Contd....)

| Year | (Per cent) | | | | | |
|---------------------------------------|-----------------------|-----------------|---------------------|-----------------|--------------------------------|-----------------|
| | Gross national income | | Net national income | | Per capita net national income | |
| | Current prices | Constant prices | Current prices | Constant prices | Current prices | Constant prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Annual Plan (1979-80) | 9.9 | -5.1 | 9.0 | -5.9 | 6.4 | -8.2 |
| Sixth Plan (1980-81 to 1984-85) | 15.2 | 5.4 | 15.1 | 5.3 | 12.7 | 3.1 |
| Seventh Plan (1985-86 to 1989-90) | 14.2 | 5.8 | 14.0 | 5.8 | 11.6 | 3.6 |
| Two Annual Plans (1990-91 to 1991-92) | 15.7 | 3.2 | 15.3 | 2.8 | 13.0 | 0.8 |
| Eighth Plan (1992-93 to 1996-97) | 16.2 | 6.5 | 16.3 | 6.5 | 14.0 | 4.4 |
| Ninth Plan (1997-98 to 2001-02) | 10.7 | 5.6 | 10.6 | 5.4 | 8.5 | 3.4 |
| Tenth Plan (2002-03 to 2006-07) | 12.8 | 7.6 | 12.8 | 7.6 | 11.1 | 5.9 |
| Eleventh Plan (2007-08 to 2011-12)** | 16.0 | 7.8 | 16.0 | 7.5 | 14.4 | 6.0 |
| Twelfth Plan (2012-13 to 2016-17)*** | 11.6 | 6.8 | 11.6 | 6.7 | 10.2 | 5.3 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

**: Data for 2011-12 based on 2004-05 series has been taken for compilation of average growth rates

***: 2011-12 Series data has been taken for compilation of average growth rates.

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.

Table 1.3 A. Gross Value Added at Factor Cost by Industry of Origin

| (₹ crore) | | | | | | |
|--------------------|---|--|--|---|--------------------------------------|---|
| At constant prices | | | | | | |
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1950-51 | 150191 | 40138 | 30792 | 23325 | 28474 | 279618 |
| 1951-52 | 152987 | 41996 | 31608 | 23863 | 29329 | 286147 |
| 1952-53 | 157764 | 41834 | 32641 | 24863 | 29934 | 294267 |
| 1953-54 | 169547 | 44416 | 33861 | 25219 | 30860 | 312177 |
| 1954-55 | 174611 | 48325 | 36065 | 26140 | 31967 | 325431 |
| 1955-56 | 173255 | 53962 | 38700 | 27190 | 32955 | 333766 |
| 1956-57 | 182651 | 58809 | 41537 | 27635 | 34219 | 352766 |
| 1957-58 | 175180 | 57737 | 42831 | 28679 | 35765 | 348500 |
| 1958-59 | 192337 | 62009 | 44965 | 29492 | 37233 | 374948 |
| 1959-60 | 190851 | 66378 | 47779 | 30619 | 38834 | 383153 |
| 1960-61 | 204340 | 73555 | 51879 | 31252 | 40741 | 410279 |
| 1961-62 | 205014 | 78638 | 55259 | 32596 | 42656 | 423011 |
| 1962-63 | 202234 | 83517 | 58503 | 33693 | 45686 | 431960 |
| 1963-64 | 207030 | 92432 | 62650 | 34735 | 48684 | 453829 |
| 1964-65 | 225287 | 99250 | 66890 | 35688 | 51894 | 488247 |
| 1965-66 | 202906 | 102475 | 68079 | 36766 | 53950 | 470402 |
| 1966-67 | 200481 | 106304 | 69862 | 37412 | 56438 | 475190 |
| 1967-68 | 228813 | 109856 | 72852 | 38431 | 58659 | 513860 |
| 1968-69 | 228836 | 115422 | 76155 | 40305 | 61272 | 527270 |
| 1969-70 | 243347 | 124372 | 80275 | 41980 | 64655 | 561630 |
| 1970-71 | 258665 | 126356 | 84205 | 43735 | 68218 | 589787 |
| 1971-72 | 254395 | 129506 | 86121 | 45989 | 71264 | 595741 |
| 1972-73 | 243082 | 133917 | 87991 | 47767 | 73594 | 593843 |
| 1973-74 | 259751 | 134649 | 91686 | 48936 | 75541 | 620872 |
| 1974-75 | 256719 | 136045 | 97176 | 48779 | 79120 | 628079 |
| 1975-76 | 289695 | 144928 | 105980 | 52142 | 81914 | 684634 |
| 1976-77 | 274522 | 158354 | 110697 | 56277 | 84190 | 693191 |
| 1977-78 | 300873 | 170123 | 118084 | 59032 | 86450 | 744972 |
| 1978-79 | 307874 | 182590 | 127772 | 63203 | 90186 | 785965 |
| 1979-80 | 271096 | 176035 | 126751 | 63818 | 96779 | 745083 |
| 1980-81 | 305906 | 183970 | 133906 | 65041 | 101666 | 798506 |
| 1981-82 | 321876 | 197519 | 142057 | 70326 | 103842 | 843426 |
| 1982-83 | 323862 | 197833 | 149903 | 77029 | 111849 | 868092 |
| 1983-84 | 354720 | 214737 | 157545 | 84585 | 116027 | 936270 |
| 1984-85 | 360230 | 224284 | 165037 | 90907 | 124065 | 973357 |
| 1985-86 | 362783 | 233818 | 178195 | 99783 | 131184 | 1013866 |
| 1986-87 | 364989 | 245385 | 188888 | 110295 | 141043 | 1057612 |
| 1987-88 | 360949 | 259641 | 198578 | 118383 | 151240 | 1094993 |
| 1988-89 | 417581 | 280863 | 210405 | 129934 | 160385 | 1206243 |
| 1989-90 | 425075 | 304461 | 226074 | 146088 | 173022 | 1280228 |
| 1990-91 | 444880 | 325450 | 237736 | 155165 | 180564 | 1347889 |
| 1991-92 | 438685 | 325150 | 243178 | 171956 | 185232 | 1367171 |
| 1992-93 | 465084 | 336716 | 256897 | 181320 | 196332 | 1440504 |
| 1993-94 | 479592 | 357237 | 274682 | 201568 | 205101 | 1522344 |
| 1994-95 | 504477 | 389903 | 301997 | 209401 | 209742 | 1619694 |
| 1995-96 | 504527 | 436863 | 342536 | 226348 | 225157 | 1737741 |

Contd....

Table 1.3 A. Gross Value Added at Factor Cost by Industry of Origin

(Contd....)

(₹ crore)

| At constant prices | | | | | | |
|--------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1996-97 | 549202 | 468146 | 370200 | 240354 | 243288 | 1876319 |
| 1997-98 | 542313 | 483585 | 398109 | 268495 | 263486 | 1957032 |
| 1998-99 | 574374 | 504485 | 428613 | 289440 | 289085 | 2087828 |
| 1999-00 | 590696 | 535730 | 477605 | 327111 | 323800 | 2254942 |
| 2000-01 | 592227 | 570571 | 508299 | 338661 | 338723 | 2348481 |
| 2001-02 | 624923 | 585971 | 552118 | 359684 | 352267 | 2474962 |
| 2002-03 | 594280 | 627374 | 597896 | 385661 | 365724 | 2570935 |
| 2003-04 | 643183 | 676833 | 664637 | 406098 | 384998 | 2775749 |
| 2004-05 | 650454 | 744755 | 727720 | 437174 | 411361 | 2971464 |
| 2005-06 | 680628 | 824272 | 815407 | 492340 | 440426 | 3253073 |
| 2006-07 | 711768 | 928626 | 910084 | 561063 | 452823 | 3564364 |
| 2007-08 | 751077 | 1023998 | 1009520 | 628124 | 483917 | 3896636 |
| 2008-09 | 753744 | 1071681 | 1085125 | 703629 | 544497 | 4158676 |
| 2009-10 | 764817 | 1173089 | 1197891 | 771905 | 608369 | 4516071 |
| 2010-11 | 828431 | 1262722 | 1344024 | 849189 | 634167 | 4918533 |
| 2011-12 | 864557 | 1369932 | 1402261 | 945534 | 665246 | 5247530 |

Source: Central Statistics Office

Notes :

- For the years prior to 1999-2000 totals under col. 7 may not add up to totals of individual item under col. 2 to col. 6 due to splicing technique applied independently at the level of each industry and at the total level.
- Estimates for the years 2011-12 onwards (at base 2011-12) are available at basic prices only and are given in table 1.3B.

Table 1.3 B. Gross Value Added at Basic Prices by Industry of Origin

(₹ crore)

| At constant prices | | | | | | |
|--------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2011-12 series | | | | | | |
| 2011-12 | 1762983 | 2373988 | 1413116 | 1530877 | 1025982 | 8106946 |
| 2012-13 | 1786897 | 2458558 | 1551143 | 1680031 | 1069646 | 8546275 |
| 2013-14 | 1872305 | 2561081 | 1652062 | 1867407 | 1110794 | 9063649 |
| 2014-15 | 1899961 | 2741451 | 1800919 | 2075549 | 1201143 | 9719023 |
| 2015-16 | 1941948 | 2976344 | 1989161 | 2298798 | 1284263 | 10490514 |
| 2016-17 (PE) | 2026660 | 3155185 | 2143956 | 2429638 | 1430002 | 11185440 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

- Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.

Table 1.4 A. Gross Value Added at Factor Cost by Industry of Origin

(₹ crore)

| At current prices | | | | | | |
|-------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1950-51 | 5274 | 1346 | 968 | 1254 | 1115 | 10036 |
| 1951-52 | 5453 | 1505 | 1048 | 1349 | 1162 | 10596 |
| 1952-53 | 5316 | 1416 | 1055 | 1425 | 1201 | 10449 |
| 1953-54 | 5850 | 1559 | 1121 | 1537 | 1250 | 11378 |
| 1954-55 | 4993 | 1640 | 1151 | 1647 | 1283 | 10689 |
| 1955-56 | 4847 | 1760 | 1192 | 1768 | 1361 | 10861 |
| 1956-57 | 6152 | 2071 | 1378 | 1917 | 1430 | 12965 |
| 1957-58 | 6045 | 2148 | 1525 | 2054 | 1503 | 13255 |
| 1958-59 | 7002 | 2334 | 1667 | 2203 | 1597 | 14827 |
| 1959-60 | 7043 | 2616 | 1801 | 2364 | 1760 | 15574 |
| 1960-61 | 7434 | 3113 | 1985 | 2547 | 1989 | 17049 |
| 1961-62 | 7704 | 3398 | 2145 | 2602 | 2154 | 17992 |
| 1962-63 | 7899 | 3740 | 2348 | 2987 | 2343 | 19238 |
| 1963-64 | 9274 | 4274 | 2628 | 3231 | 2599 | 21986 |
| 1964-65 | 11291 | 4788 | 3084 | 3512 | 2945 | 25686 |
| 1965-66 | 11301 | 5199 | 3345 | 3796 | 3276 | 26895 |
| 1966-67 | 13123 | 5819 | 3890 | 4063 | 3665 | 30613 |
| 1967-68 | 16393 | 6380 | 4445 | 4458 | 4105 | 35976 |
| 1968-69 | 16912 | 6940 | 4732 | 4772 | 4422 | 37938 |
| 1969-70 | 18505 | 7944 | 5107 | 5120 | 4822 | 41722 |
| 1970-71 | 19086 | 8622 | 5627 | 5579 | 5315 | 44382 |
| 1971-72 | 19510 | 9538 | 6102 | 6117 | 5901 | 47221 |
| 1972-73 | 21448 | 10534 | 6730 | 6694 | 6456 | 51943 |
| 1973-74 | 28171 | 12230 | 8057 | 7465 | 7261 | 63658 |
| 1974-75 | 31062 | 15232 | 10642 | 8390 | 9142 | 74930 |
| 1975-76 | 31028 | 16571 | 12067 | 9511 | 10290 | 79582 |
| 1976-77 | 31833 | 18811 | 13066 | 10579 | 11311 | 85545 |
| 1977-78 | 37592 | 21270 | 14702 | 11540 | 12296 | 97633 |
| 1978-79 | 38717 | 23951 | 16119 | 12448 | 13529 | 104930 |
| 1979-80 | 40373 | 26774 | 18604 | 13576 | 15149 | 114500 |
| 1980-81 | 50760 | 30900 | 21968 | 15120 | 17537 | 136838 |
| 1981-82 | 58745 | 36090 | 26946 | 17835 | 19927 | 160214 |
| 1982-83 | 63985 | 39953 | 30749 | 20453 | 23134 | 178985 |
| 1983-84 | 75982 | 47053 | 35716 | 23388 | 26345 | 209356 |
| 1984-85 | 82204 | 53656 | 41125 | 26907 | 30311 | 235113 |
| 1985-86 | 88083 | 60593 | 48022 | 30819 | 34284 | 262717 |
| 1986-87 | 95182 | 67754 | 54272 | 35337 | 39428 | 292924 |
| 1987-88 | 105358 | 77630 | 61963 | 40387 | 45700 | 332068 |
| 1988-89 | 130731 | 91163 | 73159 | 46926 | 52994 | 396295 |
| 1989-90 | 144461 | 108908 | 85630 | 55297 | 60741 | 456540 |
| 1990-91 | 168166 | 127079 | 100318 | 64598 | 70019 | 531814 |
| 1991-92 | 195454 | 140700 | 115570 | 78904 | 81366 | 613528 |
| 1992-93 | 219680 | 163887 | 136250 | 87495 | 94507 | 703723 |
| 1993-94 | 254876 | 188251 | 160990 | 105686 | 106090 | 817961 |
| 1994-95 | 293013 | 229365 | 192142 | 119442 | 118663 | 955386 |
| 1995-96 | 319243 | 280971 | 231175 | 143791 | 140190 | 1118586 |

Contd....

Table 1.4 A. Gross Value Added at Factor Cost by Industry of Origin

(Contd....)

(₹ crore)

| At current prices | | | | | | |
|-------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1996-97 | 381142 | 318260 | 273135 | 158637 | 166469 | 1301788 |
| 1997-98 | 408521 | 348543 | 313093 | 180642 | 193188 | 1447613 |
| 1998-99 | 466446 | 393491 | 358538 | 210593 | 236123 | 1668739 |
| 1999-00 | 497027 | 426993 | 400650 | 260522 | 273013 | 1858205 |
| 2000-01 | 506476 | 474323 | 443169 | 282316 | 294459 | 2000743 |
| 2001-02 | 546674 | 497578 | 491952 | 321543 | 317513 | 2175260 |
| 2002-03 | 548062 | 550421 | 543691 | 360194 | 341496 | 2343864 |
| 2003-04 | 608788 | 618840 | 624394 | 402510 | 371288 | 2625819 |
| 2004-05 | 650454 | 744755 | 727720 | 437174 | 411361 | 2971464 |
| 2005-06 | 732234 | 859410 | 846606 | 493102 | 459151 | 3390503 |
| 2006-07 | 829771 | 1033410 | 998379 | 586595 | 505121 | 3953276 |
| 2007-08 | 961330 | 1205458 | 1150044 | 691464 | 573790 | 4582086 |
| 2008-09 | 1083032 | 1360426 | 1310845 | 845369 | 703895 | 5303567 |
| 2009-10 | 1242818 | 1536492 | 1481623 | 964937 | 883033 | 6108903 |
| 2010-11 | 1524552 | 1763584 | 1779630 | 1165243 | 1015850 | 7248860 |
| 2011-12 | 1721814 | 2061650 | 2072272 | 1381524 | 1154431 | 8391691 |

Source: Central Statistics Office

Notes :

- For the years prior to 1999-2000 totals under col. 7 may not add up to totals of individual item under col. 2 to col. 6 due to splicing technique applied independently at the level of each industry and at the total level.
- Estimates for the years 2011-12 onwards (at base 2011-12) are also available at basic prices only and are given in table 1.4 B.

Table 1.4 B. Gross Value Added at Basic Prices by Industry of Origin

(₹ crore)

| At current prices | | | | | | |
|-------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2011-12 Series | | | | | | |
| 2011-12 | 1762983 | 2373988 | 1413116 | 1530877 | 1025982 | 8106946 |
| 2012-13 | 1960949 | 2637551 | 1663986 | 1776632 | 1163574 | 9202692 |
| 2013-14 | 2222166 | 2895076 | 1874467 | 2069508 | 1301935 | 10363153 |
| 2014-15 | 2383135 | 3151061 | 2095121 | 2363250 | 1489226 | 11481794 |
| 2015-16 | 2471800 | 3392873 | 2294364 | 2631120 | 1668486 | 12458642 |
| 2016-17 (PE) | 2674006 | 3641178 | 2519999 | 2889048 | 1945683 | 13669914 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

- Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.

Table 1.5 A. Annual Growth Rates of Real Gross Value Added at Factor Cost by Industry of Origin

| | | | | | | (Per cent) |
|--------------------|---|--|--|---|--------------------------------------|----------------------------------|
| At constant prices | | | | | | |
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1951-52 | 1.9 | 4.6 | 2.6 | 2.3 | 3.0 | 2.3 |
| 1952-53 | 3.1 | -0.4 | 3.3 | 4.2 | 2.1 | 2.8 |
| 1953-54 | 7.5 | 6.2 | 3.7 | 1.4 | 3.1 | 6.1 |
| 1954-55 | 3.0 | 8.8 | 6.5 | 3.7 | 3.6 | 4.2 |
| 1955-56 | -0.8 | 11.7 | 7.3 | 4.0 | 3.1 | 2.6 |
| 1956-57 | 5.4 | 9.0 | 7.3 | 1.6 | 3.8 | 5.7 |
| 1957-58 | -4.1 | -1.8 | 3.1 | 3.8 | 4.5 | -1.2 |
| 1958-59 | 9.8 | 7.4 | 5.0 | 2.8 | 4.1 | 7.6 |
| 1959-60 | -0.8 | 7.0 | 6.3 | 3.8 | 4.3 | 2.2 |
| 1960-61 | 7.1 | 10.8 | 8.6 | 2.1 | 4.9 | 7.1 |
| 1961-62 | 0.3 | 6.9 | 6.5 | 4.3 | 4.7 | 3.1 |
| 1962-63 | -1.4 | 6.2 | 5.9 | 3.4 | 7.1 | 2.1 |
| 1963-64 | 2.4 | 10.7 | 7.1 | 3.1 | 6.6 | 5.1 |
| 1964-65 | 8.8 | 7.4 | 6.8 | 2.7 | 6.6 | 7.6 |
| 1965-66 | -9.9 | 3.2 | 1.8 | 3.0 | 4.0 | -3.7 |
| 1966-67 | -1.2 | 3.7 | 2.6 | 1.8 | 4.6 | 1.0 |
| 1967-68 | 14.1 | 3.3 | 4.3 | 2.7 | 3.9 | 8.1 |
| 1968-69 | 0.0 | 5.1 | 4.5 | 4.9 | 4.5 | 2.6 |
| 1969-70 | 6.3 | 7.8 | 5.4 | 4.2 | 5.5 | 6.5 |
| 1970-71 | 6.3 | 1.6 | 4.9 | 4.2 | 5.5 | 5.0 |
| 1971-72 | -1.7 | 2.5 | 2.3 | 5.2 | 4.5 | 1.0 |
| 1972-73 | -4.4 | 3.4 | 2.2 | 3.9 | 3.3 | -0.3 |
| 1973-74 | 6.9 | 0.5 | 4.2 | 2.4 | 2.6 | 4.6 |
| 1974-75 | -1.2 | 1.0 | 6.0 | -0.3 | 4.7 | 1.2 |
| 1975-76 | 12.8 | 6.5 | 9.1 | 6.9 | 3.5 | 9.0 |
| 1976-77 | -5.2 | 9.3 | 4.5 | 7.9 | 2.8 | 1.2 |
| 1977-78 | 9.6 | 7.4 | 6.7 | 4.9 | 2.7 | 7.5 |
| 1978-79 | 2.3 | 7.3 | 8.2 | 7.1 | 4.3 | 5.5 |
| 1979-80 | -11.9 | -3.6 | -0.8 | 1.0 | 7.3 | -5.2 |
| 1980-81 | 12.8 | 4.5 | 5.6 | 1.9 | 5.0 | 7.2 |
| 1981-82 | 5.2 | 7.4 | 6.1 | 8.1 | 2.1 | 5.6 |
| 1982-83 | 0.6 | 0.2 | 5.5 | 9.5 | 7.7 | 2.9 |
| 1983-84 | 9.5 | 8.5 | 5.1 | 9.8 | 3.7 | 7.9 |
| 1984-85 | 1.6 | 4.4 | 4.8 | 7.5 | 6.9 | 4.0 |
| 1985-86 | 0.7 | 4.3 | 8.0 | 9.8 | 5.7 | 4.2 |
| 1986-87 | 0.6 | 4.9 | 6.0 | 10.5 | 7.5 | 4.3 |
| 1987-88 | -1.1 | 5.8 | 5.1 | 7.3 | 7.2 | 3.5 |
| 1988-89 | 15.7 | 8.2 | 6.0 | 9.8 | 6.0 | 10.2 |
| 1989-90 | 1.8 | 8.4 | 7.4 | 12.4 | 7.9 | 6.1 |
| 1990-91 | 4.7 | 6.9 | 5.2 | 6.2 | 4.4 | 5.3 |
| 1991-92 | -1.4 | -0.1 | 2.3 | 10.8 | 2.6 | 1.4 |
| 1992-93 | 6.0 | 3.6 | 5.6 | 5.4 | 6.0 | 5.4 |
| 1993-94 | 3.1 | 6.1 | 6.9 | 11.2 | 4.5 | 5.7 |
| 1994-95 | 5.2 | 9.1 | 9.9 | 3.9 | 2.3 | 6.4 |
| 1995-96 | 0.0 | 12.0 | 13.4 | 8.1 | 7.3 | 7.3 |

Contd....

Table 1.5 A. Annual Growth Rates of Real Gross Value Added at Factor Cost by Industry of Origin

(Contd....)

(Per cent)

| At constant prices | | | | | | |
|--------------------|---|--|--|---|--------------------------------------|----------------------------------|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004-05 Series | | | | | | |
| 1996-97 | 8.9 | 7.2 | 8.1 | 6.2 | 8.1 | 8.0 |
| 1997-98 | -1.3 | 3.3 | 7.5 | 11.7 | 8.3 | 4.3 |
| 1998-99 | 5.9 | 4.3 | 7.7 | 7.8 | 9.7 | 6.7 |
| 1999-00 | 2.8 | 6.2 | 11.4 | 13.0 | 12.0 | 8.0 |
| 2000-01 | 0.3 | 6.5 | 6.4 | 3.5 | 4.6 | 4.1 |
| 2001-02 | 5.5 | 2.7 | 8.6 | 6.2 | 4.0 | 5.4 |
| 2002-03 | -4.9 | 7.1 | 8.3 | 7.2 | 3.8 | 3.9 |
| 2003-04 | 8.2 | 7.9 | 11.2 | 5.3 | 5.3 | 8.0 |
| 2004-05 | 1.1 | 10.0 | 9.5 | 7.7 | 6.8 | 7.1 |
| 2005-06 | 4.6 | 10.7 | 12.0 | 12.6 | 7.1 | 9.5 |
| 2006-07 | 4.6 | 12.7 | 11.6 | 14.0 | 2.8 | 9.6 |
| 2007-08 | 5.5 | 10.3 | 10.9 | 12.0 | 6.9 | 9.3 |
| 2008-09 | 0.4 | 4.7 | 7.5 | 12.0 | 12.5 | 6.7 |
| 2009-10 | 1.5 | 9.5 | 10.4 | 9.7 | 11.7 | 8.6 |
| 2010-11 | 8.3 | 7.6 | 12.2 | 10.0 | 4.2 | 8.9 |
| 2011-12 | 4.4 | 8.5 | 4.3 | 11.3 | 4.9 | 6.7 |

Source: Central Statistics Office

Table 1.5 B. Annual Growth Rate of Real Gross Value Added at Basic Prices by Industry of Origin

(per cent)

| At constant prices | | | | | | |
|--------------------|---|--|--|---|--------------------------------------|---|
| Year | Agriculture, forestry & fishing, mining and quarrying | Manufacturing, construction, electricity, gas and water supply | Trade, hotels, transport & communication | Financing, insurance, real estate and business services | Community Social & Personal services | Gross value added at factor cost (2 to 6) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2011-12 Series | | | | | | |
| 2012-13 | 1.4 | 3.6 | 9.8 | 9.7 | 4.3 | 5.4 |
| 2013-14 | 4.8 | 4.2 | 6.5 | 11.2 | 3.8 | 6.1 |
| 2014-15 | 1.5 | 7.0 | 9.0 | 11.1 | 8.1 | 7.2 |
| 2015-16 | 2.2 | 8.6 | 10.5 | 10.8 | 6.9 | 7.9 |
| 2016-17 (PE) | 4.4 | 6.0 | 7.8 | 5.7 | 11.3 | 6.6 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.

Table 1.6. Components of Gross Domestic Product at Current Prices

| | | | | | | | | | (₹ crore) |
|-----------------------|--------|-------|--------|------|-----------|------------------------------|------------------------------|---------------|-----------|
| Year | PFCE | GFCE | GFCF | CIS | Valuables | Export of goods and services | Import of goods and services | Discrepancies | GDP |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 2004-05 Series | | | | | | | | | |
| 1950-51 | 9394 | 608 | 968 | 165 | na | 736 | 711 | -759 | 10401 |
| 1951-52 | 10307 | 638 | 1045 | 173 | na | 846 | 1038 | -917 | 11054 |
| 1952-53 | 10284 | 661 | 974 | 40 | na | 715 | 702 | -1122 | 10850 |
| 1953-54 | 11190 | 698 | 968 | -67 | na | 644 | 652 | -970 | 11810 |
| 1954-55 | 10414 | 728 | 1112 | 36 | na | 705 | 750 | -1076 | 11170 |
| 1955-56 | 10417 | 780 | 1384 | 53 | na | 757 | 839 | -1180 | 11371 |
| 1956-57 | 12286 | 860 | 1771 | 235 | na | 767 | 1174 | -1198 | 13547 |
| 1957-58 | 12462 | 1005 | 1803 | 242 | na | 800 | 1304 | -1057 | 13951 |
| 1958-59 | 14148 | 1078 | 1782 | 2 | na | 719 | 1104 | -1074 | 15551 |
| 1959-60 | 14707 | 1136 | 2003 | 209 | na | 779 | 1010 | -1440 | 16384 |
| 1960-61 | 15891 | 1240 | 2290 | 328 | na | 787 | 1205 | -1389 | 17942 |
| 1961-62 | 16617 | 1377 | 2554 | 276 | na | 804 | 1113 | -1506 | 19010 |
| 1962-63 | 17501 | 1670 | 2842 | 357 | na | 837 | 1211 | -1567 | 20429 |
| 1963-64 | 19430 | 2146 | 3374 | 275 | na | 987 | 1362 | -1387 | 23462 |
| 1964-65 | 22873 | 2313 | 3972 | 363 | na | 1002 | 1529 | -1627 | 27367 |
| 1965-66 | 24144 | 2665 | 4420 | 316 | na | 938 | 1478 | -2147 | 28857 |
| 1966-67 | 28119 | 2921 | 4866 | 514 | na | 1330 | 2142 | -2939 | 32669 |
| 1967-68 | 33509 | 3265 | 5395 | 432 | na | 1517 | 2236 | -3621 | 38261 |
| 1968-69 | 33524 | 3576 | 5672 | 96 | na | 1608 | 1968 | -1996 | 40512 |
| 1969-70 | 36265 | 4008 | 6192 | 554 | na | 1628 | 1767 | -2275 | 44605 |
| 1970-71 | 38474 | 4479 | 6488 | 809 | na | 1771 | 1816 | -2568 | 47638 |
| 1971-72 | 41496 | 5185 | 7479 | 1066 | na | 1838 | 2006 | -4059 | 50999 |
| 1972-73 | 45736 | 5514 | 8480 | 411 | na | 2225 | 2049 | -4102 | 56214 |
| 1973-74 | 55135 | 6045 | 9675 | 1639 | na | 2830 | 3176 | -3728 | 68420 |
| 1974-75 | 66799 | 7334 | 12080 | 2929 | na | 3835 | 4779 | -7429 | 80770 |
| 1975-76 | 68314 | 8645 | 13895 | 2123 | na | 4812 | 5664 | -5419 | 86707 |
| 1976-77 | 71024 | 9602 | 15546 | 1393 | na | 6139 | 5614 | -4669 | 93422 |
| 1977-78 | 81788 | 10245 | 17835 | 1387 | na | 6640 | 6517 | -5529 | 105848 |
| 1978-79 | 88950 | 11373 | 19719 | 3218 | na | 7115 | 7423 | -8305 | 114647 |
| 1979-80 | 96590 | 13074 | 22564 | 3791 | na | 8340 | 10094 | -8536 | 125729 |
| 1980-81 | 118068 | 15179 | 26815 | 188 | na | 9029 | 13596 | -6041 | 149642 |
| 1981-82 | 135676 | 17785 | 32650 | 5753 | na | 10256 | 14809 | -11506 | 175805 |
| 1982-83 | 149773 | 21022 | 38905 | 4451 | na | 11563 | 15736 | -13334 | 196644 |
| 1983-84 | 175357 | 24288 | 44005 | 1787 | na | 13139 | 17675 | -11880 | 229021 |
| 1984-85 | 194037 | 27927 | 50449 | 4820 | na | 15846 | 19484 | -16984 | 256611 |
| 1985-86 | 214154 | 33257 | 59640 | 8314 | na | 14951 | 21754 | -19038 | 289524 |
| 1986-87 | 240209 | 39322 | 69476 | 6532 | na | 16543 | 22359 | -25774 | 323949 |
| 1987-88 | 266649 | 46160 | 81204 | 2019 | na | 20281 | 25259 | -22843 | 368211 |
| 1988-89 | 310497 | 53280 | 95617 | 8543 | na | 25913 | 32010 | -24947 | 436893 |
| 1989-90 | 346807 | 60997 | 113993 | 6014 | na | 34609 | 40212 | -20279 | 501928 |
| 1990-91 | 398529 | 69525 | 139663 | 6355 | na | 40635 | 48698 | -19797 | 586212 |
| 1991-92 | 457735 | 78458 | 152466 | -903 | na | 56254 | 56249 | -13887 | 673875 |
| 1992-93 | 516118 | 88846 | 177929 | 9839 | na | 67312 | 73000 | -12499 | 774545 |

Contd....

Table 1.6. Components of Gross Domestic Product at Current Prices *(Contd....)*

(₹ crore)

| Year | PFCE | GFCE | GFCF | CIS | Valuables | Export of goods and services | Import of goods and services | Discrepancies | GDP |
|-----------------------|---------|---------|---------|--------|-----------|------------------------------|------------------------------|---------------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 2004-05 Series | | | | | | | | | |
| 1993-94 | 591308 | 103066 | 191456 | -1719 | na | 86147 | 85999 | 7095 | 891355 |
| 1994-95 | 687154 | 114672 | 228442 | 14072 | na | 101607 | 104710 | 4354 | 1045590 |
| 1995-96 | 792015 | 135883 | 295046 | 24557 | na | 130733 | 144953 | -6556 | 1226725 |
| 1996-97 | 928629 | 154089 | 328046 | -14991 | na | 144854 | 161022 | 39672 | 1419277 |
| 1997-98 | 1018559 | 182245 | 372401 | 13044 | na | 165203 | 184333 | 5275 | 1572394 |
| 1998-99 | 1166300 | 225716 | 427069 | -3023 | na | 195280 | 224745 | 16780 | 1803378 |
| 1999-2000 | 1312537 | 258868 | 484666 | 42497 | 15519 | 227697 | 265702 | -52952 | 2023130 |
| 2000-01 | 1406661 | 273400 | 495196 | 15158 | 14724 | 278126 | 297523 | -8329 | 2177413 |
| 2001-02 | 1531672 | 291189 | 590240 | -1971 | 14187 | 290757 | 311050 | -49179 | 2355845 |
| 2002-03 | 1620293 | 301573 | 601120 | 18200 | 13957 | 355556 | 379981 | 5608 | 2536327 |
| 2003-04 | 1771305 | 324783 | 697478 | 20667 | 24572 | 417425 | 436878 | 22151 | 2841503 |
| 2004-05 | 1917508 | 354518 | 931028 | 80150 | 41054 | 569051 | 625945 | -25154 | 3242209 |
| 2005-06 | 2152702 | 401619 | 1120292 | 104389 | 41392 | 712087 | 813466 | -25647 | 3693369 |
| 2006-07 | 2476667 | 443477 | 1343774 | 147101 | 49709 | 904872 | 1040535 | -30359 | 4294706 |
| 2007-08 | 2840727 | 513021 | 1641673 | 201534 | 53592 | 1018907 | 1219109 | -63255 | 4987090 |
| 2008-09 | 3249284 | 615333 | 1821099 | 106791 | 72213 | 1328765 | 1614040 | 50618 | 5630063 |
| 2009-10 | 3707566 | 771151 | 2055772 | 179171 | 116312 | 1298780 | 1647139 | -3786 | 6477827 |
| 2010-11 | 4360323 | 890136 | 2407069 | 273509 | 162836 | 1710193 | 2050182 | 30230 | 7784115 |
| 2011-12 | 5141896 | 1025895 | 2861062 | 170596 | 246673 | 2150326 | 2721947 | 135220 | 9009722 |
| 2011-12 Series | | | | | | | | | |
| 2011-12 | 4910447 | 968375 | 2997733 | 207983 | 253033 | 2143931 | 2715554 | -29620 | 8736329 |
| 2012-13 | 5614485 | 1062404 | 3324973 | 214524 | 273775 | 2439707 | 3108428 | 122573 | 9944013 |
| 2013-14 | 6475650 | 1156509 | 3515621 | 144621 | 161761 | 2856781 | 3191811 | 114389 | 11233522 |
| 2014-15 | 7232800 | 1298639 | 3783837 | 308697 | 209407 | 2863541 | 3235965 | -15828 | 12445128 |
| 2015-16 | 7932331 | 1411460 | 4002781 | 301923 | 197256 | 2728643 | 3044917 | 152559 | 13682035 |
| 2016-17 (PE) | 8927010 | 1769036 | 4117674 | 328198 | 166287 | 2911700 | 3133081 | 96886 | 15183709 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.
2. PFCE: Private Final Consumption Expenditure
3. GFCE: Government Final Consumption Expenditure
4. GFCF: Gross Fixed Capital Formation
5. CIS: Change in Stocks
6. na: not available
7. GDP: Gross Domestic Product

Table 1.7. Components of Gross Domestic Product at Constant Prices

| (₹ crore) | | | | | | | | | |
|-----------------------|---------|--------|--------|-------|-----------|------------------------------|------------------------------|---------------|---------|
| Year | PFCE | GFCE | GFCF | CIS | Valuables | Export of goods and services | Import of goods and services | Discrepancies | GDP |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 2004-05 Series | | | | | | | | | |
| 1950-51 | 244888 | 17979 | 40701 | 4205 | na | 20455 | 23085 | -11206 | 293937 |
| 1951-52 | 260454 | 18166 | 39772 | 3949 | na | 22790 | 32667 | -9865 | 302599 |
| 1952-53 | 270964 | 18187 | 37131 | 1046 | na | 20085 | 23038 | -13831 | 310544 |
| 1953-54 | 287254 | 18415 | 38705 | -2382 | na | 17625 | 20846 | -9127 | 329643 |
| 1954-55 | 296678 | 18523 | 43546 | 1156 | na | 21411 | 26611 | -9201 | 345503 |
| 1955-56 | 299514 | 19036 | 50947 | 1457 | na | 23206 | 30047 | -7429 | 356684 |
| 1956-57 | 312764 | 20361 | 62224 | 4449 | na | 20817 | 37224 | -6808 | 376582 |
| 1957-58 | 306585 | 22929 | 57579 | 7128 | na | 20981 | 39954 | -215 | 375033 |
| 1958-59 | 334730 | 23742 | 56784 | -480 | na | 18136 | 32533 | 2371 | 402749 |
| 1959-60 | 338538 | 24168 | 61613 | 4479 | na | 19117 | 28957 | -5638 | 413320 |
| 1960-61 | 357795 | 25473 | 66760 | 6128 | na | 18891 | 33792 | -5218 | 436037 |
| 1961-62 | 363895 | 27415 | 73110 | 5204 | na | 18856 | 30495 | -5715 | 452270 |
| 1962-63 | 368636 | 33078 | 80082 | 4508 | na | 18747 | 31687 | -7836 | 465527 |
| 1963-64 | 382349 | 40647 | 90736 | 3680 | na | 20322 | 32762 | -11540 | 493432 |
| 1964-65 | 405190 | 42464 | 98565 | 6218 | na | 18999 | 33869 | -7358 | 530207 |
| 1965-66 | 405548 | 46580 | 101821 | 4695 | na | 16365 | 30125 | -28652 | 516232 |
| 1966-67 | 410819 | 47380 | 102257 | 6621 | na | 20593 | 38747 | -32976 | 515947 |
| 1967-68 | 434061 | 48658 | 107340 | 5590 | na | 21614 | 37219 | -23719 | 556324 |
| 1968-69 | 445463 | 51211 | 111372 | 1435 | na | 22292 | 31874 | -24727 | 575172 |
| 1969-70 | 462008 | 56050 | 111724 | 7245 | na | 21860 | 27719 | -18381 | 612787 |
| 1970-71 | 477697 | 61370 | 107541 | 8631 | na | 28759 | 32685 | -6923 | 644390 |
| 1971-72 | 486992 | 67386 | 118995 | 11455 | na | 29062 | 38578 | -20336 | 654976 |
| 1972-73 | 490254 | 68031 | 124912 | 3242 | na | 31456 | 37849 | -28694 | 651352 |
| 1973-74 | 502285 | 67936 | 123058 | 11795 | na | 33017 | 40906 | -24368 | 672818 |
| 1974-75 | 501907 | 65398 | 128951 | 14863 | na | 35724 | 35687 | -30362 | 680793 |
| 1975-76 | 530409 | 71715 | 128683 | 2170 | na | 41600 | 36143 | 4652 | 743085 |
| 1976-77 | 540985 | 77084 | 141513 | 7607 | na | 49845 | 36829 | -24763 | 755443 |
| 1977-78 | 585099 | 79719 | 158620 | 11260 | na | 48067 | 46918 | -25597 | 810249 |
| 1978-79 | 620859 | 85618 | 165842 | 21755 | na | 51818 | 46941 | -42416 | 856535 |
| 1979-80 | 606933 | 90975 | 165092 | 15528 | na | 57597 | 56011 | -68448 | 811668 |
| 1980-81 | 661562 | 95196 | 178287 | 1004 | na | 60614 | 64051 | -66273 | 866340 |
| 1981-82 | 690331 | 99203 | 185401 | 23590 | na | 60119 | 70474 | -69795 | 918374 |
| 1982-83 | 697235 | 108747 | 197159 | 17857 | na | 63738 | 72909 | -61533 | 950295 |
| 1983-84 | 751352 | 113612 | 209780 | 7483 | na | 63155 | 88937 | -36884 | 1019561 |
| 1984-85 | 773009 | 122059 | 217283 | 17374 | na | 67764 | 76192 | -62780 | 1058515 |
| 1985-86 | 805271 | 134924 | 229215 | 27276 | na | 63485 | 86761 | -59276 | 1114133 |
| 1986-87 | 830682 | 147610 | 251020 | 21203 | na | 66934 | 101583 | -48516 | 1167350 |
| 1987-88 | 859153 | 159705 | 266072 | 6009 | na | 75452 | 99889 | -52862 | 1213640 |
| 1988-89 | 912779 | 168458 | 284466 | 24171 | na | 81091 | 109073 | -31406 | 1330486 |
| 1989-90 | 958075 | 177460 | 306311 | 16060 | na | 90805 | 111346 | -27749 | 1409615 |
| 1990-91 | 1000867 | 183488 | 347966 | 15063 | na | 100888 | 115094 | -45562 | 1487615 |
| 1991-92 | 1022458 | 183180 | 328594 | -1791 | na | 110637 | 115111 | -24629 | 1503337 |
| 1992-93 | 1048825 | 189503 | 358162 | 18331 | na | 116050 | 139432 | -5683 | 1585756 |
| 1993-94 | 1094417 | 200751 | 354848 | -3816 | na | 132041 | 166297 | 49147 | 1661092 |

Contd....

Table 1.7. Components of Gross Domestic Product at Constant Prices *(Contd....)*

(₹ crore)

| Year | PFCE | GFCE | GFCF | CIS | Valuables | Export of goods and services | Import of goods and services | Discrepancies | GDP |
|-----------------------|---------|---------|---------|--------|-----------|------------------------------|------------------------------|---------------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 2004-05 Series | | | | | | | | | |
| 1994-95 | 1147607 | 203529 | 388410 | 21529 | na | 149265 | 203883 | 65246 | 1771702 |
| 1995-96 | 1217472 | 219412 | 451596 | 34275 | na | 196128 | 261227 | 48244 | 1905900 |
| 1996-97 | 1312114 | 229594 | 465355 | -22555 | na | 208464 | 254853 | 111667 | 2049786 |
| 1997-98 | 1351342 | 255429 | 506706 | 16929 | na | 203610 | 288495 | 87279 | 2132799 |
| 1998-99 | 1439195 | 286572 | 555913 | -5221 | na | 231880 | 348634 | 104995 | 2264700 |
| 1999-2000 | 1526689 | 320320 | 599973 | 52890 | na | 273617 | 373012 | 64553 | 2465029 |
| 2000-01 | 1579201 | 324727 | 591610 | 17320 | na | 323288 | 390132 | 113697 | 2559711 |
| 2001-02 | 1673209 | 332369 | 682143 | -3481 | na | 337221 | 401619 | 63348 | 2683190 |
| 2002-03 | 1721238 | 331753 | 679170 | 20049 | na | 408324 | 449800 | 74525 | 2785258 |
| 2003-04 | 1823227 | 340962 | 750940 | 21668 | na | 447450 | 512250 | 132194 | 3004190 |
| 2004-05 | 1917508 | 354518 | 931028 | 80150 | 41054 | 569051 | 625945 | -25154 | 3242209 |
| 2005-06 | 2083309 | 386007 | 1081792 | 101511 | 40414 | 717424 | 829926 | -37288 | 3543244 |
| 2006-07 | 2259892 | 400579 | 1231265 | 133556 | 45933 | 863459 | 1008198 | -54998 | 3871489 |
| 2007-08 | 2471397 | 438919 | 1430764 | 175411 | 47263 | 914628 | 1110963 | -116472 | 4250947 |
| 2008-09 | 2649610 | 484459 | 1480943 | 85290 | 59987 | 1048140 | 1363302 | -28778 | 4416350 |
| 2009-10 | 2845303 | 551702 | 1594475 | 143052 | 94524 | 999030 | 1334180 | -103059 | 4790847 |
| 2010-11 | 3092373 | 583544 | 1769792 | 206953 | 125191 | 1195003 | 1542428 | -148042 | 5282386 |
| 2011-12 | 3378506 | 623574 | 1986645 | 117111 | 133454 | 1381129 | 1867249 | -120120 | 5633050 |
| 2011-12 Series | | | | | | | | | |
| 2011-12 | 4910447 | 968375 | 2997733 | 207983 | 253033 | 2143931 | 2715554 | -29620 | 8736329 |
| 2012-13 | 5179091 | 974263 | 3145793 | 201528 | 259949 | 2289836 | 2879079 | 41636 | 9213017 |
| 2013-14 | 5557329 | 979825 | 3194924 | 129758 | 148879 | 2468269 | 2644555 | -33060 | 9801370 |
| 2014-15 | 5902386 | 1073894 | 3302173 | 270613 | 187957 | 2512176 | 2667658 | -44556 | 10536984 |
| 2015-16 | 6262373 | 1109725 | 3518446 | 274447 | 180274 | 2378687 | 2510753 | 167803 | 11381002 |
| 2016-17 (PE) | 6806624 | 1340086 | 3602041 | 291179 | 148700 | 2486007 | 2568680 | 83897 | 12189854 |

Source: Central Statistics Office

Notes:

PE : Provisional Estimates

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.
2. PFCE: Private Final Consumption Expenditure
3. GFCE: Government Final Consumption Expenditure
4. GFCF: Gross Fixed Capital Formation
5. CIS: Change in Stocks
6. na: not available

Table 1.8. Gross Domestic Saving and Gross Capital Formation (at current prices)

| Year | Gross domestic saving | | | | Gross fixed capital formation | | | Change in stocks | | | | Gross capital formation | | | | | (₹ crore) | |
|----------------|--------------------------|--------------------------------|------------------|------------------|-------------------------------|-------------------|----------------|------------------|-------------------|-----------------|------------------|-------------------------|----------------|---------------------|--------------------------|------------------------------|-----------|------------------------------|
| | House- hold sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Public sector | Private sector | Valua- bles | Total (12+13+14) | Errors & omissions | Adjusted total (15+16) | | Gross domestic product |
| | | | | | | | | | | | | | | | | | | |
| 2004-05 series | | | | | | | | | | | | | | | | | | |
| 1950-51 | 681 | 93 | 215 | 989 | 264 | 704 | 968 | 26 | 140 | 165 | 290 | 844 | na | 1133 | -165 | 968 | 10401 | |
| 1951-52 | 634 | 136 | 309 | 1079 | 304 | 741 | 1045 | 30 | 143 | 173 | 334 | 884 | na | 1218 | 44 | 1262 | 11054 | |
| 1952-53 | 695 | 64 | 195 | 954 | 324 | 650 | 974 | -18 | 59 | 40 | 306 | 709 | na | 1014 | -95 | 920 | 10850 | |
| 1953-54 | 672 | 90 | 181 | 943 | 381 | 587 | 968 | -26 | -42 | -67 | 355 | 545 | na | 901 | 29 | 930 | 11810 | |
| 1954-55 | 774 | 118 | 213 | 1105 | 453 | 659 | 1112 | 45 | -9 | 36 | 498 | 650 | na | 1148 | -28 | 1121 | 11170 | |
| 1955-56 | 1041 | 134 | 247 | 1422 | 619 | 765 | 1384 | -25 | 77 | 53 | 594 | 842 | na | 1437 | 24 | 1461 | 11371 | |
| 1956-57 | 1222 | 155 | 318 | 1696 | 721 | 1050 | 1771 | 37 | 198 | 235 | 758 | 1248 | na | 2006 | 49 | 2056 | 13547 | |
| 1957-58 | 1028 | 121 | 336 | 1485 | 752 | 1051 | 1803 | 139 | 103 | 242 | 891 | 1154 | na | 2045 | -87 | 1958 | 13951 | |
| 1958-59 | 986 | 140 | 325 | 1450 | 817 | 965 | 1782 | 83 | -81 | 2 | 900 | 884 | na | 1784 | 42 | 1826 | 15551 | |
| 1959-60 | 1267 | 185 | 351 | 1803 | 1045 | 958 | 2003 | 12 | 198 | 209 | 1057 | 1156 | na | 2212 | -178 | 2034 | 16384 | |
| 1960-61 | 1226 | 281 | 572 | 2079 | 1215 | 1075 | 2290 | 63 | 265 | 328 | 1278 | 1340 | na | 2618 | -58 | 2560 | 17942 | |
| 1961-62 | 1237 | 320 | 654 | 2211 | 1269 | 1285 | 2554 | 29 | 247 | 276 | 1298 | 1532 | na | 2830 | -274 | 2556 | 19010 | |
| 1962-63 | 1519 | 344 | 750 | 2613 | 1510 | 1332 | 2842 | 97 | 260 | 357 | 1607 | 1592 | na | 3199 | -146 | 3053 | 20429 | |
| 1963-64 | 1589 | 394 | 929 | 2912 | 1794 | 1580 | 3374 | 87 | 188 | 275 | 1881 | 1768 | na | 3649 | -297 | 3352 | 23462 | |
| 1964-65 | 1897 | 389 | 1072 | 3358 | 2106 | 1866 | 3972 | 90 | 272 | 363 | 2196 | 2138 | na | 4335 | -377 | 3958 | 27367 | |
| 1965-66 | 2596 | 405 | 1085 | 4086 | 2348 | 2072 | 4420 | 124 | 192 | 316 | 2472 | 2264 | na | 4736 | -51 | 4685 | 28857 | |
| 1966-67 | 3161 | 424 | 941 | 4526 | 2360 | 2506 | 4866 | 64 | 450 | 514 | 2424 | 2956 | na | 5380 | 69 | 5449 | 32669 | |
| 1967-68 | 3275 | 410 | 944 | 4629 | 2320 | 3075 | 5395 | 233 | 199 | 432 | 2553 | 3274 | na | 5827 | -361 | 5466 | 38261 | |
| 1968-69 | 3277 | 439 | 1165 | 4881 | 2431 | 3241 | 5672 | 41 | 55 | 96 | 2472 | 3296 | na | 5768 | -471 | 5297 | 40512 | |
| 1969-70 | 4375 | 549 | 1361 | 6285 | 2525 | 3667 | 6192 | 50 | 504 | 554 | 2575 | 4171 | na | 6746 | -220 | 6526 | 44605 | |
| 1970-71 | 4531 | 672 | 1618 | 6821 | 2742 | 3746 | 6488 | 302 | 507 | 809 | 3044 | 4253 | na | 7297 | -82 | 7215 | 47638 | |
| 1971-72 | 5229 | 769 | 1689 | 7687 | 3245 | 4234 | 7479 | 356 | 710 | 1066 | 3601 | 4944 | na | 8545 | -380 | 8165 | 50999 | |
| 1972-73 | 5330 | 806 | 1816 | 7952 | 4185 | 4295 | 8480 | 88 | 322 | 411 | 4273 | 4617 | na | 8891 | -641 | 8249 | 56214 | |
| 1973-74 | 8020 | 1083 | 2363 | 11466 | 4631 | 5044 | 9675 | 541 | 1097 | 1639 | 5172 | 6141 | na | 11314 | 545 | 11858 | 68420 | |
| 1974-75 | 8677 | 1465 | 3340 | 13482 | 4948 | 7132 | 12080 | 938 | 1992 | 2929 | 5886 | 9124 | na | 15009 | -874 | 14135 | 80770 | |
| 1975-76 | 9790 | 1083 | 4192 | 15066 | 6401 | 7494 | 13895 | 1447 | 676 | 2123 | 7848 | 8170 | na | 16018 | -1070 | 14949 | 86707 | |

Contd....

Table 1.8. Gross Domestic Saving and Gross Capital Formation (at current prices) (Contd....)

| Year | Gross domestic saving | | | Gross fixed capital formation | | | Change in stocks | | | Gross capital formation | | | | | | | (₹ crore) |
|----------------|-----------------------|--------------------------|---------------|-------------------------------|---------------|----------------|------------------|---------------|----------------|-------------------------|---------------|----------------|-------------|------------------|--------------------|------------------------|-----------|
| | Household sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Public sector | Private sector | Value-added | Total (12+13+14) | Errors & omissions | Adjusted total (15+16) | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| 2004-05 series | | | | | | | | | | | | | | | | | |
| 1976-77 | 11206 | 1181 | 5195 | 17582 | 8051 | 7495 | 15546 | 1121 | 272 | 1393 | 9172 | 7767 | na | 16939 | -666 | 16273 | 93422 |
| 1977-78 | 13679 | 1413 | 5253 | 20345 | 8792 | 9043 | 17835 | 109 | 1278 | 1387 | 8901 | 10321 | na | 19222 | -341 | 18880 | 105848 |
| 1978-79 | 16482 | 1652 | 5976 | 24110 | 9638 | 10081 | 19719 | 1100 | 2118 | 3218 | 10738 | 12199 | na | 22937 | 1301 | 24238 | 114647 |
| 1979-80 | 16338 | 2398 | 6331 | 25068 | 11532 | 11032 | 22564 | 1346 | 2445 | 3791 | 12878 | 13477 | na | 26355 | -707 | 25648 | 125729 |
| 1980-81 | 18116 | 2339 | 6135 | 26590 | 13656 | 13159 | 26815 | 71 | 116 | 188 | 13727 | 13275 | na | 27003 | 1682 | 28684 | 149642 |
| 1981-82 | 19013 | 2560 | 9120 | 30692 | 17376 | 15274 | 32650 | 2006 | 3747 | 5753 | 19382 | 19021 | na | 38403 | -5100 | 33303 | 175805 |
| 1982-83 | 21972 | 2980 | 10004 | 34956 | 22276 | 16629 | 38905 | 1136 | 3315 | 4451 | 23412 | 19944 | na | 43356 | -5833 | 37522 | 196644 |
| 1983-84 | 26955 | 3254 | 9030 | 39239 | 24225 | 19780 | 44005 | 337 | 1450 | 1787 | 24562 | 21230 | na | 45792 | -4037 | 41756 | 229021 |
| 1984-85 | 32796 | 4040 | 8950 | 45786 | 27823 | 22626 | 50449 | 1676 | 3144 | 4820 | 29499 | 25770 | na | 55269 | -6191 | 49078 | 256611 |
| 1985-86 | 36666 | 5426 | 11322 | 53414 | 32590 | 27050 | 59640 | 1932 | 6383 | 8314 | 34522 | 33433 | na | 67954 | -8306 | 59648 | 289524 |
| 1986-87 | 42111 | 5336 | 11246 | 58693 | 39723 | 29753 | 69476 | 896 | 5636 | 6532 | 40619 | 35389 | na | 76008 | -10960 | 65048 | 323949 |
| 1987-88 | 57304 | 5932 | 10471 | 73707 | 41211 | 39993 | 81204 | -1515 | 3534 | 2019 | 39696 | 43527 | na | 83223 | -2691 | 80532 | 368211 |
| 1988-89 | 67063 | 8486 | 11943 | 87492 | 47566 | 48051 | 95617 | -493 | 9036 | 8543 | 47073 | 57087 | na | 104160 | -4364 | 99796 | 436893 |
| 1989-90 | 82985 | 11845 | 11900 | 106730 | 52517 | 61476 | 113993 | 1690 | 4324 | 6014 | 54207 | 65800 | na | 120007 | -998 | 119009 | 501928 |
| 1990-91 | 108603 | 15164 | 10641 | 134408 | 60013 | 79650 | 139663 | 1987 | 4368 | 6355 | 62000 | 84018 | na | 146018 | 6586 | 152604 | 586212 |
| 1991-92 | 105632 | 20304 | 17594 | 143530 | 70701 | 81765 | 152466 | -2207 | 1304 | -903 | 68494 | 83069 | na | 151563 | -4656 | 146907 | 673875 |
| 1992-93 | 127943 | 19968 | 16709 | 164621 | 71197 | 106732 | 177929 | 2657 | 7182 | 9839 | 73854 | 113914 | na | 187768 | -9331 | 178437 | 774545 |
| 1993-94 | 151454 | 29866 | 11674 | 192994 | 79309 | 112147 | 191456 | 1974 | -3693 | -1719 | 81283 | 108454 | na | 189737 | 8048 | 197785 | 891355 |
| 1994-95 | 187142 | 35260 | 24266 | 246668 | 102134 | 126308 | 228442 | -604 | 14676 | 14072 | 101530 | 140984 | na | 242514 | 16047 | 258561 | 1045590 |
| 1995-96 | 198585 | 59153 | 31527 | 289265 | 105704 | 189342 | 295046 | -613 | 25170 | 24557 | 105091 | 214512 | na | 319603 | -9558 | 310045 | 1226725 |
| 1996-97 | 224653 | 62540 | 31194 | 318387 | 108750 | 219296 | 328046 | 1883 | -16873 | -14991 | 110633 | 202423 | na | 313055 | 23069 | 336125 | 1419277 |
| 1997-98 | 284127 | 66080 | 29583 | 379790 | 112814 | 259587 | 372401 | 3553 | 9491 | 13044 | 116367 | 269078 | na | 385445 | 16647 | 402092 | 1572394 |
| 1998-99 | 352114 | 69191 | -3146 | 418159 | 128621 | 298448 | 427069 | 2277 | -5300 | -3023 | 130898 | 293148 | na | 424046 | 12475 | 436521 | 1803378 |
| 1999-00 | 438851 | 87234 | -9238 | 516847 | 138611 | 346055 | 484666 | 15553 | 26944 | 42497 | 154164 | 372999 | 15519 | 542682 | -3848 | 538834 | 2023130 |
| 2000-01 | 463750 | 81062 | -29266 | 515545 | 145973 | 349223 | 495196 | 9326 | 5831 | 15158 | 155299 | 355054 | 14724 | 525078 | 3222 | 528299 | 2177413 |
| 2001-02 | 545288 | 76906 | -36820 | 585374 | 160190 | 430050 | 590240 | 9079 | -11050 | -1971 | 169269 | 419000 | 14187 | 602456 | -31310 | 571146 | 2355845 |

Contd....

Table 1.8. Gross Domestic Saving and Gross Capital Formation (at current prices)

(Contd.....)

| Year | Gross domestic saving | | | | Gross fixed capital formation | | | Change in stocks | | | Gross capital formation | | | | | | (₹ crore) |
|----------------|--------------------------|--------------------------------|------------------|------------------|-------------------------------|-------------------|----------------|------------------|-------------------|-----------------|-------------------------|-------------------|-------------------------------|-------------------------------------|---------------------------|--------------------------------------|-----------|
| | House- hold sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Public sector | Private sector | Value- ables (12+13+14) | Errors & omissions (15+16) | Adjusted total (17) | Gross domestic product (18) | |
| | | | | | | | | | | | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| 2004-05 series | | | | | | | | | | | | | | | | | |
| 2002-03 | 564161 | 99217 | -7148 | 656230 | 168143 | 432977 | 601120 | -4740 | 22940 | 18200 | 163403 | 455917 | 13957 | 633277 | -5534 | 627743 | 2536327 |
| 2003-04 | 657587 | 129816 | 36372 | 823775 | 190806 | 506672 | 697478 | -3076 | 23743 | 20667 | 187730 | 530415 | 24572 | 742717 | 19699 | 762416 | 2841503 |
| 2004-05 | 763685 | 212519 | 74499 | 1050703 | 224108 | 706920 | 931028 | 16472 | 63678 | 80150 | 240580 | 770598 | 41054 | 1052231 | 11809 | 1064041 | 3242209 |
| 2005-06 | 868988 | 277208 | 88955 | 1235151 | 271342 | 848950 | 1120292 | 22008 | 82381 | 104389 | 293350 | 931331 | 41392 | 1266073 | 13681 | 1279754 | 3693369 |
| 2006-07 | 994396 | 338584 | 152929 | 1485909 | 339617 | 1004157 | 1343774 | 16939 | 130162 | 147101 | 356556 | 1134319 | 49709 | 1540583 | -9151 | 1531433 | 4294706 |
| 2007-08 | 1118347 | 469023 | 248962 | 1836332 | 401326 | 1240347 | 1641673 | 40597 | 160937 | 201534 | 441923 | 1401284 | 53592 | 1896799 | 3963 | 1900762 | 4987090 |
| 2008-09 | 1330873 | 417467 | 54280 | 1802620 | 480698 | 1340401 | 1821099 | 51032 | 55759 | 106791 | 531730 | 1396160 | 72213 | 2000103 | -68723 | 1931380 | 5630063 |
| 2009-10 | 1630799 | 540955 | 10585 | 2182338 | 543883 | 1511889 | 2055772 | 48905 | 130266 | 179171 | 592788 | 1642155 | 116312 | 2351255 | 11878 | 2363132 | 6477827 |
| 2010-11 | 1800174 | 620300 | 201268 | 2621742 | 609189 | 1797881 | 2407069 | 47259 | 226250 | 273509 | 656448 | 2024131 | 162836 | 2843415 | -1957 | 2841457 | 7784115 |
| 2011-12 | 2054737 | 658428 | 111295 | 2824459 | 639157 | 2221905 | 2861062 | 56678 | 113918 | 170596 | 695835 | 2335823 | 246673 | 3278331 | -77698 | 3200633 | 9009722 |
| 2011-12 Series | | | | | | | | | | | | | | | | | |
| 2011-12 | 2065566 | 826805 | 134466 | 3026837 | 641260 | 2356472 | 2997733 | 17098 | 190885 | 207983 | 658358 | 2547358 | 253033 | 3458749 | -55741 | 3403008 | 8736329 |
| 2012-13 | 2235280 | 994005 | 139917 | 3369202 | 698031 | 2626943 | 3324973 | 20618 | 193907 | 214524 | 718648 | 2820849 | 273775 | 3813272 | 33849 | 3847122 | 9944013 |
| 2013-14 | 2285301 | 1207187 | 115705 | 3608193 | 796950 | 2718671 | 3515621 | -2019 | 146640 | 144621 | 794931 | 2865311 | 161761 | 3822003 | -27868 | 3794135 | 11233522 |
| 2014-15 | 2555683 | 1455336 | 108746 | 4119766 | 833225 | 2950612 | 3783837 | 10305 | 298393 | 308697 | 843529 | 3249005 | 209407 | 4301941 | -22353 | 4279587 | 12445128 |
| 2015-16 | 2621531 | 1621684 | 175704 | 4418919 | 1008535 | 2994247 | 4002781 | 20073 | 281850 | 301923 | 1028608 | 3276097 | 197256 | 4501960 | 57358 | 4559318 | 13682035 |

Source: Central Statistics Office

Notes:

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.
2. na: not available

Table 1.9. Gross Domestic Saving and Gross Capital Formation

(As per cent of GDP at current market prices)

| Year | Gross domestic saving | | | Gross fixed capital formation | | | Change in stocks | | | | Gross capital formation | | | | | |
|----------------|--------------------------|--------------------------------|------------------|-------------------------------|------------------|-------------------|------------------|------------------|-------------------|-----------------|-------------------------|-------------------|-------------------------|--------------------------|------------------------------|------|
| | House- hold sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Public sector | Private sector | Valuables (12+13+14) | Errors & omissions | Adjusted total (15+16) | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 2004-05 series | | | | | | | | | | | | | | | | |
| 1950-51 | 6.5 | 0.9 | 2.1 | 9.5 | 2.5 | 6.8 | 9.3 | 0.2 | 1.3 | 1.6 | 2.8 | 8.1 | na | 10.9 | -1.6 | 9.3 |
| 1951-52 | 5.7 | 1.2 | 2.8 | 9.8 | 2.8 | 6.7 | 9.5 | 0.3 | 1.3 | 1.6 | 3.0 | 8.0 | na | 11.0 | 0.4 | 11.4 |
| 1952-53 | 6.4 | 0.6 | 1.8 | 8.8 | 3.0 | 6.0 | 9.0 | -0.2 | 0.5 | 0.4 | 2.8 | 6.5 | na | 9.3 | -0.9 | 8.5 |
| 1953-54 | 5.7 | 0.8 | 1.5 | 8.0 | 3.2 | 5.0 | 8.2 | -0.2 | -0.4 | -0.6 | 3.0 | 4.6 | na | 7.6 | 0.2 | 7.9 |
| 1954-55 | 6.9 | 1.1 | 1.9 | 9.9 | 4.1 | 5.9 | 10.0 | 0.4 | -0.1 | 0.3 | 4.5 | 5.8 | na | 10.3 | -0.2 | 10.0 |
| 1955-56 | 9.2 | 1.2 | 2.2 | 12.5 | 5.4 | 6.7 | 12.2 | -0.2 | 0.7 | 0.5 | 5.2 | 7.4 | na | 12.6 | 0.2 | 12.8 |
| 1956-57 | 9.0 | 1.1 | 2.4 | 12.5 | 5.3 | 7.8 | 13.1 | 0.3 | 1.5 | 1.7 | 5.6 | 9.2 | na | 14.8 | 0.4 | 15.2 |
| 1957-58 | 7.4 | 0.9 | 2.4 | 10.6 | 5.4 | 7.5 | 12.9 | 1.0 | 0.7 | 1.7 | 6.4 | 8.3 | na | 14.7 | -0.6 | 14.0 |
| 1958-59 | 6.3 | 0.9 | 2.1 | 9.3 | 5.3 | 6.2 | 11.5 | 0.5 | -0.5 | 0.0 | 5.8 | 5.7 | na | 11.5 | 0.3 | 11.7 |
| 1959-60 | 7.7 | 1.1 | 2.1 | 11.0 | 6.4 | 5.8 | 12.2 | 0.1 | 1.2 | 1.3 | 6.4 | 7.1 | na | 13.5 | -1.1 | 12.4 |
| 1960-61 | 6.8 | 1.6 | 3.2 | 11.6 | 6.8 | 6.0 | 12.8 | 0.4 | 1.5 | 1.8 | 7.1 | 7.5 | na | 14.6 | -0.3 | 14.3 |
| 1961-62 | 6.5 | 1.7 | 3.4 | 11.6 | 6.7 | 6.8 | 13.4 | 0.2 | 1.3 | 1.5 | 6.8 | 8.1 | na | 14.9 | -1.4 | 13.4 |
| 1962-63 | 7.4 | 1.7 | 3.7 | 12.8 | 7.4 | 6.5 | 13.9 | 0.5 | 1.3 | 1.7 | 7.9 | 7.8 | na | 15.7 | -0.7 | 14.9 |
| 1963-64 | 6.8 | 1.7 | 4.0 | 12.4 | 7.6 | 6.7 | 14.4 | 0.4 | 0.8 | 1.2 | 8.0 | 7.5 | na | 15.6 | -1.3 | 14.3 |
| 1964-65 | 6.9 | 1.4 | 3.9 | 12.3 | 7.7 | 6.8 | 14.5 | 0.3 | 1.0 | 1.3 | 8.0 | 7.8 | na | 15.8 | -1.4 | 14.5 |
| 1965-66 | 9.0 | 1.4 | 3.8 | 14.2 | 8.1 | 7.2 | 15.3 | 0.4 | 0.7 | 1.1 | 8.6 | 7.8 | na | 16.4 | -0.2 | 16.2 |
| 1966-67 | 9.7 | 1.3 | 2.9 | 13.9 | 7.2 | 7.7 | 14.9 | 0.2 | 1.4 | 1.6 | 7.4 | 9.0 | na | 16.5 | 0.2 | 16.7 |
| 1967-68 | 8.6 | 1.1 | 2.5 | 12.1 | 6.1 | 8.0 | 14.1 | 0.6 | 0.5 | 1.1 | 6.7 | 8.6 | na | 15.2 | -0.9 | 14.3 |
| 1968-69 | 8.1 | 1.1 | 2.9 | 12.0 | 6.0 | 8.0 | 14.0 | 0.1 | 0.1 | 0.2 | 6.1 | 8.1 | na | 14.2 | -1.2 | 13.1 |
| 1969-70 | 9.8 | 1.2 | 3.1 | 14.1 | 5.7 | 8.2 | 13.9 | 0.1 | 1.1 | 1.2 | 5.8 | 9.4 | na | 15.1 | -0.5 | 14.6 |
| 1970-71 | 9.5 | 1.4 | 3.4 | 14.3 | 5.8 | 7.9 | 13.6 | 0.6 | 1.1 | 1.7 | 6.4 | 8.9 | na | 15.3 | -0.2 | 15.1 |
| 1971-72 | 10.3 | 1.5 | 3.3 | 15.1 | 6.4 | 8.3 | 14.7 | 0.7 | 1.4 | 2.1 | 7.1 | 9.7 | na | 16.8 | -0.7 | 16.0 |
| 1972-73 | 9.5 | 1.4 | 3.2 | 14.1 | 7.4 | 7.6 | 15.1 | 0.2 | 0.6 | 0.7 | 7.6 | 8.2 | na | 15.8 | -1.1 | 14.7 |
| 1973-74 | 11.7 | 1.6 | 3.5 | 16.8 | 6.8 | 7.4 | 14.1 | 0.8 | 1.6 | 2.4 | 7.6 | 9.0 | na | 16.5 | 0.8 | 17.3 |
| 1974-75 | 10.7 | 1.8 | 4.1 | 16.7 | 6.1 | 8.8 | 15.0 | 1.2 | 2.5 | 3.6 | 7.3 | 11.3 | na | 18.6 | -1.1 | 17.5 |
| 1975-76 | 11.3 | 1.2 | 4.8 | 17.4 | 7.4 | 8.6 | 16.0 | 1.7 | 0.8 | 2.4 | 9.1 | 9.4 | na | 18.5 | -1.2 | 17.2 |

Contd....

Table 1.9. Gross Domestic Saving and Gross Capital Formation
(As per cent of GDP at current market prices)

(Contd.....)

| Year | Gross domestic saving | | | Gross fixed capital formation | | | Change in stocks | | | Gross capital formation | | | | Errors & omissions | Adjusted total (15+16) | |
|----------------|-----------------------|--------------------------|---------------|-------------------------------|---------------|----------------|------------------|---------------|----------------|-------------------------|-----------|------------------|------|--------------------|------------------------|------|
| | Household sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Valuables | Total (12+13+14) | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 2004-05 series | | | | | | | | | | | | | | | | |
| 1976-77 | 12.0 | 1.3 | 5.6 | 18.8 | 8.6 | 8.0 | 16.6 | 1.2 | 0.3 | 1.5 | 9.8 | 8.3 | na | 18.1 | -0.7 | 17.4 |
| 1977-78 | 12.9 | 1.3 | 5.0 | 19.2 | 8.3 | 8.5 | 16.8 | 0.1 | 1.2 | 1.3 | 8.4 | 9.8 | na | 18.2 | -0.3 | 17.8 |
| 1978-79 | 14.4 | 1.4 | 5.2 | 21.0 | 8.4 | 8.8 | 17.2 | 1.0 | 1.8 | 2.8 | 9.4 | 10.6 | na | 20.0 | 1.1 | 21.1 |
| 1979-80 | 13.0 | 1.9 | 5.0 | 19.9 | 9.2 | 8.8 | 17.9 | 1.1 | 1.9 | 3.0 | 10.2 | 10.7 | na | 21.0 | -0.6 | 20.4 |
| 1980-81 | 12.1 | 1.6 | 4.1 | 17.8 | 9.1 | 8.8 | 17.9 | 0.0 | 0.1 | 0.1 | 9.2 | 8.9 | na | 18.0 | 1.1 | 19.2 |
| 1981-82 | 10.8 | 1.5 | 5.2 | 17.5 | 9.9 | 8.7 | 18.6 | 1.1 | 2.1 | 3.3 | 11.0 | 10.8 | na | 21.8 | -2.9 | 18.9 |
| 1982-83 | 11.2 | 1.5 | 5.1 | 17.8 | 11.3 | 8.5 | 19.8 | 0.6 | 1.7 | 2.3 | 11.9 | 10.1 | na | 22.0 | -3.0 | 19.1 |
| 1983-84 | 11.8 | 1.4 | 3.9 | 17.1 | 10.6 | 8.6 | 19.2 | 0.1 | 0.6 | 0.8 | 10.7 | 9.3 | na | 20.0 | -1.8 | 18.2 |
| 1984-85 | 12.8 | 1.6 | 3.5 | 17.8 | 10.8 | 8.8 | 19.7 | 0.7 | 1.2 | 1.9 | 11.5 | 10.0 | na | 21.5 | -2.4 | 19.1 |
| 1985-86 | 12.7 | 1.9 | 3.9 | 18.4 | 11.3 | 9.3 | 20.6 | 0.7 | 2.2 | 2.9 | 11.9 | 11.5 | na | 23.5 | -2.9 | 20.6 |
| 1986-87 | 13.0 | 1.6 | 3.5 | 18.1 | 12.3 | 9.2 | 21.4 | 0.3 | 1.7 | 2.0 | 12.5 | 10.9 | na | 23.5 | -3.4 | 20.1 |
| 1987-88 | 15.6 | 1.6 | 2.8 | 20.0 | 11.2 | 10.9 | 22.1 | -0.4 | 1.0 | 0.5 | 10.8 | 11.8 | na | 22.6 | -0.7 | 21.9 |
| 1988-89 | 15.3 | 1.9 | 2.7 | 20.0 | 10.9 | 11.0 | 21.9 | -0.1 | 2.1 | 2.0 | 10.8 | 13.1 | na | 23.8 | -1.0 | 22.8 |
| 1989-90 | 16.5 | 2.4 | 2.4 | 21.3 | 10.5 | 12.2 | 22.7 | 0.3 | 0.9 | 1.2 | 10.8 | 13.1 | na | 23.9 | -0.2 | 23.7 |
| 1990-91 | 18.5 | 2.6 | 1.8 | 22.9 | 10.2 | 13.6 | 23.8 | 0.3 | 0.7 | 1.1 | 10.6 | 14.3 | na | 24.9 | 1.1 | 26.0 |
| 1991-92 | 15.7 | 3.0 | 2.6 | 21.3 | 10.5 | 12.1 | 22.6 | -0.3 | 0.2 | -0.1 | 10.2 | 12.3 | na | 22.5 | -0.7 | 21.8 |
| 1992-93 | 16.5 | 2.6 | 2.2 | 21.3 | 9.2 | 13.8 | 23.0 | 0.3 | 0.9 | 1.3 | 9.5 | 14.7 | na | 24.2 | -1.2 | 23.0 |
| 1993-94 | 17.0 | 3.4 | 1.3 | 21.7 | 8.9 | 12.6 | 21.5 | 0.2 | -0.4 | -0.2 | 9.1 | 12.2 | na | 21.3 | 0.9 | 22.2 |
| 1994-95 | 17.9 | 3.4 | 2.3 | 23.6 | 9.8 | 12.1 | 21.8 | -0.1 | 1.4 | 1.3 | 9.7 | 13.5 | na | 23.2 | 1.5 | 24.7 |
| 1995-96 | 16.2 | 4.8 | 2.6 | 23.6 | 8.6 | 15.4 | 24.1 | -0.1 | 2.1 | 2.0 | 8.6 | 17.5 | na | 26.1 | -0.8 | 25.3 |
| 1996-97 | 15.8 | 4.4 | 2.2 | 22.4 | 7.7 | 15.5 | 23.1 | 0.1 | -1.2 | -1.1 | 7.8 | 14.3 | na | 22.1 | 1.6 | 23.7 |
| 1997-98 | 18.1 | 4.2 | 1.9 | 24.2 | 7.2 | 16.5 | 23.7 | 0.2 | 0.6 | 0.8 | 7.4 | 17.1 | na | 24.5 | 1.1 | 25.6 |
| 1998-99 | 19.5 | 3.8 | -0.2 | 23.2 | 7.1 | 16.5 | 23.7 | 0.1 | -0.3 | -0.2 | 7.3 | 16.3 | na | 23.5 | 0.7 | 24.2 |
| 1999-2000 | 21.7 | 4.3 | -0.5 | 25.5 | 6.9 | 17.1 | 24.0 | 0.8 | 1.3 | 2.1 | 7.6 | 18.4 | 0.8 | 26.8 | -0.2 | 26.6 |
| 2000-01 | 21.3 | 3.7 | -1.3 | 23.7 | 6.7 | 16.0 | 22.7 | 0.4 | 0.3 | 0.7 | 7.1 | 16.3 | 0.7 | 24.1 | 0.1 | 24.3 |
| 2001-02 | 23.1 | 3.3 | -1.6 | 24.8 | 6.8 | 18.3 | 25.1 | 0.4 | -0.5 | -0.1 | 7.2 | 17.8 | 0.6 | 25.6 | -1.3 | 24.2 |
| 2002-03 | 22.2 | 3.9 | -0.3 | 25.9 | 6.6 | 17.1 | 23.7 | -0.2 | 0.9 | 0.7 | 6.4 | 18.0 | 0.6 | 25.0 | -0.2 | 24.8 |

Contd....

Table 1.9. Gross Domestic Saving and Gross Capital Formation
(As per cent of GDP at current market prices)

(Contd....)

| Year | Gross domestic saving | | | Gross fixed capital formation | | | Change in stocks | | | Gross capital formation | | | | |
|----------------|--------------------------|--------------------------------|------------------|-------------------------------|------------------|-------------------|------------------|------------------|-------------------|-------------------------|------------------|-------------------|-------------------------|-------------------------------------|
| | House- hold sector | Private corporate sector | Public sector | Total (2+3+4) | Public sector | Private sector | Total (6+7) | Public sector | Private sector | Total (9+10) | Public sector | Private sector | Valuables (12+13+14) | Errors & omissions (15+16) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
| 2004-05 series | | | | | | | | | | | | | | |
| 2003-04 | 23.1 | 4.6 | 1.3 | 29.0 | 6.7 | 17.8 | 24.5 | -0.1 | 0.8 | 0.7 | 6.6 | 18.7 | 0.9 | 26.1 |
| 2004-05 | 23.6 | 6.6 | 2.3 | 32.4 | 6.9 | 21.8 | 28.7 | 0.5 | 2.0 | 2.5 | 7.4 | 23.8 | 1.3 | 32.5 |
| 2005-06 | 23.5 | 7.5 | 2.4 | 33.4 | 7.3 | 23.0 | 30.3 | 0.6 | 2.2 | 2.8 | 7.9 | 25.2 | 1.1 | 34.3 |
| 2006-07 | 23.2 | 7.9 | 3.6 | 34.6 | 7.9 | 23.4 | 31.3 | 0.4 | 3.0 | 3.4 | 8.3 | 26.4 | 1.2 | 35.9 |
| 2007-08 | 22.4 | 9.4 | 5.0 | 36.8 | 8.0 | 24.9 | 32.9 | 0.8 | 3.2 | 4.0 | 8.9 | 28.1 | 1.1 | 38.0 |
| 2008-09 | 23.6 | 7.4 | 1.0 | 32.0 | 8.5 | 23.8 | 32.3 | 0.9 | 1.0 | 1.9 | 9.4 | 24.8 | 1.3 | 35.5 |
| 2009-10 | 25.2 | 8.4 | 0.2 | 33.7 | 8.4 | 23.3 | 31.7 | 0.8 | 2.0 | 2.8 | 9.2 | 25.4 | 1.8 | 36.3 |
| 2010-11 | 23.1 | 8.0 | 2.6 | 33.7 | 7.8 | 23.1 | 30.9 | 0.6 | 2.9 | 3.5 | 8.4 | 26.0 | 2.1 | 36.5 |
| 2011-12 | 22.8 | 7.3 | 1.2 | 31.3 | 7.1 | 24.7 | 31.8 | 0.6 | 1.3 | 1.9 | 7.7 | 25.9 | 2.7 | 36.4 |
| 2011-12 Series | | | | | | | | | | | | | | |
| 2011-12 | 23.6 | 9.5 | 1.5 | 34.6 | 7.3 | 27.0 | 34.3 | 0.2 | 2.2 | 2.4 | 7.5 | 29.2 | 2.9 | 39.6 |
| 2012-13 | 22.5 | 10.0 | 1.4 | 33.9 | 7.0 | 26.4 | 33.4 | 0.2 | 1.9 | 2.2 | 7.2 | 28.4 | 2.8 | 38.3 |
| 2013-14 | 20.3 | 10.7 | 1.0 | 32.1 | 7.1 | 24.2 | 31.3 | 0.0 | 1.3 | 1.3 | 7.1 | 25.5 | 1.4 | 34.0 |
| 2014-15 | 20.5 | 11.7 | 0.9 | 33.1 | 6.7 | 23.7 | 30.4 | 0.1 | 2.4 | 2.5 | 6.8 | 26.1 | 1.7 | 34.6 |
| 2015-16 | 19.2 | 11.9 | 1.3 | 32.3 | 7.4 | 21.9 | 29.3 | 0.1 | 2.1 | 2.2 | 7.5 | 23.9 | 1.4 | 32.9 |

Source: Central Statistics Office

Notes:

1. Estimates for the years 2011-12 to 2015-16, as released through the Press Note dated 31.01.2017 on First Revised Estimates of National Income, Consumption Expenditure, Saving and Capital Formation have been updated due to incorporation of new series of IIP and WPI with base year 2011-12, released in May 2017.
2. na: not available

Table 1.10A. Net State Domestic Product at Current Prices (2011-12 Series)

| As on 31.03.2017 | | | | | | |
|---------------------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| (₹ in Crore) | | | | | | |
| State\UT | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Andhra Pradesh | 339996 | 370196 | 413164 | 469909 | 545638 | 620974 |
| Arunachal Pradesh | 10229 | 11617 | 13398 | 15410 | 17229 | na |
| Assam | 129354 | 142039 | 160442 | 178479 | 201758 | na |
| Bihar | 228497 | 261327 | 292143 | 345571 | 382223 | na |
| Chhattisgarh | 142273 | 159431 | 185939 | 211016 | 233023 | 256346 |
| Goa | 38009 | 34567 | 32043 | 36290 | 40659 | na |
| Gujarat | 532809 | 634572 | 707456 | 789949 | 886092 | na |
| Haryana | 271152 | 314353 | 363590 | 395890 | 438140 | 494090 |
| Himachal Pradesh | 60536 | 69432 | 80129 | 88196 | na | na |
| Jammu & Kashmir | 67272 | 72963 | 79966 | 83217 | 98063 | na |
| Jharkhand | 137383 | 160304 | 172030 | 198386 | 223234 | na |
| Karnataka | 552720 | 632211 | 747788 | 843918 | 940006 | na |
| Kerala | 328021 | 371384 | 417265 | 473045 | 531126 | na |
| Madhya Pradesh | 282370 | 333936 | 391369 | 429896 | 483969 | 571934 |
| Maharashtra | 1119192 | 1271017 | 1450003 | 1572037 | na | na |
| Manipur | 11501 | 12193 | 14456 | 16189 | na | na |
| Meghalaya | 18028 | 19653 | 20415 | 21838 | 23936 | 26505 |
| Mizoram | 6404 | 7375 | 8989 | 10136 | na | na |
| Nagaland | 10217 | 11816 | 14545 | 16137 | na | na |
| Odisha | 201111 | 229888 | 256211 | 282322 | 300236 | 334067 |
| Punjab | 239227 | 267116 | 301673 | 332999 | na | na |
| Rajasthan | 396960 | 446835 | 497403 | 554783 | na | na |
| Sikkim | 9742 | 10817 | 12203 | 13318 | 14558 | na |
| Tamil nadu | 674478 | 768951 | 861429 | 970953 | 1080461 | 1193578 |
| Telangana | 325138 | 363929 | 408887 | 462636 | 522412 | 593930 |
| Tripura | 17419 | 19631 | 23329 | 27484 | na | na |
| Uttar Pradesh | 645130 | 733505 | 837614 | 925437 | 1024222 | na |
| Uttarakhand | 102156 | 117264 | 132556 | 142628 | 162168 | na |
| West Bengal ¹ | | | | | | |
| Andaman & Nicobar Islands | 3404 | 3793 | 4424 | 5025 | na | na |
| Chandigarh | 16930 | 19507 | 22290 | 25061 | 27341 | na |
| Delhi | 314619 | 357251 | 404664 | 447435 | 501104 | 565655 |
| Puducherry | 15160 | 16984 | 19778 | 21776 | 24220 | 27511 |
| All-India NDP | 7818898 | 8886659 | 10041060 | 11108576 | 12242873 | 13653519 |

Source: For States Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Notes:

1. The estimates of West Bengal for new series with base year 2011-12 compiled by the DES, West Bengal are under examination
2. na: not available

Table 1.10B. Growth of Net State Domestic Product at Current Prices (2011-12 Series)

| As on 31.03.2017 | | | | | |
|---------------------------|---------|---------|---------|---------|---------|
| State\UT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Andhra Pradesh | 8.9 | 11.6 | 13.7 | 16.1 | 13.8 |
| Arunachal Pradesh | 13.6 | 15.3 | 15.0 | 11.8 | na |
| Assam | 9.8 | 13.0 | 11.2 | na | na |
| Bihar | 14.4 | 11.8 | 18.3 | 10.6 | na |
| Chhattisgarh | 12.1 | 16.6 | 13.5 | na | na |
| Goa | -9.1 | -7.3 | 13.3 | na | na |
| Gujarat | 19.1 | 11.5 | 11.7 | na | na |
| Haryana | 15.9 | 15.7 | 8.9 | na | na |
| Himachal Pradesh | 14.7 | 15.4 | 10.1 | na | na |
| Jammu & Kashmir | 8.5 | 9.6 | 4.1 | na | na |
| Jharkhand | 16.7 | 7.3 | 15.3 | 12.5 | na |
| Karnataka | 14.4 | 18.3 | 12.9 | 11.4 | na |
| Kerala | 13.2 | 12.4 | 13.4 | na | na |
| Madhya Pradesh | 18.3 | 17.2 | 9.8 | 12.6 | 18.2 |
| Maharashtra | 13.6 | 14.1 | 8.4 | na | na |
| Manipur | 6.0 | 18.6 | 12.0 | na | na |
| Meghalaya | 9.0 | 3.9 | 7.0 | 9.6 | 10.7 |
| Mizoram | 15.2 | 21.9 | 12.8 | na | na |
| Nagaland | 15.7 | 23.1 | 10.9 | na | na |
| Odisha | 14.3 | 11.5 | 10.2 | 6.3 | 11.3 |
| Punjab | 11.7 | 12.9 | 10.4 | na | na |
| Rajasthan | 12.6 | 11.3 | 11.5 | na | na |
| Sikkim | 11.0 | 12.8 | 9.1 | 9.3 | na |
| Tamil nadu | 14.0 | 12.0 | 12.7 | 11.3 | 10.5 |
| Telangana | 11.9 | 12.4 | 13.1 | 12.9 | 13.7 |
| Tripura | 12.7 | 18.8 | 17.8 | na | na |
| Uttar Pradesh | 13.7 | 14.2 | 10.5 | 10.7 | na |
| Uttarakhand | 14.8 | 13.0 | 7.6 | 13.7 | na |
| West Bengal ¹ | | | | | |
| Andaman & Nicobar Islands | 11.4 | 16.6 | 13.6 | na | na |
| Chandigarh | 15.2 | 14.3 | 12.4 | 9.1 | na |
| Delhi | 13.6 | 13.3 | 10.6 | 12.0 | 12.9 |
| Puducherry | 12.0 | 16.4 | 10.1 | 11.2 | 13.6 |
| All-India NDP | 13.7 | 13.0 | 10.6 | 10.2 | 11.5 |

Source: For States -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Notes:

1. The estimates of West Bengal for new series with base year 2011-12 compiled by the DES, West Bengal are under examination
2. na: not available

Table 1.11A. Per Capita Net State Domestic Product at Current Prices (2011-12 Series)

| As on 31.03.2017 | | | | | | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|
| (₹) | | | | | | |
| State\UT | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Andhra Pradesh | 69000 | 74687 | 82870 | 93699 | 108163 | 122376 |
| Arunachal Pradesh | 73068 | 81353 | 91953 | 103633 | 113645 | na |
| Assam | 41142 | 44599 | 49734 | 54618 | 60952 | na |
| Bihar | 21750 | 24487 | 26948 | 31380 | 34168 | na |
| Chhattisgarh | 55177 | 60849 | 69839 | 78001 | 84767 | 91772 |
| Goa | 259444 | 234354 | 215776 | 242745 | 270150 | na |
| Gujarat | 87481 | 102826 | 113139 | 124678 | 138023 | na |
| Haryana | 106085 | 121269 | 138300 | 148485 | 162034 | 180174 |
| Himachal Pradesh | 87721 | 99730 | 114095 | 124500 | na | na |
| Jammu & Kashmir | 53171 | 56803 | 61319 | 62857 | 72958 | na |
| Jharkhand | 41254 | 47360 | 50006 | 56737 | 62816 | na |
| Karnataka | 89899 | 101722 | 119023 | 132880 | 146416 | na |
| Kerala | 97912 | 110314 | 123388 | 139195 | 155516 | na |
| Madhya Pradesh | 38550 | 44931 | 51897 | 56182 | 62334 | 72599 |
| Maharashtra | 98910 | 111005 | 125146 | 134081 | na | na |
| Manipur | 39762 | 41246 | 47852 | 52436 | na | na |
| Meghalaya | 60013 | 64036 | 65118 | 68202 | 73176 | 79332 |
| Mizoram | 57654 | 65013 | 77581 | 85659 | na | na |
| Nagaland | 51314 | 58727 | 71511 | 78526 | na | na |
| Odisha | 47632 | 53900 | 59468 | 64869 | 68293 | 75223 |
| Punjab | 85577 | 94318 | 105143 | 114561 | na | na |
| Rajasthan | 57427 | 63722 | 69925 | 76881 | na | na |
| Sikkim | 158667 | 174183 | 194624 | 210394 | 227465 | na |
| Tamil nadu | 92984 | 105032 | 116583 | 130197 | 143547 | 157116 |
| Telangana | 91121 | 100979 | 112328 | 125832 | 140683 | 158360 |
| Tripura | 47079 | 52434 | 61570 | 71666 | na | na |
| Uttar Pradesh | 32002 | 35837 | 40306 | 43861 | 48520 | na |
| Uttarakhand | 100497 | 113826 | 126957 | 134784 | 151219 | na |
| West Bengal ¹ | | | | | | |
| Andaman & Nicobar Islands | 88183 | 96032 | 109787 | 121954 | na | na |
| Chandigarh | 159114 | 180624 | 203377 | 225369 | 242386 | na |
| Delhi | 185343 | 206503 | 229518 | 249004 | 273618 | 303073 |
| Puducherry | 119649 | 130548 | 148147 | 158830 | 172143 | 190384 |
| All-India Per Capita NNI | 63460 | 71011 | 79146 | 86513 | 94178 | 103818 |

Source: For States -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Notes:

1. The estimates of West Bengal for new series with base year 2011-12 compiled by the DES, West Bengal are under examination
2. na: not available

Table 1.11B. Growth of Per Capita Net State Domestic Product at Current Prices (2011-12 Series)

As on 31.03.2017

(per cent)

| State\UT | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---------------------------------|---------|---------|---------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| Andhra Pradesh | 8.2 | 11.0 | 13.1 | 15.4 | 13.1 |
| Arunachal Pradesh | 11.3 | 13.0 | 12.7 | 9.7 | na |
| Assam | 8.4 | 11.5 | 9.8 | na | na |
| Bihar | 12.6 | 10.1 | 16.4 | 8.9 | na |
| Chhattisgarh | 10.3 | 14.8 | 11.7 | na | na |
| Goa | -9.7 | -7.9 | 12.5 | na | na |
| Gujarat | 17.5 | 10.0 | 10.2 | na | na |
| Haryana | 14.3 | 14.0 | 7.4 | na | na |
| Himachal Pradesh | 13.7 | 14.4 | 9.1 | na | na |
| Jammu & Kashmir | 6.8 | 8.0 | 2.5 | na | na |
| Jharkhand | 14.8 | 5.6 | 13.5 | 10.7 | na |
| Karnataka | 13.2 | 17.0 | 11.6 | 10.2 | na |
| Kerala | 12.7 | 11.9 | 12.8 | na | na |
| Madhya Pradesh | 16.6 | 15.5 | 8.3 | 10.9 | 16.5 |
| Maharashtra | 12.2 | 12.7 | 7.1 | na | na |
| Manipur | 3.7 | 16.0 | 9.6 | na | na |
| Meghalaya | 6.7 | 1.7 | 4.7 | 7.3 | 8.4 |
| Mizoram | 12.8 | 19.3 | 10.4 | na | na |
| Nagaland | 14.4 | 21.8 | 9.8 | na | na |
| Odisha | 13.2 | 10.3 | 9.1 | 5.3 | 10.1 |
| Punjab | 10.2 | 11.5 | 9.0 | na | na |
| Rajasthan | 11.0 | 9.7 | 9.9 | na | na |
| Sikkim | 9.8 | 11.7 | 8.1 | 8.1 | na |
| Tamil nadu | 13.0 | 11.0 | 11.7 | 10.3 | 9.5 |
| Telangana | 10.8 | 11.2 | 12.0 | 11.8 | 12.6 |
| Tripura | 11.4 | 17.4 | 16.4 | na | na |
| Uttar Pradesh | 12.0 | 12.5 | 8.8 | 10.6 | na |
| Uttarakhand | 13.3 | 11.5 | 6.2 | 12.2 | na |
| West Bengal ¹ | | | | | |
| Andaman & Nicobar Islands | 8.9 | 14.3 | 11.1 | na | na |
| Chandigarh | 13.5 | 12.6 | 10.8 | 7.6 | na |
| Delhi | 11.4 | 11.1 | 8.5 | 9.9 | 10.8 |
| Puducherry | 9.1 | 13.5 | 7.2 | 8.4 | 10.6 |
| All-India Per Capita NNI | 11.9 | 11.5 | 9.3 | 8.9 | 10.2 |

Source: For States -- Directorate of Economics & Statistics of respective State Governments, and for All-India -- Central Statistics Office

Notes:

1. The estimates of West Bengal for new series with base year 2011-12 compiled by the DES, West Bengal are under examination
2. na: not available

Table 1.12. Index Numbers of Agricultural Production

(Base : Triennium ending 2007-08= 100)

| | Weight | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
|---------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| A. Foodgrains | 50.7 | 105.4 | 106.5 | 100.6 | 114.3 | 119.5 | 119.4 | 123.3 | 115.9 | 115.6 | 129.7 |
| (a) Cereals | 41.7 | 105.5 | 107.4 | 100.2 | 111.1 | 119.1 | 117.3 | 120.7 | 114.6 | 115.5 | 123.1 |
| Rice | 16.9 | 102.9 | 105.6 | 94.8 | 102.2 | 112.1 | 112.0 | 113.5 | 112.3 | 111.1 | 116.2 |
| Wheat | 18.0 | 105.4 | 108.2 | 108.3 | 116.5 | 127.2 | 125.4 | 128.5 | 116.0 | 123.7 | 130.7 |
| (b) Coarse Cereals ^a | 6.9 | 112.1 | 110.0 | 92.3 | 118.9 | 114.8 | 109.2 | 118.0 | 116.7 | 104.6 | 120.6 |
| Maize | 2.9 | 116.6 | 121.4 | 102.9 | 133.7 | 133.9 | 136.9 | 149.3 | 148.7 | 138.8 | 160.8 |
| (c) Pulses ^b | 8.9 | 105.1 | 102.0 | 102.3 | 129.3 | 121.3 | 129.2 | 135.6 | 122.0 | 116.4 | 160.3 |
| Gram | 3.5 | 97.5 | 119.8 | 126.8 | 139.5 | 130.7 | 149.9 | 161.6 | 124.4 | 119.7 | 154.0 |
| Tur | 1.7 | 113.5 | 83.6 | 91.0 | 105.6 | 98.0 | 111.6 | 117.2 | 103.6 | 94.5 | 169.7 |
| B. Non-foodgrains | 49.3 | 108.6 | 107.5 | 104.9 | 128.0 | 131.2 | 129.1 | 136.1 | 132.3 | 122.0 | 122.4 |
| (a) Oilseeds ^c | 13.2 | 108.6 | 100.8 | 88.9 | 116.8 | 106.5 | 107.4 | 119.0 | 99.7 | 92.5 | 115.3 |
| Groundnut | 4.1 | 125.0 | 97.6 | 73.9 | 112.5 | 94.8 | 63.9 | 132.2 | 100.8 | 91.7 | 104.1 |
| Rapeseed and Mustard | 3.6 | 81.8 | 100.9 | 92.6 | 114.6 | 92.6 | 112.5 | 110.4 | 88.1 | 95.3 | 111.8 |
| (b) Fibres | | | | | | | | | | | |
| Cotton | 4.4 | 115.9 | 99.7 | 107.5 | 147.7 | 157.6 | 153.2 | 160.7 | 155.8 | 134.3 | 145.8 |
| Jute | 0.7 | 100.5 | 94.7 | 110.4 | 98.4 | 105.6 | 101.7 | 109.0 | 104.4 | 97.8 | 96.7 |
| Mesta | 0.0 | 105.5 | 77.9 | 62.5 | 65.1 | 70.6 | 62.8 | 64.6 | 54.1 | 62.1 | 46.9 |
| (c) Plantation Crops | | | | | | | | | | | |
| Tea | 0.3 | 95.9 | 98.8 | 100.7 | 98.2 | 99.2 | 99.2 | 124.4 | 123.2 | 126.9 | na |
| Coffee | 0.6 | 95.4 | 95.5 | 105.4 | 110.0 | 114.3 | 115.8 | 110.9 | 119.1 | 126.7 | na |
| Rubber | 1.9 | 99.8 | 104.5 | 100.5 | 104.2 | 109.3 | 110.5 | 93.6 | 78.0 | 68.0 | na |
| (d) Others | | | | | | | | | | | |
| Sugarcane | 9.9 | 106.1 | 86.8 | 89.0 | 104.3 | 110.0 | 103.9 | 107.3 | 110.4 | 106.1 | 93.2 |
| Tobacco | 0.4 | 93.0 | 115.1 | 141.6 | 170.6 | 160.0 | 139.8 | 156.4 | 156.4 | na | na |
| Potato | 3.6 | 114.6 | 138.4 | 147.2 | 170.4 | 166.9 | 182.5 | 167.2 | 193.2 | 174.7 | 176.6 |
| C. All Commodities | 100.0 | 107.0 | 107.0 | 102.7 | 121.0 | 125.2 | 124.2 | 129.6 | 124.0 | 118.8 | 126.1 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Includes maize, jowar, ragi, bajra, small millets and barley

b : Includes tur, urad, moong, gram, lentils and other pulses

c : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

na: not available

Table 1.13. Index Numbers of Area under Principal Crops

(Base : Triennium ending 2007-08= 100)

| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| A. Foodgrains | 101.2 | 100.9 | 100.0 | 104.4 | 104.0 | 102.0 | 105.6 | 105.4 | 103.7 | 107.6 |
| (a) Cereals | 100.9 | 101.6 | 99.5 | 101.8 | 103.3 | 101.7 | 104.0 | 105.7 | 102.9 | 103.4 |
| Rice | 100.3 | 104.0 | 95.7 | 97.9 | 100.5 | 97.6 | 100.8 | 100.7 | 99.3 | 98.0 |
| Wheat | 101.9 | 100.9 | 103.5 | 105.7 | 108.6 | 109.1 | 110.8 | 114.4 | 110.6 | 111.7 |
| (b) Coarse Cereals ^a | 99.9 | 97.9 | 98.5 | 101.2 | 96.4 | 92.1 | 94.4 | 95.0 | 91.3 | 94.9 |
| Maize | 103.2 | 103.9 | 105.0 | 108.7 | 111.6 | 110.2 | 115.3 | 116.8 | 111.9 | 124.0 |
| (c) Pulses ^b | 102.3 | 97.3 | 102.2 | 116.4 | 107.5 | 103.8 | 112.8 | 104.2 | 107.5 | 127.4 |
| Gram | 103.0 | 107.8 | 111.6 | 125.5 | 113.4 | 116.4 | 135.6 | 112.7 | 114.7 | 130.3 |
| Tur | 102.8 | 93.2 | 95.7 | 120.5 | 110.6 | 107.5 | 107.8 | 106.4 | 109.4 | 148.7 |
| B. Non-foodgrains | 103.2 | 106.1 | 104.3 | 114.0 | 116.5 | 116.2 | 119.4 | 118.7 | 116.1 | 106.3 |
| (a) Oilseeds ^c | 98.5 | 101.8 | 94.8 | 101.0 | 97.5 | 97.5 | 104.1 | 94.3 | 95.4 | 98.2 |
| Groundnut | 101.2 | 99.2 | 88.1 | 94.2 | 84.7 | 76.0 | 88.6 | 76.7 | 74.0 | 85.2 |
| Rapeseed and Mustard | 87.9 | 95.0 | 84.3 | 104.1 | 88.9 | 96.0 | 100.2 | 87.5 | 86.7 | 93.9 |
| (b) Fibres | | | | | | | | | | |
| Cotton | 103.7 | 103.6 | 111.6 | 123.8 | 134.1 | 131.9 | 131.7 | 141.2 | 135.4 | 119.0 |
| Jute | 103.2 | 99.6 | 102.8 | 98.1 | 102.5 | 98.4 | 95.8 | 95.0 | 92.3 | 88.3 |
| Mesta | 102.9 | 81.1 | 66.3 | 69.4 | 67.3 | 60.4 | 57.4 | 42.2 | 38.0 | 36.4 |
| (c) Plantation Crops | | | | | | | | | | |
| Tea | 98.2 | 98.2 | 98.2 | 98.2 | 98.2 | 98.2 | 98.2 | 99.9 | 99.9 | 99.9 |
| Coffee | 113.2 | 115.0 | 116.5 | 118.0 | 119.5 | 121.1 | 122.2 | 112.6 | 115.8 | 115.8 |
| Rubber | 103.1 | 107.5 | 111.4 | 115.5 | 119.3 | 123.0 | 126.3 | 129.1 | 131.6 | 131.6 |
| (d) Others | | | | | | | | | | |
| Sugarcane | 105.3 | 91.9 | 86.9 | 101.7 | 104.9 | 104.1 | 104.0 | 105.5 | 102.6 | 93.8 |
| Tobacco | 95.9 | 107.6 | 122.0 | 135.3 | 128.3 | 117.3 | 125.5 | 125.5 | na | na |
| Potato | 105.0 | 123.6 | 124.0 | 125.9 | 128.9 | 134.6 | 133.3 | 140.3 | 143.1 | 143.5 |
| C. All Commodities | 102.2 | 103.5 | 102.1 | 109.1 | 110.2 | 109.0 | 112.4 | 112.0 | 109.8 | 107.0 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

*: 3rd Advance Estimates

a : Includes maize, jowar, ragi, bajra, small millets and barley

b : Includes tur, urad, moong, gram, lentils and other pulses

c : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

na: not available

Table 1.14. Index Numbers of Yield of Principal Crops

(Base : Triennium ending 2007-08= 100)

| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| A. Foodgrains | 104.2 | 105.5 | 100.6 | 109.5 | 114.8 | 117.0 | 116.8 | 114.1 | 114.8 | 120.5 |
| (a) Cereals | 104.5 | 105.7 | 100.7 | 109.1 | 115.3 | 115.4 | 116.0 | 113.9 | 116.9 | 119.1 |
| Rice | 102.6 | 101.5 | 99.1 | 104.4 | 111.5 | 114.7 | 112.6 | 111.5 | 111.9 | 118.5 |
| Wheat | 103.4 | 107.2 | 104.7 | 110.2 | 117.2 | 114.9 | 116.0 | 101.4 | 111.9 | 117.0 |
| (b) Coarse Cereals ^a | 112.3 | 112.4 | 93.8 | 117.5 | 119.1 | 118.6 | 125.0 | 135.1 | 125.3 | 127.1 |
| Maize | 113.0 | 116.8 | 97.9 | 122.9 | 119.9 | 124.2 | 129.5 | 127.4 | 124.0 | 129.7 |
| (c) Pulses ^b | 102.7 | 104.9 | 100.1 | 111.1 | 112.8 | 124.5 | 120.2 | 119.0 | 107.3 | 125.8 |
| Gram | 94.7 | 111.1 | 113.7 | 111.2 | 115.3 | 128.7 | 119.2 | 110.4 | 104.4 | 118.2 |
| Tur | 110.4 | 89.7 | 95.1 | 87.6 | 88.6 | 103.8 | 108.7 | 97.4 | 86.4 | 114.1 |
| B. Non-foodgrains | 105.2 | 101.4 | 100.6 | 112.2 | 112.6 | 111.1 | 114.0 | 103.7 | 108.9 | 112.4 |
| (a) Oilseeds ^c | 110.3 | 99.0 | 93.8 | 115.7 | 109.3 | 110.1 | 114.3 | 106.2 | 95.7 | 117.4 |
| Groundnut | 123.5 | 98.4 | 83.8 | 119.4 | 111.9 | 84.1 | 149.3 | 131.3 | 123.9 | 122.2 |
| Rapeseed and Mustard | 93.1 | 106.3 | 109.9 | 110.2 | 104.1 | 117.3 | 110.2 | 100.7 | 110.0 | 119.1 |
| (b) Fibres | | | | | | | | | | |
| Cotton | 111.7 | 96.2 | 96.4 | 119.4 | 117.5 | 116.1 | 122.0 | 110.3 | 99.2 | 122.6 |
| Jute | 97.4 | 95.1 | 107.4 | 100.4 | 103.0 | 103.3 | 113.7 | 109.9 | 105.9 | 109.5 |
| Mesta | 102.5 | 96.0 | 94.3 | 93.8 | 104.9 | 104.0 | 112.6 | 128.1 | 163.5 | 128.8 |
| (c) Plantation Crops | | | | | | | | | | |
| Tea | 97.7 | 100.6 | 102.5 | 100.0 | 101.1 | 101.1 | 126.7 | 123.4 | 127.1 | na |
| Coffee | 84.3 | 83.1 | 90.5 | 93.2 | 95.7 | 95.7 | 90.7 | 105.7 | 109.4 | na |
| Rubber | 96.8 | 97.3 | 90.2 | 90.2 | 91.6 | 89.9 | 74.1 | 60.4 | 51.6 | na |
| (d) Others | | | | | | | | | | |
| Sugarcane | 100.8 | 94.4 | 102.4 | 102.5 | 104.8 | 99.8 | 103.2 | 104.6 | 103.5 | 99.4 |
| Tobacco | 97.0 | 107.0 | 116.1 | 126.1 | 124.6 | 119.2 | 124.6 | 124.6 | na | na |
| Potato | 109.1 | 112.0 | 118.7 | 135.3 | 129.5 | 135.5 | 125.4 | 137.7 | 122.1 | 115.2 |
| C. All Commodities | 104.7 | 103.4 | 100.6 | 110.9 | 113.6 | 113.9 | 115.4 | 112.3 | 113.0 | 117.9 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Includes maize, jowar, ragi, bajra, small millets and barley

b : Includes tur, urad, moong, gram, lentils and other pulses

c : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean.

na : not available

Table 1.15. Production of Major Crops

(Million Tonnes)

| Group/Commodity | 1980-81 | 1990-91 | 2000-01 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Foodgrains^a | 129.6 | 176.4 | 196.8 | 218.1 | 244.5 | 259.3 | 257.1 | 265.0 | 252.0 | 251.5 | 273.4 |
| Kharif | 77.7 | 99.4 | 102.1 | 104.0 | 120.9 | 131.3 | 128.1 | 128.7 | 128.1 | 125.1 | 138.0 |
| Rabi | 51.9 | 77.0 | 94.7 | 114.1 | 123.6 | 128.0 | 129.1 | 136.4 | 124.0 | 126.5 | 135.3 |
| Cereals^b | 119.0 | 162.1 | 185.7 | 203.4 | 226.3 | 240.8 | 238.8 | 245.8 | 234.8 | 235.2 | 251.0 |
| Kharif | 73.9 | 94.0 | 97.6 | 99.7 | 113.8 | 125.2 | 122.2 | 122.7 | 122.3 | 119.6 | 128.9 |
| Rabi | 45.1 | 68.1 | 88.1 | 103.7 | 112.5 | 115.6 | 116.6 | 123.1 | 112.5 | 115.7 | 122.0 |
| Coarse Cereals^c | 29.0 | 32.7 | 31.1 | 33.6 | 43.4 | 42.0 | 40.0 | 43.3 | 42.9 | 38.5 | 44.4 |
| Kharif | 23.8 | 27.7 | 24.9 | 23.8 | 33.1 | 32.4 | 29.8 | 31.2 | 30.9 | 28.2 | 32.8 |
| Rabi | 5.2 | 5.0 | 6.2 | 9.7 | 10.3 | 9.6 | 10.3 | 12.1 | 11.3 | 10.4 | 11.6 |
| Pulses^d | 10.6 | 14.3 | 11.0 | 14.7 | 18.2 | 17.1 | 18.3 | 19.3 | 17.2 | 16.4 | 22.4 |
| Kharif | 3.8 | 5.4 | 4.4 | 4.2 | 7.1 | 6.1 | 5.9 | 6.0 | 5.7 | 5.5 | 9.1 |
| Rabi | 6.8 | 8.9 | 6.6 | 10.5 | 11.1 | 11.0 | 12.4 | 13.3 | 11.4 | 10.8 | 13.3 |
| Rice | 53.6 | 74.3 | 85.0 | 89.1 | 96.0 | 105.3 | 105.2 | 106.6 | 105.5 | 104.4 | 109.1 |
| Kharif | 50.1 | 66.3 | 72.8 | 75.9 | 80.7 | 92.8 | 92.4 | 91.5 | 91.4 | 91.4 | 96.1 |
| Rabi | 3.5 | 8.0 | 12.2 | 13.2 | 15.3 | 12.5 | 12.9 | 15.1 | 14.1 | 13.0 | 13.1 |
| Wheat | 36.3 | 55.1 | 69.7 | 80.8 | 86.9 | 93.5 | 93.5 | 95.8 | 86.5 | 92.3 | 97.4 |
| Jowar | 10.4 | 11.7 | 7.5 | 6.7 | 7.0 | 6.0 | 5.3 | 5.5 | 5.5 | 4.2 | 4.7 |
| Kharif | 7.5 | 8.3 | 4.5 | 2.8 | 3.4 | 3.3 | 2.8 | 2.4 | 2.3 | 1.8 | 1.9 |
| Rabi | 2.9 | 3.4 | 3.0 | 3.9 | 3.6 | 2.7 | 2.4 | 3.1 | 3.2 | 2.4 | 2.8 |
| Maize | 7.0 | 9.0 | 12.0 | 16.7 | 21.7 | 21.8 | 22.3 | 24.3 | 24.2 | 22.6 | 26.1 |
| Bajra | 5.3 | 6.9 | 6.8 | 6.5 | 10.4 | 10.3 | 8.7 | 9.3 | 9.2 | 8.1 | 9.9 |
| Gram | 4.3 | 5.4 | 3.9 | 7.5 | 8.2 | 7.7 | 8.8 | 9.5 | 7.3 | 7.1 | 9.1 |
| Tur | 2.0 | 2.4 | 2.2 | 2.5 | 2.9 | 2.7 | 3.0 | 3.2 | 2.8 | 2.6 | 4.6 |
| Oilseeds^e | 9.4 | 18.6 | 18.4 | 24.9 | 32.5 | 29.8 | 30.9 | 32.7 | 27.5 | 25.3 | 32.5 |
| Kharif | 5.0 | 9.8 | 11.9 | 15.7 | 21.9 | 20.7 | 20.8 | 22.6 | 19.2 | 16.8 | 22.8 |
| Rabi | 4.4 | 8.8 | 6.5 | 9.2 | 10.6 | 9.1 | 10.2 | 10.1 | 8.3 | 8.6 | 9.7 |
| Groundnut | 5.0 | 7.5 | 6.4 | 5.4 | 8.3 | 7.0 | 4.7 | 9.7 | 7.4 | 6.7 | 7.7 |
| Kharif | 3.7 | 5.1 | 4.9 | 3.8 | 6.6 | 5.1 | 3.2 | 8.1 | 5.9 | 5.4 | 6.3 |
| Rabi | 1.3 | 2.4 | 1.5 | 1.6 | 1.6 | 1.8 | 1.5 | 1.7 | 1.5 | 1.4 | 1.4 |
| Rapeseed and Mustard | 2.3 | 5.2 | 4.2 | 6.6 | 8.2 | 6.6 | 8.0 | 7.9 | 6.3 | 6.8 | 8.0 |
| Sugarcane | 154.2 | 241.0 | 296.0 | 292.3 | 342.4 | 361.0 | 341.2 | 352.1 | 362.3 | 348.4 | 306.0 |
| Cotton^f | 7.0 | 9.8 | 9.5 | 24.0 | 33.0 | 35.2 | 34.2 | 35.9 | 34.8 | 30.0 | 32.6 |
| Jute and Mesta^g | 8.2 | 9.2 | 10.5 | 11.8 | 10.6 | 11.4 | 10.9 | 11.7 | 11.1 | 10.5 | 10.3 |
| Jute | 6.5 | 7.9 | 9.3 | 11.2 | 10.0 | 10.7 | 10.3 | 11.1 | 10.6 | 9.9 | 9.8 |
| Mesta | 1.7 | 1.3 | 1.2 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.4 |
| Plantation Crops | | | | | | | | | | | |
| Tea | 0.6 | 0.7 | 0.8 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 | 1.2 | 1.2 | na |
| Coffee | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | na |
| Rubber | 0.2 | 0.3 | 0.6 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | na |
| Potato | 9.7 | 15.2 | 22.5 | 36.6 | 42.3 | 46.6 | 45.3 | 41.6 | 48.0 | 43.4 | 43.9 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Includes cereals, coarse cereals and pulses

b : Includes rice, wheat and coarse cereals

c : Includes maize, jowar, ragi, bajra, small millets and barley

d : Includes tur, urad, moong, gram, lentils and other pulses

e : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean

f : Bales of 170 Kgs.

g : Bales of 180 Kgs.

na : not available

Table 1.16. Gross Area Under Major Crops

| (Million Hectares) | | | | | | | | | | | |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Group/Commodity | 1980-81 | 1990-91 | 2000-01 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Foodgrains^a | 126.7 | 127.8 | 121.0 | 121.3 | 126.7 | 124.8 | 120.8 | 125.0 | 124.3 | 123.2 | 127.6 |
| Kharif | 83.2 | 80.8 | 75.2 | 69.5 | 72.4 | 72.1 | 67.7 | 69.1 | 68.8 | 69.2 | 72.2 |
| Rabi | 43.5 | 47.0 | 45.8 | 51.8 | 54.3 | 52.7 | 53.1 | 56.0 | 55.5 | 54.0 | 55.4 |
| Cereals^b | 104.2 | 103.2 | 100.7 | 98.0 | 100.3 | 100.3 | 97.5 | 99.8 | 100.7 | 98.3 | 98.3 |
| Kharif | 72.8 | 69.3 | 64.6 | 58.9 | 60.1 | 60.9 | 57.7 | 58.7 | 58.8 | 57.9 | 57.9 |
| Rabi | 31.4 | 33.9 | 36.1 | 39.1 | 40.2 | 39.4 | 39.8 | 41.1 | 42.0 | 40.4 | 40.4 |
| Coarse Cereals^c | 41.8 | 36.3 | 30.3 | 27.7 | 28.3 | 26.4 | 24.8 | 25.2 | 25.2 | 24.4 | 24.7 |
| Kharif | 34.3 | 29.6 | 23.9 | 21.3 | 22.1 | 20.8 | 18.8 | 19.3 | 18.9 | 18.2 | 19.0 |
| Rabi | 7.4 | 6.7 | 6.4 | 6.4 | 6.3 | 5.7 | 5.9 | 5.9 | 6.2 | 6.2 | 5.6 |
| Pulses^d | 22.5 | 24.7 | 20.3 | 23.3 | 26.4 | 24.5 | 23.3 | 25.2 | 23.6 | 24.9 | 29.3 |
| Kharif | 10.4 | 11.5 | 10.6 | 10.6 | 12.3 | 11.2 | 10.0 | 10.3 | 10.0 | 11.3 | 14.3 |
| Rabi | 12.1 | 13.2 | 9.7 | 12.7 | 14.1 | 13.3 | 13.3 | 14.9 | 13.6 | 13.6 | 14.9 |
| Rice | 40.1 | 42.7 | 44.7 | 41.9 | 42.9 | 44.0 | 42.8 | 44.1 | 44.1 | 43.5 | 42.9 |
| Kharif | 38.4 | 39.7 | 40.7 | 37.6 | 38.0 | 40.1 | 38.9 | 39.4 | 39.8 | 39.7 | 38.8 |
| Rabi | 1.7 | 3.0 | 4.0 | 4.3 | 4.8 | 3.9 | 3.8 | 4.7 | 4.3 | 3.8 | 4.1 |
| Wheat | 22.3 | 24.2 | 25.7 | 28.5 | 29.1 | 29.9 | 30.0 | 30.5 | 31.5 | 30.4 | 30.7 |
| Jowar | 15.8 | 14.4 | 9.9 | 7.7 | 7.4 | 7.4 | 6.2 | 5.8 | 6.2 | 6.1 | 5.1 |
| Kharif | 10.2 | 8.6 | 4.9 | 3.2 | 3.1 | 3.1 | 2.4 | 2.3 | 2.3 | 2.1 | 1.9 |
| Rabi | 5.6 | 5.8 | 5.0 | 4.5 | 4.3 | 4.3 | 3.8 | 3.5 | 3.9 | 3.9 | 3.2 |
| Maize | 6.0 | 5.9 | 6.6 | 8.3 | 8.6 | 8.8 | 8.7 | 9.1 | 9.2 | 8.8 | 9.8 |
| Bajra | 11.7 | 10.5 | 9.8 | 8.9 | 9.6 | 8.8 | 7.3 | 7.8 | 7.3 | 7.1 | 7.5 |
| Gram | 6.6 | 7.5 | 5.2 | 8.2 | 9.2 | 8.3 | 8.5 | 9.9 | 8.3 | 8.4 | 9.5 |
| Tur | 2.8 | 3.6 | 3.6 | 3.5 | 4.4 | 4.0 | 3.9 | 3.9 | 3.9 | 4.0 | 5.4 |
| Oilseeds^e | 17.6 | 24.1 | 22.8 | 26.0 | 27.2 | 26.3 | 26.5 | 28.1 | 25.6 | 26.1 | 26.5 |
| Kharif | 10.2 | 14.0 | 15.8 | 18.0 | 18.2 | 18.4 | 18.3 | 19.7 | 18.2 | 18.9 | 18.9 |
| Rabi | 7.4 | 10.1 | 7.0 | 8.0 | 9.0 | 7.9 | 8.2 | 8.4 | 7.4 | 7.2 | 7.6 |
| Groundnut | 6.8 | 8.3 | 6.6 | 5.5 | 5.9 | 5.3 | 4.7 | 5.5 | 4.8 | 4.6 | 5.3 |
| Kharif | 5.9 | 6.8 | 5.7 | 4.6 | 5.0 | 4.3 | 3.9 | 4.6 | 4.0 | 3.8 | 4.5 |
| Rabi | 0.9 | 1.5 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| Rapeseed and Mustard | 4.1 | 5.8 | 4.5 | 5.6 | 6.9 | 5.9 | 6.4 | 6.6 | 5.8 | 5.7 | 6.2 |
| Sugarcane | 2.7 | 3.7 | 4.3 | 4.2 | 4.9 | 5.0 | 5.0 | 5.0 | 5.1 | 4.9 | 4.5 |
| Cotton^f | 7.8 | 7.4 | 8.6 | 10.1 | 11.2 | 12.2 | 12.0 | 12.0 | 12.8 | 12.3 | 10.8 |
| Jute and Mesta^g | 1.3 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.7 |
| Jute | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| Mesta | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Plantation crops | | | | | | | | | | | |
| Tea | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | na |
| Coffee (Plucked area) | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | na |
| Rubber (Tapped area) | 0.3 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | na |
| Potato | 0.7 | 0.9 | 1.2 | 1.8 | 1.9 | 1.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Includes cereals, coarse cereals and pulses

b : Includes rice, wheat and coarse cereals

c : Includes maize, jowar, ragi, bajra, small millets and barley

d : Includes tur, urad, moong, gram, lentils and other pulses

e : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean

f : Bales of 170 Kgs.

g : Bales of 180 Kgs.

na : not available

Table 1.17. Yield Per Hectare of Major Crops

| (Kg. / Hectare) | | | | | | | | | | | |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Group /Commodity | 1980-81 | 1990-91 | 2000-01 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Foodgrains^a | 1023 | 1380 | 1626 | 1798 | 1930 | 2078 | 2128 | 2120 | 2028 | 2042 | 2142 |
| Kharif | 933 | 1231 | 1357 | 1496 | 1669 | 1822 | 1892 | 1864 | 1862 | 1808 | 1911 |
| Rabi | 1195 | 1635 | 2067 | 2203 | 2278 | 2430 | 2431 | 2435 | 2232 | 2342 | 2444 |
| Cereals^b | 1142 | 1571 | 1844 | 2076 | 2256 | 2415 | 2449 | 2462 | 2331 | 2393 | 2553 |
| Kharif | 1015 | 1357 | 1512 | 1693 | 1893 | 2057 | 2116 | 2089 | 2081 | 2065 | 2227 |
| Rabi | 1434 | 2010 | 2438 | 2649 | 2800 | 2968 | 2932 | 2995 | 2681 | 2862 | 3019 |
| Coarse Cereals^c | 695 | 900 | 1027 | 1212 | 1531 | 1590 | 1617 | 1717 | 1703 | 1579 | 1798 |
| Kharif | 693 | 937 | 5298 | 1118 | 1500 | 1563 | 1583 | 1619 | 1633 | 1544 | 1724 |
| Rabi | 702 | 741 | 973 | 1526 | 1641 | 1689 | 1725 | 2034 | 1915 | 1686 | 2049 |
| Pulses^d | 473 | 578 | 544 | 630 | 691 | 699 | 789 | 764 | 728 | 656 | 765 |
| Kharif | 361 | 471 | 417 | 397 | 578 | 541 | 594 | 580 | 573 | 489 | 636 |
| Rabi | 571 | 672 | 604 | 823 | 790 | 831 | 934 | 891 | 843 | 796 | 889 |
| Rice | 1336 | 1740 | 1901 | 2125 | 2239 | 2393 | 2462 | 2416 | 2391 | 2400 | 2543 |
| Kharif | 1303 | 1670 | 1788 | 2019 | 2121 | 2312 | 2374 | 2319 | 2295 | 2305 | 2474 |
| Rabi | 2071 | 2671 | 3042 | 3055 | 3173 | 3228 | 3353 | 3232 | 3291 | 3382 | 3201 |
| Wheat | 1630 | 2281 | 2708 | 2839 | 2989 | 3178 | 3117 | 3145 | 2750 | 3034 | 3172 |
| Jowar | 660 | 814 | 764 | 860 | 949 | 957 | 850 | 957 | 884 | 697 | 924 |
| Kharif | 737 | 969 | 938 | 853 | 1119 | 1257 | 1171 | 1050 | 1014 | 850 | 1014 |
| Rabi | 520 | 582 | 594 | 865 | 827 | 746 | 644 | 896 | 808 | 615 | 871 |
| Maize | 1159 | 1518 | 1822 | 2024 | 2540 | 2478 | 2566 | 2676 | 2632 | 2563 | 2679 |
| Bajra | 458 | 658 | 688 | 731 | 1079 | 1171 | 1198 | 1184 | 1255 | 1132 | 1319 |
| Gram | 657 | 712 | 744 | 915 | 895 | 928 | 1036 | 960 | 889 | 840 | 951 |
| Tur | 689 | 673 | 618 | 711 | 655 | 662 | 776 | 813 | 729 | 646 | 854 |
| Oilseeds^e | 532 | 771 | 810 | 958 | 1193 | 1133 | 1168 | 1168 | 1075 | 968 | 1229 |
| Kharif | 492 | 698 | 757 | 875 | 1203 | 1123 | 1135 | 1151 | 1055 | 884 | 1210 |
| Rabi | 588 | 872 | 929 | 1146 | 1174 | 1155 | 1244 | 1207 | 1125 | 1186 | 1275 |
| Groundnut | 736 | 904 | 977 | 991 | 1411 | 1323 | 995 | 1764 | 1552 | 1465 | 1445 |
| Kharif | 629 | 751 | 861 | 835 | 1335 | 1188 | 811 | 1735 | 1478 | 1399 | 1387 |
| Rabi | 1444 | 1611 | 1756 | 1830 | 1846 | 1938 | 1910 | 1926 | 1948 | 1801 | 1776 |
| Rapeseed and Mustard | 560 | 904 | 935 | 1183 | 1185 | 1121 | 1262 | 1185 | 1083 | 1183 | 1281 |
| Sugarcane (tonnes/hect.) | 58 | 65 | 69 | 70 | 70 | 72 | 68 | 71 | 71 | 71 | 68 |
| Cotton^f | 152 | 225 | 190 | 403 | 499 | 491 | 486 | 510 | 462 | 415 | 513 |
| Jute and Mesta^g | 1130 | 1634 | 1867 | 2349 | 2192 | 2268 | 2281 | 2512 | 2473 | 2421 | 2471 |
| Jute | 1245 | 1833 | 2026 | 2492 | 2329 | 2389 | 2396 | 2639 | 2549 | 2457 | 2541 |
| Mesta | 828 | 988 | 1078 | 1121 | 1115 | 1248 | 1237 | 1338 | 1525 | 1945 | 1532 |
| Plantation Crops | | | | | | | | | | | |
| Tea | 1491 | 1794 | 1673 | 1756 | 1712 | 1967 | 2037 | 2170 | 2170 | 2170 | na |
| Coffee | 624 | 759 | 959 | 725 | 746 | 766 | 766 | 727 | 766 | 766 | na |
| Rubber | 788 | 1076 | 1576 | 1211 | 1211 | 1230 | 1206 | 994 | 994 | 994 | na |
| Potato | 13 | 16 | 18 | 20 | 23 | 22 | 23 | 21 | 22 | 21 | 21 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation and Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Includes cereals, coarse cereals and pulses

b : Includes rice, wheat and coarse cereals

c : Includes maize, jowar, ragi, bajra, small millets and barley

d : Includes tur, urad, moong, gram, lentils and other pulses

e : Includes groundnut, rapeseed & mustard, sesamum, linseed, castorseed, nigerseed, safflower, sunflower and soyabean

f : Bales of 170 Kgs.

g : Bales of 180 Kgs.

na : not available

Table 1.18. Production of Important Crops in Three Largest Producing States in 2016-17*

| (Production in Million Tonnes) | | | | |
|--------------------------------|----------------|------------|---|---|
| Crops/Groups of Crops | States | Production | Per cent Share of Production to All India | Cumulative per cent Share of Production |
| (1) | (2) | (3) | (4) | (5) |
| I. Foodgrains | | | | |
| Rice | West Bengal | 15.0 | 13.8 | 13.8 |
| | Uttar Pradesh | 12.9 | 11.9 | 25.6 |
| | Punjab | 11.0 | 10.1 | 35.7 |
| Wheat | Uttar Pradesh | 30.4 | 31.2 | 31.2 |
| | Madhya Pradesh | 17.8 | 18.2 | 49.4 |
| | Punjab | 16.0 | 16.5 | 65.9 |
| Maize | Maharashtra | 3.4 | 13.1 | 13.1 |
| | Karnataka | 3.2 | 12.2 | 25.3 |
| | Madhya Pradesh | 3.1 | 11.9 | 37.2 |
| Total Coarse Cereals | Rajasthan | 6.7 | 15.1 | 15.1 |
| | Maharashtra | 6.6 | 14.9 | 30.0 |
| | Karnataka | 5.0 | 11.3 | 41.4 |
| Gram | Madhya Pradesh | 3.5 | 39.1 | 39.1 |
| | Maharashtra | 1.6 | 18.1 | 57.2 |
| | Rajasthan | 1.4 | 15.2 | 72.5 |
| Tur | Maharashtra | 1.4 | 30.2 | 30.2 |
| | Karnataka | 0.9 | 18.8 | 49.0 |
| | Madhya Pradesh | 0.8 | 17.0 | 66.0 |
| Total Pulses | Madhya Pradesh | 6.1 | 27.1 | 27.1 |
| | Maharashtra | 3.7 | 16.4 | 43.5 |
| | Rajasthan | 3.0 | 13.3 | 56.7 |
| Total Foodgrains | Uttar Pradesh | 49.4 | 18.1 | 18.1 |
| | Madhya Pradesh | 32.6 | 11.9 | 30.0 |
| | Punjab | 27.6 | 10.1 | 40.1 |
| II. Oilseeds | | | | |
| Groundnut | Gujarat | 3.1 | 41.1 | 41.1 |
| | Rajasthan | 1.1 | 14.9 | 56.0 |
| | Andhra Pradesh | 0.7 | 9.4 | 65.4 |
| Rapeseed & Mustard | Rajasthan | 3.7 | 46.8 | 46.8 |
| | Haryana | 0.9 | 11.4 | 58.2 |
| | Madhya Pradesh | 0.9 | 10.9 | 69.1 |
| Soyabean | Madhya Pradesh | 7.0 | 50.3 | 50.3 |
| | Maharashtra | 5.0 | 35.4 | 85.7 |
| | Rajasthan | 1.1 | 8.1 | 93.8 |
| Sunflower | Karnataka | 0.1 | 49.6 | 49.6 |
| | Odisha | 0.02 | 9.2 | 58.8 |
| | Andhra Pradesh | 0.02 | 7.3 | 66.1 |
| Total Oilseeds | Madhya Pradesh | 8.7 | 26.7 | 26.7 |
| | Rajasthan | 6.3 | 19.5 | 46.2 |
| | Maharashtra | 5.4 | 16.5 | 62.7 |
| III. Other Cash Crops | | | | |
| Sugarcane | Uttar Pradesh | 133.7 | 43.7 | 43.7 |
| | Maharashtra | 49.7 | 16.2 | 59.9 |
| | Karnataka | 33.4 | 10.9 | 70.9 |
| Cotton ^a | Maharashtra | 10.2 | 31.4 | 31.4 |
| | Gujarat | 8.3 | 25.3 | 56.7 |
| | Telangana | 2.9 | 9.0 | 65.7 |
| Jute & Mesta ^b | West Bengal | 7.6 | 74.3 | 74.3 |
| | Bihar | 1.6 | 15.5 | 89.7 |
| | Assam | 0.8 | 8.0 | 97.8 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

Notes:

* : 3rd Advance Estimates

a : Production in million bales of 170 kgs.

b : Production in million bales of 180 kgs.

Table 1.19. Per Capita Net Availability of Cereals and Pulses

| Year | Population (million) | Cereals | | | | Pulses Net availability (million tonnes) | Per capita net availability per day (grams) | | |
|---------|-------------------------|--|---------------------------------------|--|--|--|--|--------|-------|
| | | Net production (million tonnes) | Net imports (million tonnes) | Change in Government stocks (million tonnes) | Net availability (Col. 3+4-5) (million tonnes) | | Cereals | Pulses | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1951 | 363.2 | 40.1 | 4.1 | (+)0.6 | 43.6 | 8.0 | 334.2 | 60.7 | 394.9 |
| 1961 | 442.4 | 60.9 | 3.5 | (-)0.2 | 64.6 | 11.1 | 399.7 | 69.0 | 468.7 |
| 1971 | 551.3 | 84.5 | 2.0 | (+)2.6 | 84.0 | 10.3 | 417.6 | 51.2 | 468.8 |
| 1981 | 688.5 | 104.1 | 0.5 | (-)0.2 | 104.8 | 9.4 | 417.3 | 37.5 | 454.8 |
| 1991 | 851.7 | 141.9 | (-)0.6 | (-)4.4 | 145.7 | 12.9 | 468.5 | 41.6 | 510.1 |
| 2001 | 1033.2 | 162.5 | (-)4.5 | (+)12.3 | 145.6 | 11.3 | 386.2 | 30.0 | 416.2 |
| 2002 | 1050.6 | 174.5 | (-)8.5 | (-)9.9 | 175.9 | 13.6 | 458.7 | 35.4 | 494.1 |
| 2003 | 1068.2 | 143.2 | (-)7.1 | (-)23.2 | 159.3 | 11.3 | 408.5 | 29.1 | 437.6 |
| 2004 | 1085.6 | 173.5 | (-)7.7 | (-)3.3 | 169.1 | 14.2 | 426.9 | 35.8 | 462.7 |
| 2005 | 1102.8 | 162.1 | (-)7.2 | (-)2.4 | 157.3 | 12.7 | 390.9 | 31.5 | 422.4 |
| 2006 | 1119.8 | 170.8 | (-)3.8 | (-)1.8 | 168.8 | 13.3 | 412.8 | 32.5 | 445.3 |
| 2007 | 1136.6 | 177.7 | (-)7.0 | (+)1.7 | 169.0 | 14.7 | 407.4 | 35.5 | 442.8 |
| 2008 | 1153.1 | 197.3 | (-)14.4 | (+)17.0 | 165.9 | 17.6 | 394.2 | 41.8 | 436.0 |
| 2009 | 1169.4 | 192.4 | (-)7.2 | (+)11.5 | 173.7 | 15.8 | 407.0 | 37.0 | 444.0 |
| 2010 | 1185.8 | 178.0 | (-)4.7 | (-)0.5 | 173.8 | 15.3 | 401.7 | 35.4 | 437.1 |
| 2011 | 1201.9 | 198.0 | (-)9.6 | (+)8.3 | 180.1 | 18.9 | 410.6 | 43.0 | 453.6 |
| 2012 | 1213.4 | 211.9 | (-)19.8 | (+)11.2 | 181.0 | 18.4 | 408.6 | 41.7 | 450.3 |
| 2013 | 1228.8 | 208.9 | (-)71.9 | (-) 23.6 | 160.6 | 19.4 | 358.1 | 43.3 | 401.4 |
| 2014 | 1244.0 | 215.0 | (-)19.9 | (-)6.0 | 201.0 | 21.0 | 442.9 | 46.4 | 489.3 |
| 2015 | 1259.1 | 205.5 | (-)12.3 | (-)0.5 | 193.6 | 20.1 | 421.4 | 43.8 | 465.2 |
| 2016 | 1273.9 | 205.8 | (-)8.6 | (-)9.2 | 206.3 | 20.2 | 443.7 | 43.6 | 487.3 |
| 2017(P) | 1288.5 | 218.6 | (-)7.7 | (+)7.9 | 203.0 | 25.2 | 431.6 | 53.8 | 485.4 |

Source: Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

Notes:

P: Provisional

1. Population figure relates to mid year.
2. The net availability of foodgrains is estimated to be gross production (-) seed, feed and wastage, (-) exports (+) imports (+/-) change in stocks.
3. The net availability of foodgrains divided by the population estimates for a particular year indicates per capita availability of foodgrains in terms of Kg/ year.
4. Figures in respect of per capita net availability given above are not strictly representative of actual level of consumption in the country especially as they do not take into account any change in stocks in possession of traders, procedures and consumers.
5. For calculation of per capita net availability, the figure of net imports from 1981 to 1994 are based on imports and exports on Government of India account only, Net imports from 1995 are, however, based on the total exports and imports (both Government as well as Private accounts).

Table 1.20. Net Availability, Procurement and Public Distribution of Foodgrains

(Million tonnes)

| Year | Net production of foodgrains | Net imports | Net availability of foodgrains ^a | Procurement | Public distribution ^b | Col. 3 as per cent of Col. 4 | Col. 5 as per cent of Col. 2 | Col. 6 as per cent of Col. 4 |
|------|------------------------------------|----------------|---|-------------|-------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1951 | 48.1 | 4.8 | 52.4 | 3.8 | 8.0 | 9.2 | 7.9 | 15.3 |
| 1961 | 72.0 | 3.5 | 75.7 | 0.5 | 4.0 | 4.6 | 0.7 | 5.3 |
| 1971 | 94.9 | 2.0 | 94.3 | 8.9 | 7.8 | 2.1 | 9.3 | 8.3 |
| 1981 | 113.4 | 0.7 | 114.3 | 13.0 | 13.0 | 0.6 | 11.4 | 11.4 |
| 1991 | 154.3 | (-)0.1 | 158.6 | 19.6 | 20.8 | ... | 12.7 | 13.1 |
| 2001 | 172.2 | (-)2.9 | 156.9 | 42.6 | 13.2 | (-)1.8 | 24.7 | 8.4 |
| 2002 | 186.2 | (-)6.7 | 189.5 | 40.3 | 18.2 | (-)3.5 | 21.7 | 9.6 |
| 2003 | 152.9 | (-)5.5 | 170.6 | 34.5 | 23.2 | (-)2.8 | 22.6 | 13.2 |
| 2004 | 186.5 | (-)6.5 | 183.3 | 41.1 | 28.3 | (-) 3.5 | 22.0 | 15.5 |
| 2005 | 173.6 | (-)6.0 | 170.0 | 41.5 | 31.0 | (-) 3.5 | 23.9 | 18.2 |
| 2006 | 182.5 | (-)2.3 | 181.9 | 37.0 | 31.8 | (-) 1.3 | 20.3 | 17.5 |
| 2007 | 190.1 | (-)4.7 | 183.7 | 35.8 | 32.8 | (-) 2.6 | 18.8 | 17.8 |
| 2008 | 210.2 | (-) 9.7 | 183.5 | 54.2 | 34.7 | (-) 5.3 | 25.8 | 18.9 |
| 2009 | 205.2 | (-) 4.1 | 189.5 | 60.5 | 41.3 | (-) 2.2 | 29.5 | 21.8 |
| 2010 | 190.8 | (-) 2.2 | 189.2 | 56.1 | 43.7 | (-) 1.2 | 29.4 | 23.1 |
| 2011 | 213.9 | (-) 2.9 | 203.1 | 64.5 | 47.9 | (-) 1.4 | 30.1 | 23.6 |
| 2012 | 226.9 | na | na | 73.4 | 44.9 | na | na | na |
| 2013 | 224.9 | na | na | 58.9 | 44.5 | na | na | na |
| 2014 | 232.4 | na | na | 59.8 | 43.5 | na | na | na |
| 2015 | na | na | na | 65.0 | na | na | na | na |
| 2016 | na | na | na | 60.8 | na | na | na | na |
| 2017 | na | na | na | 40.2* | na | na | na | na |

Sources:

1. Department of Food and Public Distribution
2. Directorate of Economics & Statistics, Department of Agriculture, Cooperation & Farmers Welfare

Notes:

na: not available ... Negligible P: Provisional * : as on 09.05.2017

a : Net availability = Net production + Net Imports - changes in Government stocks.

b : Includes quantities released under the Food for Work Programme during the years 1978 to 1990.

1. Figures for procurement and public distribution relate to calendar years.
2. For calculation of per capita net availability, the figure of net imports from 1981 to 1994 are based on imports and exports on Government of India account only. Net import from 1995 are, however, based on the total exports and imports (both Government as well as Private accounts).
3. Net Imports are total Imports minus Exports of the Country.

Table 1.21. Per Capita Availability of Certain Important Articles of Consumption

| Year | Edible oil ^a (Kg.) | Vanaspati ^b (Kg.) | Sugar ^c (Nov.-Oct.) (Kg.) | Cloth ^d | | | Tea (Gram.) | Coffee ^f (Gram.) | Electricity Domestic (KWH) |
|---------|----------------------------------|---------------------------------|--|---------------------------------|----------------------|-------------------|----------------|--------------------------------|----------------------------------|
| | | | | Cotton ^e (metres) | Man-made (metres) | Total (metres) | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1960-61 | 3.2 | 0.8 | 4.8 | 13.8 | 1.2 | 15.0 | 296.0 | 80.0 | 3.4 |
| 1970-71 | 3.5 | 1.0 | 7.4 | 13.6 | 2.0 | 15.6 | 401.0 | 65.0 | 7.0 |
| 1980-81 | 3.8 | 1.2 | 7.3 | 12.9 | 4.4 | 17.3 | 511.0 | 79.0 | 13.5 |
| 1990-91 | 5.5 | 1.0 | 12.7 | 15.1 | 9.0 | 24.1 | 612.0 | 59.0 | 38.2 |
| 2000-01 | 8.2 | 1.3 | 15.8 | 14.2 | 16.5 | 30.7 | 631.0 | 58.0 | 75.2 |
| 2001-02 | 8.8 | 1.4 | 16.0 | 14.8 | 17.2 | 32.0 | 650.0 | 67.0 | 76.8 |
| 2002-03 | 7.2 | 1.4 | 16.3 | 14.4 | 17.0 | 31.4 | 623.0 | 67.0 | 79.0 |
| 2003-04 | 9.9 | 1.2 | 16.1 | 13.4 | 17.6 | 31.0 | 662.0 | 70.0 | 83.6 |
| 2004-05 | 10.2 | 1.1 | 15.5 | 14.1 | 19.4 | 33.5 | 663.0 | 72.0 | 87.8 |
| 2005-06 | 10.6 | 1.1 | 16.3 | 16.4 | 19.7 | 36.1 | 687.0 | 75.0 | 90.4 |
| 2006-07 | 11.1 | 1.2 | 16.8 | 18.0 | 21.6 | 39.6 | 687.0 | 77.0 | 98.8 |
| 2007-08 | 11.4 | 1.3 | 17.8 | 19.0 | 22.8 | 41.9 | 701.0 | 80.0 | 106.0 |
| 2008-09 | 12.7 | 1.2 | 18.8 | 17.9 | 21.1 | 39.0 | 704.0 | 82.0 | 112.7 |
| 2009-10 | 13.1 | 1.1 | 18.6 | 19.7 | 23.4 | 43.1 | 709.0 | 86.0 | 121.2 |
| 2010-11 | 13.0 | 1.0 | 17.0 | 21.4 | 22.6 | 44.0 | 715.0 | 90.0 | 130.9 |
| 2011-12 | 13.8 | 1.0 | 18.7 | 19.8 | 20.7 | 40.5 | 728.0 | 95.0 | 142.4 |
| 2012-13 | 15.8 | 0.7 | 18.7 | 19.9 | 18.6 | 38.5 | 779.0 | 97.0 | 150.9 |
| 2013-14 | 16.8 | 0.8 | 19.5 | 19.9 | 16.4 | 36.2 | 744.0 | 100.0 | 162.0 |
| 2014-15 | 18.3 | 0.8 | 20.3 | 23.6 | 17.0 | 40.6 | 752.0 | 100.0 | 174.2 |
| 2015-16 | 17.7 | 0.8 | 19.4(P) | 24.6 | 15.9 | 40.5 | 758.0 | 100.0 | 189.1(P) |

Sources:

1. Directorate of Sugar & Vegetable Oils, Ministry of Consumer Affairs, Food & Public Distribution

2. Tea Board

3. Coffee Board

4. Ministry of Textiles

5. Central Electricity Authority, Ministry of Power

Notes:

na : not available P : Provisional

a : Includes groundnut oil, rapeseed and mustard oil, sesamum oil, nigerseed oil, soyabean oil and sunflower oil but excludes oil for manufacture of vanaspati.

b : Relates to calendar year.

c : Relates to actual releases for domestic consumption, sugar season/year commencing from November to October of following year as opposed to financial year.

d : The data of cloth; prior to 1980-81 is calendar year wise; in meters upto 1984-85; in square meter from 1985-86 onwards.

e : Figures for blended/mixed fabrics were not separately available prior to 1969. These have been included under man-made fibre fabrics after 1969.

f : Figures up to 1971-72 relate to coffee season and are thereafter on calendar year basis.

Table 1.22. Production, Imports and Consumption of Fertilizers

| | | (Thousand tonnes of nutrients) | | | | | | | | | | | | | |
|-----------------------------------|------|--------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 1970-71 | 1980-81 | 1990-91 | 2000-01 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (13) | (13) | (14) |
| A. Nitrogenous fertilizers | | | | | | | | | | | | | | | |
| Production | 830 | 2164 | 6993 | 11004 | 10900 | 10870 | 11900 | 12157 | 12259 | 12194 | 12378 | 12394 | 13416 | 13331 | |
| Imports | 477 | 1510 | 414 | 154 | 3707 | 3751 | 3447 | 4493 | 5240 | 4801 | 3920 | 4766 | 5068 | 5385 | |
| Consumption | 1487 | 3678 | 7997 | 10920 | 14419 | 15090 | 15580 | 16558 | 17300 | 16821 | 16750 | 16946 | 17372 | na | |
| B. Phosphatic fertilizers | | | | | | | | | | | | | | | |
| Production | 229 | 842 | 2052 | 3748 | 3807 | 3464 | 4321 | 4223 | 4368 | 3830 | 3960 | 4121 | 4394 | 4567 | |
| Imports | 32 | 452 | 1311 | 396 | 1391 | 3067 | 2756 | 3802 | 4427 | 2797 | 1588 | 1832 | 2888 | 2130 | |
| Consumption | 462 | 1214 | 3221 | 4215 | 5515 | 6506 | 7274 | 8050 | 7914 | 6653 | 5633 | 6098 | 6979 | na | |
| C. Potassic fertilizers | | | | | | | | | | | | | | | |
| Imports | 120 | 797 | 1328 | 1541 | 2653 | 3403 | 2945 | 4069 | 3335 | 1559 | 1926 | 2537 | 2053 | 2325 | |
| Consumption | 228 | 624 | 1328 | 1567 | 2636 | 3313 | 3632 | 3514 | 2576 | 2062 | 2099 | 2532 | 2402 | na | |
| D. All fertilizers (NPK) | | | | | | | | | | | | | | | |
| Production | 1059 | 3006 | 9045 | 14752 | 14707 | 14334 | 16221 | 16380 | 16627 | 16024 | 16338 | 16515 | 17810 | 17898 | |
| Imports | 629 | 2759 | 2758 | 2090 | 7750 | 10221 | 9148 | 12364 | 13002 | 9157 | 7434 | 9135 | 10009 | 7840 | |
| Consumption | 2177 | 5516 | 12546 | 19702 | 22570 | 24909 | 26486 | 28122 | 27790 | 25534 | 24482 | 25576 | 26753 | na | |

Source: Department of Fertilizers, Ministry of Chemicals & Fertilizers

Note:

na : not available

Table 1.23. Production of Major Livestock Products and Fish

| Year | Milk (Million tonnes) | Eggs (Million Nos.) | Fish (Thousand tonnes) |
|---------|--------------------------|------------------------|---------------------------|
| (1) | (2) | (3) | (4) |
| 1950-51 | 17.0 | 1832 | 752 |
| 1960-61 | 20.0 | 2881 | 1160 |
| 1970-71 | 22.0 | 6172 | 1756 |
| 1980-81 | 31.6 | 10060 | 2442 |
| 1990-91 | 53.9 | 21101 | 3836 |
| 2000-01 | 80.6 | 36632 | 5656 |
| 2006-07 | 102.6 | 50653 | 6869 |
| 2007-08 | 107.9 | 53583 | 7127 |
| 2008-09 | 112.2 | 55562 | 7620 |
| 2009-10 | 116.4 | 60267 | 7914 |
| 2010-11 | 121.8 | 63024 | 8400 |
| 2011-12 | 127.9 | 66450 | 8700 |
| 2012-13 | 132.4 | 69730 | 9040 |
| 2013-14 | 137.7 | 74752 | 9572 |
| 2014-15 | 146.3 | 78484 | 10164 |
| 2015-16 | 155.5 | 82929 | 10795 |

Source: Department of Animal Husbandry , Dairying & Fisheries

Table 1.24. Production of Coal and Lignite

| | | | | | | (Million tonnes) |
|----------------------|---------------|-------------------|------------|-------|---------|--------------------------------|
| Year | Coal | | | | Lignite | Total coal and lignite (5)+(6) |
| | Coking | | Non-coking | Total | | |
| | Metallurgical | Non-Metallurgical | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1950-51 | na | na | na | 32.3 | na | na |
| 1960-61 | 17.0 | na | 38.2 | na | na | na |
| 1970-71 | 17.8 | na | 55.1 | na | 3.4 | na |
| 1980-81 | 24.6 | 8.0 | 81.3 | 113.9 | 5.1 | 119.0 |
| 1981-82 | 26.9 | 9.2 | 88.1 | 124.2 | 6.3 | 130.5 |
| 1982-83 | 30.1 | 7.5 | 92.9 | 130.5 | 6.9 | 137.4 |
| 1983-84 | 30.1 | 6.2 | 101.9 | 138.2 | 7.3 | 145.5 |
| 1984-85 | 30.6 | 6.0 | 110.8 | 147.4 | 7.8 | 155.2 |
| 1985-86 | 29.1 | 6.6 | 118.6 | 154.2 | 8.1 | 162.3 |
| 1986-87 | 27.9 | 11.6 | 126.2 | 165.8 | 9.4 | 175.2 |
| 1987-88 | 26.3 | 14.7 | 138.7 | 179.7 | 11.2 | 190.9 |
| 1988-89 | 25.2 | 17.6 | 151.9 | 194.6 | 12.4 | 207.0 |
| 1989-90 | 24.5 | 19.9 | 156.5 | 200.9 | 12.8 | 213.7 |
| 1990-91 | 24.1 | 21.2 | 166.4 | 211.7 | 13.8 | 225.5 |
| 1991-92 | 26.3 | 20.0 | 183.0 | 229.3 | 14.6 | 243.8 |
| 1992-93 | 25.7 | 19.6 | 192.9 | 238.3 | 16.6 | 254.9 |
| 1993-94 | 26.0 | 19.1 | 201.0 | 246.0 | 18.1 | 264.1 |
| 1994-95 | 24.5 | 19.7 | 209.6 | 253.8 | 19.3 | 273.1 |
| 1995-96 | 23.5 | 16.6 | 230.0 | 270.1 | 22.1 | 292.3 |
| 1996-97 | 22.6 | 17.9 | 245.1 | 285.7 | 22.5 | 308.2 |
| 1997-98 | 24.2 | 19.3 | 252.4 | 295.9 | 23.1 | 319.0 |
| 1998-99 | 23.8 | 15.4 | 253.1 | 292.3 | 23.4 | 315.7 |
| 1999-2000 | 21.2 | 12.0 | 266.7 | 300.0 | 22.1 | 322.1 |
| 2000-01 | 19.3 | 11.8 | 278.6 | 309.6 | 23.0 | 332.6 |
| 2001-02 ^a | 18.0 | 10.7 | 299.1 | 327.8 | 24.8 | 352.6 |
| 2002-03 ^a | 18.4 | 11.8 | 311.1 | 341.3 | 26.0 | 367.3 |
| 2003-2004 | 18.3 | 11.1 | 331.9 | 361.3 | 28.0 | 389.3 |
| 2004-2005 | 18.2 | 12.0 | 352.4 | 382.6 | 30.3 | 413.0 |
| 2005-2006 | 17.0 | 14.5 | 375.5 | 407.0 | 30.1 | 437.1 |
| 2006-2007 | 17.2 | 14.9 | 398.7 | 430.8 | 31.3 | 462.1 |
| 2007-08 | 18.1 | 16.4 | 422.6 | 457.1 | 34.0 | 491.0 |
| 2008-09 | 17.3 | 17.5 | 458.0 | 492.8 | 32.4 | 525.2 |
| 2009-10 | 17.7 | 26.7 | 487.6 | 532.0 | 34.1 | 566.1 |
| 2010-11 | 17.7 | 31.9 | 483.2 | 532.7 | 37.7 | 570.4 |
| 2011-12 | 16.2 | 35.4 | 488.3 | 540.0 | 42.3 | 582.3 |
| 2012-13 | 14.6 | 37.0 | 504.8 | 556.4 | 46.5 | 602.9 |
| 2013-14 | 15.1 | 41.7 | 509.0 | 565.8 | 44.3 | 610.0 |
| 2014-15 | 13.8 | 43.7 | 551.7 | 609.2 | 48.3 | 657.4 |
| 2015-16 | 14.3 | 46.5 | 578.3 | 639.2 | 43.8 | 683.0 |
| 2016-17 (P) | 14.5 | 47.2 | 597.5 | 659.3 | 45.1 | 704.4 |

Source : Ministry of Coal

Notes:

na: not available

a : Including Meghalaya Coal.

P : Provisional

Table 1.25. Progress of Electricity Supply (Utilities & Non-Utilities)

A : Installed Plant Capacity

(Thousand MW)

| Year | Utilities | | | | Non-Utilities | Total [5]+[6] |
|----------------------|-----------|--------------|---------|-------|---------------|---------------|
| | Hydro | Thermal +RES | Nuclear | Total | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1950-51 ^a | 0.6 | 1.1 | 0.0 | 1.7 | 0.6 | 2.3 |
| 1960-61 | 1.9 | 2.7 | 0.0 | 4.6 | 1.0 | 5.6 |
| 1970-71 | 6.4 | 7.9 | 0.4 | 14.7 | 1.6 | 16.3 |
| 1980-81 | 11.8 | 17.6 | 0.9 | 30.3 | 3.1 | 33.4 |
| 1981-82 | 12.2 | 19.3 | 0.9 | 32.4 | 3.4 | 35.8 |
| 1982-83 | 13.1 | 21.4 | 0.9 | 35.4 | 3.9 | 39.3 |
| 1983-84 | 13.9 | 24.4 | 1.1 | 39.4 | 4.4 | 43.8 |
| 1984-85 | 14.5 | 27 | 1.1 | 42.6 | 5.1 | 47.7 |
| 1985-86 | 15.5 | 30 | 1.3 | 46.8 | 5.5 | 52.3 |
| 1986-87 | 16.2 | 31.8 | 1.3 | 49.3 | 5.7 | 55 |
| 1987-88 | 17.3 | 35.6 | 1.3 | 54.2 | 6.3 | 60.5 |
| 1988-89 | 17.8 | 39.7 | 1.5 | 59 | 7.5 | 66.5 |
| 1989-90 | 18.3 | 43.8 | 1.5 | 63.6 | 8.2 | 71.8 |
| 1990-91 | 18.8 | 45.8 | 1.5 | 66.1 | 8.6 | 74.7 |
| 1991-92 | 19.2 | 48.1 | 1.8 | 69.1 | 9.3 | 78.4 |
| 1992-93 | 19.6 | 50.7 | 2.0 | 72.3 | 10.1 | 82.4 |
| 1993-94 | 20.4 | 54.4 | 2.0 | 76.8 | 10.7 | 87.5 |
| 1994-95 | 20.8 | 58.1 | 2.2 | 81.1 | 11.2 | 92.3 |
| 1995-96 | 21 | 60.1 | 2.2 | 83.3 | 11.8 | 95.1 |
| 1996-97 | 21.7 | 61.9 | 2.2 | 85.8 | 12.1 | 97.9 |
| 1997-98 | 21.9 | 65 | 2.2 | 89.1 | 13.2 | 102.3 |
| 1998-99 | 22.4 | 68.7 | 2.2 | 93.3 | 14.1 | 107.4 |
| 1999-00 | 23.9 | 71.3 | 2.7 | 97.9 | 14.7 | 112.6 |
| 2000-01 | 25.1 | 73.6 | 2.9 | 101.6 | 16.2 | 117.8 |
| 2001-02 | 26.3 | 76 | 2.7 | 105 | 17.1 | 122.1 |
| 2002-03 | 26.8 | 78.4 | 2.7 | 107.9 | 18.3 | 126.2 |
| 2003-04 | 29.5 | 80.5 | 2.7 | 112.7 | 18.7 | 131.4 |
| 2004-05 | 30.9 | 84.7 | 2.8 | 118.4 | 19.1 | 137.5 |
| 2005-06 | 32.3 | 88.6 | 3.4 | 124.3 | 21.3 | 145.6 |
| 2006-07 | 34.7 | 93.7 | 3.9 | 132.3 | 22.3 | 154.6 |
| 2007-08 | 35.9 | 103 | 4.1 | 143 | 25 | 168 |
| 2008-09 | 36.9 | 107 | 4.1 | 148 | 27 | 175 |
| 2009-10 | 36.9 | 118 | 4.6 | 159.4 | 31.5 | 190.9 |
| 2010-11 | 37.6 | 131.3 | 4.8 | 173.7 | 34.4 | 208.1 |
| 2011-12 | 39 | 156.1 | 4.8 | 199.9 | 36.5 | 236.4 |
| 2012-13 | 39.5 | 179.1 | 4.8 | 223.4 | 40.7 | 264.1 |
| 2013-14 | 40.5 | 199.9 | 4.8 | 245.2 | 42.3 | 287.5 |
| 2014-15 | 41.3 | 224.7 | 5.8 | 271.7 | 44.7 | 316.4 |
| 2015-16 | 42.8 | 253.5 | 5.8 | 302.1 | 48.3 | 350.4 |
| 2016-17 | 44.5 | 275.6 | 6.8 | 326.8 | 51.0 (\$) | 377.8 |

Source: Ministry of Power

Notes:

P : Provisional

RES : Renewable Energy Source

a : Calendar Year

\$: Estimated

Table 1.25. Progress of Electricity Supply (Utilities & Non-Utilities)

B : Energy Generated

| Year | | | | | (Billion KWH) | |
|----------------------|-----------|--------------|---------|--------|---------------|---------------|
| | Utilities | | | | Non-Utilities | Total [5]+[6] |
| | Hydro | Thermal +RES | Nuclear | Total | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1950-51 ^a | 2.5 | 2.6 | | 5.1 | 1.5 | 6.6 |
| 1960-61 | 7.8 | 9.1 | | 16.9 | 3.2 | 20.1 |
| 1970-71 | 25.2 | 28.2 | 2.4 | 55.8 | 5.4 | 61.2 |
| 1975-76 | 33.3 | 43.3 | 2.6 | 79.2 | 6.7 | 85.9 |
| 1977-78 | 38.0 | 51.1 | 2.3 | 91.4 | 7.6 | 99.0 |
| 1978-79 | 47.1 | 52.6 | 2.8 | 102.5 | 7.6 | 110.1 |
| 1979-80 | 45.5 | 56.3 | 2.9 | 104.7 | 8.2 | 112.9 |
| 1980-81 | 56.5 | 61.3 | 3.0 | 120.8 | 8.4 | 129.2 |
| 1981-82 | 49.6 | 69.5 | 3.0 | 122.1 | 9.0 | 131.1 |
| 1982-83 | 48.4 | 79.9 | 2.0 | 130.3 | 10.0 | 140.3 |
| 1983-84 | 50.0 | 86.7 | 3.5 | 140.2 | 10.8 | 151.0 |
| 1984-85 | 53.9 | 98.8 | 4.1 | 156.8 | 12.3 | 169.1 |
| 1985-86 | 51.0 | 114.4 | 5.0 | 170.4 | 13.0 | 183.4 |
| 1986-87 | 53.8 | 128.9 | 5.0 | 187.7 | 13.6 | 201.3 |
| 1987-88 | 47.5 | 149.6 | 5.0 | 202.1 | 16.9 | 219.0 |
| 1988-89 | 57.9 | 157.7 | 5.8 | 221.4 | 19.9 | 241.3 |
| 1989-90 | 62.1 | 178.7 | 4.6 | 245.4 | 23.0 | 268.4 |
| 1990-91 | 71.7 | 186.5 | 6.1 | 264.3 | 25.1 | 289.4 |
| 1991-92 | 72.8 | 208.7 | 5.5 | 287.0 | 28.6 | 315.6 |
| 1992-93 | 69.9 | 224.8 | 6.7 | 301.4 | 31.3 | 332.7 |
| 1993-94 | 70.4 | 248.2 | 5.4 | 324.0 | 32.3 | 356.3 |
| 1994-95 | 82.7 | 262.1 | 5.6 | 350.4 | 35.1 | 385.5 |
| 1995-96 | 72.6 | 299.3 | 8.0 | 380.0 | 38.2 | 418.1 |
| 1996-97 | 68.9 | 317.9 | 9.1 | 395.9 | 40.8 | 436.7 |
| 1997-98 | 74.6 | 337.0 | 10.1 | 421.7 | 44.1 | 465.8 |
| 1998-99 | 82.9 | 353.7 | 11.9 | 448.5 | 48.4 | 496.9 |
| 1999-00 | 80.6 | 386.8 | 13.3 | 480.7 | 51.5 | 532.2 |
| 2000-01 | 74.5 | 408.1 | 16.9 | 499.5 | 55.0 | 554.5 |
| 2001-02 | 73.5 | 424.4 | 19.5 | 517.4 | 61.7 | 579.1 |
| 2002-03 | 64.0 | 449.3 | 19.4 | 532.7 | 63.8 | 596.5 |
| 2003-04 | 75.2 | 472.1 | 17.8 | 565.1 | 68.2 | 633.3 |
| 2004-05 | 84.6 | 492.8 | 17.0 | 594.4 | 71.4 | 665.8 |
| 2005-06 | 101.5 | 506.0 | 17.3 | 623.8 | 73.6 | 697.4 |
| 2006-07 | 113.5 | 538.4 | 18.8 | 670.7 | 81.8 | 752.5 |
| 2007-08 | 120.4 | 585.3 | 16.9 | 723.0 | 90.5 | 813.1 |
| 2008-09 ^a | 110.1 | 616.2 | 14.9 | 741.2 | 99.7 | 840.9 |
| 2009-10 | 104.1 | 677.1 | 18.6 | 799.8 | 106.1 | 906.0 |
| 2010-11 | 114.4 | 704.3 | 26.3 | 844.8 | 120.9 | 965.7 |
| 2011-12 | 130.5 | 759.4 | 33.3 | 923.2 | 128.2 | 1051.4 |
| 2012-13 | 113.7 | 817.9 | 32.9 | 964.5 | 144.0 | 1108.5 |
| 2013-14 | 134.9 | 857.5 | 34.2 | 1026.6 | 149.0 | 1175.6 |
| 2014-15 | 129.2 | 951.5 | 36.1 | 1116.8 | 162.1 | 1278.9 |
| 2015-16 | 121.4 | 1008.8 | 37.4 | 1167.6 | 168.4 | 1336.0 |
| 2016-17 | 122.4 | 1075.6 (P) | 37.9 | 1235.9 | 183.0 (\$) | 1418.9 |

Source: Ministry of Power

Notes:

P : Provisional RES : Renewable Energy Source

a : Calendar Year \$: Estimated

Table 1.26. Operations of Indian Railways

| | 1950-51 | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|--|---------|---------|---------|---------|---------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Route Kilometres (000's) | | | | | | | | | | | | |
| Electrified | 0.4 | 0.8 | 3.7 | 5.4 | 10.0 | 14.9 | 19.6 | 20.3 ^b | 20.9 ^b | 21.6 ^b | 22.2 ^b | 23.6 ^b |
| Total | 53.6 | 56.2 | 59.8 | 61.2 | 62.4 | 63.0 | 64.4 | 64.6 ^b | 65.4 ^b | 65.8 ^b | 66.0 ^b | 66.7 ^b |
| 2. Originating traffic (million tonnes) | | | | | | | | | | | | |
| Revenue Earning | 73.2 | 119.8 | 167.9 | 195.9 | 318.4 | 473.5 | 921.7 ^a | 969.1 ^a | 1008.1 ^a | 1051.6 ^a | 1095.3 ^a | 1101.5 ^a |
| Total Traffic | 93.0 | 156.2 | 196.5 | 220.0 | 341.4 | 504.2 | 926.4 ^a | 975.2 ^a | 1014.2 ^a | 1058.8 ^a | 1101.1 ^a | 1108.6 ^a |
| 3. Goods carried (billion tonne km.) | | | | | | | | | | | | |
| Revenue Earning | 37.6 | 72.3 | 110.7 | 147.7 | 235.8 | 312.4 | 625.7 ^a | 667.6 | 691.7 ^a | 665.8 ^a | 681.7 ^a | 654.5 ^a |
| Total Traffic | 44.1 | 87.7 | 127.4 | 158.5 | 242.7 | 315.5 | 626.5 ^a | 668.6 | 692.6 ^a | 666.7 ^a | 682.6 ^a | 655.6 ^a |
| 4. Earnings from goods carried (Rs. Crores) | 139.3 | 280.5 | 600.7 | 1550.9 | 8247.0 | 23045.4 | 60687.1 ^a | 67761.4 ^a | 83478.8 ^a | 91570.9 ^a | 103015.2 ^a | 106940.6 ^a |
| 5. Average Lead: all goods traffic (Km) | 470 | 561 | 648 | 720 | 711 | 626 | 676 | 686 | 683 | 630 | 620 | 591 |
| 6. Average rate/tonne km. (paise) | 3.2 | 3.9 | 5.4 | 10.5 | 35.0 | 73.8 | 97.0 | 101.5 | 120.7 | 137.5 | 151.2 | 163.4 |
| 7. Passengers Originating (million) | 1284 | 1594 | 2431 | 3613 | 3858 | 4833 | 7651.1 | 8224.4 ^b | 8420.7 ^b | 8397.1 ^b | 8224.1 ^b | 8107.3 ^b |
| 8. Passengers kilometres (billion) | 66.5 | 77.7 | 118.1 | 208.6 | 295.6 | 457 | 978.5 | 1046.5 ^b | 1098.1 ^b | 1158.7 ^b | 1147.2 ^b | 1143.0 ^b |
| 9. Passengers Earnings (Rs. Crores) | 98.2 | 131.6 | 295.5 | 827.5 | 3144.7 | 10515.1 ^b | 25792.6 ^b | 28246.4 ^b | 31322.8 ^b | 36532.3 ^b | 42189.6 ^b | 44283.3 ^b |
| 10. Average lead : passenger traffic (km) | 51.8 | 48.7 | 48.6 | 57.7 | 76.6 | 94.6 | 127.9 | 127.2 ^b | 130.4 ^b | 135.8 ^b | 139.5 ^b | 141.0 ^b |
| 11. Average rate per passenger - kilometre (paise) | 1.5 | 1.7 | 2.5 | 4.0 | 10.6 | 22.9 | 26.3 | 27.0 ^b | 28.5 ^b | 31.5 ^b | 36.8 ^b | 38.7 ^b |

Source : Ministry of Railways

Notes:

P: Provisional

a : Excluding Konkan Railways Corporation Limited Loading

b: Includes Metro Railway/Kolkata

1.27. Revenue Earning Goods Traffic on Indian Railways

A : Traffic Originating

| Commodity | (Million tonnes) | | | | | | | | | | | | |
|--|------------------|---------|---------|---------|---------|---------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| | 1950-51 | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 2000-01 | 2010-11 ^a | 2011-12 ^a | 2012-13 ^a | 2013-14 ^a | 2014-15 ^a | 2015-16 ^a | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | |
| 1. Coal | 20.2 | 30.9 | 47.9 | 64.1 | 135.2 | 223.7 | 420.4 | 455.8 | 496.4 | 508.1 | 545.8 | 551.8 | |
| 2. Raw materials for Steel Plant except iron ore | na | 10.5 | 16.1 | 20.2 | 25.9 | 38.8 | 13.3 | 14.5 | 15.6 | 17.3 | 18.3 | 20.3 | |
| 3. Pig iron & finished steel | | | | | | | | | | | | | |
| i) steel plants | na | 3.8 | 6.2 | 7.5 | 10.0 | 11.8 | 24.1 | 25.7 | 26.0 | 27.8 | 28.3 | 29.6 | |
| ii) from other points | na | na | na | na | na | na | 8.8 | 9.5 | 9.4 | 11.1 | 14.6 | 15.2 | |
| iii) Total | na | na | na | na | na | na | 32.8 | 35.2 | 35.3 | 39.0 | 42.9 | 44.8 | |
| 4. Iron ore | | | | | | | | | | | | | |
| i) for export | na | 2.6 | 9.8 | 11.1 | 13.1 | 14.6 | 25.7 | 8.4 | 5.5 | 6.6 | 2.5 | 2.1 | |
| ii) for steel plants | na | na | na | na | na | na | 44.7 | 54.7 | 61.6 | 66.8 | 69.4 | 78.6 | |
| iii) for other domestic users | na | na | na | na | na | na | 48.1 | 40.3 | 44.4 | 50.9 | 40.9 | 36.2 | |
| iv) Total | na | na | na | na | na | na | 118.5 | 103.4 | 111.4 | 124.3 | 112.8 | 116.9 | |
| 5. Cement | 2.5 | 6.5 | 11.0 | 9.6 | 28.9 | 42.9 | 99.1 | 107.7 | 105.9 | 109.8 | 109.8 | 105.4 | |
| 6. Foodgrains | 7.8 | 12.7 | 15.1 | 18.3 | 25.4 | 26.7 | 43.5 | 46.3 | 49.0 | 55.1 | 55.5 | 45.7 | |
| 7. Fertilizers | na | 1.4 | 4.7 | 8.1 | 18.4 | 27.1 | 48.2 | 52.7 | 46.2 | 44.7 | 47.4 | 52.2 | |
| 8. POL | 2.7 | 4.7 | 8.9 | 15.0 | 25.0 | 36.3 | 39.3 | 39.8 | 40.6 | 41.2 | 41.1 | 43.2 | |
| 9. Container Service - | | | | | | | | | | | | | |
| i) Domestic container | na | na | na | na | na | na | 11.0 | 9.5 | 9.4 | 10.9 | 10.5 | 9.0 | |
| ii) EXIM containers | na | na | na | na | na | na | 26.6 | 28.5 | 31.7 | 32.6 | 37.9 | 36.8 | |
| iii) Total | na | na | na | na | na | na | 37.6 | 38.0 | 41.0 | 43.5 | 48.4 | 45.8 | |
| 10. Balance (other goods) | 40.0 | 46.7 | 48.2 | 42.1 | 36.6 | 51.8 | 69.2 | 75.7 | 66.6 | 68.8 | 73.4 | 75.3 | |
| 11. Total revenue earning freight traffic | 73.2 | 119.8 | 167.9 | 195.9 | 318.4 | 473.5 | 921.7 | 969.1 | 1008.1 | 1051.6 | 1095.3 | 1101.5 | |

Source: Ministry of Railway

Notes:

na : Not available

a : Excluding Konkan Railways Corporation Limited loading

POL : Petroleum, Oil & Lubricants

1. Figures from 2008-09 onwards reflect the revised commodity group as modified from October 2007

2. Figures may not add due to rounding off

1.27. Revenue Earning Goods Traffic on Indian Railways

B : Goods Carried

| Commodity | | (Billion tonne km.) | | | | | | | | | | | | |
|--|------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | | |
| 1. Coal | 11.3 | 20.5 | 27.8 | 36.4 | 85.9 | 133.4 | 268.3 | 291.5 | 303.4 | 271.9 | 301.5 | 280.7 | | |
| 2. Raw materials for Steel Plant except iron ore | na | 2.0 | 2.7 | 4.3 | 7.5 | 13.5 | 9.8 | 10.3 | 10.2 | 10.1 | 11.0 | 11.7 | | |
| 3. Pig iron & finished steel | | | | | | | | | | | | | | |
| i) steel plants | na | 3.3 | 6.2 | 8.6 | 11.6 | 12.1 | 24.9 | 26.3 | 27.2 | 27.9 | 29.0 | 30.5 | | |
| ii) from other points | na | na | na | na | na | na | 7.4 | 7.6 | 6.9 | 7.0 | 8.4 | 9.9 | | |
| iii) Total | na | na | na | na | na | na | 32.2 | 33.9 | 34.1 | 34.9 | 37.4 | 40.4 | | |
| 4. Iron ore | | | | | | | | | | | | | | |
| i) for export | na | na | 5.5 | 7.3 | 7.5 | 7.9 | 15.5 | 2.0 | 3.1 | 2.7 | 1.3 | 0.9 | | |
| ii) for steel plants | na | na | na | na | na | na | 9.6 | 14.3 | 15.4 | 16.4 | 19.2 | 19.1 | | |
| iii) for other domestic users | na | na | na | na | na | na | 21.2 | 19.7 | 19.6 | 18.1 | 16.2 | 12.3 | | |
| iv) Total | na | na | na | na | na | na | 46.4 | 36.0 | 38.1 | 37.2 | 36.7 | 32.4 | | |
| 5. Cement | na | 2.5 | 7.0 | 7.2 | 18.9 | 24.9 | 57.0 | 62.0 | 62.7 | 59.3 | 59.1 | 56.0 | | |
| 6. Foodgrains | 4.0 | 9.6 | 14.5 | 24.3 | 35.6 | 33.1 | 52.0 | 57.9 | 71.3 | 70.5 | 67.0 | 60.1 | | |
| 7. Fertilizers | na | na | 3.8 | 8.9 | 17.3 | 23.0 | 40.7 | 43.9 | 39.0 | 34.5 | 38.8 | 43.7 | | |
| 8. POL | na | 2.6 | 5.3 | 11.7 | 15.1 | 19.9 | 26.1 | 26.1 | 28.5 | 29.3 | 27.2 | 29.3 | | |
| 9. Container Service - | | | | | | | | | | | | | | |
| i) Domestic container | na | na | na | na | na | na | 13.8 | 13.6 | 13.8 | 15.9 | 15.0 | 12.4 | | |
| ii) EXIM containers | na | na | na | na | na | na | 27.2 | 31.6 | 36.2 | 36.3 | 32.9 | 33.0 | | |
| iii) Total | na | na | na | na | na | na | 41.0 | 45.2 | 50.0 | 52.2 | 47.9 | 45.4 | | |
| 10. Balance (other goods) | 22.3 | 31.9 | 37.9 | 39.1 | 36.4 | 44.5 | 52.3 | 60.8 | 54.4 | 66.0 | 55.1 | 54.7 | | |
| 11.Total revenue earning freight traffic | 37.6 | 72.3 | 110.7 | 147.7 | 235.8 | 312.4 | 625.7 | 667.6 | 691.7 | 665.8 | 681.7 | 654.5 | | |

Source: Ministry of Railway

Notes:

na : Not available

a : Excluding Konkan Railways Corporation Limited loading

POL : Petroleum, Oil & Lubricants

1. Figures from 2008-09 onwards reflect the revised commodity group as modified from October 2007

2. Figures may not add due to rounding off

Table 1.28. Operations of Road Transport

| | Unit | 1950-51 | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|--|--------------|---------|---------|---------|---------|---------|---------|----------|----------|-------------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1.Length of roads | | | | | | | | | | | | |
| Total ^a | Thousand Km. | 399.9 | 524.5 | 914.9 | 1485.4 | 2327.4 | 3373.5 | 4690.3 | 4865.4 | 5231.9 | 5402.5 | 5472.1 |
| Surfaced | Thousand Km. | 157.0 | 263.0 | 398.0 | 684.0 | 1090.2 | 1601.7 | 2524.7 | 2698.6 | 3171.0 | 3220.5 | 3341.0 |
| 2.Length of national Highways | | | | | | | | | | | | |
| Total ^a | Thousand Km. | 19.8 | 23.8 | 23.8 | 31.7 | 33.7 | 57.7 | 70.9 | 76.8 | 79.1 | 91.3 | 98.0 |
| Surfaced | Thousand Km. | na | 21.0 | 23.3 | 31.5 | 33.4 | 57.7 | 70.9 | 76.8 | 79.1 | 91.3 | 98.0 |
| 3.Length of State Highways | | | | | | | | | | | | |
| Total ^a | Thousand Km. | na | na | 56.8 | 94.4 | 127.3 | 132.1 | 163.9 | 164.4 | 169.2 | 170.8 | 167.1 |
| Surfaced | Thousand Km. | na | na | 51.7 | 90.3 | 124.8 | 129.9 | 161.9 | 163.0 | 167.2 | 169.0 | 165.3 |
| 4. No. of Registered vehicles | | | | | | | | | | | | |
| All vehicles | Thousand | 306.0 | 665.0 | 1865.0 | 5391.0 | 21374.0 | 54991.0 | 141866.0 | 159491.0 | 176044 (R) | 190704 | 210023 |
| Goods vehicles | Thousand | 82.0 | 168.0 | 343.0 | 554.0 | 1356.0 | 2948.0 | 7064.0 | 7658.0 | 8307 (R) | 8698 | 9344 |
| Buses* | Thousand | 34.0 | 57.0 | 94.0 | 162.0 | 331.0 | 634.0 | 1604.0 | 1677.0 | 1814.0 (R) | 1887 | 1971 |
| 5. Revenue realised from Road Transport | | | | | | | | | | | | |
| Central | (₹ Crore) | 34.8 | 111.7 | 451.8 | 930.9 | 4596.0 | 23861.0 | 75453.2 | 75572.5 | 90931.2 (R) | 89084.1 | 109941 |
| States | (₹ Crore) | 12.6 | 55.2 | 231.4 | 750.4 | 3259.6 | 12901.7 | 45992.4 | 55161.1 | 50602.7 (R) | 56749.8 | 63064.9 |

Sources: Ministry of Road Transport & Highways

1. Basic Road Statistics of India 2013-14 & 2014-15

2. Road Transport Year Book 2013-14 & 2014-15

Notes:

a : Includes rural roads constructed under Jawahar Rojgar Yojna as on 31st March, 1996.

* : Included omni buses.

R: Revised

na : Not available

Table 1.29. Growth of Civil Aviation

| | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 1999-00 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (P) |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| 1. Total fleet strength (Number) | | | | | | | | | | | | | | | | | |
| (i) Air India | 13 | 11 | 18 | 24 | 26 | 38 | 35 | - | - | - | - | - | - | - | - | - | - |
| (ii) Indian Airlines | 88 | 73 | 45 | 56 | 44 | 55 | 59 | - | - | - | - | - | - | - | - | - | - |
| (iii) Air India Ltd. (Erstwhile National Aviation Company of India Ltd) | - | - | - | - | - | - | - | 108 | 103 | 109 | 106 | 94 | 93 | 96 | 101 | 107 | na |
| (iv) Alliance Air | - | - | - | - | 12 | 15 | 15 | 20 | 16 | 17 | 14 | 11 | 11 | 8 | 10 | 11 | na |
| (v) Air India Express | - | - | - | - | - | 4 | 13 | 18 | 21 | 25 | NR | 21 | 21 | 21 | 17 | 18 | na |
| (vi) Other Pvt Scheduled Airlines | - | - | - | - | 37 | 131 | 183 | 235 | 238 | 232 | 220 | 229 | 253 | 273 | 279 | 312 | na |
| 2. Revenue tonne-Kilometers (Million) | | | | | | | | | | | | | | | | | |
| (i) Air India | 109.4 | 275.2 | 980.1 | 1342.7 | 1456.5 | 2364.0 | 2220.0 | - | - | - | - | - | - | - | - | - | - |
| (ii) Indian Airlines | 82.4 | 202.1 | 400.3 | 697.6 | 738.0 | 1589.0 | 1233.0 | - | - | - | - | - | - | - | - | - | - |
| (iii) Air India Ltd. (Erstwhile national Aviation Company of India Ltd) | - | - | - | - | - | - | - | 3460.0 | 3191.0 | 3535.0 | 3682.0 | 3704.4 | 3346.3 | 3910.0 | 4196.0 | 4363.7 | 4739.0 |
| (iv) Alliance Air | - | - | - | - | 131.0 | 73.0 | 55.0 | 40.0 | 29.0 | 38.0 | 36.0 | 30.2 | 26.6 | 22.7 | 18.0 | 20.2 | 29.4 |
| (v) Air India Express | - | - | - | - | - | 113.0 | 270.0 | 435.0 | 553.0 | 576.0 | 547.0 | 538.0 | 507.9 | 620.5 | 541.4 | 672.2 | 856.2 |
| (vi) Other Pvt Scheduled Airlines | - | - | - | - | 441.9 | 1789.0 | 2901.0 | 4173.6 | 4684.5 | 5338.6 | 6499.1 | 7673.0 | 7020.8 | 7280.8 | 8267.2 | 9607.2 | 11386.7 |
| (vii) Dedicated Private Freighter | - | - | - | - | - | - | - | - | - | - | - | - | - | 114314.5 | 113865.0 | 123876.0 | 131155.5 |
| (viii) Total (Other Pvt Scheduled Airlines+ Dedicated Private Freighter) | - | - | - | - | - | - | - | - | - | - | - | - | - | 121595.3 | 122132.2 | 133483.2 | 142542.2 |
| 3. Number of passengers carried (Lakh) | | | | | | | | | | | | | | | | | |
| (i) Air India | 1.3 | 4.9 | 14.2 | 21.6 | 31.9 | 43.6 | 43.0 | - | - | - | - | - | - | - | - | - | - |

Contd....

Table 1.29. Growth of Civil Aviation

| Table 1.29. Growth of Civil Aviation | | | | | | | | | | | | | | | | | (Contd.....) | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|--|
| | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 1999-00 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (P) | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | |
| (ii) Indian Airlines | 7.9 | 21.3 | 54.3 | 78.7 | 58.9 | 78.2 | 85.1 | - | - | - | - | - | - | - | - | - | - | |
| (iii) Air India Ltd. (Erstwhile National Aviation Company of India Ltd) | - | - | - | - | - | - | - | 132.1 | 104.0 | 117.7 | 128.3 | 136.1 | 141.8 | 154.1 | 172.6 | 184.8 | 196.0 | |
| (iv) Alliance Air | - | - | - | - | 18.6 | 10.1 | 8.2 | 5.4 | 3.2 | 4.6 | 5.0 | 4.7 | 3.9 | 3.6 | 3.1 | 4.0 | 6.3 | |
| (v) Air India Express | - | - | - | - | - | 4.9 | 7.3 | 17.1 | 22.4 | 25.0 | 23.8 | 23.0 | 21.6 | 26.7 | 25.8 | 27.8 | 34.2 | |
| (vi) Other Pvt Scheduled Airlines | - | - | - | - | 54.2 | 180.7 | 289.6 | 380.3 | 365.7 | 422.2 | 512.9 | 588.3 | 548.5 | 580.0 | 672.6 | 821.6 | 1009.2 | |
| 4. Passengers handled at (Lakh) | | | | | | | | | | | | | | | | | | |
| AAI Airports | na | na | 107.38 | 177.23 | 390.35 | 733.42 | - | - | - | 508.71 | 596.43 | 684 | 683.87 | 716.48 | 1112.35 | 931.5 | 1132.8 | |
| Joint venture Internl. Airports | | | | | | | - | - | - | 728.84 | 837.87 | 939.1 | 910.14 | 972.68 | 788.94 | 1307.9 | 1516.8 | |
| Total at Indian Airports | na | na | 107.38 | 177.23 | 390.35 | 733.42 | - | - | - | 1237.55 | 1434.3 | 1623.1 | 1594.01 | 1689.16 | 1901.29 | 2239.5 | 2649.6 | |
| 5. Cargo handled at (Thousand Tonnes) | | | | | | | | | | | | | | | | | | |
| AAI Airports | na | na | 178.7 | 377.33 | 797.41 | 1397.3 | - | - | - | 592.95 | 726.98 | 703.43 | 650.41 | 636.48 | 681.56 | 724.5 | 808.7 | |
| Joint venture Internl. Airports | | | | | | | - | - | - | 1366.76 | 1621.92 | 1576.56 | 1540.14 | 1641.43 | 1846 | 1980.0 | 2169.6 | |
| Total at Indian Airports | na | na | 178.7 | 377.33 | 797.41 | 1397.3 | - | - | - | 1959.71 | 2348.9 | 2279.99 | 2190.55 | 2277.91 | 2527.56 | 2704.5 | 2978.3 | |

Source: Ministry of Civil aviation

Notes:

P : Provisional

NR : Not reported

na : not available

Table 1.30. Commodity Balance of Petroleum and Petroleum Products

| (Million Tonnes) | | | | | | | | | | | | | |
|--------------------------------------|----------------------|----------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| Item | 1950-51 ^a | 1960-61 ^a | 1970-71 ^a | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| I. Crude Oil | | | | | | | | | | | | | |
| 1. Refinery throughput | 0.3 | 6.6 | 18.4 | 25.8 | 51.8 | 103.4 | 197.0 | 204.1 | 219.2 | 222.5 | 223.2 | 232.8 | 245.3 |
| 2. Domestic production | 0.3 | 0.5 | 6.8 | 10.5 | 32.2 | 32.4 | 37.7 | 38.1 | 37.9 | 37.8 | 37.4 | 36.9 | 36.0 |
| (a) On-shore | 0.3 | 0.5 | 6.8 | 5.5 | 11.8 | 11.8 | 16.4 | 18.0 | 19.4 | 19.6 | 18.5 | 17.7 | 17.5 |
| (b) Off-shore | ... | ... | ... | 5.0 | 20.4 | 20.6 | 21.3 | 20.1 | 18.4 | 18.2 | 18.9 | 19.2 | 18.4 |
| 3. Imports | na | 6.0 | 11.7 | 16.2 | 20.7 | 74.1 | 163.6 | 171.7 | 184.8 | 189.2 | 189.4 | 202.8 | 213.9 |
| 4. Exports | na | na | na | na | na | na | na | - | - | - | - | - | - |
| 5. Net Imports (3-4) | na | na | na | na | na | na | na | 171.7 | 184.8 | 189.2 | 189.4 | 202.8 | 213.9 |
| II. Petroleum Products | | | | | | | | | | | | | |
| 1. Domestic consumption ^b | 3.3 | 7.7 | 17.9 | 30.9 | 55.0 | 100.1 | 141.0 | 148.1 | 157.1 | 158.4 | 165.5 | 184.6 | 194.2 |
| of which | | | | | | | | | | | | | |
| (a) Naphtha | ... | ... | 0.9 | 2.3 | 3.4 | 11.7 | 10.7 | 11.2 | 12.3 | 11.3 | 11.0 | 13.2 | 13.2 |
| (b) Kerosene | 0.9 | 2.0 | 3.3 | 4.2 | 8.4 | 11.3 | 8.9 | 8.2 | 7.5 | 7.2 | 7.0 | 6.8 | 5.4 |
| (c) High speed diesel oil | 0.2 | 1.2 | 3.8 | 10.3 | 21.1 | 37.9 | 60.1 | 64.8 | 69.1 | 68.4 | 69.4 | 74.6 | 76.0 |
| (d) Fuel oils | 0.9 | 1.7 | 4.7 | 7.5 | 9.0 | 12.7 | 10.8 | 9.3 | 7.7 | 6.2 | 6.0 | 6.6 | 7.2 |
| 2. Domestic production ^c | 0.2 | 5.7 | 17.1 | 24.1 | 48.6 | 95.6 | 194.8 | 203.2 | 217.7 | 220.8 | 221.1 | 231.9 | 243.5 |
| of which | | | | | | | | | | | | | |
| (a) Naphtha | na | ... | 1.2 | 2.1 | 4.9 | 9.9 | 19.2 | 18.8 | 19.0 | 18.5 | 17.3 | 17.8 | 19.9 |
| (b) Kerosene | na | 0.9 | 2.9 | 2.4 | 5.5 | 8.7 | 7.8 | 7.9 | 8.0 | 7.4 | 7.5 | 7.5 | 6.0 |
| (c) High speed diesel oil | na | 1.1 | 3.8 | 7.4 | 17.2 | 39.1 | 78.1 | 82.9 | 91.1 | 93.8 | 94.4 | 98.5 | 102.4 |
| (d) Fuel oils | na | 1.6 | 4.1 | 6.1 | 9.4 | 11.4 | 20.5 | 18.4 | 15.1 | 13.4 | 11.9 | 9.7 | 9.9 |
| 3. Imports | 3.1 | 2.5 | 1.1 | 7.3 | 8.7 | 9.3 | 17.4 | 15.8 | 16.4 | 16.7 | 21.3 | 29.4 | 35.8 |
| 4. Exports | na | na | 0.3 | ... | 2.7 | 8.4 | 59.1 | 60.8 | 63.4 | 67.9 | 63.9 | 60.5 | 65.5 |
| 5. Net Imports (3-4) | na | na | 0.8 | 7.3 | 6.0 | 0.9 | -41.7 | -45.0 | -47.6 | -51.1 | -42.6 | -31.0 | -29.4 |

Source: Ministry of Petroleum and Natural Gas

Notes:

* : Provisional

na: not available

a : Excluding Import of LNG

b : Excluding refinery fuel consumption. Including import by private parties.

c : Including Production of Petroleum Products from Fractionators

1. Note Excludes other inputs from refineries crude throughput.

Table 1.31. Index of Industrial Production (Base 2011-12)

| Industry Group (NIC 2008) | Industry | Weight | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17* |
|---------------------------|--|--------|---------|---------|---------|---------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| | General Index | 100.00 | 103.3 | 106.8 | 111.1 | 114.9 | 120.7 |
| | Mining | 14.37 | 94.7 | 94.6 | 93.3 | 97.3 | 102.5 |
| | Manufacturing | 77.63 | 104.8 | 108.6 | 112.8 | 116.2 | 121.9 |
| 10 | Manufacture of food products | 5.30 | 103.3 | 104.6 | 110.9 | 104.7 | 98.9 |
| 11 | Manufacture of beverages | 1.04 | 106.7 | 104.8 | 108.2 | 109.7 | 105.9 |
| 12 | Manufacture of tobacco products | 0.80 | 107.5 | 116.3 | 131.0 | 135.8 | 116.3 |
| 13 | Manufacture of textiles | 3.29 | 108.0 | 112.6 | 116.8 | 119.4 | 117.6 |
| 14 | Manufacture of wearing apparel | 1.32 | 100.0 | 114.7 | 114.9 | 131.8 | 154.9 |
| 15 | Manufacture of leather and related products | 0.50 | 110.6 | 113.0 | 123.0 | 123.6 | 122.1 |
| 16 | Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials | 0.19 | 97.0 | 94.6 | 95.3 | 97.5 | 93.3 |
| 17 | Manufacture of paper and paper products | 0.87 | 103.3 | 114.2 | 115.2 | 116.5 | 113.9 |
| 18 | Printing and reproduction of recorded media | 0.68 | 96.8 | 105.8 | 100.0 | 103.9 | 106.5 |
| 19 | Manufacture of coke and refined petroleum products | 11.77 | 105.9 | 108.0 | 108.6 | 113.7 | 119.1 |
| 20 | Manufacture of chemicals and chemical products | 7.87 | 103.9 | 108.8 | 109.2 | 113.7 | 116.2 |
| 21 | Manufacture of pharmaceuticals, medicinal chemical and botanical products | 4.98 | 108.1 | 114.6 | 117.7 | 133.5 | 177.6 |
| 22 | Manufacture of rubber and plastics products | 2.42 | 100.9 | 112.3 | 117.8 | 118.2 | 120.0 |
| 23 | Manufacture of other non-metallic mineral products | 4.09 | 103.0 | 103.1 | 108.2 | 110.4 | 109.9 |
| 24 | Manufacture of basic metals | 12.80 | 107.8 | 112.5 | 123.5 | 124.3 | 130.6 |
| 25 | Manufacture of fabricated metal products, except machinery and equipment | 2.65 | 96.7 | 101.7 | 105.7 | 103.5 | 105.6 |
| 26 | Manufacture of computer, electronic and optical products | 1.57 | 100.6 | 115.1 | 117.6 | 123.6 | 126.5 |
| 27 | Manufacture of electrical equipment | 3.00 | 112.9 | 117.2 | 121.8 | 128.3 | 122.0 |
| 28 | Manufacture of machinery and equipment n.e.c. | 4.77 | 102.9 | 103.3 | 103.3 | 105.5 | 111.3 |
| 29 | Manufacture of motor vehicles, trailers and semi-trailers | 4.86 | 100.1 | 99.5 | 103.0 | 104.4 | 113.9 |
| 30 | Manufacture of other transport equipment | 1.78 | 99.2 | 103.5 | 110.0 | 112.5 | 117.5 |
| 31 | Manufacture of furniture | 0.13 | 112.7 | 125.0 | 114.7 | 162.5 | 173.8 |
| 32 | Other manufacturing | 0.94 | 113.1 | 105.2 | 105.7 | 119.8 | 124.8 |
| | Electricity | 7.99 | 104.0 | 110.3 | 126.6 | 133.8 | 141.6 |

Source: Central Statistics Office

Note:

*: Provisional

Table 2.1. Budgetary Transactions of the Central and State Governments and Union Territories
(Including internal and extra-budgetary resources of public sector undertakings for their plans)

| | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2012-13 | 2013-14 | 2014-15 (BE) | 2014-15 (RE) | 2015-16 (BE) |
|---|---------|---------|---------|----------|----------|----------|-----------------|-----------------|-----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| I. Total Outlay | 36845 | 176548 | 615658 | 2396419 | 3021229 | 3372982 | 3885473 | 3843346 | 3838558 |
| A. Development ¹ | 24426 | 105922 | 317464 | 1385265 | 1782915 | 1935977 | 2226539 | 2180981 | 2018434 |
| B. Non-Development | 12419 | 70626 | 298194 | 1011154 | 1238314 | 1437005 | 1658934 | 1662365 | 1820124 |
| 1. Defence (net) | 3600 | 15427 | 49622 | 154117 | 181776 | 203499 | 229000 | 222370 | 246727 |
| 2. Interest payments | 2957 | 25006 | 122792 | 351145 | 457550 | 537468 | 615553 | 599570 | 670904 |
| 3. Tax collection charges | 504 | 1973 | 6570 | 20205 | 26489 | 29995 | 35626 | 34592 | 37292 |
| 4. Police | 1163 | 5657 | 21343 | 77103 | 101881 | 115217 | 132175 | 134442 | 146244 |
| 5. Others ² | 4195 | 22563 | 97867 | 408584 | 470618 | 550826 | 646580 | 671391 | 718957 |
| II. Current Revenue | 24563 | 110607 | 393284 | 1720242 | 2116869 | 2393750 | 2783477 | 2630510 | 2947996 |
| A. Tax Revenue | 19844 | 87723 | 305320 | 1271665 | 1716117 | 1879143 | 2238115 | 2098175 | 2419085 |
| 1. Income and corporation tax | 2817 | 10712 | 67460 | 437790 | 553170 | 632548 | 729283 | 698689 | 791467 |
| 2. Customs | 3409 | 20644 | 47542 | 135813 | 165346 | 172085 | 201819 | 188713 | 208336 |
| 3. Union excise duties | 6500 | 24514 | 68526 | 137701 | 175845 | 169455 | 206356 | 184731 | 229054 |
| 4. Sales tax | 4018 | 18228 | 72874 | 293256 | 422578 | 475131 | 561597 | 544256 | 622856 |
| 5. Others | 3100 | 13625 | 48918 | 267105 | 399178 | 429924 | 539060 | 481786 | 567372 |
| B. Non-Tax Revenue ³ | 4719 | 22884 | 87964 | 448577 | 400752 | 514607 | 545362 | 532335 | 528911 |
| (Internal resources of public sector undertakings for the Plan) | (1374) | (11183) | (39415) | (184323) | (196771) | (237848) | (231445) | (211014) | (176778) |
| III. Gap (I-II) | 12282 | 65941 | 222374 | 676177 | 904360 | 979232 | 1101996 | 1212836 | 890562 |
| Financed By: | | | | | | | | | |
| IV Net Capital Receipts (A+B) | 8831 | 54455 | 223283 | 684695 | 927020 | 973545 | 1090298 | 1125810 | 855414 |
| A. Internal (net) | 7161 | 50192 | 214965 | 658466 | 917508 | 962635 | 1082159 | 1113294 | 842467 |
| 1. Net market loans ⁴ | 3163 | 11308 | 85341 | 445433 | 673820 | 701972 | 700997 | 695693 | 456405 |
| 2. Net small savings | 1121 | 8309 | 8192 | 3950 | 11934 | 33283 | 9533 | 4983 | 23836 |
| 3. Net State and public provident funds | 558 | 3887 | 23661 | 26131 | 26303 | 17559 | 41674 | 20320 | 36540 |
| 4. Special deposits of non-Government provident funds | 604 | 6721 | 7177 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. Special borrowings from RBI against compulsory deposits | -70 | -105 | na | na | na | na | na | na | na |
| 6. Net misc. capital receipts ⁵ | 1785 | 20072 | 90594 | 182952 | 205451 | 209821 | 329955 | 392298 | 325686 |
| B. External ⁶ | 1670 | 4263 | 8318 | 26229 | 9512 | 10910 | 8139 | 12516 | 12947 |
| 1. Net loans | 749 | 3181 | 7505 | 23556 | 7201 | 7292 | 5734 | 9705 | 11173 |
| (i) Gross | 1141 | 5339 | 17328 | 35330 | 23309 | 25416 | 28175 | 30407 | 34373 |
| (ii) Less repayments | 392 | 2158 | 9823 | 11774 | 16108 | 18124 | 22441 | 20702 | 23200 |
| 2. Grants | 436 | 586 | 813 | 2673 | 2311 | 3618 | 2405 | 2811 | 1774 |
| 3. Net special credit | -53 | -76 | 0 | | | | | | |
| V. Overall Budgetary Deficit | 3451 | 11486 | -909 | -8517 | -22658 | 5689 | 11697 | 87026 | 35147 |

Source : Economic Division, Department of Economic Affairs, Ministry of Finance

Notes:

- na : Not available RE : Revised Estimates BE : Budget Estimates
- Includes plan expenditure of Railways, Communications and non-departmental commercial undertakings financed out of their internal and extra budgetary resources, including market borrowings and term loans from financial institutions to State Government public enterprises. Also includes developmental loans given by the Central and State Governments to non-departmental undertakings, local bodies and other parties. However, it excludes a notional amount of ₹45 crore in 1980-81 on account of conversion of loan capital given to non-departmental commercial undertakings into equity capital.
 - Includes general administration, pensions and ex-gratia payments to famine relief (only non-plan portion), subsidies on food and controlled cloth, grants and loans to foreign countries and loans for non-developmental purpose to other parties, but excludes Contingency Fund transactions. It also excludes notional transactions in respect of subscriptions to International Monetary Fund of ₹559 crore in 1980-81, ₹550 crore in 1990-1991, ₹629 crore in 2000-2001, ₹9051 crore in 2010-11, ₹1613 crore in 2011-12, ₹4323 crore in 2012-13, ₹367 crore in 2013-14, ₹4846 crore in 2014-15 (RE) and ₹35 crore in 2015-16 (BE).
 - Includes internal resources of Railways, Communications and non-departmental commercial undertakings for the plan.
 - Includes market borrowings of State Government public enterprises.
 - Excludes the notional receipts on account of repayments of loans by non-departmental commercial undertakings due to their conversion into equity capital. It also excludes notional transactions in respect of International Monetary Fund and Contingency Fund transactions.
 - ₹538 crore for loans from IMF Trust Fund are included in 1980-81 under external loans and an amount of ₹572 crores for revolving fund is included in External loans for 1990-91.

Table 2.2. Total Expenditure of the Central Government

(₹ crore)

| | Final outlays | | | Transfer payments to the rest of the economy | | | Financial investments & loans to the rest of the economy (gross) | Total expenditure (4+7+8) |
|------------------------------------|------------------------------------|-------------------------|-------------|--|---------|-------------|--|---------------------------|
| | Government consumption expenditure | Gross capital formation | Total (2+3) | Current | Capital | Total (5+6) | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| First Plan (1951-52 to 1955-56) | 1241 | 612 | 1854 | 809 | 123 | 932 | 966 | 3751 |
| Second Plan (1956-57 to 1960-61) | 1962 | 1445 | 3406 | 1567 | 249 | 1816 | 2600 | 7823 |
| Third Plan (1960-61 to 1965-66) | 4256 | 2445 | 6701 | 2983 | 501 | 3484 | 5076 | 15261 |
| Annual Plan (1966-67 to 1968-69) | 3878 | 1243 | 5121 | 3214 | 407 | 3621 | 4740 | 13481 |
| Fourth Plan (1969-70 to 1973-74) | 9775 | 2969 | 12745 | 8036 | 1454 | 9490 | 10760 | 32994 |
| Fifth Plan (1974-75 to 1978-79) | 17576 | 5951 | 23527 | 19773 | 3230 | 23003 | 21145 | 67674 |
| Sixth Plan (1980-81 to 1984-85) | 35885 | 14823 | 50708 | 50604 | 9910 | 60514 | 47034 | 158256 |
| Seventh Plan (1985-86 to 1989-90) | 81974 | 31616 | 113590 | 134246 | 26292 | 160538 | 89764 | 363892 |
| Eighth Plan (1992-93 to 1996-97) | 179676 | 73599 | 253275 | 387746 | 66433 | 454179 | 127752 | 835206 |
| Ninth Plan (1997-98 to 2001-02) | 331143 | 100568 | 431711 | 795621 | 106925 | 902546 | 150754 | 1485011 |
| Tenth Plan (2002-03 to 2006-07) | 516165 | 144027 | 660192 | 1390293 | 185704 | 1575997 | 123921 | 2360110 |
| Eleventh Plan (2007-08 to 2011-12) | 1002126 | 284215 | 1286341 | 2946106 | 529055 | 3475161 | 212323 | 4973825 |
| 1950-51 | 235 | 80 | 315 | 111 | 6 | 117 | 72 | 504 |
| 1955-56 | 269 | 153 | 422 | 203 | 49 | 251 | 301 | 975 |
| 1960-61 | 433 | 307 | 740 | 427 | 69 | 495 | 570 | 1806 |
| 1965-66 ^a | 1109 | 520 | 1630 | 754 | 132 | 886 | 1425 ^a | 3940 ^a |
| 1970-71 | 1669 | 519 | 2189 | 1239 | 193 | 1432 | 1956 | 5577 |
| 1975-76 | 3449 | 1204 | 4654 | 3018 | 536 | 3553 | 3830 | 12037 |
| 1980-81 | 5174 | 1908 | 7082 | 6912 | 1302 | 8214 | 7200 | 22495 |
| 1985-86 | 11210 | 4558 | 15768 | 18347 | 3825 | 22173 | 15172 | 53112 |
| 1990-91 | 22359 | 8602 | 30961 | 45134 | 7117 | 52251 | 21760 | 104973 |
| 1993-94 ^b | 31815 | 12765 | 44580 | 66750 | 11811 | 78560 | 22648 | 145788 |
| 1995-96 | 41881 | 16685 | 58566 | 85304 | 15263 | 100566 | 26101 | 185233 |
| 1997-98 ^c | 53090 | 18955 | 72046 | 111577 | 17360 | 128937 | 23884 | 224866 |
| 2000-01 | 71977 | 22258 | 94235 | 183696 | 22404 | 206100 | 27929 | 328265 |
| 2005-06 | 116305 | 34450 | 150755 | 297267 | 41681 | 338948 | 11380 | 501083 |

Contd....

Table 2.2. Total Expenditure of the Central Government*(Contd....)*

(₹ crore)

| | Final outlays | | | Transfer payments to the rest of the economy | | | Financial investments & loans to the rest of the economy (gross) | Total expenditure (4+7+8) |
|-------------|------------------------------------|-------------------------|-------------|--|---------|-------------|--|---------------------------|
| | Government consumption expenditure | Gross capital formation | Total (2+3) | Current | Capital | Total (5+6) | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 2010-11 | 230262 | 65059 | 295321 | 656300 | 150312 | 806612 | 62795 | 1164728 |
| 2011-12 | 255498 | 65041 | 320539 | 756885 | 141353 | 898238 | 44439 | 1263216 |
| 2012-13 | 271119 | 74747 | 345866 | 851208 | 130771 | 981979 | 46902 | 1374747 |
| 2013-14 | 306898 | 74940 | 381838 | 940445 | 144129 | 1084574 | 44552 | 1510964 |
| 2014-15(RE) | 335838 | 87518 | 423356 | 1010460 | 15541 | 1026001 | 47659 | 1497016 |
| 2015-16(BE) | 373276 | 108683 | 481959 | 1049553 | 133317 | 1182870 | 46811 | 1711640 |

Source : Ministry of Finance, Economic & Functional Classification of the Central Government Budget-various issues

Notes:

RE : Revised Estimates

BE : Budget Estimates

a : For 1965-66, includes ₹ 53 crore as additional payments to IMF, IBRD, IDA & ADB following the change in the par value of the rupee. This is a nominal outlay as it is met by the issue of non-negotiable Government of India securities.

b : From 1993-94 onwards, Delhi is not included.

c : From 1997-98 onwards loans to States/UTs are exclusive of loans against States/UTs shares in small saving collections.

Table 2.3. Twelfth Plan (2012-17) Outlay by Heads of Development : Centre

| Head of development | Amount (₹ crore) | | | | | | Percentage distribution | | | | | | |
|--------------------------------------|--|----------------------------|----------------------------|----------------------------|--------------------------|--------------------------|--|----------------------------|----------------------------|----------------------------|--------------------------|--------------------------|------|
| | Twelfth Plan (2012-17) Projected (At current prices) | Annual Plan 2012-13 Actual | Annual Plan 2013-14 Actual | Annual Plan 2014-15 Actual | Annual Plan 2015-16 (RE) | Annual Plan 2016-17 (BE) | Twelfth Plan (2012-17) Projected (At current prices) | Annual Plan 2012-13 Actual | Annual Plan 2013-14 Actual | Annual Plan 2014-15 Actual | Annual Plan 2015-16 (RE) | Annual Plan 2016-17 (BE) | |
| | | (2) | (3) | (4) | (5) | (6) | | (7) | (8) | (9) | (10) | (11) | (12) |
| 1. Agriculture & allied activities | 134636 | 17030 | 17788 | 9795 | 10942 | 19394 | 3.1 | 3.4 | 2.9 | 2.3 | 1.9 | 2.7 | |
| 2. Rural development | 267047 | 36579 | 38776 | 1222 | 3005 | 2623 | 6.2 | 7.3 | 6.4 | 0.3 | 0.5 | 0.4 | |
| 3. Special area programmes | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 4. Irrigation & flood control | 17212 | 439 | 441 | 910 | 1105 | 1024 | 0.4 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | |
| 5. Energy | 1085997 | 132146 | 182388 | 170812 | 171519 | 205877 | 25.1 | 26.5 | 30.2 | 40.6 | 29.4 | 29.2 | |
| 6. Industry & Minerals | 292090 | 33202 | 33433 | 44006 | 45512 | 49371 | 6.7 | 6.7 | 5.5 | 10.5 | 7.8 | 7.0 | |
| 7. Transport | 819482 | 90518 | 103959 | 100520 | 178502 | 229874 | 18.9 | 18.2 | 17.2 | 23.9 | 30.6 | 32.5 | |
| 8. Communications | 80984 | 6289 | 16209 | 6437 | 13451 | 13806 | 1.9 | 1.3 | 2.7 | 1.5 | 2.3 | 2.0 | |
| 9. Science, Technology & Environment | 130054 | 12048 | 13535 | 14382 | 17965 | 20926 | 3.0 | 2.4 | 2.2 | 3.4 | 3.1 | 3.0 | |
| 10. General economic services | 181476 | 20217 | 26064 | 16767 | 38597 | 46686 | 4.2 | 4.1 | 4.3 | 4.0 | 6.6 | 6.6 | |
| 11. Social services | 1274261 | 144305 | 163718 | 50867 | 83555 | 100420 | 29.4 | 28.9 | 27.1 | 12.1 | 14.3 | 14.2 | |
| 12. General services | 50500 | 5702 | 7263 | 5164 | 18554 | 16247 | 1.2 | 1.1 | 1.2 | 1.2 | 3.2 | 2.3 | |
| Total | 4333739 | 498475 | 603574 | 420882 | 582707 | 706248 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |

Source : NITI Aayog

Notes:

RE Revised Estimates

BE Budget Estimates

Table 2.4. Financing for Central Plans

(₹ crore)

| Items | | 2015-16(RE) | 2016-17(BE) |
|-------|---|-------------|-------------|
| (1) | | (2) | (3) |
| I | Domestic non-debt resources | -43607 | 67097 |
| a | BCR | -92278 | -41256 |
| b | MCR (excluding deductions for repayment of loans) | 48671 | 108353 |
| c | Plan grants from GOI (TFC) | 0 | 0 |
| d | ARM | 0 | 0 |
| e | Adjustment of opening balance | 0 | 0 |
| II | Domestic Debt Resources | 505026 | 459289 |
| | Net Borrowings (i) - (ii) | 505026 | 459289 |
| | (i) Gross Borrowings (a to f) | 505026 | 459289 |
| a | State Provident Fund | 11000 | 12000 |
| b | Small Savings | 53418 | 22108 |
| c | Negotiated Loans | 0 | 0 |
| d | Government of India Loans(EAPS) | 0 | 0 |
| e | Market Borrowings | 440608 | 425181 |
| f | Bonds/Debentures | 0 | 0 |
| | (ii) Repayments | 0 | 0 |
| | Own Resources (incl. Borrowings) I+II | 461419 | 526386 |
| III | Central Assistance(Grants) (1+2+3) to state & UT plans | -216108 | -241900 |
| 1 | Normal Central Assistance | 0 | 0 |
| 2 | ACA for EAPs ^b | -16000 | -14850 |
| 3 | Others | -200108 | -227050 |
| A | Government Resources (I+II+III) | 245311 | 284486 |
| B | Contribution of Public Sector Enterprises (PSE) | 321618 | 398139 |
| C | Local Bodies | 0 | 0 |
| D | Net Inflow from Abroad | 15778 | 23624 |
| | Aggregate Plan Resources (A+B+C+D) | 582707 | 706249 |

Source : NITI Aayog

Notes:

RE : Revised Estimates

BE : Budget Estimates

BCR : Balance from Current Revenues

MCR : Miscellaneous Capital Receipts

ARM : Additional Resource Mobilisation

ACA : Additional Central Assistance

EAPs : Externally Aided Projects

b : ACA for EAPs includes loan and grants

Table 2.5. Overall Financing Pattern of the Public Sector Plan Outlay During the Twelfth Plan : 2012-17

| (₹ crore at current prices) | | | |
|---|---------|----------------|---------|
| Resources | Centre | States and UTs | Total |
| (1) | (2) | (3) | (4) |
| 1 Balance from current revenues (BCR) | 1387371 | 959979 | 2347350 |
| 2 Borrowings(including net MCR) | 2181255 | 1518301 | 3699556 |
| 3 Net inflow from abroad | ... | ... | ... |
| 4 Centre's GBS (1+2+3) | 3568626 | ... | 3568626 |
| 5 Resources of Public Sector Enterprises | 1622899 | 380319 | 2003218 |
| 6 State's Own Resources (1+2+5) | ... | 2858599 | 2858599 |
| 7 Central Assistance States & UTs | -857786 | 857786 | ... |
| 8 Resources of the Public Sector Plan (1+2+3+5+7) | 4333739 | 3716385 | 8050123 |

Source : Draft Twelfth Plan Document, Planning Commission

Table 2.6. Financial Performance of Indian Railways

| (₹ crore) | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|--------------------|-----------------|
| | 1980-81 | 1990-91 | 2001-02 | 2010-11 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (Prov.) | 2017-18 (BE) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Gross traffic receipts | 2624 | 12096 | 37837 | 94536 | 139558 | 156711 | 164334 | 165294 | 188999 |
| (i) Passenger coaching | 827 | 3147 | 11197 | 25793 | 36532 | 42190 | 44283 | 46280 | 50125 |
| (ii) Other coaching | 116 | 336 | 872 | 2470 | 3679 | 3998 | 4371 | 4312 | 6494 |
| (iii) Goods | 1618 | 8408 | 24845 | 62845 | 93906 | 105791 | 109208 | 104339 | 118157 |
| (iv) Other earnings | 82 | 242 | 944 | 3418 | 5721 | 5093 | 5929 | 10370 | 14123 |
| (v) Suspense account | -19 | -37 | -21 | 10 | -280 | -361 | 543 | -7 | 100 |
| 2. Working expenses | 2537 | 11154 | 36293 | 89474 | 130321 | 142996 | 147836 | 159036 | 178350 |
| (i) Ordinary working expenses | 2233 | 8234 | 28703 | 68139 | 97571 | 105996 | 107736 | 118836 | 129750 |
| (ii) Appropriations to depreciation reserve fund | 220 | 1950 | 2000 | 5515 | 7900 | 7775 | 5600 | 5200 | 5000 |
| (iii) Appropriation to pension fund | 84 | 970 | 5590 | 15820 | 24850 | 29225 | 34500 | 35000 | 43600 |
| 3. Net traffic receipts (1-2) | 87 | 942 | 1544 | 5062 | 9237 | 13715 | 16498 | 6258 | 10649 |
| 4. Net miscellaneous receipts | 40 | 171 | 793 | 1285 | 2512 | 3124 | 2731 | -1500 | -1700 |
| 5. Net revenues (3+4) | 127 | 1113 | 2337 | 6347 | 11749 | 16839 | 19229 | 4758 | 8949 |
| 6. Dividend | | | | | | | | | |
| (i) Payable to general revenues | 325 | 938 | 2337 | 4941 | 8009 | 9174 | 8723 | *** | *** |
| (ii) Payment of Deferred Dividend | | | | | | | | | |
| (iii) Deferred dividend | 0 | 0 | 1000 | | | | | | |
| (iv) Net dividend payable | 325 | 938 | 1337 | 4941 | 8009 | 9174 | 8723 | | |
| 7. Surplus (+) or deficit (-) | -198 | 175 | 1000 | 1406 | 3740 | 7665 | 10506 | 4758 | 8949 |
| 8. (i) Capital at charge | 6096 | 16126 | 37757 | 130540 | 170168 | 197992 | 224685 | 257221 | 293301 |
| (ii) Investment from capital fund | 0 | 0 | 10390 | 38676 | 38676 | 44125 | 50450 | 53450 | 59450 |
| (iii) Total[(i)+(ii)] | 6096 | 16126 | 48147 | 169216 | 208844 | 242117 | 275135 | 310671 | 352751 |
| 9. Item 5 as % of item 8(iii) | 2.1 | 6.9 | 4.9 | 3.8 | 5.6 | 7.0 | 7.0 | 1.5 | 2.5 |
| 10. Item 7 as % of item 8(iii) | -3.2 | 1.1 | 2.1 | 0.8 | 1.8 | 3.2 | 3.8 | 1.5 | 2.5 |

Source : Ministry of Railways

Notes:

BE : Budget Estimates

*** Dividend payment has been done away with as per Budget merger conditions and hence no dividend payment from 2017-18

Table 2.7. Financial Performance of the Department of Posts

| (₹ crore) | | | | | | | | | |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1980-81 | 1990-91 | 2000-01 | 2010-11 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Gross receipts | 278 | 840 | 3298 | 6962 | 9367 | 10730 | 11636 | 12940 | 11509 |
| 2. Net working expenses | 346 | 1033 | 4848 | 13308 | 14792 | 16204 | 17895 | 18947 | 23481 |
| 3. Net receipts (1-2) | -68 | -193 | -1550 | -6346 | -5425 | -5474 | -6259 | -6007 | -11972 |
| 4. Dividend to general revenues | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. Surplus(+)/deficit (-) (3-4) | -72 | -193 | -1550 | -6346 | -5425 | -5474 | -6259 | -6007 | -11972 |

Source : Department of Posts, Ministry of Communications

Table 2.8 A. Receipts and Expenditure of the Central Government

| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (B.E.) | 2016-17 (R.E.) | 2016-17 (P) | 2017-18 (B.E.) |
|--|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|-------------------|----------------|-------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Revenue receipts (a+b) | 540259 | 572811 | 788471 | 751437 | 879232 | 1014724 | 1101473 | 1195025 | 1377022 | 1423563 | 1376284 | 1515771 |
| (a). Tax revenue (net of States' share) | 443319 | 456536 | 569869 | 629765 | 741877 | 815854 | 903615 | 943765 | 1054101 | 1088793 | 1102063 | 1227014 |
| (b). Non-tax revenue | 96940 | 116275 | 218602 | 121672 | 137355 | 198870 | 197858 | 251260 | 322921 | 334770 | 274221 | 288757 |
| 2. Revenue expenditure | 793798 | 911809 | 1040723 | 1145785 | 1243514 | 1371772 | 1466992 | 1537761 | 1731038 | 1734561 | 1684556 | 1836933 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Interest payments | 192204 | 213093 | 234022 | 273150 | 313170 | 374254 | 402444 | 441659 | 492670 | 483069 | 480519 | 523078 |
| (b) Major subsidies | 123206 | 134658 | 164516 | 211319 | 247493 | 244717 | 249016 | 241833 | 231782 | 232705 | 206586 | 240339 |
| (c) Defence expenditure | 73305 | 90669 | 92061 | 103011 | 111277 | 124374 | 136807 | 145937 | 162759 | 170374 | 172737 | 175862 |
| 3. Revenue deficit (2-1) | 253539 | 338998 | 252252 | 394348 | 364282 | 357048 | 365519 | 342736 | 354016 | 310998 | 308272 | 321162 |
| 4. Capital receipts | 343696 | 451676 | 408856 | 552929 | 531140 | 544724 | 562200 | 595758 | 601038 | 590845 | 598571 | 630964 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Recovery of loans | 6139 | 8613 | 12420 | 18850 | 15060 | 12497 | 13738 | 20835 | 10634 | 11071 | 15755 | 11932 |
| (b) Other receipt (mainly PSU disinvestment) | 566 | 24581 | 22846 | 18088 | 25890 | 29368 | 37737 | 42132 | 56500 | 45500 | 47748 | 72500 |
| (c) Borrowings and other liabilities \$ | 336991 | 418482 | 373590 | 515991 | 490190 | 502859 | 510725 | 532791 | 533904 | 534274 | 535068 | 546532 |
| 5. Capital expenditure | 90158 | 112678 | 156604 | 158580 | 166858 | 187675 | 196681 | 253022 | 247024 | 279847 | 290299 | 309801 |
| 6. Non Debt Receipts [1+4(a)+4(b)] | 546964 | 606005 | 823737 | 788375 | 920182 | 1056589 | 1152948 | 1257992 | 1444156 | 1480134 | 1439787 | 1600203 |
| 7. Total expenditure [2+5=7(a)+7(b)] | 883956 | 1024487 | 1197327 | 1304365 | 1410372 | 1559447 | 1663673 | 1790783 | 1978062 | 2014408 | 1974855 | 2146734 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Plan expenditure | 275235 | 303391 | 379029 | 412375 | 413625 | 453327 | 462644 | 471083 | 550010 | | 572106 | |
| (b) Non-plan expenditure | 608721 | 721096 | 818298 | 891990 | 996747 | 1106120 | 1201029 | 1319700 | 1428050 | | 1402749 | |
| 8. Fiscal deficit [7-1-4(a)-4(b)] | 336992 | 418482 | 373590 | 515990 | 490190 | 502858 | 510725 | 532791 | 533906 | 534274 | 535068 | 546531 |
| 9. Primary deficit [8-2(a)] | 144788 | 205389 | 139568 | 242840 | 177020 | 128604 | 108281 | 91132 | 41236 | 51205 | 54549 | 23453 |
| Memorandum items | | | | | | | | | | | | |
| (a) Interest receipts | 20717 | 21784 | 19734 | 20252 | 20761 | 21868 | 23804 | 25379 | 29620 | 18149 | 16288 | 19021 |
| (b) Non-plan revenue expenditure | 559024 | 657925 | 726491 | 812049 | 914306 | 1019040 | 1109394 | 1210587 | 1327408 | | 1297721 | |

Source: Union Budget documents and Controller General of Accounts

Notes:

BE-Budget Estimates P: Provisional Actuals (Unaudited)

RE: Revised Estimates

\$: Does not include receipts in respect of Market Stabilization Scheme, which will remain in the cash balance of the Central Government and will not be used for expenditure.

Table 2.8 B. Receipts and Expenditure of the Central Government

| (1) | (as per cent to GDP) | | | | | | | | | | | (13) |
|--|----------------------|---------|---------|---------|---------|---------|---------|---------|-------------------|-------------------|----------------|-------------------|
| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (B.E.) | 2016-17 (R.E.) | 2016-17 (P) | 2017-18 (B.E.) |
| 1. Revenue receipts (a+b) | 9.6 | 8.8 | 10.1 | 8.6 | 8.8 | 9.0 | 8.9 | 8.7 | 9.1 | 9.4 | 9.1 | 9.0 |
| (a). Tax revenue (net of States' share) | 7.9 | 7.0 | 7.3 | 7.2 | 7.5 | 7.3 | 7.3 | 6.9 | 7.0 | 7.2 | 7.3 | 7.3 |
| (b). Non-tax revenue | 1.7 | 1.8 | 2.8 | 1.4 | 1.4 | 1.8 | 1.6 | 1.8 | 2.1 | 2.2 | 1.8 | 1.7 |
| 2. Revenue expenditure | 14.1 | 14.1 | 13.4 | 13.1 | 12.5 | 12.2 | 11.8 | 11.2 | 11.5 | 11.5 | 11.1 | 10.9 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Interest payments | 3.4 | 3.3 | 3.0 | 3.1 | 3.1 | 3.3 | 3.2 | 3.2 | 3.3 | 3.2 | 3.2 | 3.1 |
| (b) Major subsidies | 2.2 | 2.1 | 2.1 | 2.4 | 2.5 | 2.2 | 2.0 | 1.8 | 1.5 | 1.5 | 1.4 | 1.4 |
| (c) Defence expenditure | 1.3 | 1.4 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 |
| 3. Revenue deficit (2-1) | 4.5 | 5.2 | 3.2 | 4.5 | 3.7 | 3.2 | 2.9 | 2.5 | 2.3 | 2.1 | 2.0 | 1.9 |
| 4. Capital receipts | 6.1 | 7.0 | 5.3 | 6.3 | 5.3 | 4.8 | 4.5 | 4.4 | 4.0 | 3.9 | 3.9 | 3.7 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Recovery of loans | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| (b) Other receipt (mainly PSU disinvestment) | 0.0 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.4 |
| (c) Borrowings and other liabilities \$ | 6.0 | 6.5 | 4.8 | 5.9 | 4.9 | 4.5 | 4.1 | 3.9 | 3.5 | 3.5 | 3.5 | 3.2 |
| 5. Capital expenditure | 1.6 | 1.7 | 2.0 | 1.8 | 1.7 | 1.7 | 1.6 | 1.8 | 1.6 | 1.9 | 1.9 | 1.8 |
| 6. Non Debt Receipts [1+4(a)+4(b)] | 9.7 | 9.4 | 10.6 | 9.0 | 9.3 | 9.4 | 9.3 | 9.2 | 9.6 | 9.8 | 9.5 | 9.5 |
| 7. Total expenditure [2+5=7(a)+7(b)] | 15.7 | 15.8 | 15.4 | 14.9 | 14.2 | 13.9 | 13.4 | 13.1 | 13.1 | 13.4 | 13.0 | 12.7 |
| <i>of which:</i> | | | | | | | | | | | | |
| (a) Plan expenditure | 4.9 | 4.7 | 4.9 | 4.7 | 4.2 | 4.0 | 3.7 | 3.4 | 3.7 | - | 3.8 | - |
| (b) Non-plan expenditure | 10.8 | 11.1 | 10.5 | 10.2 | 10.0 | 9.8 | 9.7 | 9.6 | 9.5 | - | 9.2 | - |
| 8. Fiscal deficit [7-1-4(a)-4(b)] | 6.0 | 6.5 | 4.8 | 5.9 | 4.9 | 4.5 | 4.1 | 3.9 | 3.5 | 3.5 | 3.5 | 3.2 |
| 9. Primary deficit [8-2(a)] | 2.6 | 3.2 | 1.8 | 2.8 | 1.8 | 1.1 | 0.9 | 0.7 | 0.3 | 0.3 | 0.4 | 0.1 |

Source: Union Budget documents and Controller General of Accounts

Notes:

BE: Budget Estimates P: Provisional Actuals (Unaudited)

RE: Revised Estimates

\$: Does not include receipts in respect of Market Stabilization Scheme, which will remain in the cash balance of the Central Government and will not be used for expenditure.

Table 2.9. Outstanding Liabilities of the Central Government

(End-March) (₹ crore)

| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 (RE) | 2017-18 (BE) |
|---|---------|---------|---------|---------|---------|---------|---------|---------|-----------------|-----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Internal liabilities # | 3036132 | 3395877 | 3781135 | 4347164 | 4893303 | 5484848 | 6045007 | 6691709 | 7215739 | 7722082 |
| (a) Internal debt | 2019841 | 2328339 | 2667115 | 3230622 | 3764566 | 4240767 | 4738291 | 5304835 | 5731392 | 6180027 |
| i) Market borrowings | 1338194 | 1746619 | 2072033 | 2516953 | 2984309 | 3441641 | 3891734 | 4298784 | 4647492 | 5006718 |
| ii) Others | 681647 | 581720 | 595082 | 713669 | 780257 | 799126 | 846557 | 1006051 | 1083900 | 1173309 |
| (b) Other Internal liabilities | 1016291 | 1067538 | 1114020 | 1116542 | 1128737 | 1244081 | 1306716 | 1386874 | 1484347 | 1542055 |
| 2. External debt (outstanding)* | 123046 | 134083 | 157639 | 170088 | 177289 | 184581 | 197514 | 210262 | 225135 | 240924 |
| 3. Total outstanding liabilities (1+2) | 3159178 | 3529960 | 3938774 | 4517252 | 5070592 | 5669429 | 6242521 | 6901971 | 7440874 | 7963006 |
| 4. Amount due from Pakistan on account of share of pre-partition debt | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| 5. Net liabilities (3-4) | 3158878 | 3529660 | 3938474 | 4516952 | 5070292 | 5669129 | 6242221 | 6901671 | 7440574 | 7962706 |
| Memorandum items | | | | | | | | | | |
| (a) External debt @ | 264059 | 249306 | 278877 | 322897 | 332004 | 374483 | 366191 | 406586 | 408094 | 423883 |
| (b) Total outstanding liabilities(adjusted) | 3300191 | 3645183 | 4060012 | 4670061 | 5225307 | 5859331 | 6411198 | 7098295 | 7623833 | 8145965 |
| (c) Internal liabilities(Non- RBI) ## | 2707846 | 3087360 | 3464858 | 3904022 | 4396810 | 4984590 | 5540570 | 6139580 | 6646470 | 7161810 |
| (d) Outstanding liabilities (Non-RBI) ## | 2971905 | 3336666 | 3743735 | 4226919 | 4728814 | 5359073 | 5906761 | 6546166 | 7054564 | 7585693 |
| (e) Contingent liabilities of Central Government | 113335 | 137460 | 151292 | 190519 | 233769 | 249503 | 294700 | 343762 | n.a. | n.a. |
| (f) Total assets | 1569043 | 1607544 | 1794504 | 1927143 | 2080649 | 2253627 | 2464424 | 2773756 | 3022919 | 3275837 |
| (As per cent of GDP) | | | | | | | | | | |
| 1. Internal liabilities# | 53.9 | 52.4 | 48.6 | 49.8 | 49.2 | 48.8 | 48.6 | 48.9 | 47.9 | 45.8 |
| a) Internal debt | 35.9 | 35.9 | 34.3 | 37.0 | 37.9 | 37.8 | 38.1 | 38.8 | 38.0 | 36.7 |
| i) Market borrowings | 23.8 | 27.0 | 26.6 | 28.8 | 30.0 | 30.6 | 31.3 | 31.4 | 30.8 | 29.7 |
| ii) Others | 12.1 | 9.0 | 7.6 | 8.2 | 7.8 | 7.1 | 6.8 | 7.4 | 7.2 | 7.0 |
| b) Other Internal liabilities | 18.1 | 16.5 | 14.3 | 12.8 | 11.4 | 11.1 | 10.5 | 10.1 | 9.8 | 9.2 |
| 2. External debt (outstanding)* | 2.2 | 2.1 | 2.0 | 1.9 | 1.8 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 |
| 3. Total outstanding liabilities (1+2) | 56.1 | 54.5 | 50.6 | 51.7 | 51.0 | 50.5 | 50.2 | 50.4 | 49.4 | 47.3 |

Source: Union Budget documents and DMO and CAA&A

Notes:

n.a. : not available

* : External debt figures represent borrowings by Central Government from external sources and are based upon historical rates of exchange

@ : The external debt figures at current exchange rates are taken from Controller of Aid, Account and Audit Division, Ministry of Finance. For 2017-18(BE), the Net external assistance in 2017-18 has been added to outstanding stock at end-March 2017.

: Internal debt includes net borrowing of ₹ 88,773 crore for 2008-09, ₹2,737 crore for 2009-10

: This includes marketable dated securities held by the RBI

R.E: Revised Estimates BE-Budget Estimates

Table 2.10. Total Expenditure and Capital Formation by the Central Government and its Financing
(As per economic and functional classification of the Central Government budget)

| (₹ crore) | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|-----------------|-----------------|
| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 (RE) | 2015-16 (BE) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| I. Total expenditure | 688908 | 864530 | 992440 | 1164727 | 1263216 | 1374747 | 1510964 | 1636916 | 1711641 |
| II. Gross capital formation out of budgetary resources of Central Government | 143892 | 136935 | 184501 | 256368 | 234969 | 230792 | 242877 | 260955 | 262192 |
| (i) Gross capital formation by the Central Government | 43652 | 51464 | 58999 | 65059 | 65041 | 74747 | 74940 | 87518 | 108683 |
| (ii) Financial assistance for capital formation in the rest of the economy | 100240 | 85471 | 125502 | 191309 | 169928 | 156045 | 167937 | 173437 | 153509 |
| III. Gross saving of the Central Government | 13674 | -176082 | -232452 | -103270 | -267428 | -241090 | -238268 | -221961 | -275055 |
| IV. Gap(II-III) | 130218 | 313017 | 416953 | 359638 | 502397 | 471882 | 481145 | 482916 | 537247 |
| Financed by | | | | | | | | | |
| a. Draft on other sectors of domestic economy | 118180 | 299208 | 402774 | 333409 | 486987 | 462370 | 470235 | 470399 | 524300 |
| (i) Domestic capital receipts | 145351 | 246612 | 404160 | 326979 | 502977 | 513382 | 489406 | 486071 | 512259 |
| (ii) Budgetary deficit/draw down of cash balance | -27171 | 52596 | -1386 | 6430 | -15990 | -51012 | -19171 | -15672 | 12041 |
| b. Draft on foreign savings | 12038 | 13809 | 14179 | 26229 | 15410 | 9512 | 10910 | 12517 | 12947 |
| (percentage increase over previous year) | | | | | | | | | |
| II. Gross capital formation out of budgetary resources of Central Government | 63.7 | -4.8 | 34.7 | 39.0 | -8.3 | -1.8 | 5.2 | 7.4 | 0.5 |
| Memorandum items (₹ crore) | | | | | | | | | |
| 1 Total expenditure | 688908 | 864530 | 992440 | 1164727 | 1263216 | 1374747 | 1510964 | 1636916 | 1711641 |
| 2 Gross capital formation out of budgetary resources of Central Government | 143891 | 136935 | 184501 | 256368 | 234969 | 230792 | 242877 | 260955 | 262192 |
| 3 Consumption expenditure | 131396 | 174345 | 210625 | 230262 | 255498 | 271119 | 306898 | 335838 | 373276 |
| 4 Current transfers | 408676 | 543347 | 580898 | 656300 | 756885 | 851208 | 940445 | 1010460 | 1049553 |
| 5 Others | 4945 | 9903 | 16417 | 21798 | 15864 | 21628 | 20744 | 29663 | 26620 |
| (Growth rate in per cent) | | | | | | | | | |
| 1 Total expenditure | 20.8 | 25.5 | 14.8 | 17.4 | 8.5 | 8.8 | 9.9 | 8.3 | 4.6 |
| 2 Gross capital formation out of budgetary resources of Central Government | 63.7 | -4.8 | 34.7 | 39.0 | -8.3 | -1.8 | 5.2 | 7.4 | 0.5 |
| 3 Consumption expenditure | 8.0 | 32.7 | 20.8 | 9.3 | 11.0 | 6.1 | 13.2 | 9.4 | 11.1 |
| 4 Current transfers | 14.6 | 33.0 | 6.9 | 13.0 | 15.3 | 12.5 | 10.5 | 7.4 | 3.9 |
| 5 Others | 19.7 | 100.3 | 65.8 | 32.8 | -27.2 | 36.3 | -4.1 | 43.0 | -10.3 |
| (Point contribution in per cent) | | | | | | | | | |
| 1 Total expenditure | 20.8 | 25.5 | 14.8 | 17.4 | 8.5 | 8.8 | 9.9 | 8.3 | 4.6 |
| 2 Gross capital formation out of budgetary resources of Central Government | 9.8 | -1.0 | 5.5 | 7.2 | -1.8 | -0.3 | 0.9 | 1.2 | 0.1 |
| 3 Consumption expenditure | 1.7 | 6.2 | 4.2 | 2.0 | 2.2 | 1.2 | 2.6 | 1.9 | 2.3 |
| 4 Current transfers | 9.1 | 19.5 | 4.3 | 7.6 | 8.6 | 7.5 | 6.5 | 4.6 | 2.4 |
| 5 Others | 0.1 | 0.7 | 0.8 | 0.5 | -0.5 | 0.5 | -0.1 | 0.6 | -0.2 |

Source: Ministry of Finance, An Economic and Functional classification of the Central Government Budget-various issues

Notes:

RE: Revised Estimates BE: Budget Estimates

- (i) Gross capital formation in this table includes loans given for capital formation on a gross basis. Consequently domestic capital receipts include loan repayments to the Central Government.
- (ii) Consumption expenditure is the expenditure on wages and salaries and commodities and services for current use.
- (iii) Interest payments, subsidies, pension etc. are treated as current transfers.
- (iv) Gross capital formation & total expenditure are exclusive of loans to States'/UTs' against States'/UTs' share in the small savings collection.
- (v) The figures of total expenditure of the Central Government as per economic and functional classification do not tally with figures given in the Budget documents. In the economic and functional classification, interest transferred to DCUs, loans written off etc, are excluded from the current account. In the capital account, expenditure financed out of Railways, Posts & Telecommunications' own funds etc, are included.
- (vi) Point contribution refers to contribution of individual component to total growth.

Table 2.11. Receipts and Disbursements of State and Consolidated General Government

| | (₹ crore) | | | | | | | | |
|--|---------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 (RE) | 2016-17 (BE) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| State Governments | | | | | | | | | |
| I. Total Receipts (A+B) | 891292 | 1007634 | 1173575 | 1367917 | 1557338 | 1688047 | 2008066 | 2508076 | 2829700 |
| A. Revenue Receipts (1+2) | 694658 | 768137 | 935347 | 1098531 | 1252024 | 1369187 | 1591584 | 1958127 | 2257382 |
| 1. Tax Receipts | 482983 | 528075 | 680198 | 812987 | 946081 | 1030692 | 1117113 | 1407779 | 1595368 |
| <i>of which</i> | | | | | | | | | |
| States' Own Tax Revenue | 321930 | 363061 | 460709 | 557396 | 654551 | 712419 | 779278 | 891013 | 1014302 |
| 2. Non-tax Receipts | 211675 | 240062 | 255149 | 285544 | 305943 | 338495 | 474471 | 550348 | 662014 |
| <i>of which</i> | | | | | | | | | |
| Interest Receipts | 16356 | 15294 | 15625 | 18582 | 24118 | 27215 | 24135 | 17349 | 16590 |
| B. Capital Receipts | 196634 | 239497 | 238227 | 269385 | 305314 | 318860 | 416482 | 549949 | 572318 |
| <i>of which</i> | | | | | | | | | |
| Recovery of Loans and Advances | 11072 | 8088 | 4995 | 17157 | 7265 | 6896 | 18916 | 7480 | 16867 |
| II. Total Disbursements (a+b+c) | 882332 | 1015330 | 1158730 | 1351612 | 1534255 | 1706144 | 2025782 | 2555549 | 2826804 |
| a) Revenue | 681985 | 799154 | 932297 | 1074571 | 1231702 | 1379750 | 1637288 | 1989233 | 2236535 |
| b) Capital | 184376 | 198689 | 207617 | 238150 | 272576 | 302402 | 358856 | 477647 | 546628 |
| c) Loans and Advances | 15971 | 17487 | 18816 | 38891 | 29977 | 23992 | 29638 | 88669 | 43641 |
| III. Revenue Deficit | -12673 | 31017 | -3051 | -23960 | -20322 | 10563 | 45704 | 31106 | -20847 |
| IV. Gross Fiscal Deficit | 134589 | 188819 | 161461 | 168353 | 195470 | 247852 | 327191 | 493361 | 449524 |
| General Government | | | | | | | | | |
| I. Total Receipts (A+B) | 1564803 | 1845808 | 2153561 | 2454062 | 2769029 | 3001372 | 3189737 | 3948715 | 4438562 |
| A. Revenue Receipts (1+2) | 1117098 | 1210559 | 1578820 | 1692679 | 1971619 | 2211475 | 2387693 | 2905410 | 3393791 |
| 1. Tax Receipts | 926302 | 984611 | 1250067 | 1442752 | 1687959 | 1846545 | 2020728 | 2355287 | 2649470 |
| 2. Non-tax receipts | 190796 | 225948 | 328753 | 249927 | 283660 | 364930 | 366965 | 550123 | 744321 |
| <i>of which:</i> | | | | | | | | | |
| Interest receipts | 25368 | 25748 | 25078 | 28870 | 35543 | 40162 | 39622 | 33219 | 38467 |
| B. Capital Receipts | 447705 | 635249 | 574742 | 761383 | 797410 | 789897 | 802044 | 1043305 | 1044771 |
| <i>of which:</i> | | | | | | | | | |
| a) Disinvestment proceeds | 833 | 25393 | 24087 | 18753 | 25991 | 29728 | 38883 | 26363 | 56649 |
| b) Recovery of loans & advances | 14611 | 11499 | 8206 | 25370 | 12929 | 9385 | 22072 | 17737 | 18474 |
| II. Total Disbursements (a+b+c) | 1599677 | 1852119 | 2145145 | 2421768 | 2694934 | 3000299 | 3285211 | 3974103 | 4448859 |
| a) Revenue | 1357963 | 1580574 | 1828020 | 2063068 | 2315578 | 2579086 | 2798917 | 3278106 | 3726958 |
| b) Capital | 218679 | 246246 | 268328 | 291818 | 328324 | 377545 | 426949 | 571836 | 651407 |
| c) Loans and Advances | 23035 | 25299 | 48797 | 66883 | 51031 | 43668 | 59345 | 124161 | 70494 |
| III. Revenue Deficit | 240865 | 370015 | 249200 | 370388 | 343959 | 367611 | 411224 | 372696 | 333167 |
| IV. Gross Fiscal Deficit | 467137 | 604668 | 534032 | 684966 | 684395 | 749711 | 836563 | 1024593 | 979945 |

Source: Reserve Bank of India

Notes:

RE: Revised Estimates

BE : Budget Estimates

1. Negative (-) sign indicates surplus in deficit indicators.
2. The ratios to GDP at current market prices are based on CSO's National Accounts 2004-05 series and data from 2011-12 onwards are based on new base 2011-12.
3. Capital receipts include public accounts on a net basis.
4. Capital disbursements are exclusive of public accounts.

Table 2.12. Receipts and Disbursements of State and Consolidated General Government

| (As per cent to GDP) | | | | | | | | | |
|---------------------------------------|------------|------------|------------|------------|------------|------------|------------|-----------------|-----------------|
| | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 (RE) | 2016-17 (BE) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| State Governments | | | | | | | | | |
| I. Total Receipts (A+B) | 15.8 | 15.6 | 15.1 | 15.7 | 15.7 | 15.0 | 16.1 | 18.5 | 18.8 |
| A. Revenue Receipts (1+2) | 12.3 | 11.9 | 12.0 | 12.6 | 12.6 | 12.2 | 12.8 | 14.4 | 15.0 |
| 1. Tax Receipts | 8.6 | 8.2 | 8.7 | 9.3 | 9.5 | 9.2 | 9.0 | 10.4 | 10.6 |
| <i>of which</i> | | | | | | | | | |
| States' Own Tax Revenue | 5.7 | 5.6 | 5.9 | 6.4 | 6.6 | 6.3 | 6.3 | 6.6 | 6.7 |
| 2. Non-tax Receipts | 3.8 | 3.7 | 3.3 | 3.3 | 3.1 | 3.0 | 3.8 | 4.1 | 4.4 |
| <i>of which</i> | | | | | | | | | |
| Interest Receipts | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 |
| B. Capital Receipts | 3.5 | 3.7 | 3.1 | 3.1 | 3.1 | 2.8 | 3.3 | 4.1 | 3.8 |
| <i>of which</i> | | | | | | | | | |
| Recovery of Loans and Advances | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 |
| II. Total Disbursements (a+b+c) | 15.7 | 15.7 | 14.9 | 15.5 | 15.4 | 15.2 | 16.3 | 18.8 | 18.8 |
| a) Revenue | 12.1 | 12.3 | 12.0 | 12.3 | 12.4 | 12.3 | 13.2 | 14.7 | 14.8 |
| b) Capital | 3.3 | 3.1 | 2.7 | 2.7 | 2.7 | 2.7 | 2.9 | 3.5 | 3.6 |
| c) Loans and Advances | 0.3 | 0.3 | 0.2 | 0.4 | 0.3 | 0.2 | 0.2 | 0.7 | 0.3 |
| III. Revenue Deficit | -0.2 | 0.5 | 0.0 | -0.3 | -0.2 | 0.1 | 0.4 | 0.2 | -0.1 |
| IV. Gross Fiscal Deficit | 2.4 | 2.9 | 2.1 | 1.9 | 2.0 | 2.2 | 2.6 | 3.6 | 3.0 |
| General Government | | | | | | | | | |
| I. Total Receipts (A+B) | 27.8 | 28.5 | 27.7 | 28.1 | 27.8 | 26.7 | 25.6 | 29.1 | 29.5 |
| A. Revenue Receipts (1+2) | 19.8 | 18.7 | 20.3 | 19.4 | 19.8 | 19.7 | 19.2 | 21.4 | 22.5 |
| 1. Tax Receipts | 16.5 | 15.2 | 16.1 | 16.5 | 17.0 | 16.4 | 16.2 | 17.4 | 17.6 |
| 2. Non-tax receipts | 3.4 | 3.5 | 4.2 | 2.9 | 2.9 | 3.2 | 2.9 | 4.1 | 4.9 |
| <i>of which:</i> | | | | | | | | | |
| Interest receipts | 0.5 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 |
| B. Capital Receipts | 8.0 | 9.8 | 7.4 | 8.7 | 8.0 | 7.0 | 6.4 | 7.7 | 6.9 |
| <i>of which:</i> | | | | | | | | | |
| a) Disinvestment proceeds | 0.0 | 0.4 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 |
| b) Recovery of loans & advances | 0.3 | 0.2 | 0.1 | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 |
| II. Total Disbursements (a+b+c) | 28.4 | 28.6 | 27.6 | 27.7 | 27.1 | 26.7 | 26.4 | 29.3 | 29.5 |
| a) Revenue | 24.1 | 24.4 | 23.5 | 23.6 | 23.3 | 23.0 | 22.5 | 24.2 | 24.7 |
| b) Capital | 3.9 | 3.8 | 3.4 | 3.3 | 3.3 | 3.4 | 3.4 | 4.2 | 4.3 |
| c) Loans and Advances | 0.4 | 0.4 | 0.6 | 0.8 | 0.5 | 0.4 | 0.5 | 0.9 | 0.5 |
| III. Revenue Deficit | 4.3 | 5.7 | 3.2 | 4.2 | 3.5 | 3.3 | 3.3 | 2.7 | 2.2 |
| IV. Gross Fiscal Deficit | 8.3 | 9.3 | 6.9 | 7.8 | 6.9 | 6.7 | 6.7 | 7.6 | 6.5 |

Source: Reserve Bank of India

Notes:

RE: Revised Estimates

BE : Budget Estimates

- Negative (-) sign indicates surplus in deficit indicators.
- The ratios to GDP at current market prices are based on CSO's National Accounts 2004-05 series and data from 2011-12 onwards are based on new base 2011-12.
- Capital receipts include public accounts on a net basis.
- Capital disbursements are exclusive of public accounts.

Table 3.1. Employment in Organised Sectors—Public and Private (as on March 31, 2012)

| (Lakh persons) | | | | | | | |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1. Public Sector | | | | | | | |
| By branch | | | | | | | |
| Central Government | 28.6 | 28.0 | 27.4 | 26.6 | 25.5 | 24.6 | 25.2 |
| State Governments | 73.0 | 72.1 | 71.7 | 72.4 | 73.5 | 72.2 | 71.8 |
| Quasi-Governments | 59.1 | 58.6 | 58.0 | 58.4 | 58.7 | 58.1 | 58.0 |
| Local bodies | 21.2 | 21.3 | 19.7 | 20.7 | 20.9 | 20.5 | 21.1 |
| Total | 181.9 | 180.0 | 176.7 | 178.0 | 178.6 | 175.5 | 176.1 |
| By industry | | | | | | | |
| Agriculture, hunting etc. | 4.7 | 4.8 | 4.7 | 4.8 | 4.8 | 4.8 | 4.7 |
| Mining and quarrying | 11.5 | 11.4 | 11.2 | 11.1 | 11.0 | 10.9 | 10.8 |
| Manufacturing | 10.9 | 10.9 | 10.4 | 10.6 | 10.7 | 10.2 | 10.7 |
| Electricity, gas and water | 8.5 | 8.5 | 8.0 | 8.4 | 8.4 | 8.3 | 8.2 |
| Construction | 8.9 | 8.7 | 8.5 | 8.5 | 8.6 | 8.5 | 8.3 |
| Wholesale and retail trade | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Transport, storage & communications | 26.8 | 26.4 | 26.3 | 26.0 | 25.3 | 23.8 | 24.9 |
| Finance, insurance, real estate etc. | 13.9 | 13.7 | 13.5 | 13.6 | 14.1 | 13.6 | 13.6 |
| Community, social & personal services | 91.8 | 90.9 | 88.5 | 90.1 | 90.5 | 91.0 | 90.4 |
| Total | 178.7 | 176.9 | 172.8 | 174.8 | 175.1 | 172.7 | 173.3 |
| 2. Private Sector | | | | | | | |
| Agriculture, hunting etc. | 10.3 | 9.5 | 9.9 | 9.0 | 9.2 | 9.2 | 9.2 |
| Mining and quarrying | 1.0 | 1.0 | 1.1 | 1.2 | 1.6 | 1.3 | 1.4 |
| Manufacturing | 45.5 | 47.5 | 49.7 | 52.0 | 51.8 | 54.0 | 55.3 |
| Electricity, gas and water | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.6 |
| Construction | 0.6 | 0.7 | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 |
| Wholesale and retail trade | 3.9 | 4.1 | 2.7 | 4.7 | 5.1 | 5.5 | 6.0 |
| Transport, storage & communications | 0.9 | 1.0 | 1.0 | 1.3 | 1.7 | 1.9 | 2.1 |
| Finance, insurance, real estate etc. | 6.5 | 8.8 | 11.0 | 13.1 | 15.5 | 17.2 | 19.1 |
| Community, social & personal services | 18.8 | 19.5 | 21.7 | 20.2 | 21.4 | 23.5 | 24.5 |
| Total | 87.7 | 92.4 | 98.4 | 102.9 | 107.9 | 114.2 | 119.4 |
| 3. Public Sector | | | | | | | |
| Male | 151.9 | 149.8 | 146.3 | 147.0 | 146.7 | 143.8 | 144.6 |
| Female | 30.0 | 30.2 | 30.4 | 30.9 | 32.0 | 31.7 | 31.5 |
| Total | 181.9 | 180.0 | 176.7 | 178.0 | 178.6 | 175.5 | 176.1 |
| 4. Private Sector | | | | | | | |
| Male | 66.9 | 69.8 | 74.0 | 78.9 | 81.8 | 86.7 | 90.7 |
| Female | 21.2 | 22.9 | 24.7 | 25.0 | 26.6 | 27.8 | 29.0 |
| Total | 88.1 | 92.7 | 98.8 | 103.8 | 108.5 | 114.5 | 119.7 |
| 5. Public and Private Sector | | | | | | | |
| Male | 218.7 | 219.6 | 220.4 | 225.9 | 228.5 | 230.5 | 235.3 |
| Female | 51.2 | 53.1 | 55.1 | 55.8 | 58.6 | 59.5 | 60.5 |
| Total | 269.9 | 272.8 | 275.5 | 281.7 | 287.1 | 290.0 | 295.8 |

Source: Directorate General of Employment, Ministry of Labour & Employment

Notes:

1. Excludes Sikkim, Arunachal Pradesh, Dadra & Nagar Haveli and Lakshadweep as these are not yet covered under the programme.
2. Industry-wise break-up may not tally with public sector, private sector and grand total due to non-inclusion of data as per NIC 1998, in respect of J&K, Manipur and Daman & Diu in 2012.

Table 3.2. Performance of Central Public Sector Enterprises

| Particulars | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| No. of Operating Enterprises | 217 | 214 | 213 | 217 | 220 | 225 | 230 | 234 | 236 | 244 |
| Capital Employed | 660630 | 724009 | 792232 | 908007 | 1153833 | 1337821 | 1508177 | 1710453 | 1833274 | 1938795 |
| Total Gross Turnover/ Revenue | 964890 | 1096308 | 1271536 | 1244805 | 1498018 | 1822049 | 1945814 | 2066057 | 1995176 | 1854667 |
| Total Net Income/Revenue | 970357 | 1102772 | 1309639 | 1272219 | 1470569 | 1804614 | 1931186 | 2056336 | 1965638 | 1764749 |
| Net Worth | 452613 | 518485 | 583144 | 652993 | 709498 | 776162 | 850921 | 926663 | 962518 | 1002749 |
| Profit before dep., Impairment, Int., Exc. Items, Ex. Ord. Items, & Taxes (PBDIET) | 177990 | 195049 | 186836 | 211184 | 216602 | 250654 | 255936 | 289361 | 270400 | 280254 |
| Depreciation, Depletion & Amortization (DRE)/Impairment | 38982 | 42470 | 44441 | 51168 | 57118 | 63591 | 66109 | 69817 | 77500 | 74631 |
| Profit before Interest, Exc. Items, Ex. Ord. Items & Taxes (PBIEET) | 5841 | 5802 | 7661 | 9565 | 187 | 154 | 436 | 851 | 554 | 409 |
| Interest | 139008 | 152579 | 142395 | 160017 | 159298 | 186910 | 189390 | 218693 | 192346 | 205213 |
| Profit before Exp. Items Ex. Or. Items & Taxes (PBEET) | 27481 | 32126 | 39300 | 36060 | 26521 | 36152 | 38184 | 51638 | 44942 | 48373 |
| Exceptional Items | 111528 | 120453 | 103095 | 123957 | 132777 | 150758 | 151207 | 167055 | 147412 | 156841 |
| Profit before Ex. Or. Items & Tax. (PBET) | 0 | 0 | 0 | 0 | -1479 | 3957 | -13525 | -14618 | -1335 | 5580 |
| Extra-Ordinary Items | 0 | 0 | 0 | 0 | 134256 | 146801 | 164732 | 181673 | 148747 | 151261 |
| Profit Before Tax (PBT) | -3553 | -2549 | -2684 | -8280 | -2695 | -428 | -1276 | -1550 | -1394 | -8865 |
| Tax Provisions | 115407 | 122023 | 117695 | 132222 | 136951 | 147230 | 166008 | 183223 | 150141 | 160126 |
| Net Profit/Loss after Tax from Continuing Operations | 34352 | 40749 | 33828 | 40018 | 44871 | 48985 | 51025 | 55178 | 47230 | 44638 |
| Net Profit/Loss after Tax from Discontinuing Operations | 81055 | 81274 | 83867 | 92203 | 92079 | 98245 | 114982 | 128045 | 102911 | 115488 |
| Overall Net Profit/Loss | 0 | 0 | 0 | 0 | 49 | 1 | -1 | 250 | -45 | 279 |
| Profit of Profit-making CPSEs | 81055 | 81274 | 83867 | 92203 | 92129 | 98246 | 114981 | 128295 | 102866 | 115767 |
| Loss of Loss incurring CPSEs | 89581 | 91577 | 98488 | 108434 | 113944 | 125929 | 143543 | 149636 | 130364 | 144523 |
| Profit – making CPSEs (No.) | -8526 | -10303 | -14621 | -16231 | -21816 | -27683 | -28562 | -21341 | -27498 | -28756 |
| Loss – incurring CPSEs (No.) | 154 | 160 | 158 | 157 | 158 | 161 | 151 | 164 | 159 | 165 |
| CPSEs making no Profit/Loss (No.) | 61 | 54 | 55 | 60 | 62 | 64 | 78 | 70 | 76 | 78 |
| Dividend | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Dividend Tax | 26819 | 28123 | 25501 | 33223 | 35700 | 42627 | 49703 | 65115 | 56527 | 70954 |
| | 4107 | 4722 | 4132 | 5151 | 5372 | 5877 | 6704 | 8709 | 8642 | 11086 |

Source: Department of Public Enterprises

Table 4.1. Scheduled Commercial Banks: Seasonal Flow of Funds

| Items | 2008-09 | | 2009-10 | | 2010-11 | | 2011-12 | | 2012-13 | | 2013-14 | | 2014-15 | | 2015-16 | | 2016-17 (P) | |
|--|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|---------|-------------|--------|
| | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 | H1 | H2 |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |
| Sources | | | | | | | | | | | | | | | | | | |
| 1. Increase in aggregate deposits | 242388 | 394782 | 284494 | 374223 | 218449 | 496694 | 326878 | 374235 | 383090 | 458282 | 399896 | 555210 | 347996 | 479730 | 375101 | 418903 | 766357 | 665404 |
| 2. Increase in borrowings from RBI | 2094 | 5633 | -11728 | 42 | 2274 | 2716 | -2333 | 6057 | 7713 | 5120 | 20640 | -615 | 43092 | 73497 | -94166 | 168431 | -198100 | -12557 |
| 3. Increase in other borrowings@ | 5900 | 1532 | -19495 | 9836 | 15677 | 11386 | 40853 | 34260 | -5384 | 20594 | 32942 | -33569 | -33371 | 38205 | 15126 | 57980 | -4124 | 21467 |
| 4. Increase in other demand and time liabilities | -1886 | 11051 | 11635 | 10265 | 1068 | 11317 | 18100 | 13484 | 1706 | 36539 | -2597 | 29294 | 2635 | 16235 | -4457 | 51297 | -45890 | 6169 |
| 5. Residual (Net) | 20077 | -89931 | 31894 | 44908 | 47277 | 49845 | 6660 | 97635 | -25620 | -1757 | 36734 | -58126 | -62017 | -20456 | 19919 | -142805 | -12192 | -66041 |
| Total | 268573 | 323068 | 296800 | 439273 | 284744 | 571958 | 390158 | 525671 | 361505 | 518777 | 487615 | 492194 | 298334 | 587210 | 311523 | 553807 | 506051 | 614442 |
| Uses | | | | | | | | | | | | | | | | | | |
| 1. Increase in bank credit | 189112 | 224524 | 99121 | 370118 | 180440 | 51685 | 152743 | 517026 | 151888 | 496718 | 341562 | 392075 | 123970 | 418354 | 149471 | 563723 | 245253 | 344539 |
| 2. Increase in investments | 12844 | 181852 | 205675 | 12667 | 89454 | 27413 | 200747 | 35421 | 209966 | 58351 | 105416 | 101300 | 150982 | 128023 | 150061 | -16378 | 231321 | 174127 |
| 3. Increase in cash in hand | 5438 | -3201 | 4518 | 779 | 4475 | 293 | 5665 | 119 | 4660 | -299 | 2256 | 3123 | 3392 | 4093 | 5075 | -991 | 4512 | -590 |
| 4. Increase in balances with RBI | 61179 | -80107 | -12514 | 55709 | 10375 | 27398 | 31003 | -26896 | -5010 | -35993 | 38381 | -4304 | 19989 | 36740 | 6916 | 7452 | 24964 | 96367 |
| Total | 268573 | 323068 | 296800 | 439273 | 284744 | 571958 | 390158 | 525671 | 361505 | 518777 | 487615 | 492194 | 298334 | 587210 | 311523 | 553807 | 506051 | 614442 |

Source: Reserve Bank of India

Notes:

H1 : April to September

H2 : October to March

(P): Provisional.

@ : Excludes borrowings from RBI, IDBI, EXIM Bank and NABARD.

1. Data on aggregate deposits also reflect redemption of Resurgent India Bonds (RIBs) of ₹ 226.93 billion, since October 1, 2003.

2. Residual (net) is the balance of Uses of Funds over Sources of Funds and includes borrowings from RBI, IDBI, EXIM Bank and NABARD.

3. The data relate to last reporting Fridays.

4. Figures may not add up to totals due to rounding off.

5. Data for March 31, 2017 are provisional.

Table 4.2. Scheduled Commercial Banks: Variations in Selected Items

| Items | (₹ Crore) | | | | | | | | | | |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|-------------------|
| | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Outstanding as on |
| | Mar 30 to Mar 28 | Mar 28 to Mar 27 | Mar 27 to Mar 26 | Mar 26 to Mar 25 | Mar 25 to Mar 23 | Mar 23 to Mar 22 | Mar 22 to Mar 21 | Mar 21 to Mar 20 | Mar 20 to Mar 18 | Mar 18 to Mar 31 (P) | May 26, 2017 (P) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1.Demand deposits | 94579 | -1225 | 122525 | -3904 | -16376 | 36969 | 51622 | 80108 | 94967 | 392861 | 1087343 |
| 2.Time deposits* @ | 490427 | 638395 | 536191 | 719048 | 717488 | 804402 | 903484 | 747617 | 699038 | 1038899 | 9466548 |
| 3.Aggregate deposits @ | 585006 | 637170 | 658716 | 715143 | 701113 | 841371 | 955106 | 827725 | 794005 | 1431760 | 10553889 |
| 4 Borrowings from RBI | -2245 | 7728 | -11686 | 4989 | 3723 | 12833 | 20026 | 116589 | 74265 | -210657 | 2285 |
| 5. Cash in hand & balances with RBI | 78805 | -16690 | 48492 | 42541 | 9891 | -36642 | 39456 | 64215 | 18452 | 125252 | 497930 |
| 6. Investments in Govt.securities | 182603 | 197124 | 222609 | 118753 | 237870 | 268636 | 207541 | 278557 | 539991 | 194524 | 3225859 |
| 7. Bank credit | 430724 | 413636 | 469239 | 697295 | 669769 | 648607 | 733637 | 542325 | 713194 | 589792 | 7598482 |

Source: Reserve Bank of India.

Notes:

(P): Provisional

* : Revised in line with the new accounting standards and are consistent with the methodology suggested by the Working Group on Money Supply : Analytics and Methodology of Compilation (June 1998) from 1998-99 onwards.

The revision is in respect of pension and provident funds with commercial banks which are classified as other demand and time liabilities and includes those banks which have reported such changes so far.

@: Data also reflect redemption of Resurgent India Bonds of ₹ 226.93 billion, since October 2003.

Table 4.3. Scheduled Commercial Banks' Outstanding Advances against Sensitive Commodities

| Commodities | March 2012 | March 2013 | March 2014 | October 2014 | March 2015 | October 2015 | March 2016 | October 2016 | Variation during March 2016 over March 2015 | Variation during October 2015 over March 2015 | Variation during October 2016 over March 2016 |
|-------------------------|------------|------------|------------|--------------|------------|--------------|------------|--------------|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1 Paddy & Rice | 18314 | 23218 | 25911 | 24803 | 30068 | 27588 | 31373 | 30240 | 1305 | -2480 | -1133 |
| 2 Wheat | 3000 | 4016 | 4146 | 6777 | 6710 | 5649 | 6568 | 7722 | -142 | -1061 | 1154 |
| 3 Other Foodgrains | 2303 | 2696 | 3368 | 3497 | 4195 | 4501 | 7402 | 7544 | 3207 | 306 | 142 |
| 4 Pulses | 3594 | 4031 | 3395 | 3552 | 4497 | 3956 | 4865 | 4539 | 368 | -541 | -326 |
| 5 Sugar | 15718 | 15451 | 15940 | 13518 | 14863 | 13979 | 16544 | 15785 | 1681 | -884 | -759 |
| 6 Khandasari | 330 | 446 | 402 | 260 | 378 | 298 | 431 | 296 | 53 | -80 | -135 |
| 7 Gur | 212 | 361 | 410 | 355 | 382 | 243 | 245 | 134 | -137 | -139 | -111 |
| 8 Groundnut | 478 | 558 | 658 | 1654 | 1810 | 1412 | 1733 | 1700 | -77 | -398 | -33 |
| 9 Rapeseed/Mustard Seed | 528 | 478 | 790 | 855 | 574 | 586 | 578 | 1159 | 4 | 12 | 581 |
| 10 Linseed | 16 | 15 | 18 | 17 | 14 | 13 | 13 | 4 | -1 | -1 | -9 |
| 11 Castorseed | 163 | 298 | 651 | 617 | 568 | 583 | 570 | 600 | 2 | 15 | 30 |
| 12 Cottonseed | 259 | 407 | 375 | 254 | 433 | 357 | 656 | 415 | 223 | -76 | -240 |
| 13 Soyabean | 1359 | 1200 | 1778 | 797 | 1382 | 1088 | 2361 | 2660 | 979 | -294 | 299 |
| 14 Other Oilseed | 775 | 880 | 903 | 851 | 930 | 1013 | 905 | 1383 | -25 | 83 | 478 |
| 15 Groundnut Oil | 810 | 861 | 834 | 765 | 785 | 723 | 791 | 403 | 6 | -62 | -388 |
| 16 Rapeseed/Mustard Oil | 386 | 631 | 383 | 369 | 472 | 315 | 426 | 858 | -46 | -157 | 432 |
| 17 Linseed Oil | 10 | 41 | 61 | 50 | 65 | 57 | 39 | 28 | -26 | -8 | -11 |
| 18 Castor Oil | 456 | 447 | 492 | 435 | 437 | 405 | 379 | 742 | -58 | -32 | 363 |
| 19 Cottonseed Oil | 639 | 423 | 731 | 584 | 695 | 616 | 614 | 528 | -81 | -79 | -86 |
| 20 Soyabean Oil | 1321 | 1959 | 1504 | 1297 | 1561 | 1498 | 1377 | 1661 | -184 | -63 | 284 |
| 21 Other Vegetable Oil | 1587 | 2012 | 1569 | 1233 | 1444 | 4002 | 2281 | 2221 | 837 | 2558 | -60 |
| 22 Vanaspati Oil | 484 | 338 | 537 | 383 | 434 | 252 | 342 | 515 | -92 | -182 | 173 |
| 23 Cotton and Kapas | 15562 | 15903 | 16602 | 16666 | 18881 | 17706 | 19823 | 17309 | 942 | -1175 | -2514 |
| 24 Raw Jute | 639 | 521 | 551 | 641 | 740 | 651 | 673 | 929 | -67 | -89 | 256 |
| Total | 68943 | 77191 | 82009 | 80232 | 92320 | 87489 | 100994 | 99376 | 8674 | -4831 | -1618 |

Source: Reserve Bank of India

Notes:

1. Effective from October 10, 2000 all commodities except unreleased stocks of levy sugar stand exempted from selective credit controls.

2. Figures may not add up to total due to rounding.

3. Data for 2016 is provisional

Table 4.4. Number of Functioning Branches of Commercial Banks - Bank Group-wise

Branches as on June 30

| | 2012 | 2013 | 2014 | 2015 | 2016 | | % of Rural branches to Total |
|---------------------------|--------|--------|--------|--------|--------|-------|------------------------------------|
| | Total | Total | Total | Total | Total | Rural | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| SBI and its Associates | 20797 | 22015 | 23710 | 24576 | 25362 | 7705 | 30.4 |
| Nationalised Banks | 50231 | 54206 | 60394 | 64360 | 66578 | 20370 | 30.6 |
| Other Public Sector Banks | 1014 | 1147 | 1476 | 1862 | 2154 | 415 | 19.3 |
| Foreign Banks | 332 | 342 | 324 | 330 | 332 | 7 | 2.1 |
| Regional Rural Banks | 17259 | 18231 | 19471 | 20484 | 21224 | 14605 | 68.8 |
| Local Area Banks | 69 | 79 | 89 | 105 | 127 | 35 | 27.6 |
| Private Sector Banks | 14270 | 16692 | 18934 | 20714 | 23629 | 4484 | 19.0 |
| Total | 103972 | 112712 | 124398 | 132431 | 139406 | 47621 | 34.2 |

Source: RBI

Notes:

1. Data include 'Administrative Offices'
2. Population groups are defined as follows: 'Rural' includes centres with population of less than 10,000, 'Semi-Urban' includes centres with population of 10,000 and above but less than of one lakh, 'Urban' includes centres with population of one lakh and above but less than of ten lakhs, and 'Metropolitan' includes centres with population of 10 lakhs and above. All population figures are as per census 2011.
3. 'Public Sector banks' comprises of State Bank of India and its' associates, Nationalized banks, 'Other Public Sector Banks' and Regional Rural Banks.
4. "State Bank of India and its Associates" comprises of State Bank of India, State Bank of Bikaner And Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala, State Bank of Travancore.
5. Source: Master Office File (MOF) System, Department of Statistics and Information Management, Reserve Bank of India. MOF data are dynamic in nature. It is updated based on information as received from banks. It remains provisional because reporting of good many newly opened branches in recent period remain in the pipeline before capturing it in the MOF System."

Table 4.5. Advances to Agriculture and Other Priority Sectors by Public Sector Banks

| Sectors | Number of of Accounts (in thousands) | | | | Amount Outstanding (₹ Crore) | | | |
|---|--------------------------------------|-------|-------|-------|------------------------------|---------|---------|---------|
| | March | March | March | March | March | March | March | March |
| | 2013 | 2014 | 2015 | 2016 | 2013 | 2014 | 2015 | 2016 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Agriculture | 43947 | 48336 | 51231 | 51363 | 531701 | 702541 | 743577 | 902331 |
| (a) Direct Finance ^a | 43167 | 47581 | 50535 | na | 447094 | 525652 | 580164 | na |
| (b) Indirect Finance ^a | 780 | 755 | 696 | na | 84607 | 176889 | 163413 | na |
| 2. Small Scale Industries ^b | | | | | | | | |
| 3. Micro & Small Enterprises | 7478 | 8358 | 8329 | 10592 | 478361 | 593410 | 647855 | 733164 |
| 4. Setting up of Industrial Estates | | | | | | | | |
| 5. Small road & water transport Operators | | | | | | | | |
| 6. Retail Trade | | | | | | | | |
| 7. Small Business | | | | | | | | |
| 8. Professional & self employed persons | | | | | | | | |
| 9. Micro Credit | | | | | | | | |
| 10. Education | 2479 | 2555 | 2536 | 2435 | 50927 | 55112 | 56997 | 59306 |
| 11. Consumption | | | | | | | | |
| 12. State sponsored Corpn/Organisations for on lending to Other Priority Sector | | | | | | | | |
| 13. State sponsored organisation for SC/ST purchase & supply of inputs & marketing of outputs | | | | | | | | |
| 14. Housing Loans | 3929 | 4009 | 4082 | 4187 | 213892 | 235484 | 247887 | 273835 |
| 15. Funds provided to RRBs | | | | | | | | |
| 16. Advances to Self Help Groups | | | | | | | | |
| 17. Advances to Software Industries | | | | | | | | |
| 18. Advances to Food & Agro Processing Sector | | | | | | | | |
| 19. Investment in Venture Capital | | | | | | | | |
| 20. Total Priority Sector Advances ^c | 58804 | 64346 | 67151 | 69305 | 1283411 | 1602907 | 1707489 | 1981256 |
| 21. ANBC ^d | | | | | 3530808 | 4110591 | 4584973 | 5056594 |
| Percentage to ANBC | | | | | | | | |
| 1. Agriculture | | | | | 15.06 | 17.09 | 16.22 | 17.84 |
| (a) Direct Finance ^a | | | | | 12.66 | 12.79 | 12.65 | |
| (b) Indirect Finance ^a | | | | | 2.40 | 4.30 | 3.56 | |
| 2. Small Scale Industries ^b | | | | | | | | |
| 3. Micro & Small Enterprises | | | | | 13.55 | 14.44 | 14.13 | 14.50 |
| 4. Setting up of Industrial Estates | | | | | | | | |
| 5. Small road & water transport Operators | | | | | | | | |
| 6. Retail Trade | | | | | | | | |
| 7. Small Business | | | | | | | | |

Contd....

Table 4.5. Advances to Agriculture and Other Priority Sectors by Public Sector Banks (Contd....)

| Sectors | Number of of Accounts (in thousands) | | | | Amount Outstanding (₹ Crore) | | | |
|---|--------------------------------------|-------|-------|-------|------------------------------|-------|-------|-------|
| | March | March | March | March | March | March | March | March |
| | 2013 | 2014 | 2015 | 2016 | 2013 | 2014 | 2015 | 2016 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 8. Professional & self employed persons | | | | | | | | |
| 9. Micro Credit | | | | | | | | |
| 10. Education | | | | | 1.44 | 1.34 | 1.24 | 1.17 |
| 11. Consumption | | | | | | | | |
| 12. State sponsored corps/Organisations for on lending to Other Priority Sector | | | | | | | | |
| 13. State sponsored organisation for SC/ST purchase & supply of inputs & marketing of outputs | | | | | | | | |
| 14. Housing Loans | | | | | 6.06 | 5.73 | 5.41 | 5.42 |
| 15. Funds provided to RRBs | | | | | | | | |
| 16. Advances to Self Help Groups | | | | | | | | |
| 17. Advances to Software Industries | | | | | | | | |
| 18. Advances to Food & Agro Processing Sector | | | | | | | | |
| 19. Investment in Venture Capital | | | | | | | | |
| 20. Total Priority Sector Advances | | | | | 36.35 | 38.99 | 37.24 | 39.18 |

Source: Reserve Bank of India

Notes:

na : not available

a : Excludes advances to plantations other than development finance

b : Includes small business

c : Total priority sector advances is the total of items 1 to 12 & 14 to 17 and half of item 13

d : ANBC stands for Adjusted Net Bank Credit

Table 4.6: State-wise Number of Reporting Bank-offices, Deposit and Bank Credit of SCBs and Percentage Share of Advances to Priority Sectors by PSBs

| States or UTs | | Number of Reporting Bank Offices * | | Deposit (₹ crore) | | Credit (₹ crore) | | Percentage share of advances to priority sector in total bank credit of PSBs (P) | |
|---------------|---------------------------|------------------------------------|----------------|-------------------|----------------|------------------|----------------|--|----------------|
| | | March 2016 | September 2016 | March 2016 | September 2016 | March 2016 | September 2016 | March 2016 | September 2016 |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | Andaman & Nicobar Islands | 63 | 65 | 3325 | 3692 | 1409 | 1481 | 55 | na |
| 2 | Andhra Pradesh | 6485 | 6594 | 213266 | 228478 | 222899 | 233650 | 70 | na |
| 3 | Arunachal Pradesh | 141 | 148 | 8879 | 9211 | 2539 | 2650 | 33 | na |
| 4 | Assam | 2177 | 2221 | 103795 | 106120 | 42671 | 46063 | 57 | na |
| 5 | Bihar | 6379 | 6489 | 245223 | 254309 | 81246 | 85880 | 66 | na |
| 6 | Chandigarh | 396 | 400 | 56231 | 57130 | 55923 | 58865 | 20 | na |
| 7 | Chhattisgarh | 2317 | 2357 | 104054 | 109436 | 66067 | 68036 | 39 | na |
| 8 | Dadra & Nagar Haveli | 54 | 56 | 3083 | 3379 | 2814 | 1202 | 69 | na |
| 9 | Daman & Diu | 47 | 47 | 3820 | 4039 | 874 | 914 | 76 | na |
| 10 | Goa | 658 | 671 | 56559 | 59109 | 15044 | 15333 | 54 | na |
| 11 | Gujarat | 7303 | 7507 | 522407 | 550358 | 392377 | 398218 | 39 | na |
| 12 | Haryana | 4505 | 4617 | 253707 | 273973 | 178241 | 170955 | 58 | na |
| 13 | Himachal Pradesh | 1497 | 1521 | 66793 | 73395 | 22500 | 23439 | 65 | na |
| 14 | Jammu & Kashmir | 1687 | 1714 | 81122 | 85487 | 35484 | 37249 | 49 | na |
| 15 | Jharkhand | 2819 | 2867 | 162469 | 171234 | 46635 | 46408 | 56 | na |
| 16 | Karnataka | 9469 | 9745 | 704274 | 732348 | 490850 | 496626 | 48 | na |
| 17 | Kerala | 6166 | 6259 | 363511 | 385614 | 224800 | 240596 | 60 | na |
| 18 | Lakshadweep | 13 | 13 | 880 | 913 | 79 | 77 | 61 | na |
| 19 | Madhya Pradesh | 6148 | 6256 | 286913 | 285593 | 173308 | 180823 | 60 | na |
| 20 | Maharashtra | 11789 | 12023 | 2177596 | 2210712 | 2235305 | 2216029 | 27 | na |
| 21 | Manipur | 147 | 157 | 6054 | 5950 | 2495 | 2778 | 50 | na |
| 22 | Meghalay | 317 | 341 | 18411 | 18286 | 4523 | 4878 | 40 | na |
| 23 | Mizoram | 168 | 172 | 5957 | 6180 | 2373 | 2481 | 56 | na |
| 24 | Nagaland | 151 | 155 | 7796 | 8031 | 2637 | 2785 | 35 | na |
| 25 | Nct of Delhi | 3408 | 3482 | 976166 | 1054836 | 970597 | 924928 | 11 | na |
| 26 | Odisha | 4528 | 4614 | 212055 | 224984 | 85607 | 85483 | 49 | na |
| 27 | Puducherry | 231 | 231 | 12686 | 14185 | 8426 | 8773 | 62 | na |
| 28 | Punjab | 6053 | 6169 | 293084 | 307211 | 205540 | 198761 | 57 | na |
| 29 | Rajasthan | 6648 | 6822 | 260432 | 278585 | 190794 | 196698 | 65 | na |
| 30 | Sikkim | 127 | 130 | 6275 | 6505 | 1679 | 1832 | 62 | na |
| 31 | Tamil Nadu | 9939 | 10117 | 604539 | 636925 | 682310 | 684615 | 47 | na |
| 32 | Telangana | 4807 | 4911 | 358650 | 375645 | 371581 | 372831 | 29 | na |
| 33 | Tripura | 412 | 428 | 17514 | 18498 | 6083 | 6621 | 72 | na |
| 34 | Uttar Pradesh | 16018 | 16233 | 749371 | 786674 | 327749 | 327643 | 60 | na |
| 35 | Uttarkhand | 1954 | 1989 | 97521 | 104290 | 33617 | 35404 | 85 | na |
| 36 | West Bengal | 7566 | 7742 | 615552 | 645226 | 333854 | 336877 | 36 | na |
| | All India | 132587 | 135263 | 9659968 | 10096540 | 7520929 | 7517886 | 39 | na |

Sources: RBI

Notes:

SCBs: Scheduled Commercial Banks

PSBs: Public Sector Banks

na: Not available

(P): Data for March 2016 is provisional

*The number of reporting bank offices are number of branches / offices, which reported the data and does not necessarily relates to all branches.

1. Data are as per the latest geographical boundaries as updated in the MOF system. Data correspondence to 'Andhra Pradesh' relate to divided Andhra Pradesh.
2. Source: Quarterly statistics on Deposits and Credit of Scheduled Commercial Banks (Basic Statistical Return (BSR)-7)
3. Share of Priority sector advances based on the Annual returns received from Public Sector Banks.

Table 5.1. Index Numbers of Wholesale Prices

| | Index Numbers of Wholesale Prices | | | | | | | | | | | | | |
|--|-----------------------------------|---------------|-------------------|------------|--------------|---------------|-----------------------|-------------------------------|---------------------------------------|---------------------------|-----------------|-------------|-------------|-------------|
| | Primary articles | | | | Fuel & power | | Manufactured products | | | | All commodities | | | |
| | Total | Food articles | Non-Food articles | Minerals | Total | Food products | Textiles | Chemicals & chemical products | Basic metals, alloys & metal products | Machinery & machine tools | All commodities | | | |
| | Total | Food grains | Food articles | | | | | | | | | | | |
| Weight-Base: (2004-05=100) | 20.1 | 14.3 | 4.1 | 4.3 | 1.5 | 14.9 | 65.0 | 10.0 | 7.3 | 12.0 | 10.7 | 8.9 | 100.0 | 100.0 |
| Weight-Base: (2011-12=100) | 22.6 | 15.3 | 3.5 | 4.1 | 0.8 | 13.2 | 64.2 | 9.1 | 4.9 | 6.5 | 9.6 | 4.8 | 100.0 | 100.0 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (14) |
| Last month of (2004-05 = 100) | | | | | | | | | | | | | | |
| 2005-06 | 104 | 105 | 113 | 97 | 119 | 117 | 104 | 102 | 100 | 105 | 103 | 105 | 105.7 | 105.7 |
| 2006-07 | 118 | 119 | 126 | 107 | 135 | 119 | 110 | 107 | 101 | 110 | 116 | 112 | 112.8 | 112.8 |
| 2007-08 | 129 | 126 | 137 | 124 | 173 | 127 | 118 | 116 | 101 | 116 | 138 | 115 | 121.5 | 121.5 |
| 2008-09 | 136 | 136 | 152 | 125 | 168 | 123 | 120 | 123 | 103 | 116 | 130 | 118 | 123.5 | 123.5 |
| 2009-10 | 166 | 164 | 172 | 150 | 232 | 140 | 126 | 142 | 112 | 120 | 133 | 120 | 136.3 | 136.3 |
| 2010-11 | 188 | 179 | 176 | 191 | 267 | 158 | 136 | 145 | 132 | 129 | 148 | 123 | 149.5 | 149.5 |
| 2011-12 | 208 | 197 | 186 | 190 | 359 | 178 | 143 | 154 | 128 | 139 | 163 | 126 | 161.0 | 161.0 |
| 2012-13 | 223 | 214 | 216 | 208 | 352 | 192 | 149 | 166 | 133 | 146 | 165 | 129 | 170.1 | 170.1 |
| 2013-14 | 239 | 235 | 231 | 218 | 346 | 214 | 154 | 169 | 143 | 153 | 168 | 133 | 180.3 | 180.3 |
| 2014-15 | 239 | 249 | 236 | 203 | 243 | 188 | 154 | 170 | 140 | 151 | 162 | 135 | 176.1 | 176.1 |
| 2015-16 | 246 | 260 | 260 | 220 | 193 | 172 | 154 | 180 | 140 | 150 | 153 | 135 | 175.3 | 175.3 |
| 2016-17 | 259 | 269 | 270 | 231 | 247 | 204 | 159 | 192 | 143 | 152 | 161 | 135 | 185.8 | 185.8 |
| Last month of (2011-12 = 100) | | | | | | | | | | | | | | |
| 2012-13 | 115 | 114 | 120 | 120 | 122 | 110 | 106 | 109 | 107 | 110 | 103 | 105 | 108.6 | 108.6 |
| 2013-14 | 121 | 123 | 127 | 118 | 115 | 119 | 111 | 116 | 114 | 116 | 105 | 108 | 114.3 | 114.3 |
| 2014-15 | 120 | 129 | 129 | 112 | 112 | 92 | 110 | 113 | 110 | 114 | 100 | 109 | 109.9 | 109.9 |
| 2015-16 | 123 | 133 | 141 | 117 | 116 | 77 | 109 | 117 | 109 | 111 | 89 | 109 | 107.7 | 107.7 |
| 2016-17 | 127 | 138 | 147 | 122 | 115 | 94 | 112 | 127 | 113 | 112 | 96 | 108 | 113.2 | 113.2 |
| Average of months (2004-05 = 100) | | | | | | | | | | | | | | |
| 2005-06 | 104 | 105 | 107 | 97 | 115 | 114 | 102 | 101 | 99 | 104 | 102 | 104 | 104.5 | 104.5 |
| 2006-07 | 114 | 116 | 122 | 102 | 137 | 121 | 108 | 107 | 101 | 109 | 112 | 110 | 111.4 | 111.4 |
| 2007-08 | 124 | 124 | 131 | 114 | 153 | 121 | 113 | 110 | 102 | 113 | 123 | 114 | 116.6 | 116.6 |
| 2008-09 | 138 | 135 | 145 | 129 | 187 | 135 | 120 | 120 | 103 | 118 | 138 | 117 | 126.0 | 126.0 |
| 2009-10 | 155 | 155 | 166 | 136 | 203 | 132 | 123 | 136 | 107 | 118 | 130 | 118 | 130.8 | 130.8 |

Contd...

Table 5.1. Index Numbers of Wholesale Prices (Contd....)

| | Primary articles | | | | Fuel & power | Manufactured products | | | | All commodities | | | |
|-----------------------------------|------------------|---------------|-----|-------------------|--------------|-----------------------|-------|---------------|----------|-----------------|-------------------------------|---------------------------------------|---------------------------|
| | Total | Food articles | | Non-Food articles | | Minerals | Total | Food products | Textiles | | Chemicals & chemical products | Basic metals, alloys & metal products | Machinery & machine tools |
| | | | | | | | | | | | | | |
| Weight-Base: (2004-05=100) | 20.1 | 14.3 | 4.1 | 4.3 | 1.5 | 14.9 | 65.0 | 10.0 | 7.3 | 12.0 | 10.7 | 8.9 | 100.0 |
| Weight-Base: (2011-12=100) | 22.6 | 15.3 | 3.5 | 4.1 | 0.8 | 13.2 | 64.2 | 9.1 | 4.9 | 6.5 | 9.6 | 4.8 | 100.0 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| 2010-11 | 182 | 180 | 174 | 167 | 253 | 148 | 130 | 141 | 120 | 124 | 141 | 121 | 143.3 |
| 2011-12 | 200 | 193 | 181 | 183 | 321 | 169 | 140 | 151 | 129 | 135 | 156 | 125 | 156.1 |
| 2012-13 | 220 | 212 | 207 | 202 | 347 | 186 | 147 | 163 | 131 | 144 | 166 | 128 | 167.6 |
| 2013-14 | 242 | 239 | 226 | 213 | 346 | 205 | 151 | 169 | 139 | 149 | 165 | 132 | 177.6 |
| 2014-15 | 249 | 253 | 235 | 212 | 309 | 203 | 155 | 173 | 143 | 153 | 166 | 135 | 181.2 |
| 2015-16 | 250 | 262 | 253 | 220 | 216 | 180 | 153 | 174 | 140 | 151 | 155 | 135 | 176.7 |
| 2016-17 | 262 | 275 | 281 | 230 | 220 | 190 | 157 | 191 | 142 | 151 | 156 | 135 | 183.2 |
| Average of months (2011-12 = 100) | | | | | | | | | | | | | |
| 2012-13 | 111 | 111 | 115 | 113 | 118 | 107 | 105 | 109 | 104 | 108 | 105 | 104 | 106.9 |
| 2013-14 | 122 | 125 | 125 | 118 | 114 | 115 | 109 | 114 | 112 | 113 | 103 | 106 | 112.5 |
| 2014-15 | 125 | 132 | 128 | 115 | 119 | 108 | 111 | 116 | 113 | 116 | 104 | 108 | 113.9 |
| 2015-16 | 125 | 135 | 137 | 118 | 106 | 87 | 109 | 115 | 109 | 113 | 92 | 109 | 109.7 |
| 2016-17 | 129 | 140 | 152 | 122 | 113 | 86 | 111 | 125 | 111 | 111 | 91 | 108 | 111.6 |
| 2015-16 | | | | | | | | | | | | | |
| April | 122 | 131 | 130 | 112 | 107 | 91 | 110 | 113 | 109 | 114 | 99 | 109 | 110.2 |
| May | 123 | 132 | 132 | 116 | 103 | 96 | 111 | 113 | 110 | 115 | 98 | 110 | 111.4 |
| June | 125 | 134 | 133 | 117 | 108 | 96 | 110 | 113 | 110 | 115 | 97 | 111 | 111.8 |
| July | 124 | 134 | 134 | 116 | 105 | 94 | 110 | 113 | 110 | 114 | 95 | 110 | 111.1 |
| August | 125 | 136 | 135 | 118 | 105 | 88 | 109 | 114 | 110 | 113 | 92 | 110 | 110.0 |
| September | 126 | 136 | 137 | 119 | 108 | 86 | 109 | 114 | 109 | 113 | 92 | 108 | 109.9 |
| October | 126 | 138 | 140 | 120 | 95 | 86 | 109 | 115 | 109 | 113 | 92 | 109 | 110.1 |
| November | 127 | 139 | 141 | 121 | 100 | 86 | 109 | 115 | 108 | 112 | 89 | 109 | 109.9 |
| December | 127 | 138 | 142 | 122 | 120 | 85 | 108 | 115 | 109 | 111 | 87 | 109 | 109.4 |
| January | 124 | 136 | 142 | 121 | 99 | 80 | 108 | 116 | 108 | 111 | 87 | 108 | 108.0 |
| February | 122 | 133 | 141 | 118 | 102 | 76 | 108 | 116 | 109 | 111 | 87 | 108 | 107.1 |

Contd....

| Table 5.1. Index Numbers of Wholesale Prices | | | | | | | | | | | | | | | (Contd.....) |
|--|------------------|---------------|-----|-------------------|--------------|-------|-----------------------|----------|-------------------------------|---------------------------------------|---------------------------|-----------------|-------|--|--------------|
| | Primary articles | | | | Fuel & power | | Manufactured products | | | | | All commodities | | | |
| | Total | Food articles | | Non-Food articles | Minerals | Total | Food products | Textiles | Chemicals & chemical products | Basic metals, alloys & metal products | Machinery & machine tools | | | | |
| | | | | | | | | | | | | | | | |
| Weight-Base: (2004-05=100) | 20.1 | 14.3 | 4.1 | 4.3 | 1.5 | 14.9 | 65.0 | 10.0 | 7.3 | 12.0 | 10.7 | 8.9 | 100.0 | | |
| Weight-Base: (2011-12=100) | 22.6 | 15.3 | 3.5 | 4.1 | 0.8 | 13.2 | 64.2 | 9.1 | 4.9 | 6.5 | 9.6 | 4.8 | 100.0 | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | | |
| March | 123 | 133 | 141 | 117 | 116 | 77 | 109 | 117 | 109 | 111 | 89 | 109 | 107.7 | | |
| 2016-17 | | | | | | | | | | | | | | | |
| April | 126 | 138 | 144 | 121 | 104 | 78 | 109 | 120 | 110 | 112 | 90 | 108 | 109.0 | | |
| May | 129 | 141 | 147 | 121 | 111 | 81 | 110 | 121 | 110 | 112 | 90 | 108 | 110.4 | | |
| June | 132 | 144 | 151 | 124 | 119 | 85 | 110 | 123 | 110 | 111 | 90 | 108 | 111.7 | | |
| July | 132 | 145 | 155 | 127 | 96 | 85 | 110 | 124 | 111 | 112 | 89 | 108 | 111.8 | | |
| August | 131 | 143 | 154 | 125 | 128 | 81 | 110 | 125 | 112 | 111 | 88 | 108 | 111.2 | | |
| September | 131 | 142 | 153 | 123 | 129 | 83 | 110 | 126 | 112 | 110 | 89 | 107 | 111.4 | | |
| October | 129 | 142 | 155 | 120 | 105 | 85 | 111 | 127 | 111 | 110 | 91 | 108 | 111.5 | | |
| November | 129 | 142 | 158 | 118 | 111 | 87 | 111 | 127 | 111 | 111 | 92 | 108 | 111.9 | | |
| December | 127 | 138 | 158 | 119 | 114 | 88 | 111 | 128 | 111 | 110 | 93 | 108 | 111.7 | | |
| January | 127 | 137 | 153 | 122 | 113 | 93 | 112 | 128 | 111 | 111 | 94 | 108 | 112.6 | | |
| February | 127 | 137 | 150 | 124 | 113 | 95 | 112 | 128 | 112 | 111 | 94 | 108 | 113.0 | | |
| March | 127 | 138 | 147 | 122 | 115 | 94 | 112 | 127 | 113 | 112 | 96 | 108 | 113.2 | | |

Source: Office of the Economic Adviser, Ministry of Commerce & Industry

Table 5.2. Index Numbers of Wholesale Prices – Selected Commodities and Commodity Groups

| | Rice | Wheat | Pulses | Tea | Raw cotton | Raw jute | Ground-nut seed | Coal | Mineral oils | Sugar, khandasari & gur | Edible oils | Cotton yarn | Cotton fabric | Jute, hemp & mesta textiles | Fertilizers | Cement | Iron, steel & ferro alloys ^a |
|--|------|-------|--------|-----|------------|----------|-----------------|------|--------------|-------------------------|-------------|-------------|---------------|-----------------------------|-------------|--------|---|
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| Weight-Base: (2004-05=100) | | | | | | | | | | | | | | | | | |
| 2005-06 | 105 | 117 | 126 | 92 | 91 | 159 | 94 | 118 | 122 | 112 | 93 | 98 | 98 | 114 | 103 | 106 | 97 |
| 2006-07 | 115 | 129 | 147 | 97 | 99 | 118 | 132 | 118 | 123 | 97 | 107 | 98 | 97 | 120 | 105 | 130 | 111 |
| 2007-08 | 131 | 140 | 148 | 110 | 122 | 130 | 147 | 136 | 133 | 93 | 127 | 100 | 98 | 110 | 107 | 138 | 138 |
| 2008-09 | 151 | 151 | 159 | 156 | 124 | 142 | 141 | 151 | 124 | 126 | 114 | 102 | 105 | 125 | 108 | 148 | 126 |
| 2009-10 | 163 | 173 | 199 | 129 | 149 | 173 | 153 | 163 | 147 | 178 | 114 | 123 | 109 | 157 | 110 | 151 | 127 |
| 2010-11 | 167 | 173 | 191 | 138 | 303 | 240 | 171 | 185 | 168 | 164 | 129 | 179 | 128 | 182 | 121 | 154 | 143 |
| 2011-12 | 175 | 172 | 210 | 145 | 196 | 227 | 231 | 210 | 193 | 169 | 142 | 150 | 131 | 171 | 141 | 163 | 158 |
| 2012-13 | 206 | 205 | 233 | 212 | 214 | 273 | 266 | 190 | 214 | 184 | 147 | 164 | 134 | 182 | 152 | 172 | 158 |
| 2013-14 | 232 | 218 | 228 | 170 | 234 | 270 | 197 | 190 | 237 | 178 | 147 | 185 | 142 | 187 | 153 | 164 | 161 |
| 2014-15 | 234 | 216 | 258 | 156 | 178 | 310 | 223 | 190 | 194 | 171 | 145 | 169 | 145 | 202 | 156 | 178 | 153 |
| 2015-16 | 239 | 228 | 347 | 182 | 180 | 505 | 256 | 190 | 169 | 183 | 150 | 165 | 146 | 238 | 159 | 176 | 140 |
| 2016-17 | 257 | 245 | 325 | 203 | 242 | 397 | 262 | 226 | 210 | 218 | 156 | 175 | 150 | 235 | 155 | 172 | 150 |
| Last month of (Base: 2011-12=100) | | | | | | | | | | | | | | | | | |
| 2012-13 | 119 | 123 | 115 | 141 | 100 | 124 | 121 | 103 | 116 | 112 | 100 | 109 | 106 | 107 | 116 | 105 | 102 |
| 2013-14 | 133 | 128 | 115 | 113 | 107 | 125 | 99 | 107 | 128 | 109 | 107 | 120 | 112 | 108 | 118 | 108 | 104 |
| 2014-15 | 132 | 126 | 131 | 103 | 84 | 142 | 115 | 107 | 82 | 98 | 99 | 108 | 114 | 121 | 120 | 112 | 97 |
| 2015-16 | 135 | 134 | 167 | 121 | 86 | 226 | 129 | 106 | 58 | 110 | 100 | 105 | 112 | 153 | 121 | 109 | 84 |
| 2016-17 | 148 | 143 | 154 | 133 | 114 | 188 | 138 | 116 | 84 | 133 | 108 | 114 | 113 | 147 | 117 | 109 | 91 |
| Average of months (Base: 2004-05=100) | | | | | | | | | | | | | | | | | |
| 2005-06 | 105 | 105 | 113 | 89 | 90 | 135 | 97 | 118 | 117 | 109 | 94 | 95 | 99 | 112 | 102 | 102 | 100 |
| 2006-07 | 110 | 125 | 149 | 104 | 97 | 136 | 110 | 118 | 127 | 107 | 102 | 98 | 97 | 115 | 104 | 119 | 105 |
| 2007-08 | 122 | 134 | 145 | 104 | 112 | 122 | 140 | 122 | 126 | 91 | 116 | 101 | 99 | 111 | 106 | 138 | 119 |
| 2008-09 | 141 | 148 | 156 | 153 | 141 | 138 | 144 | 151 | 142 | 107 | 122 | 103 | 103 | 117 | 107 | 139 | 137 |
| 2009-10 | 158 | 166 | 191 | 174 | 139 | 160 | 148 | 156 | 136 | 162 | 114 | 111 | 107 | 146 | 108 | 149 | 124 |
| 2010-11 | 167 | 171 | 197 | 148 | 199 | 211 | 165 | 165 | 157 | 161 | 121 | 142 | 115 | 165 | 117 | 151 | 136 |
| 2011-12 | 172 | 168 | 202 | 151 | 225 | 223 | 200 | 191 | 184 | 168 | 136 | 155 | 132 | 176 | 133 | 157 | 150 |

Contd....

| Table 5.2. Index Numbers of Wholesale Prices – Selected Commodities and Commodity Groups (Contd....) | | | | | | | | | | | | | | | | | |
|---|------|-------|--------|------|------------|----------|-----------------|------|--------------|-------------------------|-------------|-------------|---------------|----------------------------|-------------|--------|---|
| | Rice | Wheat | Pulses | Tea | Raw cotton | Raw jute | Ground-nut seed | Coal | Mineral oils | Sugar, khandasari & gur | Edible oils | Cotton yarn | Cotton fabric | Jute,hemp & mesta textiles | Fertilizers | Cement | Iron, steel & ferro alloys ^a |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| Weight-Base: (2004-05=100) | | | | | | | | | | | | | | | | | |
| | 1.79 | 1.12 | 0.72 | 0.11 | 0.70 | 0.06 | 0.40 | 2.09 | 9.36 | 2.09 | 3.04 | 1.38 | 1.23 | 0.26 | 2.66 | 1.39 | 6.88 |
| Weight-Base: (2011-12=100) | | | | | | | | | | | | | | | | | |
| | 1.43 | 1.03 | 0.64 | 0.12 | 0.66 | 0.05 | 0.27 | 2.14 | 7.95 | 1.16 | 2.64 | 1.34 | 0.95 | 0.32 | 1.48 | 1.64 | 6.55 |
| 2012-13 | 194 | 194 | 241 | 199 | 206 | 242 | 247 | 209 | 202 | 186 | 148 | 157 | 134 | 178 | 149 | 169 | 160 |
| 2013-14 | 226 | 212 | 228 | 196 | 237 | 262 | 219 | 191 | 226 | 183 | 147 | 175 | 139 | 184 | 152 | 167 | 158 |
| 2014-15 | 241 | 212 | 241 | 179 | 206 | 288 | 210 | 190 | 220 | 183 | 145 | 179 | 144 | 193 | 155 | 170 | 158 |
| 2015-16 | 237 | 219 | 337 | 183 | 190 | 404 | 246 | 190 | 179 | 167 | 149 | 166 | 146 | 219 | 158 | 174 | 142 |
| 2016-17 | 252 | 242 | 406 | 210 | 224 | 448 | 265 | 199 | 194 | 208 | 156 | 172 | 148 | 238 | 157 | 175 | 143 |
| Average of months (Base: 2011-12=100) | | | | | | | | | | | | | | | | | |
| 2012-13 | 113 | 115 | 120 | 132 | 95 | 110 | 121 | 102 | 111 | 112 | 106 | 105 | 103 | 103 | 114 | 108 | 105 |
| 2013-14 | 129 | 125 | 115 | 131 | 109 | 121 | 108 | 105 | 122 | 109 | 104 | 117 | 110 | 106 | 117 | 106 | 102 |
| 2014-15 | 137 | 123 | 122 | 118 | 96 | 133 | 107 | 107 | 109 | 108 | 102 | 115 | 115 | 113 | 119 | 111 | 102 |
| 2015-16 | 135 | 128 | 164 | 121 | 90 | 182 | 128 | 107 | 74 | 99 | 99 | 107 | 113 | 137 | 121 | 110 | 87 |
| 2016-17 | 144 | 142 | 193 | 140 | 107 | 208 | 138 | 109 | 73 | 125 | 107 | 110 | 114 | 151 | 119 | 111 | 86 |
| 2015-16 | | | | | | | | | | | | | | | | | |
| April | 133 | 125 | 134 | 115 | 90 | 141 | 120 | 107 | 81 | 99 | 99 | 108 | 113 | 120 | 121 | 110 | 97 |
| May | 134 | 124 | 144 | 119 | 93 | 142 | 127 | 107 | 88 | 98 | 99 | 109 | 112 | 120 | 121 | 108 | 95 |
| June | 134 | 122 | 155 | 117 | 92 | 160 | 136 | 107 | 90 | 94 | 100 | 110 | 113 | 123 | 121 | 108 | 93 |
| July | 133 | 125 | 157 | 120 | 92 | 162 | 133 | 107 | 85 | 90 | 100 | 109 | 114 | 129 | 121 | 110 | 91 |
| August | 134 | 126 | 162 | 118 | 91 | 160 | 135 | 106 | 76 | 92 | 98 | 109 | 114 | 132 | 122 | 111 | 87 |
| September | 135 | 126 | 167 | 116 | 91 | 167 | 136 | 106 | 72 | 94 | 98 | 107 | 114 | 135 | 122 | 112 | 88 |
| October | 136 | 129 | 178 | 119 | 87 | 181 | 122 | 106 | 73 | 96 | 99 | 106 | 113 | 141 | 122 | 112 | 86 |
| November | 136 | 130 | 180 | 123 | 86 | 196 | 122 | 106 | 73 | 97 | 99 | 105 | 113 | 144 | 121 | 112 | 84 |
| December | 135 | 132 | 179 | 126 | 89 | 205 | 126 | 106 | 71 | 100 | 98 | 104 | 113 | 148 | 121 | 110 | 81 |
| January | 136 | 134 | 175 | 130 | 90 | 217 | 123 | 106 | 63 | 105 | 97 | 103 | 111 | 149 | 122 | 109 | 81 |
| February | 135 | 134 | 169 | 129 | 88 | 222 | 125 | 106 | 56 | 108 | 98 | 106 | 113 | 149 | 122 | 108 | 82 |
| March | 135 | 134 | 167 | 121 | 86 | 226 | 129 | 106 | 58 | 110 | 100 | 105 | 112 | 153 | 121 | 109 | 84 |
| 2016-17 | | | | | | | | | | | | | | | | | |
| April | 136 | 133 | 180 | 141 | 90 | 229 | 139 | 106 | 62 | 117 | 103 | 105 | 113 | 156 | 121 | 109 | 85 |
| May | 139 | 135 | 189 | 141 | 94 | 232 | 143 | 106 | 67 | 118 | 105 | 107 | 114 | 155 | 121 | 110 | 85 |

Contd....

| Table 5.2. Index Numbers of Wholesale Prices – Selected Commodities and Commodity Groups | | | | | | | | | | | | | | | | | (Contd.....) |
|--|------|-------|--------|------|------------|----------|-----------------|------|--------------|-------------------------|-------------|-------------|---------------|----------------------------|-------------|--------|---|
| | Rice | Wheat | Pulses | Tea | Raw cotton | Raw jute | Ground-nut seed | Coal | Mineral oils | Sugar, khandasari & gur | Edible oils | Cotton yarn | Cotton fabric | Jute,hemp & mesta textiles | Fertilizers | Cement | Iron, steel & ferro alloys ^a |
| | 1.79 | 1.12 | 0.72 | 0.11 | 0.70 | 0.06 | 0.40 | 2.09 | 9.36 | 2.09 | 3.04 | 1.38 | 1.23 | 0.26 | 2.66 | 1.39 | 6.88 |
| | 1.43 | 1.03 | 0.64 | 0.12 | 0.66 | 0.05 | 0.27 | 2.14 | 7.95 | 1.16 | 2.64 | 1.34 | 0.95 | 0.32 | 1.48 | 1.64 | 6.55 |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| June | 142 | 137 | 198 | 146 | 105 | 251 | 146 | 107 | 73 | 119 | 104 | 108 | 113 | 155 | 121 | 112 | 84 |
| July | 144 | 138 | 212 | 142 | 116 | 243 | 150 | 107 | 72 | 122 | 104 | 110 | 113 | 158 | 120 | 112 | 82 |
| August | 145 | 139 | 204 | 137 | 116 | 197 | 146 | 107 | 66 | 123 | 106 | 113 | 114 | 155 | 119 | 111 | 81 |
| September | 145 | 140 | 199 | 141 | 111 | 194 | 140 | 107 | 69 | 124 | 108 | 112 | 117 | 150 | 118 | 113 | 83 |
| October | 145 | 141 | 211 | 141 | 106 | 194 | 132 | 107 | 71 | 126 | 108 | 110 | 114 | 148 | 118 | 113 | 86 |
| November | 145 | 148 | 215 | 142 | 102 | 197 | 126 | 107 | 75 | 127 | 108 | 110 | 115 | 147 | 118 | 111 | 87 |
| December | 144 | 152 | 205 | 143 | 104 | 190 | 132 | 107 | 77 | 126 | 110 | 110 | 115 | 144 | 117 | 110 | 87 |
| January | 144 | 151 | 183 | 140 | 111 | 190 | 134 | 114 | 82 | 130 | 111 | 111 | 114 | 145 | 117 | 109 | 88 |
| February | 146 | 149 | 164 | 134 | 114 | 191 | 132 | 116 | 84 | 133 | 110 | 112 | 113 | 146 | 117 | 109 | 88 |
| March | 148 | 143 | 154 | 133 | 114 | 188 | 138 | 116 | 84 | 133 | 108 | 114 | 113 | 147 | 117 | 109 | 91 |

Source: Office of the Economic Adviser, Ministry of Commerce & Industry

Notes:

a : composite index of Iron & semis, steel long, steel flat, stainless steel & alloys and ferro alloys for base 2004-05 and inputs into steel making, metallic iron, mild steel-semi finished steel, mild steel-long products, mild steel-flat products, alloy steel other than stainless steel-shapes and stainless steel-semi finished for base 2011-12

Table 5.3. All India Consumer Price Index Numbers

| Industrial Workers (CPI-IW) | | | New Series (CPI-NS) | | | Agricultural Labourers (CPI-AL) | Rural Labourers (CPI-RL) |
|-----------------------------|-----------------------|------------------|-----------------------|-------|-------|---------------------------------|--------------------------|
| Base | (1982=100 & 2001=100) | | (2010=100 & 2012=100) | | | (1986-87=100) | (1986-87=100) |
| Description | Food | Non-Food | General | Rural | Urban | Combined | General |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Average of Months | | | | | | | |
| 1995-96 | 337 | 280 | 313 | ... | ... | ... | 237 |
| 1996-97 | 369 | 307 | 342 | ... | ... | ... | 256 |
| 1997-98 | 388 | 336 | 366 | ... | ... | ... | 264 |
| 1998-99 | 445 | 372 | 414 | ... | ... | ... | 293 |
| 1999-00 | 446 | 404 | 428 | ... | ... | ... | 306 |
| 2000-01 | 453 | 433 | 444 | ... | ... | ... | 305 |
| 2001-02 | 466 | 460 | 463 | ... | ... | ... | 309 |
| 2002-03 | 477 | 488 | 482 | ... | ... | ... | 319 |
| 2003-04 | 495 | 507 | 500 | ... | ... | ... | 331 |
| 2004-05 | 506 | 538 | 520 | ... | ... | ... | 340 |
| 2005-06 | 527 ^a | 563 ^a | 542 ^a | ... | ... | ... | 353 |
| 2006-07 | 126 | 124 | 125 | ... | ... | ... | 380 |
| 2007-08 | 136 | 130 | 133 | ... | ... | ... | 409 |
| 2008-09 | 153 | 138 | 145 | ... | ... | ... | 450 |
| 2009-10 | 176 | 151 | 163 | ... | ... | ... | 513 |
| 2010-11 | 194 | 168 | 180 | ... | ... | ... | 564 |
| 2011-12 | 206 | 185 | 195 | 113.1 | 110.4 | 111.9 | 611 |
| 2012-13 | 230 | 202 | 215 | 124.5 | 121.8 | 123.3 | 672 |
| 2013-14 | 259 | 216 | 236 | 112.6 | 111.8 | 112.2 | 750 |
| 2014-15 | 276 | 230 | 251 | 119.5 | 118.1 | 118.9 | 800 |
| 2015-16 | 293 | 241 | 265 | 126.1 | 123.0 | 124.7 | 835 |
| 2016-17 | 305 | 251 | 276 | 132.4 | 127.9 | 130.3 | 870 |
| Last Month of | | | | | | | |
| 1995-96 | 339 | 292 | 319 | ... | ... | ... | 237 |
| 1996-97 | 373 | 322 | 351 | ... | ... | ... | 262 |
| 1997-98 | 401 | 352 | 380 | ... | ... | ... | 272 |
| 1998-99 | 431 | 391 | 414 | ... | ... | ... | 296 |
| 1999-00 | 446 | 418 | 434 | ... | ... | ... | 306 |
| 2000-01 | 446 | 444 | 445 | ... | ... | ... | 300 |
| 2001-02 | 462 | 476 | 468 | ... | ... | ... | 309 |
| 2002-03 | 479 | 498 | 487 | ... | ... | ... | 324 |
| 2003-04 | 494 | 517 | 504 | ... | ... | ... | 332 |
| 2004-05 | 502 | 555 | 525 | ... | ... | ... | 340 |
| 2005-06 | 115 ^a | 122 ^a | 119 ^a | ... | ... | ... | 358 |
| 2006-07 | 129 | 125 | 127 | ... | ... | ... | 392 |
| 2007-08 | 141 | 134 | 137 | ... | ... | ... | 423 |
| 2008-09 | 156 | 141 | 148 | ... | ... | ... | 463 |
| 2009-10 | 181 | 161 | 170 | ... | ... | ... | 536 |
| 2010-11 | 196 | 176 | 185 | 106.9 | 103.9 | 105.6 | 585 |
| 2011-12 | 212 | 192 | 201 | 116.2 | 114.6 | 115.5 | 625 |
| 2012-13 | 240 | 210 | 224 | 128.3 | 126.5 | 127.5 | 704 |
| 2013-14 | 258 | 223 | 239 | 114.6 | 113.7 | 114.2 | 763 |

Contd....

Table 5.3. All India Consumer Price Index Numbers*(Contd....)*

| Industrial Workers (CPI-IW) | | | New Series (CPI-NS) | | | Agricultural Labourers (CPI-AL) | Rural Labourers (CPI-RL) |
|-----------------------------|-----------------------|----------|-----------------------|-------|-------|---------------------------------|--------------------------|
| Base | (1982=100 & 2001=100) | | (2010=100 & 2012=100) | | | (1986-87=100) | (1986-87=100) |
| Description | Food | Non-Food | General | Rural | Urban | Combined | General |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 2014-15 | 276 | 235 | 254 | 121.1 | 119.1 | 120.2 | 803 |
| 2015-16 | 293 | 247 | 268 | 128.0 | 123.8 | 126.0 | 843 |
| 2016-17 | 298 | 255 | 275 | 132.8 | 128.7 | 130.9 | 866 |
| 2015-16 | | | | | | | |
| April | 278 | 237 | 256 | 121.5 | 119.7 | 120.7 | 805 |
| May | 283 | 237 | 258 | 122.4 | 120.7 | 121.6 | 811 |
| June | 288 | 238 | 261 | 124.1 | 121.7 | 123.0 | 820 |
| July | 289 | 241 | 263 | 124.7 | 122.4 | 123.6 | 822 |
| August | 292 | 240 | 264 | 126.1 | 123.2 | 124.8 | 832 |
| September | 296 | 240 | 266 | 127.0 | 123.5 | 125.4 | 839 |
| October | 301 | 242 | 269 | 127.7 | 124.2 | 126.1 | 849 |
| November | 302 | 243 | 270 | 128.3 | 124.6 | 126.6 | 853 |
| December | 299 | 243 | 269 | 127.9 | 124.0 | 126.1 | 853 |
| January | 297 | 245 | 269 | 128.1 | 124.2 | 126.3 | 849 |
| February | 292 | 246 | 267 | 127.9 | 123.8 | 126.0 | 843 |
| March | 293 | 247 | 268 | 128.0 | 123.8 | 126.0 | 843 |
| 2016-17 | | | | | | | |
| April | 299 | 247 | 271 | 129.0 | 125.3 | 127.3 | 848 |
| May | 307 | 248 | 275 | 130.3 | 126.6 | 128.6 | 860 |
| June | 312 | 247 | 277 | 131.9 | 128.1 | 130.1 | 869 |
| July | 316 | 249 | 280 | 133.0 | 129.0 | 131.1 | 877 |
| August | 310 | 251 | 278 | 133.5 | 128.4 | 131.1 | 876 |
| September | 308 | 250 | 277 | 133.4 | 128.0 | 130.9 | 873 |
| October | 310 | 251 | 278 | 133.8 | 128.6 | 131.4 | 876 |
| November | 307 | 251 | 277 | 133.6 | 128.5 | 131.2 | 878 |
| December | 301 | 253 | 275 | 132.8 | 127.6 | 130.4 | 876 |
| January | 298 | 253 | 274 | 132.4 | 127.8 | 130.3 | 870 |
| February | 297 | 254 | 274 | 132.6 | 128.2 | 130.6 | 869 |
| March | 298 | 255 | 275 | 132.8 | 128.7 | 130.9 | 866 |

Sources:

1. Labour Bureau for consumer price indices for Industrial Workers (IW), Agricultural Labourers (AL) and Rural Labourers (RL)
2. CSO for consumer price indices- new series (CPI-NS)

Notes:

- a : The current series of CPI for Industrial Workers with 2001 base was introduced w.e.f. January, 2006 and the figures from 2005-06 (last month) are based on new base. The earlier series on base 1982=100 was simultaneously discontinued. The conversion factor from the current to the old series is 4.63 in case of the General Index, and 4.58 for Food Index
- b : Average index from November, 1995 to March 1996
1. Weights of CPI-IW for food & non-food with base 1982=100 are 57% & 43% respectively and with base 2001=100 are 46.20% & 53.80% respectively
 2. CPI- New Series (Rural, Urban & Combined) with base 2010=100 was introduced w.e.f. January 2011. The CPI-UNME has since been totally discontinued
 3. CPI- New Series figures for 2013-14, 2014-15 and 2015-16 is based on new base 2012=100

Table 5.4. Index Numbers of Wholesale Prices – Relative Prices of Manufactured and Agricultural Products

| Year/Months | General Index of Wholesale Price | Price Index of Manufactured Products | Price Index of Agricultural Products ^a | Manufactured price Index as percent of Agricultural Price Index |
|-------------------------------|----------------------------------|--------------------------------------|---|---|
| Weight (Base: 2004-05) | 100.00 | 64.97 | 18.59 | (col.3/Col.4)*100 |
| Weight (Base: 2011-12) | 100.00 | 64.23 | 19.37 | |
| (1) | (2) | (3) | (4) | (5) |
| (Base : 2004-05 = 100) | | | | |
| 2005-06 | 104.5 | 102.4 | 103.4 | 99.1 |
| 2006-07 | 111.4 | 108.2 | 112.5 | 96.3 |
| 2007-08 | 116.6 | 113.4 | 121.5 | 93.4 |
| 2008-09 | 126.0 | 120.4 | 133.5 | 90.2 |
| 2009-10 | 130.8 | 123.1 | 151.0 | 81.5 |
| 2010-11 | 143.3 | 130.1 | 176.7 | 73.6 |
| 2011-12 | 156.1 | 139.5 | 190.4 | 73.3 |
| 2012-13 | 167.6 | 147.1 | 209.6 | 70.2 |
| 2013-14 | 177.6 | 151.5 | 233.0 | 65.0 |
| 2014-15 | 181.2 | 155.1 | 243.9 | 63.6 |
| 2015-16 | 176.7 | 153.4 | 252.3 | 60.8 |
| 2016-17 | 183.2 | 157.4 | 265.0 | 59.4 |
| (Base : 2011-12 = 100) | | | | |
| 2012-13 | 106.9 | 105.3 | 111.4 | 94.5 |
| 2013-14 | 112.5 | 108.5 | 123.2 | 88.1 |
| 2014-15 | 113.9 | 111.2 | 128.0 | 86.9 |
| 2015-16 | 109.7 | 109.2 | 131.3 | 83.1 |
| 2016-17 | 111.6 | 110.7 | 136.5 | 81.1 |
| 2015-16 | | | | |
| April | 110.2 | 110.1 | 126.8 | 86.9 |
| May | 111.4 | 110.5 | 128.6 | 86.0 |
| June | 111.8 | 110.3 | 130.1 | 84.8 |
| July | 111.1 | 109.9 | 130.0 | 84.5 |
| August | 110.0 | 109.2 | 132.1 | 82.6 |
| September | 109.9 | 109.2 | 132.5 | 82.4 |
| October | 110.1 | 109.4 | 134.1 | 81.6 |
| November | 109.9 | 108.8 | 134.9 | 80.7 |
| December | 109.4 | 108.4 | 134.2 | 80.7 |
| January | 108.0 | 108.0 | 133.0 | 81.2 |
| February | 107.1 | 108.3 | 130.1 | 83.3 |
| March | 107.7 | 108.8 | 130.0 | 83.7 |
| 2016-17 | | | | |
| April | 109.0 | 109.2 | 134.3 | 81.3 |
| May | 110.4 | 109.8 | 136.6 | 80.4 |
| June | 111.7 | 110.0 | 139.8 | 78.7 |
| July | 111.8 | 110.3 | 140.7 | 78.4 |
| August | 111.2 | 110.2 | 138.9 | 79.3 |
| September | 111.4 | 110.4 | 137.9 | 80.1 |
| October | 111.5 | 110.8 | 137.2 | 80.7 |
| November | 111.9 | 111.0 | 136.8 | 81.1 |
| December | 111.7 | 111.1 | 133.7 | 83.1 |
| January | 112.6 | 111.6 | 133.5 | 83.6 |
| February | 113.0 | 111.8 | 133.9 | 83.5 |
| March | 113.2 | 112.3 | 134.3 | 83.6 |

Source: Office of the Economic Adviser, Ministry of Commerce & Industry

Notes:

a : Composite Index of the sub-groups - (Food Articles and Non-food Articles)

Table 5.5. Minimum Support Price/Procurement Price for Crops

| Commodities | 1999-00 | 2002-03 ^b | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
|---------------------------------|---------|----------------------|---------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|---------|---------|---------|-------------------|-------------------|
| | | | | | | | | | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| (Crop Year Basis) (Rs./quintal) | | | | | | | | | | | | | | | |
| Paddy (Common) | 490 | 550 | 560 | 570 | 580 ^c | 645 ^b | 850 ^k | 950 ^k | 1000 | 1080 | 1250 | 1310 | 1360 | 1410 | 1470 |
| Paddy (Grade 'A') | 520 | 580 | 590 | 600 | 610 ^c | 675 ^b | 880 ^k | 980 ^k | 1030 | 1110 | 1280 | 1345 | 1400 | 1450 | 1510 |
| Wheat | 580 | 630 | 640 | 650 ^f | 750 ^b | 1000 | 1080 | 1100 | 1120 | 1285 | 1350 | 1400 | 1450 | 1525 | 1625 |
| Jowar (Hybrid) | 415 | 490 | 515 | 525 | 540 | 600 | 840 | 840 | 880 | 980 | 1500 | 1500 | 1530 | 1570 | 1625 |
| Jowar (Malandi) | ... | ... | ... | ... | 555 | 620 | 860 | 860 | 900 | 1000 | 1520 | 1520 | 1550 | 1590 | 1650 |
| Bajra | 415 | 495 | 515 | 525 | 540 | 600 | 840 | 840 | 880 | 980 | 1175 | 1250 | 1250 | 1275 | 1330 |
| Ragi | 415 | 490 | 515 | 525 | 540 | 600 | 915 | 915 | 965 | 1050 | 1500 | 1500 | 1550 | 1650 | 1725 |
| Maize | 415 | 490 | 525 | 540 | 540 | 620 | 840 | 840 | 880 | 980 | 1175 | 1310 | 1310 | 1325 | 1365 |
| Barley | 430 | 505 | 540 | 550 | 565 | 650 | 680 | 750 | 780 | 980 | 980 | 1100 | 1150 | 1225 | 1325 |
| Gram | 1015 | 1225 | 1425 | 1435 | 1445 | 1600 | 1730 | 1760 | 2100 | 2800 | 3000 | 3100 | 3175 | 3425 ^a | 3800 ^h |
| Masur | ... | ... | 1525 | 1535 | 1545 | 1700 | 1870 | 1870 | 2250 | 2800 | 2900 | 2950 | 3075 | 3325 ^a | 3800 ^h |
| Arhar | 1105 | 1325 | 1390 | 1400 | 1410 | 1550 ^d | 2000 | 2300 | 3000 ^j | 3200 ^j | 3850 | 4300 | 4350 | 4425 ^a | 4625 ^a |
| Moong | 1105 | 1335 | 1410 | 1520 | 1520 | 1700 ^d | 2520 | 2760 | 3170 ^j | 3500 ^j | 4400 | 4500 | 4600 | 4650 ^a | 4800 ^h |
| Urad | 1105 | 1335 | 1410 | 1520 | 1520 | 1700 ^d | 2520 | 2520 | 2900 ^j | 3300 ^j | 4300 | 4300 | 4350 | 4425 ^a | 4575 ^a |
| Sugarcane ^a | 56.10 | 69.50 | 74.50 | 79.50 | 80.25 | 81.18 | 81.18 | 129.84 | 139.12 | 145.00 ^m | 170.0 | 210.0 | 220.0 | 230.0 | 255.0 |
| Cotton F-414/H-777 | 1575 | 1695 | 1760 | 1760 | 1770 ^e | 1800 ^e | 2500 ^j | 2500 ^j | 2500 ^j | 2800 ^j | 3600 | 3700 | 3750 | 3800 | 3860 |
| Cotton H-4 750 | 1775 | 1895 | 1960 | 1980 | 1990 ^f | 2030 ^f | 3000 ^j | 3000 ^j | 3000 ^j | 3300 ^j | 3900 | 4000 | 4050 | 4100 | 4160 |
| Groundnut | 1155 | 1375 | 1500 | 1520 | 1520 | 1550 | 2100 | 2100 | 2300 | 2700 | 3700 | 4000 | 4000 | 4030 | 4120 ^g |
| Jute(TID-5) | 750 | 850 | 890 | 910 | 1000 | 1055 | 1250 | 1375 | 1575 | 1675 | 2200 | 2300 | 2400 | 3200 ⁿ | 3500 |
| Rapeseed/ mustard | 1100 | 1340 | 1700 | 1715 | 1715 | 1800 | 1830 | 1830 | 1850 | 2500 | 3000 | 3050 | 3100 | 3350 | 3600 ^g |
| Sunflower | 1155 | 1210 | 1340 | 1500 | 1500 | 1510 | 2215 | 2215 | 2350 | 2800 | 3700 | 3700 | 3750 | 3300 | 3700 |
| Soyabean (Black) | 755 | 805 | 900 | 900 | 900 | 910 | 1350 | 1350 | 1400 | 1650 | 2200 | 2500 | 2500 | ... | 2875 |
| Soyabean (Yellow) | 845 | 895 | 1000 | 1010 | 1020 | 1050 | 1390 | 1390 | 1440 | 1690 | 2240 | 2560 | 2560 | 2600 ^o | 2675 ^c |
| Safflower | 1100 | 1305 | 1550 | 1565 | 1565 | 1650 | 1650 | 1680 | 1800 | 2500 | 2800 | 3000 | 3050 | 3300 | 3600 ^g |

Contd....

Table 5.5. Minimum Support Price/Procurement Price for Crops

(Contd....)

| | | (Crop Year Basis) (Rs./quintal) | | | | | | | | | | | | | | |
|-----------------|--|---------------------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|
| Commodities | | 1999-00 | 2002-03 ^b | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| Toria | | 1065 | 1305 | 1665 | 1680 | 1680 | 1735 | 1735 | 1735 | 1780 | 2425 | 2970 | 3020 | 3020 | 3290 | 3560 |
| Copra (milling) | | 3100 | 3300 | 3500 | 3570 | 3590 | 3620 | 3660 | 4450 | 4450 | 4525 | 5100 | 5250 | 5250 | 5950 | 6500 |
| Copra balls | | 3325 | 3550 | 3750 | 3820 | 3840 | 3870 | 3910 | 4700 | 4700 | 4775 | 5350 | 5500 | 5500 | 6240 | 6785 |
| Sesamum | | 1205 | 1455 | 1500 | 1550 | 1560 | 1580 | 2750 | 2850 | 2900 | 3400 | 4200 | 4500 | 4600 | 4700 | 4800 ^a |
| Niger seed | | 915 | 1120 | 1180 | 1200 | 1220 | 1240 | 2405 | 2405 | 2450 | 2900 | 3500 | 3500 | 3600 | 3650 | 3725 ^c |

Source: Department of Agriculture, Cooperation and Farmers Welfare

Notes:

a : Statutory Minimum Price (SMP) upto 2008-09. Fair and Remunerative Price (FRP) from 2009-10 onwards

b : Including Special one-time drought relief (SDR) price announced for 2002-03

c : An additional incentive bonus of Rs. 40 per quintal was payable on procurement between January 10, 2006 to March 31, 2007

d : A bonus of Rs. 40 per quintal was payable over and above the MSP

e : Medium staple

f : Long staple

g : An incentive bonus of Rs. 50 per quintal is payable on wheat over the Minimum Support Price (MSP)

h : An additional incentive bonus of Rs. 100 per quintal was payable over the MSP

i : Staple length (mm) of 24.5-25.5 and micronaire value of 4.3-5.1

j : Staple length (mm) of 29.5-30.5 and micronaire value of 3.5-4.3

k : An additional incentive bonus of Rs. 50 per quintal was payable over the MSP

l : Additional incentive at the rate of Rs. 500 per quintal of tur, urad and moong sold to procurement agencies

m : At 9.5 percent recovery, subject to a premium of Rs.1.53 for every 0.1 percent increase in the recovery above 9.5 percent

n : Bonus of Rs. 75 per quintal is payable over and above the MSP

o : Bonus of Rs. 200 per quintal is payable over and above the MSP

p : Single MSP has been fixed irrespective of the variety

q : Bonus of Rs. 200 per quintal is payable over and above the MSP

r : Bonus of Rs. 150 per quintal is payable over and above the MSP

s : Bonus of Rs. 425 per quintal is payable over and above the MSP

t : Bonus of Rs. 100 per quintal is payable over and above the MSP

u : MSP of TDN₃ (Equivalent to TDs of old grading) grade of raw jute for 2016-17 season.

Table 6.1 A. Foreign Exchange Reserves

(₹ crore)

| End of Fiscal | Reserves | | | | | | Transactions with IMF | | | |
|---------------|----------|---------|---------|-----------------|---------|-------------------------|-----------------------|-------------------|--------------------------|------------------------------------|
| | Gold | | RTP | SDRs | | Foreign Currency Assets | Total | Drawals | Repurchases ^g | Outstanding repurchase obligations |
| | Tonnes | ₹ crore | ₹ crore | SDRs in million | ₹ crore | ₹ crore | ₹ crore (3+4+6+7) | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1950-51 | 220 | 118 | ... | ... | ... | 911 | 1029 | ... | ... | 48 |
| 1951-52 | 220 | 118 | ... | ... | ... | 747 | 865 | ... | ... | 48 |
| 1952-53 | 220 | 118 | ... | ... | ... | 763 | 881 | ... | ... | 48 |
| 1953-54 | 220 | 118 | ... | ... | ... | 792 | 910 | ... | 17 | 30 |
| 1954-55 | 220 | 118 | ... | ... | ... | 774 | 892 | ... | 17 | 13 |
| 1955-56 | 220 | 118 | ... | ... | ... | 785 | 903 | ... | 7 | 6 |
| 1956-57 | 220 | 118 | ... | ... | ... | 563 | 681 | 61 | 6 | 61 |
| 1957-58 | 220 | 118 | ... | ... | ... | 303 | 421 | 35 | ... | 95 |
| 1958-59 | 220 | 118 | ... | ... | ... | 261 | 379 | ... | ... | 95 |
| 1959-60 | 220 | 118 | ... | ... | ... | 245 | 363 | ... | 24 | 71 |
| 1960-61 | 220 | 118 | ... | ... | ... | 186 | 304 | ... | 11 | 61 |
| 1961-62 | 220 | 118 | ... | ... | ... | 180 | 298 | 119 | 61 | 119 |
| 1962-63 | 220 | 118 | ... | ... | ... | 177 | 295 | 12 | ... | 131 |
| 1963-64 | 220 | 118 | ... | ... | ... | 188 | 306 | ... | 24 | 107 |
| 1964-65 | 250 | 134 | ... | ... | ... | 116 | 250 | 48 | 48 | 107 |
| 1965-66 | 216 | 116 | ... | ... | ... | 182 | 298 | 65 | 36 | 137 |
| 1966-67 | 216 | 183 | ... | ... | ... | 296 | 479 | 89 | 43 | 313 |
| 1967-68 | 216 | 183 | ... | ... | ... | 356 | 539 | 68 | 43 | 338 |
| 1968-69 | 216 | 183 | ... | ... | ... | 391 | 574 | ... | 59 | 279 |
| 1969-70 | 217 | 183 | ... | 123 | 92 | 546 | 821 | ... | 125 | 154 |
| 1970-71 | 216 | 183 | ... | 149 | 112 | 438 | 733 | ... | 154 | ... |
| 1971-72 | 216 | 183 | ... | 248 | 194 | 480 | 857 | ... | ... | ... |
| 1972-73 | 216 | 183 | ... | 247 | 226 | 479 | 888 | ... | ... | ... |
| 1973-74 | 216 | 183 | ... | 245 | 230 | 581 | 994 | 62 | ... | 59 |
| 1974-75 | 216 | 183 | ... | 235 | 229 | 611 | 1023 | 485 | ... | 557 |
| 1975-76 | 216 | 183 | ... | 203 | 211 | 1492 | 1886 | 207 | ... | 804 |
| 1976-77 | 223 | 188 | ... | 187 | 192 | 2863 | 3243 | ... | 303 | 492 |
| 1977-78 | 229 | 193 | ... | 162 | 170 | 4500 | 4863 | ... | 249 | 210 |
| 1978-79 | 260 | 220 | ... | 365 | 381 | 5220 | 5821 | ... | 207 | ... |
| 1979-80 | 266 | 225 | ... | 529 | 545 | 5164 | 5934 | ... | 55 ^e | ... |
| 1980-81 | 267 | 226 | ... | 491 | 497 | 4822 | 5545 | 274 ^a | 5 ^f | 268 |
| 1981-82 | 267 | 226 | ... | 425 | 444 | 3355 | 4025 | 637 ^b | ... | 901 |
| 1982-83 | 267 | 226 | ... | 270 | 291 | 4265 | 4782 | 1893 ^b | ... | 2867 |
| 1983-84 | 267 | 226 | ... | 216 | 248 | 5498 | 5972 | 1414 ^b | 72 ^h | 4444 |
| 1984-85 | 291 | 246 | ... | 147 | 181 | 6817 | 7244 | 219 ^b | 156 ⁱ | 4888 |
| 1985-86 | 325 | 274 | ... | 115 | 161 | 7384 | 7819 | ... | 253 ^j | 5285 |
| 1986-87 | 325 | 274 | ... | 139 | 232 | 7645 | 8151 | ... | 672 ^k | 5548 |
| 1987-88 | 325 | 274 | ... | 70 | 125 | 7287 | 7686 | ... | 1209 ^l | 4732 |
| 1988-89 | 325 | 274 | ... | 80 | 161 | 6605 | 7040 | ... | 1547 ^m | 3696 |

Contd....

Table 6.1 A. Foreign Exchange Reserves

(Contd....)

(₹ crore)

| End of Fiscal | Reserves | | | | | | Transactions with IMF | | | |
|---------------|----------|---------|---------|-----------------|---------|-------------------------|-----------------------|-------------------|--------------------------|------------------------------------|
| | Gold | | RTP | SDRs | | Foreign Currency Assets | Total | Drawals | Repurchases ^g | Outstanding repurchase obligations |
| | Tonnes | ₹ crore | ₹ crore | SDRs in million | ₹ crore | ₹ crore | ₹ crore (3+4+6+7) | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1989-90 | 333 | 281 | ... | 82 | 184 | 5787 | 6252 | 3334 ^c | 1460 ⁿ | 2572 |
| 1990-91 | 333 | 6828 | ... | 76 | 200 | 4388 | 11416 | 3205 ^d | 1156 ^o | 5132 |
| 1991-92 | 351 | 9039 | ... | 66 | 233 | 14578 | 23850 | 4231 | 1127 ^p | 8934 |
| 1992-93 | 354 | 10549 | ... | 13 | 55 | 20140 | 30744 | 1007 | 868 ^q | 14986 |
| 1993-94 | 367 | 12794 | ... | 77 | 339 | 47287 | 60420 | ... | 420 ^r | 15812 |
| 1994-95 | 396 | 13752 | ... | 5 | 23 | 66006 | 79781 | ... | 3585 ^s | 13545 |
| 1995-96 | 398 | 15658 | ... | 56 | 280 | 58446 | 74384 | ... | 5749 ^t | 8152 |
| 1996-97 | 398 | 14557 | ... | 1 | 7 | 80368 | 94932 | ... | 3461 ^u | 4714 |
| 1997-98 | 396 | 13394 | ... | 1 | 4 | 102507 | 115905 | ... | 2286 ^v | 2624 |
| 1998-99 | 357 | 12559 | ... | 6 | 34 | 125412 | 138005 | ... | 1652 ^w | 1220 |
| 1999-2000 | 358 | 12973 | ... | 3 | 16 | 152924 | 165913 | ... | ... | ... |
| 2000-01 | 358 | 12711 | ... | 2 | 11 | 184482 | 197204 | ... | ... | ... |
| 2001-02 | 358 | 14868 | ... | 8 | 50 | 249118 | 264036 | ... | ... | ... |
| 2002-03 | 358 | 16785 | 3190 | 3 | 19 | 341476 | 361470 | ... | ... | ... |
| 2003-04 | 358 | 18216 | 5688 | 2 | 10 | 466215 | 490129 | ... | 2598.2 | ... |
| 2004-05 | 358 | 19686 | 6289 | 3 | 20 | 593121 | 619116 | ... | 414.9 | ... |
| 2005-06 | 358 | 25674 | 3374 | 2 | 12 | 647327 | 676387 | 3024.6 | 220.5 | ... |
| 2006-07 | 358 | 29573 | 2044 | 1 | 8 | 836597 | 868222 | 1360.3 | ... | ... |
| 2007-08 | 358 | 40124 | 1744 | 11 | 74 | 1196023 | 1237965 | 301.5 | ... | ... |
| 2008-09 | 358 | 48793 | 5000 | 1 | 6 | 1230066 | 1283865 | 371.1 | 2940.1 | ... |
| 2009-10 | 558 | 81188 | 6231 | 3297 | 22596 | 1149650 | 1259665 | ... | 10090.4 | ... |
| 2010-11 | 558 | 102572 | 13158 | 2882 | 20401 | 1224883 | 1361013 | 161.3 | 1594.0 | ... |
| 2011-12 | 558 | 138250 | 14511 | 2885 | 22866 | 1330511 | 1506139 | ... | 1392.1 | ... |
| 2012-13 | 558 | 139737 | 12513 | 2887 | 23538 | 1412631 | 1588418 | ... | ... | ... |
| 2013-14 | 558 | 129616 | 11019 | 2888 | 26826 | 1660914 | 1828375 | ... | ... | ... |
| 2014-15 | 558 | 119160 | 8085 | 2889 | 24944 | 1985458 | 2137647 | ... | ... | ... |
| 2015-16 | 558 | 133429 | 16290 | 1066 | 9960 | 2219061 | 2378740 | ... | ... | ... |
| 2016-17 | 558 | 128828 | 15047 | 1066 | 9379 | 2244939 | 2398193 | ... | ... | ... |

Source: Reserve Bank of India

Notes:

SDRs: Special Drawing Rights

RTP : Reserve Tranche Position in IMF

--- : Nil or Negligible.

a : Excludes ₹ 544.53 crore drawn under Trust Fund.

b : Drawals under Extended Fund Facility (EFF).

c : Drawals of ₹ 1883.6 crore under Compensatory and Contingency Financing Facility and ₹ 1450.2 crore under First Credit Tranche of Stand-by Arrangement.

d : Drawals of ₹ 2217.2 crore under Compensatory and Contingency Financing Facility and ₹ 987.5 crore under First Credit Tranche of Stand-by Arrangement.

e : Includes voluntary repurchases of Rupees (₹ 199 crore) and sales of Rupees (₹ 35.2 crore) by IMF under its General Resources Account

f : Sales of Rupees by IMF.

Contd....

(Contd....)

- g : Additionally, SDR 59.9 million in May 1979, SDR 7.3 million in July 1980 and SDR 34.5 million in March 1982 were used for voluntary repurchases of Rupees.
- h : SDR 66.50 million were used for repurchases of drawals under Compensatory Financing Facility.
- i : SDR 33.25 million and ₹ 117.85 crore in foreign currencies were used for repurchases of drawals under CFF.
- j : SDR 66.5 million and SD ₹ 131.25 million were used for repurchases of drawals under CFF and EFF, respectively.
- k : SDR 431.25 million were used for repurchases of drawals under EFF.
- l : SDR 704.17 million were used for repurchases of drawals under EFF.
- m : SDR 804.18 million were used for repurchases of drawals under EFF.
- n : SDR 681.25 million were used for repurchases of drawals under EFF.
- o : SDR 468.75 million were used for repurchases of drawals under EFF.
- p : SDR 337.49 million were used for repurchases of drawals under EFF.
- q : SDR 237.49 million were used for repurchases of drawals under EFF.
- r : SDR 95.84 million were used for repurchases of drawals under EFF.
- s : SDR 812.77 million were used for repurchases of drawals under EFF.
- t : SDR 1130.48 million were used for repurchases of drawals under EFF.
- u : SDR 678.38 million were used for repurchases of drawals under EFF.
- v : SDR 449.29 million were used for repurchases of drawals under EFF.
- w : SDR 212.46 million were used for repurchases of drawals under EFF.
- Figures after 1965-66 are not comparable with those of the earlier years owing to devaluation of the Rupee in June 1966.
 - Also figures for July 1991 onwards are not comparable with those of earlier periods due to the downward adjustment of the Rupee effected on July 1, 1991 and July 3, 1991.
 - Drawals, Repurchase and outstanding repurchase obligations are calculated at the ruling rates of exchange.
 - While reserves pertain to end period, repurchases are for the relevant periods.
 - Gold is valued at ₹ 53.58 per 10 grams up to May 1966 and at ₹ 84.39 per 10 grams up to September 1990 and closer to international market price w.e.f. October 17, 1990.
 - Foreign exchange includes (a) foreign assets of the Reserve Bank of India and (b) Government balances held abroad up to 1955-56.
 - FCA excludes US\$ 250.00 million invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009, excludes US\$ 380.00 million since September 16, 2011, US\$ 550 million since February 27, 2012, US\$ 673 million since 30th March 2012, US\$ 790 million since July 5, 2012, US\$ 950 million since March 04, 2013, US\$ 1,181 million since March 06, 2014, US\$ 1,568 million since September 15, 2014, and US\$ 2,100 million since March 26, 2015 (as also its equivalent value in Indian Rupee).
 - SDRs 530.73 million since March 24, 2014 (Transferred by Government of India to RBI), SDR 530.80 million since June 2014, SDR 530.92 million since September 2014, SDR 1104.74 million since January 2015, SDR 1104.96 million since June 2015. SDRs 1105.24 million since December 2015 (as also its equivalent value in Indian Rupee).
 - US\$ 100 million under SAARC swap arrangement with Royal Monetary Authority of Bhutan during the period from March 2013 to June 2013, US\$ 400 million under SAARC swap arrangement with Central Bank of Sri Lanka during period April to October 2015 and US\$ 1100 million with Central Bank of Sri Lanka since September 2015 (as also its equivalent value in Indian Rupee).
 - FCA excludes US \$ 250.00 million invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009, excludes US \$ 380.00 million since September 16, 2011, excludes US\$ 550 million since February 27, 2012, excludes US \$ 673 million since 30th March 2012 and US \$ 790 million since July 5, 2012 as also its equivalent value in Indian rupee in respective months.
 - Totals may not tally due to rounding off.

Table 6.1 B. Foreign Exchange Reserves

(US\$ million)

| End of Fiscal | Reserves | | | | | Transactions with IMF | | |
|---------------|----------|-----|------|-------------------------------|--------------------|-----------------------|-------------|--|
| | Gold | RTP | SDRs | Foreign Currency Assets | Total (2+3+4+5) | Drawals | Repurchases | Outstanding repurchase obligations |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1950-51 | 247 | ... | ... | 1914 | 2161 | ... | ... | 100 |
| 1951-52 | 247 | ... | ... | 1568 | 1815 | ... | ... | 100 |
| 1952-53 | 247 | ... | ... | 1603 | 1850 | ... | ... | 100 |
| 1953-54 | 247 | ... | ... | 1664 | 1911 | ... | 36 | 64 |
| 1954-55 | 247 | ... | ... | 1626 | 1873 | ... | 36 | 28 |
| 1955-56 | 247 | ... | ... | 1648 | 1895 | ... | 15 | 13 |
| 1956-57 | 247 | ... | ... | 1184 | 1431 | 126 | 12 | 128 |
| 1957-58 | 247 | ... | ... | 637 | 884 | 72 | ... | 200 |
| 1958-59 | 247 | ... | ... | 548 | 795 | ... | ... | 200 |
| 1959-60 | 247 | ... | ... | 515 | 762 | ... | 50 | 150 |
| 1960-61 | 247 | ... | ... | 390 | 637 | ... | 23 | 128 |
| 1961-62 | 247 | ... | ... | 377 | 624 | 249 | 127 | 250 |
| 1962-63 | 247 | ... | ... | 372 | 619 | 25 | ... | 275 |
| 1963-64 | 247 | ... | ... | 395 | 642 | ... | 50 | 225 |
| 1964-65 | 281 | ... | ... | 243 | 524 | 99 | 100 | 225 |
| 1965-66 | 243 | ... | ... | 383 | 626 | 137 | 75 | 288 |
| 1966-67 | 243 | ... | ... | 395 | 638 | 126 | 57 | 418 |
| 1967-68 | 243 | ... | ... | 475 | 718 | 89 | 58 | 450 |
| 1968-69 | 243 | ... | ... | 526 | 769 | ... | 78 | 372 |
| 1969-70 | 243 | ... | 123 | 728 | 1094 | ... | 167 | 205 |
| 1970-71 | 243 | ... | 148 | 584 | 975 | ... | 205 | ... |
| 1971-72 | 264 | ... | 269 | 661 | 1194 | ... | ... | ... |
| 1972-73 | 293 | ... | 297 | 629 | 1219 | ... | ... | ... |
| 1973-74 | 293 | ... | 296 | 736 | 1325 | 79 | ... | 75 |
| 1974-75 | 304 | ... | 293 | 782 | 1379 | 608 | ... | 715 |
| 1975-76 | 281 | ... | 234 | 1657 | 2172 | 239 | ... | 896 |
| 1976-77 | 290 | ... | 217 | 3240 | 3747 | ... | 336 | 559 |
| 1977-78 | 319 | ... | 200 | 5305 | 5824 | ... | 333 | 249 |
| 1978-79 | 377 | ... | 470 | 6421 | 7268 | ... | 256 | ... |
| 1979-80 | 375 | ... | 662 | 6324 | 7361 | ... | 145 | ... |
| 1980-81 | 370 | ... | 603 | 5850 | 6823 | 342 | 16 | 327 |
| 1981-82 | 335 | ... | 473 | 3582 | 4390 | 692 | 40 | 964 |
| 1982-83 | 324 | ... | 291 | 4281 | 4896 | 1968 | ... | 2876 |
| 1983-84 | 320 | ... | 230 | 5099 | 5649 | 1376 | 70 | 4150 |
| 1984-85 | 325 | ... | 145 | 5482 | 5952 | 201 | 134 | 3932 |
| 1985-86 | 417 | ... | 131 | 5972 | 6520 | ... | 209 | 4290 |
| 1986-87 | 471 | ... | 179 | 5924 | 6574 | ... | 521 | 4291 |
| 1987-88 | 508 | ... | 97 | 5618 | 6223 | ... | 930 | 3653 |
| 1988-89 | 473 | ... | 103 | 4226 | 4802 | ... | 1070 | 2365 |
| 1989-90 | 487 | ... | 107 | 3368 | 3962 | ... | 873 | 1493 |
| 1990-91 | 3496 | ... | 102 | 2236 | 5834 | 1858 | 644 | 2623 |
| 1991-92 | 3499 | ... | 90 | 5631 | 9220 | 1240 | 460 | 3451 |
| 1992-93 | 3380 | ... | 18 | 6434 | 9832 | 1623 | 335 | 4799 |
| 1993-94 | 4078 | ... | 108 | 15068 | 19254 | 325 | 134 | 5040 |

Contd....

Table 6.1 B. Foreign Exchange Reserves**(Contd....)**

(US\$ million)

| End of Fiscal | Reserves | | | | | Transactions with IMF | | |
|---------------|----------|------|------|-------------------------|-----------------|-----------------------|-------------|------------------------------------|
| | Gold | RTP | SDRs | Foreign Currency Assets | Total (2+3+4+5) | Drawals | Repurchases | Outstanding repurchase obligations |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1994-95 | 4370 | ... | 7 | 20809 | 25186 | ... | 1146 | 4300 |
| 1995-96 | 4561 | ... | 82 | 17044 | 21687 | ... | 1710 | 2374 |
| 1996-97 | 4054 | ... | 2 | 22367 | 26423 | ... | 977 | 1313 |
| 1997-98 | 3391 | ... | 1 | 25975 | 29367 | ... | 615 | 664 |
| 1998-99 | 2960 | ... | 8 | 29522 | 32490 | ... | 102 | 287 |
| 1999-2000 | 2974 | ... | 4 | 35058 | 38036 | ... | ... | ... |
| 2000-01 | 2725 | ... | 2 | 39554 | 42281 | ... | ... | ... |
| 2001-02 | 3047 | ... | 10 | 51049 | 54106 | ... | ... | ... |
| 2002-03 | 3534 | 672 | 4 | 71890 | 76100 | ... | ... | ... |
| 2003-04 | 4198 | 1311 | 2 | 107448 | 112959 | ... | 561.3 | ... |
| 2004-05 | 4500 | 1438 | 5 | 135571 | 141514 | ... | 93.5 | ... |
| 2005-06 | 5755 | 756 | 3 | 145108 | 151622 | 670.0 | 50.7 | ... |
| 2006-07 | 6784 | 469 | 2 | 191924 | 199179 | 302.7 | ... | ... |
| 2007-08 | 10039 | 436 | 18 | 299230 | 309723 | 74.2 | ... | ... |
| 2008-09 | 9577 | 981 | 1 | 241426 | 251985 | 86.3 | 611.9 | ... |
| 2009-10 | 17986 | 1380 | 5006 | 254685 | 279057 | ... | 461.3 | ... |
| 2010-11 | 22972 | 2947 | 4569 | 274330 | 304818 | 36.2 | 353.2 | ... |
| 2011-12 | 27023 | 2836 | 4469 | 260069 | 294397 | ... | 275.1 | ... |
| 2012-13 | 25692 | 2301 | 4328 | 259726 | 292046 | ... | ... | ... |
| 2013-14 | 21567 | 1834 | 4464 | 276359 | 304223 | ... | ... | ... |
| 2014-15 | 19378 | 1139 | 4185 | 295947 | 320649 | ... | ... | ... |
| 2015-16 | 20115 | 2456 | 1502 | 336104 | 360176 | ... | ... | ... |
| 2016-17 | 19869 | 2321 | 1446 | 346319 | 369955 | ... | ... | ... |

Source: Reserve Bank of India

Notes:

SDRs: Special Drawing Rights RTP: Reserve Tranche Position in IMF -----: Nil or Negligible

- For compiling figures in US dollars, gold is valued at SDR 35 per troy ounce as in the International Financial Statistics of the IMF upto October 16, 1990. Thereafter gold has been valued at international market price.
- Conversion of foreign currency assets and SDR in US dollars is done at exchange rates of the IMF.
- Transactions with IMF are converted at respective SDR/\$ rate.
- While reserves pertain to end period, repurchases are for the relevant periods.
- FCA excludes US\$ 250.00 million invested in foreign currency denominated bonds issued by IIFC (UK) since March 20, 2009, excludes US\$ 380.00 million since September 16, 2011, US\$ 550 million since February 27, 2012, US\$ 673 million since 30th March 2012, US\$ 790 million since July 5, 2012, US\$ 950 million since March 04, 2013, US\$ 1,181 million since March 06, 2014, US\$ 1,568 million since September 15, 2014, and US\$ 2,100 million since March 26, 2015 (as also its equivalent value in Indian Rupee).
 - SDRs 530.73 million since March 24, 2014 (Transferred by Government of India to RBI), SDR 530.80 million since June 2014, SDR 530.92 million since September 2014, SDR 1104.74 million since January 2015, SDR 1104.96 million since June 2015. SDRs 1105.24 million since December 2015 (as also its equivalent value in Indian Rupee).
 - US\$ 100 million under SAARC swap arrangement with Royal Monetary Authority of Bhutan during the period from March 2013 to June 2013, US\$ 400 million under SAARC swap arrangement with Central Bank of Sri Lanka during period April to October 2015 and US\$ 1100 million with Central Bank of Sri Lanka since September 2015 (as also its equivalent value in Indian Rupee).
- Includes Rs. 31,463 crore (US\$ 6,699 million) reflecting the purchase of 200 metric tonnes of gold from IMF on November 3, 2009. by the IMF done on August 28, 2009 and September 9, 2009, respectively.
- Includes SDRs 3,082.5 million allocated under general allocation and SDRs 214.6 million allocated under special allocation
- Totals may not tally due to rounding off.

Table 6.2. Balance of Payments as per IMF Balance of Payments Manual 5

| Items | 2000-01 | | 2010-11 | | 2011-12 | | 2012-13 | |
|---|---------|--------------|---------|--------------|---------|--------------|----------|--------------|
| | ₹ crore | US\$ million | ₹ crore | US\$ million | ₹ crore | US\$ million | ₹ crore | US\$ million |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 Imports (c.i.f.) | 264589 | 57912 | 1746135 | 383481 | 2394647 | 499533 | 2732146 | 502237 |
| 2 Exports (f.o.b.) | 207852 | 45452 | 1165665 | 256159 | 1482517 | 309774 | 1667690 | 306581 |
| 3 Trade Balance (2-1) | -56737 | -12460 | -580470 | -127322 | -912129 | -189759 | -1064456 | -195656 |
| 4 Invisibles | | | | | | | | |
| a) Receipts | 147778 | 32267 | 867228 | 190488 | 1053480 | 219229 | 1218893 | 224044 |
| b) Payments | 102639 | 22473 | 506411 | 111218 | 517323 | 107625 | 634047 | 116551 |
| (of which: Interest & Service Payments on Loans and Credits) | 21948 | 4801 | 27660 | 6073 | 41046 | 8527 | 59546 | 10944 |
| c) Net | 45139 | 9794 | 360817 | 79269 | 536157 | 111604 | 584846 | 107493 |
| 5 Current Account Balance | -11598 | -2666 | -219654 | -48053 | -375973 | -78155 | -479610 | -88163 |
| 6 Capital Account | | | | | | | | |
| I Foreign Investment | 26744 | 5862 | 193482 | 42127 | 188738 | 39231 | 254653 | 46711 |
| i) Foreign Direct Investment | | | | | | | | |
| a) Inward FDI | 18404 | 4031 | 132358 | 29029 | 154961 | 32952 | 146954 | 26953 |
| b) Outward FDI | -3480 | -759 | -78257 | -17195 | -51794 | -10892 | -38768 | -7134 |
| c) Net | 14924 | 3272 | 54101 | 11834 | 103167 | 22061 | 108186 | 19819 |
| ii) Portfolio Investment (net) | 11820 | 2590 | 139381 | 30293 | 85571 | 17170 | 146467 | 26891 |
| II Loans (net) | 24459 | 5264 | 132714 | 29135 | 89748 | 19307 | 169073 | 31124 |
| i) External Assistance | | | | | | | | |
| a) Inflow | 13521 | 2941 | 35872 | 7882 | 27355 | 5646 | 25747 | 4735 |
| b) Out flow | 11519 | 2531 | 13393 | 2941 | 16051 | 3350 | 20421 | 3752 |
| c) Net | 2002 | 410 | 22479 | 4941 | 11305 | 2296 | 5326 | 982 |
| ii) Commercial Borrowings ^a | | | | | | | | |
| a) Inflow | 95750 | 20865 | 459540 | 100899 | 649101 | 135345 | 817606 | 150351 |
| b) Out flow | 73293 | 16011 | 349304 | 76705 | 570658 | 118333 | 653858 | 120209 |
| c) Net | 22457 | 4854 | 110236 | 24194 | 78443 | 17011 | 163747 | 30142 |
| III) Banking | | | | | | | | |
| a) Receipts | 44448 | 9744 | 419273 | 92323 | 427827 | 89904 | 455407 | 83727 |
| b) Payments | 53592 | 11705 | 397253 | 87361 | 356829 | 73678 | 365140 | 67157 |
| c) Net | -9144 | -1961 | 22020 | 4962 | 70998 | 16226 | 90268 | 16570 |
| IV) Rupee Debt Service (net) | -2760 | -617 | -310 | -68 | -381 | -79 | -313 | -58 |
| V) Other Capital | | | | | | | | |
| a) Receipts | 12948 | 2856 | 45175 | 9995 | 64143 | 13296 | 97073 | 17861 |
| b) Payments | 11637 | 2564 | 101914 | 22411 | 94216 | 20224 | 125020 | 22908 |
| c) Net | 1311 | 292 | -56739 | -12416 | -30073 | -6929 | -27946 | -5047 |
| VI) Errors & omissions (net) | -1369 | -305 | -12062 | -2636 | -11560 | -2432 | 14578 | 2689 |
| 7 Total Capital (I to VI of 6) | 39241 | 8535 | 279105 | 61103 | 307470 | 65324 | 500313 | 91989 |
| 8 Overall Balance (5 + 7) | 27643 | 5868 | 59451 | 13050 | -68503 | -12831 | 20702 | 3826 |
| 9 Monetary Movement | | | | | | | | |
| a) IMF Transactions | | | | | | | | |
| i) Purchases | | | | | | | | |
| ii) Repurchases | 115 | 26 | | | | | | |
| iii) Net | -115 | -26 | | | | | | |
| b) Increase (-)/decrease (+) in Reserves | -27258 | -5842 | -59451 | -13050 | 68503 | 12831 | -20702 | -3826 |
| 10 Total Reserve movement (9a(iii)+9b) [(-) Increase/ (+) decrease] | -27643 | -5868 | -59451 | -13050 | 68503 | 12831 | -20702 | -3826 |

Contd....

Table 6.2. Balance of Payments as per IMF Balance of Payment Manual 5 (Contd....)

| Items | 2013-14 | | 2014-15 | | 2015-16 (PR) | | 2016-17 (P) | |
|---|---------|--------------|---------|--------------|--------------|--------------|-------------|--------------|
| | ₹ crore | US\$ million | ₹ crore | US\$ million | ₹ crore | US\$ million | ₹ crore | US\$ million |
| (1) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 1 Imports (c.i.f.) | 2815918 | 466216 | 2820072 | 461484 | 2592820 | 396444 | 2633395 | 392580 |
| 2 Exports (f.o.b.) | 1931074 | 318607 | 1934210 | 316545 | 1743289 | 266365 | 1878943 | 280138 |
| 3 Trade Balance (2-1) | -884845 | -147609 | -885862 | -144940 | -849531 | -130079 | -754452 | -112442 |
| 4 Invisibles | | | | | | | | |
| a) Receipts | 1413843 | 233569 | 1478048 | 241645 | 1538693 | 235044 | 1616361 | 240978 |
| b) Payments | 716134 | 118256 | 755499 | 123564 | 832924 | 127116 | 964714 | 143831 |
| (of which: Interest & Service Payments on Loans and Credits) | 67747 | 11176 | 77376 | 12650 | 88044 | 13443 | 67444 | 13351 |
| c) Net | 697709 | 115313 | 722549 | 118081 | 705769 | 107928 | 651646 | 97147 |
| 5 Current Account Balance | -187136 | -32296 | -163313 | -26859 | -143762 | -22151 | -102805 | -15296 |
| 6 Capital Account | | | | | | | | |
| I Foreign Investment | 159650 | 26386 | 449072 | 73456 | 208579 | 31891 | 289394 | 43224 |
| i) Foreign Direct Investment (FDI) | | | | | | | | |
| a) Inward FDI | 186830 | 30763 | 215893 | 35283 | 294258 | 44907 | 283292 | 42215 |
| b) Outward FDI | -56860 | -9199 | -24675 | -4031 | -58476 | -8886 | -44379 | -6603 |
| c) Net | 129969 | 21564 | 191219 | 31251 | 235782 | 36021 | 238913 | 35612 |
| ii) Portfolio Investment (net) | 29680 | 4822 | 257853 | 42205 | -27203 | -4130 | 50482 | 7612 |
| II) Loans (net) | 45901 | 7765 | 19733 | 3184 | -29767 | -4634 | 16038 | 2379 |
| i) External Assistance | | | | | | | | |
| a) Inflow | 28239 | 4659 | 35408 | 5780 | 40244 | 6123 | 43561 | 6495 |
| b) Out flow | 22043 | 3627 | 24787 | 4054 | 30229 | 4619 | 30056 | 4482 |
| c) Net | 6197 | 1032 | 10622 | 1725 | 10015 | 1505 | 13505 | 2013 |
| ii) Commercial Borrowings ^a | | | | | | | | |
| a) Inflow | 785202 | 130177 | 718760 | 117575 | 748159 | 114200 | 764967 | 114037 |
| b) Out flow | 745498 | 123444 | 709648 | 116116 | 787941 | 120339 | 762434 | 113672 |
| c) Net | 39704 | 6733 | 9112 | 1459 | -39781 | -6139 | 2533 | 366 |
| III) Banking | | | | | | | | |
| a) Receipts | 654482 | 108049 | 550976 | 90094 | 579805 | 88884 | 561610 | 83669 |
| b) Payments | 502818 | 82601 | 478893 | 78476 | 514547 | 78254 | 672787 | 100285 |
| c) Net | 151664 | 25449 | 72083 | 11618 | 65257 | 10630 | -111177 | -16616 |
| IV) Rupee Debt Service | -304 | -52 | -489 | -81 | -476 | -73 | -665 | -99 |
| V) Other Capital | | | | | | | | |
| a) Receipts | 133801 | 22171 | 176562 | 28914 | 160653 | 24419 | 241024 | 35937 |
| b) Payments | 200892 | 32932 | 169411 | 27806 | 137909 | 21103 | 190043 | 28343 |
| c) Net | -67091 | -10761 | 7151 | 1109 | 22744 | 3315 | 50981 | 7594 |
| VI) Errors & Omissions | -6629 | -983 | -6312 | -1021 | -6746 | -1073 | 2468 | 364 |
| 7 Total Capital (I to VI of 6) | 283190 | 47804 | 541238 | 88265 | 259592 | 40055 | 247039 | 36846 |
| 8 Overall Balance (5 + 7) | 96054 | 15508 | 377925 | 61406 | 115830 | 17905 | 144234 | 21550 |
| 9 Monetary Movement | | | | | | | | |
| a) IMF Transactions | | | | | | | | |
| i) Purchases | | | | | | | | |
| ii) Repurchases | | | | | | | | |
| iii) Net | | | | | | | | |
| b) Increase (-)/decrease (+) in Reserves | -96054 | -15508 | -377925 | -61406 | -115830 | -17905 | -144234 | -21550 |
| 10 Total Reserve movement (9a(iii)+9b) [(+) Increase/ (-) decrease] | -96054 | -15508 | -377925 | -61406 | -115830 | -17905 | -144234 | -21550 |

Source: Reserve Bank of India

Notes:

P: Preliminary, PR : Partially Revised

- Grants received are covered under item 4(a).
- Estimated interest accrued and credited to NRI deposits during the year has been treated as notional outflow under invisible payments and added as reinvestment in NRI deposits under banking capital.
- In accordance with the provision of IMF's Balance of Payments Manual (5th Edition), gold purchased from the Government of India by the RBI has been excluded from the BOP statistics. Data for the earlier years has, therefore, been amended by making suitable adjustments in "Other Capital-Receipts and Foreign Exchange Reserves". Similarly, item "SDR Allocation" has been deleted from the table.
- With effect from 1996-97, private transfer receipts include redemption in rupees of both principal and interest under Non-Resident External (Rupee) Account [NRE(R)A] and Non-Resident Non-Repatriable Rupee Deposit [NR(NR)RD] schemes. This marks an improvement in data reporting.
- Totals may not tally due to rounding off.

Table 6.3 A. Balance of Payments as per IMF Balance of Payments Manual 6

| Items | ₹ crore) | | | | | | | | | | | |
|--|----------|---------|---------|---------|---------|---------|--------------|---------|---------|-------------|---------|---------|
| | 2013-14 | | | 2014-15 | | | 2015-16 (PR) | | | 2016-17 (P) | | |
| | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1 Current Account (1.A+1.B+1.C) | 3342089 | 3528995 | -186906 | 3412151 | 3575039 | -162888 | 3281796 | 3425146 | -143350 | 3495211 | 3597569 | -102358 |
| 1.A Goods and Services (1.A.a+1.A.b) | 2850324 | 3292300 | -441976 | 2901402 | 3318948 | -417546 | 2753734 | 3147437 | -393703 | 2973118 | 3275080 | -301962 |
| 1.A.a Goods | 1931074 | 2815918 | -884845 | 1934210 | 2820072 | -885862 | 1743289 | 2592820 | -849531 | 1878943 | 2633395 | -754452 |
| 1.A.b Services (1.A.b.1 to 1.A.b.13) | 919250 | 476381 | 442869 | 967192 | 498877 | 468316 | 1010446 | 554617 | 455828 | 1094175 | 641685 | 452490 |
| 1.A.b.1 Manufacturing services on physical inputs owned by others | 945 | 170 | 775 | 663 | 177 | 485 | 1200 | 302 | 898 | 768 | 256 | 512 |
| 1.A.b.2 Maintenance and repair services n.i.e. | 1287 | 1694 | -408 | 1062 | 1385 | -323 | 995 | 2119 | -1124 | 1221 | 2372 | -1151 |
| 1.A.b.3 Transport | 105261 | 89480 | 15781 | 106865 | 98925 | 7940 | 91660 | 98618 | -6958 | 106312 | 94773 | 11539 |
| 1.A.b.4 Travel | 108807 | 71418 | 37389 | 124542 | 93535 | 31008 | 139542 | 96756 | 42786 | 155929 | 110154 | 45775 |
| 1.A.b.5 Construction | 8091 | 7462 | 630 | 9850 | 7052 | 2798 | 10256 | 6268 | 3987 | 14383 | 5911 | 8473 |
| 1.A.b.6 Insurance and pension services | 12849 | 6760 | 6089 | 13461 | 6835 | 6626 | 13113 | 7530 | 5583 | 14795 | 10033 | 4761 |
| 1.A.b.7 Financial services | 40158 | 34604 | 5554 | 34583 | 21772 | 12811 | 32271 | 20487 | 11784 | 34193 | 39262 | -5069 |
| 1.A.b.8 Charges for the use of intellectual property n.i.e. | 3567 | 24020 | -20453 | 3226 | 29468 | -26243 | 3191 | 31952 | -28761 | 3807 | 38368 | -34561 |
| 1.A.b.9 Telecommunications, computer, and information services | 436220 | 23815 | 412404 | 460702 | 25043 | 435659 | 501263 | 26732 | 474531 | 512084 | 32457 | 479627 |
| 1.A.b.10 Other business services | 172250 | 164550 | 7699 | 173793 | 169173 | 4620 | 189693 | 203860 | -14167 | 220981 | 216332 | 4648 |
| 1.A.b.11 Personal, cultural, and recreational services | 7986 | 5066 | 2919 | 7282 | 8802 | -1520 | 8658 | 7913 | 746 | 9338 | 14731 | -5394 |
| 1.A.b.12 Government goods and services n.i.e. | 2947 | 5888 | -2941 | 3321 | 5871 | -2550 | 3788 | 5677 | -1890 | 3946 | 4021 | -75 |
| 1.A.b.13 Others n.i.e. | 18883 | 41452 | -22569 | 27842 | 30838 | -2996 | 14816 | 46401 | -31585 | 16418 | 73015 | -56597 |
| 1.B Primary Income | 68877 | 208761 | -139884 | 81994 | 229423 | -147430 | 96324 | 256104 | -159779 | 109268 | 285598 | -176330 |
| 1.C Secondary Income | 422888 | 27935 | 394953 | 428756 | 26667 | 402088 | 431737 | 21605 | 410132 | 412825 | 36892 | 375933 |
| 2 Capital Account (2.1+2.2) | 10019 | 6399 | 3620 | 2789 | 2257 | 532 | 1987 | 1719 | 268 | 2910 | 1909 | 1001 |
| 2.1 Gross acquisitions (DR)/disposals (CR) of non-produced nonfinancial assets | 610 | 570 | 40 | 1495 | 812 | 683 | 336 | 242 | 94 | 680 | 416 | 264 |
| 2.2 Capital transfers | 9409 | 5829 | 3580 | 1294 | 1445 | -151 | 1651 | 1477 | 174 | 2230 | 1493 | 737 |
| 3 Financial Account (3.1 to 3.5) | 3152932 | 2963018 | 189914 | 3365248 | 3196580 | 168668 | 3339775 | 3189946 | 149829 | 3699036 | 3600147 | 98889 |
| 3.1 Direct Investment (3.1A+3.1B) | 263894 | 133925 | 129969 | 317087 | 125869 | 191219 | 392422 | 156640 | 235782 | 474811 | 235898 | 238913 |
| 3.1.A Direct Investment in India | 218595 | 31765 | 186830 | 276400 | 60506 | 215893 | 364146 | 69888 | 294258 | 404057 | 120765 | 283292 |

Contd...

Table 6.3 A. Balance of Payments as per IMF Balance of Payments Manual 6

(Contd.....)

(₹ crore)

| Items | 2013-14 | | | 2014-15 | | | 2015-16 (PR) | | | 2016-17 (P) | | |
|--|---------|---------|--------|---------|---------|---------|--------------|---------|---------|-------------|---------|---------|
| | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 3.1.B Direct Investment by India | 45299 | 102159 | -56860 | 40688 | 65363 | -24675 | 28276 | 86752 | -58476 | 70753 | 115133 | -44379 |
| 3.2 Portfolio Investment | 1226673 | 1197104 | 29568 | 1561229 | 1311285 | 249945 | 1412345 | 1441933 | -29588 | 1607507 | 1557026 | 50482 |
| 3.2.A Portfolio Investment in India | 1221704 | 1190713 | 30991 | 1556857 | 1307004 | 249853 | 1406792 | 1432998 | -26207 | 1592617 | 1541095 | 51522 |
| 3.2.B Portfolio Investment by India | 4968 | 6391 | -1423 | 4372 | 4281 | 91 | 5553 | 8935 | -3381 | 14890 | 15931 | -1040 |
| 3.3 Financial derivatives (other than reserves) and employee stock options | 58438 | 45777 | 12661 | 92447 | 102493 | -10046 | 95295 | 90417 | 4878 | 155252 | 89346 | 65906 |
| 3.4 Other investment | 1537539 | 1423769 | 113769 | 1394485 | 1279009 | 115476 | 1434150 | 1379563 | 54587 | 1453092 | 1565270 | -112177 |
| 3.4.1 Other equity (ADRs/GDRs) | 112 | | 112 | 7909 | | 7909 | 2385 | | 2385 | 0 | 0 | 0 |
| 3.4.2 Currency and deposits | 536189 | 295199 | 240990 | 397597 | 300743 | 96855 | 392397 | 289262 | 103136 | 321269 | 403019 | -81750 |
| 3.4.3 Loans (External Assistance, ECBs and Banking Capital) | 329292 | 340006 | -10713 | 359172 | 363765 | -4503 | 386224 | 444261 | -58037 | 435424 | 492278 | -56854 |
| 3.4.4 Insurance, pension, and standardized guarantee schemes | 3559 | 3968 | -409 | 2239 | 1771 | 468 | 2674 | 7972 | -5298 | 2976 | 4941 | -1965 |
| 3.4.5 Trade credit and advances | 602442 | 635155 | -32712 | 548374 | 548820 | -446 | 589587 | 599194 | -9607 | 613446 | 569981 | 43465 |
| 3.4.6 Other accounts receivable/ payable—other | 65944 | 149443 | -83498 | 79194 | 63910 | 15283 | 60883 | 38874 | 22009 | 79978 | 95051 | -15073 |
| 3.4.7 Special drawing rights | | | | | | | | | | | | |
| 3.5 Reserve assets | 66389 | 162443 | -96054 | 0 | 377925 | -377925 | 5563 | 121393 | -115830 | 8373 | 152607 | -144234 |
| 4 Total assets/liabilities | 3152932 | 2963018 | 189914 | 3365248 | 3196580 | 168668 | 3339775 | 3189946 | 149829 | 3699036 | 3600147 | 98889 |
| 5 Net errors and omissions | 4961 | 11589 | -6628 | 6725 | 13037 | -6312 | 2796 | 9542 | -6746 | 8205 | 5737 | 2468 |

Source: Reserve Bank of India

Notes:

P: Preliminary, PR: Partially Revised

1. Totals may not tally due to rounding off.

Table 6.3 B. Balance of Payments as per Balance of Payments Manual 6

| Items | 2013-14 (P) | | | | | | 2014-15 (P) | | | | | | 2015-16 (PR) | | | | | | 2016-17 (P) | | | | | |
|----------|--|--------|--------|---------|--------|--------|-------------|--------|--------|---------|--------|--------|--------------|------|-------|------|------|------|-------------|------|-------|------|------|------|
| | Credit | | Debit | | Net | | Credit | | Debit | | Net | | Credit | | Debit | | Net | | Credit | | Debit | | Net | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) |
| 1 | Current Account (1.A+1.B+1.C) | 551719 | 583976 | -32257 | 558173 | 584962 | -26789 | 501381 | 523469 | -22088 | 521102 | 536331 | -15229 | | | | | | | | | | | |
| 1.A | Goods and Services (1.A.a+1.A.b) | 470420 | 544964 | -74543 | 474652 | 543063 | -68411 | 420676 | 481079 | -60402 | 443261 | 488249 | -44987 | | | | | | | | | | | |
| 1.A.a | Goods | 318607 | 466216 | -147609 | 316545 | 461484 | -144940 | 266365 | 396444 | -130079 | 280138 | 392580 | -112442 | | | | | | | | | | | |
| 1.A.b | Services (1.A.b.1 to 1.A.b.13) | 151813 | 78747 | 73066 | 158107 | 81578 | 76529 | 154311 | 84635 | 69676 | 163123 | 95668 | 67455 | | | | | | | | | | | |
| 1.A.b.1 | Manufacturing services on physical inputs owned by others | 154 | 28 | 125 | 109 | 29 | 79 | 183 | 45 | 138 | 115 | 38 | 76 | | | | | | | | | | | |
| 1.A.b.2 | Maintenance and repair services n.i.e. | 214 | 282 | -69 | 173 | 226 | -53 | 152 | 324 | -171 | 182 | 354 | -172 | | | | | | | | | | | |
| 1.A.b.3 | Transport | 17380 | 14792 | 2588 | 17485 | 16177 | 1308 | 14004 | 15080 | -1076 | 15851 | 14132 | 1719 | | | | | | | | | | | |
| 1.A.b.4 | Travel | 17922 | 11810 | 6112 | 20334 | 15306 | 5028 | 21268 | 14792 | 6476 | 23244 | 16427 | 6817 | | | | | | | | | | | |
| 1.A.b.5 | Construction | 1339 | 1236 | 103 | 1613 | 1153 | 460 | 1562 | 955 | 607 | 2144 | 881 | 1263 | | | | | | | | | | | |
| 1.A.b.6 | Insurance and pension services | 2121 | 1116 | 1005 | 2202 | 1119 | 1084 | 2002 | 1151 | 852 | 2206 | 1496 | 710 | | | | | | | | | | | |
| 1.A.b.7 | Financial services | 6650 | 5814 | 835 | 5661 | 3580 | 2081 | 4944 | 3135 | 1809 | 5099 | 5852 | -754 | | | | | | | | | | | |
| 1.A.b.8 | Charges for the use of intellectual property n.i.e. | 585 | 3980 | -3395 | 529 | 4820 | -4291 | 489 | 4891 | -4402 | 568 | 5720 | -5152 | | | | | | | | | | | |
| 1.A.b.9 | Telecommunications, computer, and information services | 72054 | 3928 | 68126 | 75334 | 4094 | 71240 | 76563 | 4076 | 72487 | 76345 | 4839 | 71506 | | | | | | | | | | | |
| 1.A.b.10 | Other business services | 28482 | 27189 | 1293 | 28422 | 27644 | 778 | 28994 | 31095 | -2101 | 32946 | 32254 | 692 | | | | | | | | | | | |
| 1.A.b.11 | Personal, cultural, and recreational services | 1323 | 831 | 493 | 1192 | 1440 | -248 | 1325 | 1221 | 104 | 1392 | 2197 | -805 | | | | | | | | | | | |
| 1.A.b.12 | Government goods and services n.i.e. | 488 | 979 | -490 | 543 | 961 | -418 | 579 | 869 | -291 | 588 | 600 | -11 | | | | | | | | | | | |
| 1.A.b.13 | Others n.i.e. | 3102 | 6762 | -3660 | 4510 | 5030 | -520 | 2245 | 7000 | -4755 | 2444 | 10879 | -8435 | | | | | | | | | | | |
| 1.B | Primary Income | 11352 | 34380 | -23028 | 13397 | 37537 | -24140 | 14703 | 39078 | -24375 | 16291 | 42582 | -26291 | | | | | | | | | | | |
| 1.C | Secondary Income | 69948 | 4633 | 65315 | 70123 | 4362 | 65762 | 66002 | 3312 | 62690 | 61550 | 5500 | 56050 | | | | | | | | | | | |
| 2 | Capital Account (2.1+2.2) | 1718 | 1060 | 659 | 456 | 370 | 85 | 304 | 263 | 41 | 434 | 285 | 150 | | | | | | | | | | | |
| 2.1 | Gross acquisitions (DR)/disposals (CR) of non-produced nonfinancial assets | 99 | 93 | 6 | 244 | 134 | 110 | 51 | 37 | 13 | 101 | 62 | 40 | | | | | | | | | | | |
| 2.2 | Capital transfers | 1619 | 967 | 652 | 211 | 236 | -25 | 253 | 226 | 27 | 333 | 223 | 110 | | | | | | | | | | | |
| 3 | Financial Account (3.1 to 3.5) | 521478 | 488897 | 32581 | 550481 | 522757 | 27725 | 510639 | 487519 | 23120 | 551482 | 536767 | 14715 | | | | | | | | | | | |
| 3.1 | Direct Investment (3.1A+3.1B) | 43582 | 22018 | 21564 | 51796 | 20544 | 31251 | 59878 | 23857 | 36021 | 70784 | 35172 | 35612 | | | | | | | | | | | |
| 3.1.A | Direct Investment in India | 36047 | 5284 | 30763 | 45147 | 9864 | 35283 | 55559 | 10652 | 44907 | 60220 | 18005 | 42215 | | | | | | | | | | | |

Contd...

Table 6.3 B. Balance of Payments as per Balance of Payments Manual 6

(Contd.....)

(US\$ million)

| Items | 2013-14 (P) | | | 2014-15 (P) | | | 2015-16 (PR) | | | 2016-17 (P) | | |
|--|-------------|--------|--------|-------------|--------|--------|--------------|--------|--------|-------------|--------|--------|
| | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net | Credit | Debit | Net |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 3.1.B Direct Investment by India | 7535 | 16734 | -9199 | 6649 | 10680 | -4031 | 4320 | 13205 | -8886 | 10564 | 17167 | -6603 |
| 3.2 Portfolio Investment | 203164 | 198362 | 4802 | 255490 | 214556 | 40934 | 216181 | 220685 | -4503 | 239738 | 232127 | 7612 |
| 3.2.A Portfolio Investment in India | 202312 | 197304 | 5009 | 254777 | 213854 | 40923 | 215334 | 219349 | -4016 | 237514 | 229748 | 7766 |
| 3.2.B Portfolio Investment by India | 851 | 1058 | -207 | 713 | 702 | 11 | 848 | 1335 | -487 | 2224 | 2378 | -154 |
| 3.3 Financial derivatives (other than reserves) and employee stock options | 9607 | 7601 | 2006 | 15184 | 16748 | -1563 | 14522 | 13891 | 631 | 23148 | 13327 | 9822 |
| 3.4 Other investment | 254424 | 234707 | 19717 | 228011 | 209502 | 18509 | 219202 | 210326 | 8876 | 216570 | 233350 | -16780 |
| 3.4.1 Other equity (ADRs/GDRs) | 20 | - | 20 | 1271 | - | 1271 | 373 | - | 373 | 0 | 0 | 0 |
| 3.4.2 Currency and deposits | 88244 | 48858 | 39386 | 64995 | 49205 | 15789 | 60024 | 44216 | 15808 | 47928 | 60009 | -12081 |
| 3.4.3 Loans (External Assistance, ECBs and Banking Capital) | 54524 | 55653 | -1129 | 58725 | 59601 | -876 | 59140 | 67343 | -8203 | 64821 | 73444 | -8623 |
| 3.4.4 Insurance, pension, and standardized guarantee schemes | 575 | 648 | -74 | 364 | 288 | 76 | 407 | 1194 | -787 | 443 | 737 | -294 |
| 3.4.5 Trade credit and advances | 100117 | 105161 | -5044 | 89729 | 89840 | -111 | 90043 | 91653 | -1610 | 91453 | 84986 | 6467 |
| 3.4.6 Other accounts receivable/ payable—other | 10944 | 24387 | -13443 | 12928 | 10568 | 2361 | 9215 | 5920 | 3294 | 11925 | 14175 | -2250 |
| 3.4.7 Special drawing rights | | | | | | | | | | | | |
| 3.5 Reserve assets | 10701 | 26209 | -15508 | | 61406 | -61406 | 856 | 18761 | -17905 | 1242 | 22792 | -21550 |
| 4 Total assets/liabilities | 521478 | 488897 | 32581 | 550481 | 522757 | 27725 | 510639 | 487519 | 23120 | 551482 | 536767 | 14715 |
| 5 Net errors and omissions | | 881 | -983 | 1089 | 2110 | -1021 | 420 | 1493 | -1073 | 1221 | 857 | 364 |

Source: Reserve Bank of India

Notes:

P: Preliminary, PR: Partially Revised

1. Totals may not tally due to rounding off

Table 6.4. Exchange Rate of Rupee vis-a-vis Selected Currencies of the World

| Year /Months | US dollar | Pound sterling | Euro ^a | Yen | Canadian dollar | Turkish lira | Indonesian rupiah | Brazilian real | Mexican peso | Korean won | Pakistani rupee | Thai baht | (Rupees per unit of foreign currency) | |
|----------------------------|-----------|----------------|-------------------|-------|-----------------|--------------------|-------------------|----------------|--------------------|------------|-----------------|-----------|---------------------------------------|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| (Official Rate) | | | | | | | | | | | | | | |
| 1992-93 | | | | | | | | | | | | | | |
| April | 25.890 | 45.461 | | 0.194 | 21.800 | 0.004 | 0.013 | 0.012 | 0.009 | 0.033 | 1.049 | 1.021 | 35.485 | |
| May | 25.890 | 46.838 | | 0.198 | 21.586 | 0.004 | 0.013 | 0.010 | 0.009 | 0.033 | 1.056 | 1.014 | 35.931 | |
| June | 25.890 | 47.788 | | 0.204 | 21.651 | 0.004 | 0.013 | 0.008 | 0.009 | 0.033 | 1.085 | 1.020 | 36.551 | |
| July | 25.890 | 49.721 | | 0.206 | 21.764 | 0.004 | 0.013 | 0.007 | 0.009 | 0.033 | 1.119 | 1.025 | 37.385 | |
| August | 25.890 | 50.384 | | 0.205 | 21.734 | 0.004 | 0.013 | 0.006 | 0.009 | 0.033 | 1.035 | 1.027 | 37.709 | |
| September | 25.890 | 47.567 | | 0.211 | 21.161 | 0.004 | 0.013 | 0.005 | 0.009 | 0.034 | 1.035 | 1.028 | 37.695 | |
| October | 25.890 | 42.862 | | 0.214 | 20.805 | 0.003 | 0.013 | 0.004 | 0.009 | 0.033 | 1.054 | 1.026 | 37.162 | |
| November | 25.890 | 39.535 | | 0.209 | 20.413 | 0.003 | 0.013 | 0.003 | 0.008 | 0.033 | 1.021 | 1.019 | 35.910 | |
| December | 26.154 | 40.578 | | 0.211 | 20.574 | 0.003 | 0.013 | 0.002 | 0.008 | 0.033 | 1.028 | 1.026 | 36.329 | |
| January | 26.199 | 40.141 | | 0.210 | 20.500 | 0.003 | 0.013 | 0.002 | 8.435 ^b | 0.033 | 1.025 | 1.028 | 36.082 | |
| February | 26.199 | 37.704 | | 0.217 | 20.788 | 0.003 | 0.013 | 0.002 | 8.460 | 0.033 | 1.010 | 1.029 | 35.939 | |
| (Market Rate) ^c | | | | | | | | | | | | | | |
| March 1993 | 31.526 | 45.952 | | 0.270 | 25.279 | 0.003 | 0.015 | 0.001 | 10.151 | 0.040 | 1.198 | 1.242 | 43.521 | |
| 1993-94 | 31.366 | 47.206 | | 0.291 | 23.956 | 0.002 | 0.015 | 0.122 | 10.009 | 0.039 | 1.083 | 1.240 | 43.886 | |
| 2000-01 | 45.684 | 67.552 | 41.483 | 0.414 | 30.383 | 0.007 ^d | 0.005 | 24.153 | 4.788 | 0.039 | 0.820 | 1.100 | 59.546 | |
| 2001-02 | 47.692 | 68.319 | 42.181 | 0.382 | 30.473 | 0.004 ^d | 0.005 | 19.549 | 5.183 | 0.037 | 0.772 | 1.069 | 60.215 | |
| 2002-03 | 48.395 | 74.819 | 48.090 | 0.397 | 31.253 | 0.003 ^d | 0.005 | 15.489 | 4.806 | 0.040 | 0.819 | 1.132 | 64.126 | |
| 2003-04 | 45.952 | 77.739 | 53.990 | 0.407 | 33.991 | 0.003 ^d | 0.005 | 15.713 | 4.248 | 0.039 | 0.798 | 1.132 | 65.690 | |
| 2004-05 | 44.932 | 82.864 | 56.555 | 0.418 | 35.205 | 8.269 ^e | 0.005 | 15.707 | 3.964 | 0.041 | 0.763 | 1.121 | 66.928 | |
| 2005-06 | 44.273 | 79.047 | 53.912 | 0.391 | 37.137 | 32.843 | 0.045 | 19.170 | 4.122 | 0.044 | 0.741 | 1.096 | 64.490 | |
| 2006-07 | 45.250 | 85.643 | 58.051 | 0.387 | 39.765 | 31.156 | 0.005 | 21.044 | 4.113 | 0.048 | 0.748 | 1.236 | 67.254 | |
| 2007-08 | 40.261 | 80.841 | 57.060 | 0.353 | 39.042 | 32.155 | 0.004 | 21.762 | 3.703 | 0.043 | 0.658 | 1.194 | 62.651 | |
| 2008-09 | 45.993 | 78.316 | 65.058 | 0.462 | 40.875 | 32.678 | 0.004 | 23.569 | 3.853 | 0.038 | 0.613 | 1.346 | 71.277 | |
| 2009-10 | 47.443 | 75.781 | 67.051 | 0.511 | 43.567 | 31.266 | 0.005 | 25.455 | 3.616 | 0.039 | 0.572 | 1.409 | 73.733 | |
| 2010-11 | 45.563 | 70.881 | 60.232 | 0.533 | 44.840 | 29.888 | 0.005 | 26.385 | 3.663 | 0.040 | 0.534 | 1.464 | 69.723 | |
| 2011-12 | 47.923 | 76.391 | 65.894 | 0.607 | 48.222 | 27.682 | 0.005 | 28.222 | 3.788 | 0.043 | 0.547 | 1.564 | 75.313 | |
| 2012-13 | 54.410 | 85.971 | 70.069 | 0.658 | 54.347 | 30.291 | 0.006 | 27.092 | 4.171 | 0.049 | 0.572 | 1.768 | 83.026 | |

Contd...

Table 6.4. Exchange Rate of Rupee vis-a-vis Selected Currencies of the World

(Contd.....)

| Year /Months | US dollar | Pound sterling | Euro ^a | Yen | Canadian dollar | Turkish lira | Indonesian rupiah | Brazilian real | Mexican peso | Korean won | (Rupees per unit of foreign currency) | | |
|----------------------------------|-----------|----------------|-------------------|-------|-----------------|--------------|-------------------|----------------|--------------|------------|---------------------------------------|---------------|--------|
| | | | | | | | | | | | Pakistan rupee | Thailand baht | SDR |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 2013-14 | 60.502 | 96.306 | 81.175 | 0.604 | 57.437 | 30.100 | 0.006 | 26.907 | 4.679 | 0.056 | 0.587 | 1.924 | 92.260 |
| 2014-15 | 61.144 | 98.573 | 77.521 | 0.558 | 53.780 | 27.223 | 0.005 | 24.840 | 4.457 | 0.058 | 0.609 | 1.882 | 90.796 |
| 2015-16 | 65.468 | 98.726 | 72.289 | 0.546 | 49.945 | 23.060 | 0.005 | 18.378 | 3.944 | 0.057 | 0.632 | 1.872 | 91.345 |
| 2016-17 | 67.072 | 87.690 | 73.609 | 0.620 | 51.113 | 21.067 | 0.005 | 20.382 | 3.489 | 0.058 | 0.641 | 1.908 | 92.616 |
| 2016-17 | | | | | | | | | | | | | |
| (Market Rate)^c | | | | | | | | | | | | | |
| April | 66.470 | 95.272 | 75.409 | 0.607 | 51.854 | 23.463 | 0.005 | 18.806 | 3.808 | 0.058 | 0.636 | 1.897 | 93.672 |
| May | 66.907 | 97.248 | 75.692 | 0.615 | 51.721 | 22.632 | 0.005 | 18.896 | 3.676 | 0.057 | 0.640 | 1.886 | 94.392 |
| June | 67.297 | 95.553 | 75.573 | 0.639 | 52.223 | 23.050 | 0.005 | 19.607 | 3.591 | 0.058 | 0.644 | 1.907 | 94.734 |
| July | 67.208 | 88.520 | 74.359 | 0.645 | 51.456 | 22.617 | 0.005 | 20.593 | 3.623 | 0.059 | 0.642 | 1.921 | 93.422 |
| August | 66.940 | 87.798 | 75.004 | 0.661 | 51.514 | 22.621 | 0.005 | 20.881 | 3.627 | 0.060 | 0.640 | 1.925 | 93.672 |
| September | 66.738 | 87.715 | 74.826 | 0.655 | 50.911 | 22.465 | 0.005 | 20.482 | 3.468 | 0.060 | 0.639 | 1.922 | 93.363 |
| October | 66.748 | 82.518 | 73.607 | 0.644 | 50.370 | 21.664 | 0.005 | 20.896 | 3.521 | 0.059 | 0.638 | 1.903 | 92.169 |
| November | 67.626 | 83.994 | 73.104 | 0.626 | 50.349 | 20.451 | 0.005 | 20.148 | 3.339 | 0.058 | 0.646 | 1.912 | 92.323 |
| December | 67.900 | 84.735 | 71.598 | 0.585 | 50.941 | 19.396 | 0.005 | 20.283 | 3.310 | 0.057 | 0.649 | 1.898 | 91.483 |
| January | 68.080 | 83.862 | 72.326 | 0.592 | 51.636 | 18.184 | 0.005 | 21.297 | 3.183 | 0.058 | 0.650 | 1.921 | 92.000 |
| February | 67.075 | 83.817 | 71.465 | 0.593 | 51.153 | 18.316 | 0.005 | 21.623 | 3.309 | 0.059 | 0.641 | 1.917 | 90.939 |
| March | 65.877 | 81.245 | 70.342 | 0.583 | 49.228 | 17.943 | 0.005 | 21.076 | 3.419 | 0.058 | 0.629 | 1.890 | 89.219 |

Source: Reserve Bank of India

Notes:

a : The Euro came into existence on January 1, 1999.

b : Peso revalued in January 1993, 1000 old Peso = 1 New Peso.

c : Indicative rates announced by Foreign Exchange Dealers Association of India (FEDAI).

d: 100 Turkish Lira

e : Turkish Lira has been replaced by New Lira w.e.f. 1.1.2005.

1. Annual/monthly averages. During March 1992 to February 1993, a dual exchange rate system was prevalent, in which the official rate was fixed by the RBI and the market rate was determined in the Inter-Bank market for the US dollar.

2. The data for 2001-02 in respect of Deutsche Mark, French Franc and Italian Lira pertain to 11 months only as Germany, France and Italy accepted the Euro as their national currency w.e.f. March 1, 2002.

3. Figures of US dollar, Pound sterling, Euro and Japanese yen from May 2012 onwards are RBI's reference rates.

Table 6.5. Trends in Nominal and Real Effective Exchange Rate of Rupee

| (Tarde Based Weights) | | | | |
|-------------------------------|---|--|--|---|
| Year/month (Average) | Nominal effective exchange rate (NEER) 6-currency Index | Real effective exchange rate (REER) 6-Currency Index | Nominal effective exchange rate (NEER) 36-currency Index | Real effective exchange rate (REER) 36-Currency Index |
| (1) | (2) | (3) | (4) | (5) |
| Base Year: 1993-94=100 | | | | |
| 1994-95 | 96.86 | 105.71 | 99.21 | 104.59 |
| 1995-96 | 88.45 | 101.14 | 91.65 | 98.42 |
| 1996-97 | 86.73 | 100.97 | 89.08 | 96.64 |
| 1997-98 | 87.80 | 104.24 | 92.17 | 100.95 |
| 1998-99 | 77.37 | 95.99 | 88.76 | 92.84 |
| 1999-00 | 77.03 | 97.52 | 90.90 | 95.75 |
| 2000-01 | 77.30 | 102.65 | 92.11 | 100.04 |
| 2001-02 | 75.89 | 102.49 | 91.52 | 100.87 |
| 2002-03 | 71.09 | 97.43 | 89.22 | 98.19 |
| 2003-04 | 69.75 | 98.85 | 87.15 | 99.50 |
| 2004-05 | 69.26 | 101.35 | 87.28 | 100.05 |
| Base Year: 2004-05=100 | | | | |
| 2005-06 | 103.04 | 104.45 | 102.24 | 102.38 |
| 2006-07 | 98.09 | 103.82 | 97.63 | 100.76 |
| 2007-08 | 104.62 | 113.44 | 104.75 | 109.20 |
| 2008-09 | 90.42 | 103.94 | 93.34 | 99.65 |
| 2009-10 | 87.07 | 110.73 | 90.94 | 103.88 |
| 2010-11 | 91.83 | 124.50 | 93.54 | 112.68 |
| 2011-12 | 84.44 | 121.17 | 87.38 | 110.27 |
| 2012-13 | 75.59 | 117.15 | 78.32 | 105.57 |
| 2013-14 | 67.76 | 112.80 | 72.32 | 103.27 |
| 2014-15 | 68.60 | 119.92 | 74.08 | 108.94 |
| 2015-16 | 67.52 | 122.71 | 74.76 | 112.07 |
| 2016-17 (P) | 67.17 | 125.93 | 74.66 | 114.50 |
| 2016-17 (P) | | | | |
| April | 66.12 | 122.11 | 73.38 | 111.23 |
| May | 65.81 | 123.11 | 73.37 | 112.11 |
| June | 65.70 | 123.36 | 73.26 | 112.91 |
| July | 66.53 | 125.30 | 73.96 | 114.17 |
| August | 66.39 | 125.36 | 73.93 | 114.15 |
| September | 66.65 | 125.68 | 74.31 | 114.40 |
| October | 67.34 | 127.13 | 74.85 | 115.50 |
| November | 67.36 | 127.17 | 75.02 | 115.79 |
| December | 68.09 | 127.87 | 75.61 | 116.01 |
| January | 67.73 | 126.05 | 75.23 | 114.69 |
| February | 68.49 | 127.93 | 75.83 | 115.50 |
| March | 69.81 | 130.87 | 77.21 | 117.56 |

Source: Reserve Bank of India

Notes:

P: Provisional

1. REER figures for the period 1994-95 to 2004-05 are based on Wholesale Price Index (WPI).

2. REER figures for the period 2005-06 to 2014-15 are based on Consumer Price Index (CPI).

Table 7.1 A. Exports, Imports and Trade Balance

| Year | Exports (including re-exports) (₹ crore) | Imports (₹ crore) | Trade Balance (₹ crore) | Rate of Change | |
|---------|--|----------------------|-------------------------------|----------------|--------|
| | | | | Export | Import |
| | | | | (per cent) | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1949-50 | 485 | 617 | -132 | na | na |
| 1950-51 | 606 | 608 | -2 | 24.9 | -1.5 |
| 1951-52 | 716 | 890 | -174 | 18.2 | 46.4 |
| 1952-53 | 578 | 702 | -124 | -19.3 | -21.1 |
| 1953-54 | 531 | 610 | -79 | -8.1 | -13.1 |
| 1954-55 | 593 | 700 | -107 | 11.7 | 14.8 |
| 1955-56 | 609 | 774 | -165 | 2.7 | 10.6 |
| 1956-57 | 605 | 841 | -236 | -0.7 | 8.7 |
| 1957-58 | 561 | 1035 | -474 | -7.3 | 23.1 |
| 1958-59 | 581 | 906 | -325 | 3.6 | -12.5 |
| 1959-60 | 640 | 961 | -321 | 10.2 | 6.1 |
| 1960-61 | 642 | 1122 | -480 | 0.3 | 16.8 |
| 1961-62 | 660 | 1090 | -430 | 2.8 | -2.9 |
| 1962-63 | 685 | 1131 | -446 | 3.8 | 3.8 |
| 1963-64 | 793 | 1223 | -430 | 15.8 | 8.1 |
| 1964-65 | 816 | 1349 | -533 | 2.9 | 10.3 |
| 1965-66 | 810 | 1409 | -599 | -0.7 | 4.4 |
| 1966-67 | 1157 | 2078 | -921 | 42.8 | 47.5 |
| 1967-68 | 1199 | 2008 | -809 | 3.6 | -3.4 |
| 1968-69 | 1358 | 1909 | -551 | 13.3 | -4.9 |
| 1969-70 | 1413 | 1582 | -169 | 4.1 | -17.1 |
| 1970-71 | 1535 | 1634 | -99 | 8.6 | 3.3 |
| 1971-72 | 1608 | 1825 | -217 | 4.8 | 11.7 |
| 1972-73 | 1971 | 1867 | 104 | 22.6 | 2.3 |
| 1973-74 | 2523 | 2955 | -432 | 28.0 | 58.3 |
| 1974-75 | 3329 | 4519 | -1190 | 31.9 | 52.9 |
| 1975-76 | 4036 | 5265 | -1229 | 21.2 | 16.5 |
| 1976-77 | 5142 | 5074 | 68 | 27.4 | -3.6 |
| 1977-78 | 5408 | 6020 | -612 | 5.2 | 18.6 |
| 1978-79 | 5726 | 6811 | -1085 | 5.9 | 13.1 |
| 1979-80 | 6418 | 9143 | -2725 | 12.1 | 34.2 |
| 1980-81 | 6711 | 12549 | -5838 | 4.6 | 37.3 |
| 1981-82 | 7806 | 13608 | -5802 | 16.3 | 8.4 |
| 1982-83 | 8803 | 14293 | -5490 | 12.8 | 5.0 |
| 1983-84 | 9771 | 15831 | -6060 | 11.0 | 10.8 |
| 1984-85 | 11744 | 17134 | -5390 | 20.2 | 8.2 |
| 1985-86 | 10895 | 19658 | -8763 | -7.2 | 14.7 |
| 1986-87 | 12452 | 20096 | -7644 | 14.3 | 2.2 |
| 1987-88 | 15674 | 22244 | -6570 | 25.9 | 10.7 |
| 1988-89 | 20232 | 28235 | -8003 | 29.1 | 26.9 |
| 1989-90 | 27658 | 35328 | -7670 | 36.7 | 25.1 |
| 1990-91 | 32553 | 43198 | -10645 | 17.7 | 22.3 |
| 1991-92 | 44041 | 47851 | -3810 | 35.3 | 10.8 |
| 1992-93 | 53688 | 63375 | -9687 | 21.9 | 32.4 |
| 1993-94 | 69751 | 73101 | -3350 | 29.9 | 15.3 |

Contd....

| Table 7.1 A. Exports, Imports and Trade Balance <i>(Contd....)</i> | | | | | |
|--|--|----------------------|-------------------------------|----------------|--------|
| Year | Exports (including re-exports) (₹ crore) | Imports (₹ crore) | Trade Balance (₹ crore) | Rate of Change | |
| | | | | Export | Import |
| | | | | (per cent) | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1994-95 | 82674 | 89971 | -7297 | 18.5 | 23.1 |
| 1995-96 | 106353 | 122678 | -16325 | 28.6 | 36.4 |
| 1996-97 | 118817 | 138920 | -20103 | 11.7 | 13.2 |
| 1997-98 | 130100 | 154176 | -24076 | 9.5 | 11.0 |
| 1998-99 | 139752 | 178332 | -38580 | 7.4 | 15.7 |
| 1999-00 | 159095 | 215529 | -56434 | 13.8 | 20.9 |
| 2000-01 | 201356 | 228307 | -26950 | 26.6 | 5.9 |
| 2001-02 | 209018 | 245200 | -36182 | 3.8 | 7.4 |
| 2002-03 | 254913 | 296360 | -41446 | 22.0 | 20.9 |
| 2003-04 | 293367 | 359108 | -65741 | 15.1 | 21.2 |
| 2004-05 | 375340 | 501065 | -125725 | 27.9 | 39.5 |
| 2005-06 | 456418 | 660409 | -203991 | 21.6 | 31.8 |
| 2006-07 | 571779 | 881515 | -309736 | 25.3 | 33.5 |
| 2007-08 | 655864 | 1012312 | -356448 | 14.7 | 14.8 |
| 2008-09 | 840755 | 1374436 | -533680 | 28.2 | 35.8 |
| 2009-10 | 845534 | 1363736 | -518202 | 0.6 | -0.8 |
| 2010-11 | 1136964 | 1683467 | -546503 | 34.5 | 23.4 |
| 2011-12 | 1465959 | 2345463 | -879504 | 28.9 | 39.3 |
| 2012-13 | 1634318 | 2669162 | -1034844 | 11.5 | 13.8 |
| 2013-14 | 1905011 | 2715434 | -810423 | 16.6 | 1.7 |
| 2014-15 | 1896445 | 2737087 | -840642 | -0.4 | 0.8 |
| 2015-16 | 1716378 | 2490298 | -773920 | -9.5 | -9.0 |
| 2016-17 (P) | 1852340 | 2577422 | -725082 | 7.9 | 3.5 |

Source : Directorate General of Commercial Intelligence & Statistics (DGCI&S), Kolkata

Notes:

P: Provisional

1. For the years 1956-57, 1957-58, 1958-59 and 1959-60, the data are as per the Fourteenth Report of the Estimates Committee(1971-72) of the erstwhile Ministry of Foreign Trade.

Table 7.1 B. Exports, Imports and Trade Balance

| Year | Exports (including re-exports) (US \$ million) | Imports (US \$ million) | Trade Balance (US \$ million) | Rate of Change | |
|---------|--|----------------------------|-------------------------------------|----------------|--------|
| | | | | Export | Import |
| | | | | (per cent) | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1949-50 | 1016 | 1292 | -276 | na | na |
| 1950-51 | 1269 | 1273 | -4 | 24.9 | -1.5 |
| 1951-52 | 1490 | 1852 | -362 | 17.4 | 45.5 |
| 1952-53 | 1212 | 1472 | -260 | -18.7 | -20.5 |
| 1953-54 | 1114 | 1279 | -165 | -8.1 | -13.1 |
| 1954-55 | 1233 | 1456 | -223 | 10.7 | 13.8 |
| 1955-56 | 1275 | 1620 | -345 | 3.4 | 11.3 |
| 1956-57 | 1259 | 1750 | -491 | -1.3 | 8.0 |
| 1957-58 | 1171 | 2160 | -989 | -7.0 | 23.4 |
| 1958-59 | 1219 | 1901 | -682 | 4.1 | -12.0 |
| 1959-60 | 1343 | 2016 | -673 | 10.2 | 6.0 |
| 1960-61 | 1346 | 2353 | -1007 | 0.2 | 16.7 |
| 1961-62 | 1381 | 2281 | -900 | 2.6 | -3.1 |
| 1962-63 | 1437 | 2372 | -935 | 4.1 | 4.0 |
| 1963-64 | 1659 | 2558 | -899 | 15.4 | 7.8 |
| 1964-65 | 1701 | 2813 | -1112 | 2.5 | 10.0 |
| 1965-66 | 1693 | 2944 | -1251 | -0.5 | 4.7 |
| 1966-67 | 1628 | 2923 | -1295 | -3.8 | -0.7 |
| 1967-68 | 1586 | 2656 | -1070 | -2.6 | -9.1 |
| 1968-69 | 1788 | 2513 | -725 | 12.7 | -5.4 |
| 1969-70 | 1866 | 2089 | -223 | 4.4 | -16.9 |
| 1970-71 | 2031 | 2162 | -131 | 8.8 | 3.5 |
| 1971-72 | 2153 | 2443 | -290 | 6.0 | 13.0 |
| 1972-73 | 2550 | 2415 | 135 | 18.4 | -1.1 |
| 1973-74 | 3209 | 3759 | -550 | 25.8 | 55.7 |
| 1974-75 | 4174 | 5666 | -1492 | 30.1 | 50.7 |
| 1975-76 | 4665 | 6084 | -1419 | 11.8 | 7.4 |
| 1976-77 | 5753 | 5677 | 76 | 23.3 | -6.7 |
| 1977-78 | 6316 | 7031 | -715 | 9.8 | 23.9 |
| 1978-79 | 6978 | 8300 | -1322 | 10.5 | 18.0 |
| 1979-80 | 7947 | 11321 | -3374 | 13.9 | 36.4 |
| 1980-81 | 8486 | 15869 | -7383 | 6.8 | 40.2 |
| 1981-82 | 8704 | 15174 | -6470 | 2.6 | -4.4 |
| 1982-83 | 9107 | 14787 | -5680 | 4.6 | -2.6 |
| 1983-84 | 9449 | 15311 | -5862 | 3.8 | 3.5 |
| 1984-85 | 9878 | 14412 | -4534 | 4.5 | -5.9 |
| 1985-86 | 8904 | 16067 | -7163 | -9.9 | 11.5 |
| 1986-87 | 9745 | 15727 | -5982 | 9.4 | -2.1 |
| 1987-88 | 12089 | 17156 | -5067 | 24.1 | 9.1 |
| 1988-89 | 13970 | 19497 | -5527 | 15.6 | 13.6 |
| 1989-90 | 16612 | 21219 | -4607 | 18.9 | 8.8 |
| 1990-91 | 18143 | 24075 | -5932 | 9.2 | 13.5 |
| 1991-92 | 17865 | 19411 | -1546 | -1.5 | -19.4 |
| 1992-93 | 18537 | 21882 | -3345 | 3.8 | 12.7 |
| 1993-94 | 22238 | 23306 | -1068 | 20.0 | 6.5 |

Contd....

| Table 7.1 B. Exports, Imports and Trade Balance <i>(Contd....)</i> | | | | | |
|--|--|----------------------------|-------------------------------------|----------------|--------|
| Year | Exports (including re-exports) (US \$ million) | Imports (US \$ million) | Trade Balance (US \$ million) | Rate of Change | |
| | | | | Export | Import |
| | | | | (per cent) | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1994-95 | 26330 | 28654 | -2324 | 18.4 | 22.9 |
| 1995-96 | 31797 | 36678 | -4881 | 20.8 | 28.0 |
| 1996-97 | 33470 | 39133 | -5663 | 5.3 | 6.7 |
| 1997-98 | 35006 | 41484 | -6478 | 4.6 | 6.0 |
| 1998-99 | 33218 | 42389 | -9171 | -5.1 | 2.2 |
| 1999-2000 | 36715 | 49738 | -13023 | 10.5 | 17.3 |
| 2000-01 | 44076 | 49975 | -5899 | 20.0 | 0.5 |
| 2001-02 | 43827 | 51413 | -7587 | -0.6 | 2.9 |
| 2002-03 | 52719 | 61412 | -8693 | 20.3 | 19.4 |
| 2003-04 | 63843 | 78149 | -14307 | 21.1 | 27.3 |
| 2004-05 | 83536 | 111517 | -27981 | 30.8 | 42.7 |
| 2005-06 | 103091 | 149166 | -46075 | 23.4 | 33.8 |
| 2006-07 | 126414 | 185735 | -59321 | 22.6 | 24.5 |
| 2007-08 | 163132 | 251654 | -88522 | 29.0 | 35.5 |
| 2008-09 | 185295 | 303696 | -118401 | 13.6 | 20.7 |
| 2009-10 | 178751 | 288373 | -109621 | -3.5 | -5.0 |
| 2010-11 | 251136 | 369769 | -118633 | 40.5 | 28.2 |
| 2011-12 | 305964 | 489319 | -183356 | 21.8 | 32.3 |
| 2012-13 | 300401 | 490737 | -190336 | -1.8 | 0.3 |
| 2013-14 | 314405 | 450200 | -135794 | 4.7 | -8.3 |
| 2014-15 | 310338 | 448033 | -137695 | -1.3 | -0.5 |
| 2015-16 | 262290 | 381007 | -118717 | -15.5 | -15.0 |
| 2016-17 (P) | 276280 | 384319 | -108039 | 5.3 | 0.9 |

Source : DGCI&S, Kolkata

Notes:

P: Provisional

- For the years 1956-57, 1957-58, 1958-59 and 1959-60, the data are as per the Fourteenth Report of the Estimates Committee (1971-72) of the erstwhile Ministry of Foreign Trade.

Table 7.2 A. Principal ImportsQuantity : Thousand tonnes
Value : ₹ crore & US\$ million

| | | 1960-61 | | | 1970-71 | | | 1980-81 | | |
|-------------|---|---------|------|------------|---------|------|------------|---------|-------|------------|
| | | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| I. | Food and live animals chiefly for food (excl. cashew raw) | ... | 214 | 449 | ... | 242 | 321 | ... | 380 | 481 |
| | of which: | | | | | | | | | |
| I.1 | Cereals and cereal preparations | 3747.7 | 181 | 380 | 3343.2 | 213 | 282 | 400.8 | 100 | 127 |
| II. | Raw materials and intermediate manufactures | ... | 527 | 1105 | ... | 889 | 1176 | ... | 9760 | 12341 |
| II.1 | Cashewnuts (unprocessed) | na | ... | ... | 169.4 | 29 | 39 | 25 | 9 | 11 |
| II.2 | Crude rubber (including synthetic and reclaimed) | 36.2 | 11 | 23 | 7.8 | 4 | 5 | 26.2 | 32 | 40 |
| II.3 | Fibres | ... | 101 | 212 | ... | 127 | 168 | ... | 164 | 208 |
| | of which: | | | | | | | | | |
| II.3.1 | Synthetic and regenerated fibres (man-made fibres) | 0.2 | ... | ... | 15.8 | 9 | 12 | 68.8 | 97 | 122 |
| II.3.2 | Raw wool | 1.9 | 1 | 2 | 19 | 15 | 20 | 18.8 | 43 | 55 |
| II.3.3 | Raw cotton | 237.1 | 82 | 172 | 139.1 | 99 | 131 | na | ... | ... |
| II.3.4 | Raw jute | 100.4 | 8 | 17 | 0.7 | ... | 0 | 8 | 1 | 1 |
| II.4 | Petroleum, oil and lubricants | 800 | 69 | 145 | 12767 | 136 | 180 | 23537 | 5264 | 6656 |
| II.5 | Animal and vegetable oils and fats | ... | 5 | 10 | ... | 39 | 51 | ... | 709 | 896 |
| | of which: | | | | | | | | | |
| II.5.1 | Edible oils | 31.1 | 4 | 8 | 84.7 | 23 | 31 | 1633.3 | 677 | 857 |
| II.6 | Fertilizers and chemical products | ... | 88 | 185 | ... | 217 | 286 | ... | 1490 | 1884 |
| | of which: | | | | | | | | | |
| II.6.1 | Fertilizers and fertilizer mfg | 307 | 13 | 27 | 2392.7 | 86 | 113 | 5560.2 | 818 | 1034 |
| II.6.2 | Chemical elements and compounds | ... | 39 | 82 | ... | 68 | 90 | ... | 358 | 453 |
| II.6.3 | Dyeing, tanning and colouring material | ... | 1 | 2 | ... | 9 | 12 | ... | 21 | 26 |
| II.6.4 | Medicinal and pharmaceutical products | ... | 10 | 21 | ... | 24 | 32 | ... | 85 | 107 |
| II.6.5 | Plastic material, regenerated | | | | | | | | | |
| | cellulose and artificial resins | ... | 9 | 19 | ... | 8 | 11 | ... | 121 | 154 |
| II.7 | Pulp and waste paper | 80.3 | 7 | 15 | 71.7 | 12 | 16 | 36.9 | 18 | 23 |
| II.8 | Paper, paper board and manufactures thereof | 55.6 | 12 | 25 | 159 | 25 | 33 | 371.4 | 187 | 236 |
| II.9 | Non-metallic mineral manufactures | ... | 6 | 13 | ... | 33 | 44 | ... | 555 | 702 |
| | of which: | | | | | | | | | |
| II.9.1 | Pearls, precious and semiprecious stones, unworked or worked | ... | 1 | 2 | ... | 25 | 33 | ... | 417 | 527 |
| II.10 | Iron and steel | 1325.2 | 123 | 258 | 683.4 | 147 | 194 | 2031.1 | 852 | 1078 |
| II.11 | Non-ferrous metals | ... | 47 | 99 | ... | 119 | 158 | ... | 477 | 604 |
| III. | Capital goods^a | ... | 356 | 747 | ... | 404 | 534 | ... | 1910 | 2416 |
| III.1 | Manufactures of metals | ... | 23 | 48 | ... | 9 | 12 | ... | 90 | 113 |
| III.2 | Non-electrical machinery apparatus and appliances including machine tools b | ... | 203 | 426 | ... | 258 | 341 | ... | 1089 | 1377 |
| III.3 | Electrical machinery, apparatus and appliancesb | ... | 57 | 120 | ... | 70 | 93 | ... | 260 | 328 |
| III.4 | Transport equipment | ... | 72 | 151 | ... | 67 | 88 | ... | 472 | 597 |
| | Total Imports | ... | 1122 | 2353 | ... | 1634 | 2162 | ... | 12549 | 15869 |

Contd....

Table 7.2 A. Principal Imports
(Contd....)

 Quantity : Thousand tonnes
 Value : ₹ crore & US\$ million

| | 1990-91 | | | 2000-01 | | | 2010-11 | | |
|--|---------|--------------|--------------|---------|---------------|--------------|---------|----------------|---------------|
| | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |
| I. Food and live animals chiefly for food (excl. cashew raw) of which: | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| I.1 Cereals and cereal preparations | 308.3 | 182 | 102 | 69.9 | 90 | 20 | 251.5 | 545 | 119 |
| II. Raw materials and intermediate manufactures | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.1 Cashewnuts (unprocessed) | 82.6 | 134 | 75 | 249.7 | 962 | 211 | 501.0 | 2650 | 578 |
| II.2 Crude rubber (including synthetic and reclaimed) | 105.1 | 226 | 126 | 119.1 | 695 | 152 | 587.7 | 8074 | 1771 |
| II.3 Fibres of which: | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.3.1 Synthetic and regenerated fibres (man-made fibres) | 21.2 | 56 | 31 | 42.6 | 275 | 60 | 81.5 | 957 | 210 |
| II.3.2 Raw wool | 29.4 | 182 | 102 | 53.7 | 458 | 100 | 94.4 | 1435 | 315 |
| II.3.3 Raw cotton | 0.2 | 1 | 0 | 212.3 | 1185 | 259 | 56.5 | 624 | 137 |
| II.3.4 Raw jute | 32.1 | 20 | 11 | 67.3 | 84 | 18 | 83.1 | 302 | 67 |
| II.4 Petroleum, oil and lubricants | 29359 | 10816 | 6028 | ... | 71497 | 15650 | ... | 482282 | 105964 |
| II.5 Animal and vegetable oils and fats of which: | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.5.1 Edible oils | 525.8 | 326 | 182 | 4267.9 | 6093 | 1334 | 6677.6 | 29860 | 6551 |
| II.6 Fertilizers and chemical products of which: | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.6.1 Fertilizers and fertilizer mfg | 7560.3 | 1766 | 984 | 7423.4 | 3034 | 664 | 20658.9 | 31533 | 6885 |
| II.6.2 Chemical elements and compounds | ... | 2289 | 1276 | ... | 1542 | 338 | ... | 13278 | 2914 |
| II.6.3 Dyeing, tanning and colouring material | ... | 168 | 94 | ... | 874 | 191 | ... | 5368 | 1178 |
| II.6.4 Medicinal and pharmaceutical products | ... | 468 | 261 | ... | 1723 | 377 | ... | 11114 | 2436 |
| II.6.5 Plastic material, regenerated cellulose and artificial resins | ... | 1095 | 610 | ... | 2551 | 558 | ... | 31304 | 6874 |
| II.7 Pulp and waste paper | 678.2 | 458 | 255 | 1050.9 | 1290 | 282 | 2634.5 | 5208 | 1145 |
| II.8 Paper, paper board and manufactures thereof | 286.4 | 456 | 254 | 585.6 | 2005 | 439 | 2145.0 | 9614 | 2111 |
| II.9 Non-metallic mineral manufactures of which: | ... | ... | ... | ... | 797 | 174 | ... | ... | ... |
| II.9.1 Pearls, precious and semiprecious stones, unworked or worked | ... | 3738 | 2083 | ... | 22101 | 4838 | ... | 157596 | 34620 |
| II.10 Iron and steel | 1920.5 | 2113 | 1178 | 1613.6 | 3569 | 781 | 9843.9 | 47275 | 10376 |
| II.11 Non-ferrous metals | ... | 1102 | 614 | ... | 2462 | 539 | ... | 212153 | 46677 |
| III. Capital goods^a | ... | 10466 | 5833 | ... | 25281 | 5534 | ... | 231712 | 50907 |
| III.1 Manufactures of metals | ... | 302 | 168 | ... | 1786 | 391 | ... | 15167 | 3332 |
| III.2 Non-electrical machinery ^b apparatus and appliances including machine tools | ... | 4240 | 2363 | ... | 16915 | 3703 | ... | 118928 | 26111 |
| III.3 Electrical machinery, apparatus and appliances ^b | ... | 1702 | 949 | ... | 2227 | 487 | ... | 17510 | 3845 |
| III.4 Transport equipment | ... | 1670 | 931 | ... | 4353 | 953 | ... | 52112 | 11467 |
| Total Imports | ... | 43198 | 24075 | ... | 228307 | 51413 | ... | 1683467 | 369769 |

Contd....

Table 7.2 A. Principal Imports*(Contd....)*Quantity : Thousand tonnes
Value : ₹ crore & US\$ million

| | 2014-15 | | | 2015-16 | | | 2016-17 (P) | | |
|--|---------|----------------|---------------|---------|----------------|---------------|-------------|----------------|---------------|
| | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | (20) | (21) | (22) | (23) | (24) | (25) | (26) | (27) | (28) |
| I. Food and live animals chiefly for food (excl. cashew raw) | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| of which: | | | | | | | | | |
| I.1 Cereals and cereal preparations | 120 | 718 | 117 | 786 | 1798 | 276 | 6129 | 9594 | 1430 |
| II. Raw materials and intermediate manufactures | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.1 Cashewnuts (unprocessed) | 933 | 6600 | 1087 | 962 | 8701 | 1339 | 774 | 9027 | 1347 |
| II.2 Crude rubber (including synthetic and reclaimed) | 916 | 11691 | 1916 | 928 | 9878 | 1513 | 885 | 10030 | 1496 |
| II.3 Fibres of which: | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| II.3.1 Synthetic and regenerated fibres (man-made fibres) | ... | 2484 | 407 | ... | 2630 | 403 | ... | 2454 | 366 |
| II.3.2 Raw wool | 97 | 2126 | 349 | 98 | 2016 | 308 | 87 | 1894 | 282 |
| II.3.3 Raw cotton | 289 | 3102 | 509 | 232 | 2566 | 394 | 499 | 6338 | 947 |
| II.3.4 Raw jute | 44 | 140 | 23 | 88 | 363 | 56 | 139 | 704 | 105 |
| II.4 Petroleum, oil and lubricants | ... | 842874 | 138326 | ... | 540505 | 82944 | ... | 582762 | 86896 |
| II.5 Animal and vegetable oils and fats of which: | | | | | | | | | |
| II.5.1 Edible oils | 12732 | 64890 | 10621 | 15644 | 68677 | 10492 | 14010 | 73048 | 10894 |
| II.6 Fertilizers and chemical products of which: | | | | | | | | | |
| II.6.1 Fertilizers and fertilizer mfr | 26649 | 45295 | 7399 | 28593 | 52502 | 8072 | 23615 | 33726 | 5027 |
| II.6.2 Chemical elements and compounds* | ... | 145919 | 23899 | ... | 142063 | 21738 | ... | 147350 | 21973 |
| II.6.3 Dyeing, tanning and colouring material | ... | 14937 | 2448 | ... | 14699 | 2248 | ... | 15308 | 2283 |
| II.6.4 Medicinal and pharmaceutical products | ... | 33211 | 5433 | ... | 35575 | 5440 | ... | 33504 | 4995 |
| II.6.5 Plastic material, regenerated cellulose and artificial resins | ... | 73718 | 12070 | ... | 77070 | 11795 | ... | 80229 | 11964 |
| II.7 Pulp and waste paper | ... | 5781 | 944 | ... | 6265 | 956 | ... | 6537 | 975 |
| II.8 Paper, paper board and manufactures thereof | ... | 15681 | 2567 | ... | 15758 | 2408 | ... | 17458 | 2602 |
| II.9 Non-metallic mineral manufactures of which: | | | | | | | | | |
| II.9.1 Pearls, precious and semiprecious stones, unworked or worked | ... | 137968 | 22598 | ... | 131366 | 20070 | ... | 159464 | 23809 |
| II.10 Iron and steel | 16874 | 75516 | 12342 | 20920 | 73558 | 11252 | 13911 | 55278 | 8239 |
| II.11 Non-ferrous metals | ... | 304062 | 49676 | ... | 295510 | 45239 | ... | 262961 | 39226 |
| III. Capital goods^a | ... | 348632 | 56930 | ... | 353160 | 53879 | ... | 379106 | 56494 |
| III.1 Manufactures of metals** | ... | 27652 | 4516 | ... | 28631 | 4372 | ... | 28028 | 4178 |
| III.2 Non-electrical machinery ^b apparatus and appliances including machine tools | ... | 110772 | 18106 | ... | 100814 | 15396 | ... | 100374 | 14962 |
| III.3 Electrical machinery, apparatus and appliances ^b | ... | 75475 | 12330 | ... | 86183 | 13122 | ... | 84157 | 12548 |
| III.4 Transport equipment | ... | 112521 | 18345 | ... | 119489 | 18228 | ... | 152606 | 22728 |
| Total Imports | ... | 2737087 | 448033 | ... | 2490298 | 381007 | ... | 2577422 | 384319 |

Source : DGCI&S, Kolkata

Notes:

... : Not available. P : Provisional

a : From the year 1987-88 onwards, capital goods include project goods.

b : From the year 1991-92 onwards, Items III.2 & III.3 exclude electronic goods.

* : II.6.2 Chemical elements and compounds includes Organic & Inorganic Chemicals, Chemical material & Products

** : Items belonging to Manufactures of Metals (Except few ITCHS) already considered under other Groups of Table 4A.

Table 7.2 B. Share and Percentage Change of Major Imports

| Commodity Group | Percentage share | | | Percentage change ^a | | |
|---|------------------|--------------|--------------|--------------------------------|--------------|--------------|
| | 2014-15 | 2015-16 | 2016-17 (P) | 2014-15 | 2015-16 | 2016-17(P) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| I. Food and allied products^b | 3.9 | 5.1 | 5.6 | 19.9 | 9.3 | 12.0 |
| <i>of which</i> | | | | | | |
| 1. Cereals ^c | 0.0 | 0.1 | 0.4 | 28.8 | 135.5 | 418.2 |
| 2. Pulses | 0.6 | 1.0 | 1.1 | 31.5 | 40.1 | 8.8 |
| 3. Cashew Nuts | 0.2 | 0.4 | 0.4 | 40.5 | 23.2 | 0.5 |
| 4. Edible Oils | 2.4 | 2.8 | 2.8 | 13.1 | -1.2 | 3.8 |
| II. Fuel | 34.8 | 25.4 | 26.7 | -13.8 | -38.1 | 6.2 |
| 5. Coal ^d | 4.0 | 3.6 | 4.1 | 8.5 | -23.2 | 15.2 |
| 6. POL | 30.9 | 21.8 | 22.6 | -16.0 | -40.0 | 4.8 |
| III. Fertilizers^e | 1.7 | 2.1 | 1.3 | 18.1 | 9.1 | -37.7 |
| IV. Paper board manufactures & newsprint | 0.7 | 0.8 | 0.9 | 1.0 | 3.5 | 7.4 |
| V. Capital goods^f | 11.7 | 13.0 | 13.6 | -1.4 | -5.5 | 5.7 |
| <i>of which</i> | | | | | | |
| 7. Machinery except elec & machine tool | 4.0 | 4.0 | 3.9 | 2.8 | -15.0 | -2.8 |
| 8. Electrical machinery | 2.8 | 3.4 | 3.3 | 5.2 | 6.4 | -4.4 |
| 9. Transport equipment | 4.1 | 4.8 | 5.9 | -4.9 | -0.6 | 24.7 |
| 10. Project goods | 0.8 | 0.7 | 0.5 | -20.2 | -24.0 | -24.7 |
| VI. Others | 34.0 | 38.1 | 37.0 | 11.2 | -4.6 | -2.0 |
| <i>of which</i> | | | | | | |
| 11. Chemicals ^g | 5.9 | 6.3 | 6.3 | 6.5 | -9.0 | 1.1 |
| 12. Pearls precious semi precious stones | 5.0 | 5.3 | 6.2 | -5.8 | -11.2 | 18.6 |
| 13. Iron & steel ^h | 2.8 | 3.0 | 2.1 | 35.5 | -8.8 | -26.8 |
| 14. Non-ferrous metals ⁱ | 2.4 | 2.6 | 2.6 | 21.0 | -9.5 | 1.5 |
| 15. Gold & Silver | 8.7 | 9.3 | 7.6 | 17.1 | -8.8 | -17.3 |
| 16. Professional instruments, optical goods, etc. | 0.8 | 1.0 | 1.0 | 0.1 | 0.4 | 6.5 |
| 17. Electronic Goods | 8.4 | 10.7 | 11.2 | 12.9 | 9.1 | 4.7 |
| Total Imports | 100.0 | 100.0 | 100.0 | -0.5 | -15.0 | 0.9 |

Source: DGCI&S, Kolkata

Notes:

P : Provisional

a : In terms of US dollar

b : Including Tea, Sugar, Milk and Cream, Spices, Fruits & Nuts.

c : Including cereals preparations.

d : Including coke and briquettes.

e : Including fertilizers crude and fertilizers manufactured.

f : Including Manufactures of metals.

g : Including organic chemical, inorganic chemical, chemical materials & products and dyeing, tanning & colouring material.

h : Including primary steel and pig iron based items.

i : Excluding gold and silver

Table 7.3 A. Principal ExportsQuantity : Thousand tonnes
Value : ₹ crore & US\$ million

| | | 1960-61 | | | 1970-71 | | | 1980-81 | | |
|----------------------|--|---------|------|------------|---------|------|------------|---------|------|------------|
| | | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| I. | Agricultural and allied products: | ... | 284 | 596 | ... | 487 | 644 | ... | 2057 | 2601 |
| | of which | | | | | | | | | |
| I. 1 | Coffee | 19.7 | 7 | 15 | 32.2 | 25 | 33 | 87.3 | 214 | 271 |
| I. 2 | Tea and mate | 199.2 | 124 | 260 | 199.1 | 148 | 196 | 229.2 | 426 | 538 |
| I. 3 | Oil cakes | 433.8 | 14 | 29 | 878.5 | 55 | 73 | 886 | 125 | 158 |
| I. 4 | Tobacco | 47.5 | 16 | 34 | 49.8 | 33 | 43 | 91.3 | 141 | 178 |
| I. 5 | Cashew kernels | 43.6 | 19 | 40 | 60.6 | 57 | 76 | 32.3 | 140 | 177 |
| I. 6 | Spices | 47.2 | 17 | 36 | 46.9 | 39 | 51 | 84.2 | 11 | 14 |
| I. 7 | Sugar and molasses | 99.6 | 30 | 60 | 473 | 29 | 39 | 97 | 40 | 50 |
| I. 8 | Raw cotton | 32.6 | 12 | 25 | 32.1 | 14 | 19 | 131.6 | 165 | 209 |
| I. 9 | Rice | ... | ... | ... | 32.8 | 5 | 7 | 726.7 | 224 | 283 |
| I. 10 | Fish and fish preparations | 19.9 | 5 | 10 | 32.6 | 31 | 40 | 69.4 | 217 | 274 |
| I. 11 | Meat and meat preparations | ... | 1 | 2 | ... | 3 | 4 | ... | 56 | 70 |
| I. 12 | Fruits, vegetables and pulses (excl. cashew kernels, processed fruits & juices) | ... | 6 | 13 | ... | 12 | 16 | ... | 80 | 101 |
| I. 13 | Miscellaneous processed foods (incl. processed fruits and juices) | ... | 1 | 2 | ... | 4 | 6 | ... | 36 | 45 |
| II. | Ores and minerals (excl. coal) | ... | 52 | 109 | ... | 164 | 217 | ... | 414 | 523 |
| | of which | | | | | | | | | |
| II.1 | Mica | 28.4 | ... | ... | 26.7 | 16 | 21 | 16.7 | 18 | 22 |
| II.2 | Iron ore (million tonne) | 3.2 | 17 | 36 | 21.2 | 117 | 155 | 22.4 | 303 | 384 |
| III. | Manufactured goods | ... | 291 | 610 | ... | 772 | 1021 | ... | 3747 | 4738 |
| | of which | | | | | | | | | |
| III. 1 | Textile fabrics & manufactures (excl. carpets hand-made) of which | ... | 73 | 153 | ... | 145 | 192 | ... | 933 | 1179 |
| III.1.1 | Cotton yarn, fabrics, made-ups etc. | ... | 65 | 136 | ... | 142 | 188 | ... | 408 | 516 |
| III.1.2 | Readymade garments of all textile materials | ... | 1 | 2 | ... | 29 | 39 | ... | 550 | 696 |
| III. 2 | Coir yarn and manufactures | ... | 6 | 13 | ... | 13 | 17 | ... | 17 | 22 |
| III. 3 | Jute manufactures incl. twist & yarn | 790.0 | 135 | 283 | 560.0 | 190 | 252 | 660.0 | 330 | 417 |
| III. 4 | Leather & leather manufactures incl. leather footwear, leather travel goods & leather garments | ... | 28 | 59 | ... | 80 | 106 | ... | 390 | 493 |
| III. 5 | Handicrafts (incl. carpets hand-made ^c of which: | ... | 11 | 23 | ... | 73 | 96 | ... | 952 | 1204 |
| III. 5.1 | Gems and jewellery | ... | 1 | 2 | ... | 45 | 59 | ... | 618 | 782 |
| III. 6 | Chemicals and allied products ^a | ... | 7 | 15 | ... | 29 | 39 | ... | 225 | 284 |
| III. 7 | Machinery, transport & metal manufactures including iron and steel ^b | ... | 22 | 46 | ... | 198 | 261 | ... | 827 | 1045 |
| IV. | Mineral fuels and lubricants (incl. coal)^d | ... | 7 | 15 | ... | 13 | 17 | ... | 28 | 35 |
| Total Exports | | ... | 642 | 1346 | ... | 1535 | 2031 | ... | 6711 | 8486 |

Contd....

Table 7.3 A. Principal Exports

(Contd....)

| | | Quantity : Thousand tonnes Value : ₹ crore & US\$ million | | | | | | | | |
|----------------------|--|--|-------|------------|---------|--------|------------|---------|---------|------------|
| | | 1990-91 | | | 2000-01 | | | 2010-11 | | |
| | | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |
| I. | Agricultural and allied products: | ... | 6317 | 3521 | ... | 28582 | 6256 | ... | 111393 | 24448 |
| | of which | | | | | | | | | |
| I. 1 | Coffee | 86.5 | 252 | 141 | 184.9 | 1185 | 259 | 232.6 | 3010 | 662 |
| I. 2 | Tea and mate | 199.1 | 1070 | 596 | 202.4 | 1976 | 433 | 238.3 | 3354 | 736 |
| I. 3 | Oil cakes | 2447.8 | 609 | 339 | 2417.8 | 2045 | 448 | 6936.9 | 11070 | 2438 |
| I. 4 | Tobacco | 87.1 | 263 | 147 | 108.3 | 871 | 191 | 215.9 | 3985 | 875 |
| I. 5 | Cashew kernels | 55.5 | 447 | 249 | 83.8 | 1883 | 412 | 12156.5 | 2853 | 627 |
| I. 6 | Spices | 103.3 | 239 | 133 | 244.9 | 1619 | 354 | 762.7 | 8043 | 1768 |
| I. 7 | Sugar and molasses | 191.0 | 38 | 21 | 769.0 | 511 | 112 | 2086.3 | 5633 | 1246 |
| I. 8 | Raw cotton | 374.4 | 846 | 471 | 30.2 | 224 | 49 | 1885.8 | 13160 | 2910 |
| I. 9 | Rice | 505.0 | 462 | 257 | 1534.4 | 2943 | 644 | 2471.4 | 11586 | 2545 |
| I. 10 | Fish and fish preparations | 158.9 | 960 | 535 | 502.6 | 6367 | 1394 | 825.3 | 11917 | 2623 |
| I. 11 | Meat and meat preparations | ... | 140 | 78 | ... | 1470 | 322 | ... | 8960 | 1971 |
| I. 12 | Fruits, vegetables and pulses (excl. cashew kernels, processed fruits & juices) | ... | 216 | 120 | ... | 1609 | 352 | ... | 6350 | 1397 |
| I. 13 | Miscellaneous processed foods (incl. processed fruits and juices) | ... | 213 | 119 | ... | 1094 | 239 | ... | 3669 | 806 |
| II. | Ores and minerals (excl. coal) | ... | 1497 | 834 | ... | 4139 | 906 | ... | 39098 | 8581 |
| | of which | | | | | | | | | |
| II.1 | Mica | 42.0 | 35 | 19 | 63.2 | 64 | 14 | 125.8 | 189 | 42 |
| II.2 | Iron ore (million tonne) | 32.5 | 1049 | 585 | 20161.4 | 1634 | 358 | 46.9 | 21416 | 4715 |
| III. | Manufactured goods | ... | 23736 | 13229 | ... | 160723 | 35181 | ... | 789433 | 173263 |
| | of which | | | | | | | | | |
| III. 1 | Textile fabrics & manufactures (excl. carpets hand-made) | ... | 6832 | 3807 | ... | ... | ... | ... | ... | ... |
| | of which | | | | | | | | | |
| III.1.1 | Cotton yarn, fabrics, made-ups etc. | ... | 2100 | 1170 | ... | 16030 | 3509 | ... | 13160 | 2910 |
| III.1.2 | Readymade garments of all textile materials | ... | 4012 | 2236 | ... | 25478 | 5577 | ... | 52861 | 11614 |
| III. 2 | Coir yarn and manufactures | ... | 48 | 27 | ... | 221 | 48 | ... | 726 | 159 |
| III. 3 | Jute manufactures incl. twist & yarn | 220.0 | 298 | 166 | ... | 932 | 204 | ... | 2092 | 459 |
| III. 4 | Leather & leather manufactures incl. leather footwear, leather travel goods & leather garments | ... | 2600 | 1449 | ... | 8914 | 1951 | ... | 17818 | 3909 |
| III. 5 | Handicrafts (incl. carpets hand-made) ^c | ... | 6167 | 3437 | ... | 5097 | 1116 | ... | 5877 | 1293 |
| | of which | | | | | | | | | |
| III. 5.1 | Gems and jewellery | ... | 5247 | 2924 | ... | 33734 | 7384 | ... | 184420 | 40509 |
| III. 6 | Chemicals and allied products ^a | ... | 2111 | 1176 | ... | 22851 | 5002 | ... | 131544 | 28905 |
| III. 7 | Machinery, transport & metal manufactures including iron and steel ^b | ... | 3872 | 2158 | ... | 31870 | 6976 | ... | 226805 | 49815 |
| IV. | Mineral fuels and lubricants (incl. coal)^d | ... | 948 | 528 | ... | 8822 | 1931 | ... | 192639 | 42280 |
| Total Exports | | ... | 32553 | 18143 | ... | 201356 | 44076 | ... | 1136964 | 251136 |

Contd....

Table 7.3 A. Principal Exports*(Contd....)*Quantity : Thousand tonnes
Value : ₹ crore & US\$ million

| | | 2014-15 | | | 2015-16 | | | 2016-17 (P) | | |
|----------------------|--|---------|----------------|---------------|---------|----------------|---------------|-------------|----------------|---------------|
| | | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million | Qty | ₹ Cr | \$ million |
| (1) | | (20) | (21) | (22) | (23) | (24) | (25) | (26) | (27) | (28) |
| I. | Agricultural and allied products: | | 240639 | 39356 | | 216369 | 33049 | ... | 228001 | 33994 |
| | of which | | | | | | | | | |
| I. 1 | Coffee | 463.6 | 4973 | 813 | 255.7 | 5125 | 783 | 289.7 | 5669 | 845 |
| I. 2 | Tea and mate | 234.4 | 4171 | 682 | 245.7 | 4719 | 721 | 244.4 | 4926 | 734 |
| I. 3 | Oil cakes | 3904.6 | 8129 | 1329 | 2056.3 | 3600 | 550 | 2616.1 | 5378 | 802 |
| I. 4 | Tobacco | 251.2 | 5869 | 960 | 249.1 | 6452 | 986 | 240.9 | 6451 | 962 |
| I. 5 | Cashew kernels | 145.3 | 5622 | 919 | 114.7 | 5086 | 777 | 104.0 | 5347 | 797 |
| I. 6 | Spices | 939.0 | 14848 | 2428 | 831.7 | 16630 | 2540 | 1019.3 | 19442 | 2899 |
| I. 7 | Sugar and molasses | 2202.8 | 5522 | 903 | 4663.0 | 10481 | 1601 | 2939.1 | 8993 | 1341 |
| I. 8 | Raw cotton | 1142.5 | 11643 | 1904 | 1347.0 | 12821 | 1958 | 1002.7 | 10982 | 1637 |
| I. 9 | Rice | 12001.0 | 48028 | 7855 | 10510.3 | 38202 | 5835 | 10821.2 | 38750 | 5778 |
| I. 10 | Fish and fish preparations | 1231.8 | 33688 | 5510 | 978.0 | 31219 | 4769 | 1190.5 | 39707 | 5920 |
| I. 11 | Meat and meat preparations | ... | 30128 | 4927 | ... | 27528 | 4205 | ... | 27198 | 4055 |
| I. 12 | Fruits, vegetables and pulses (excl. cashew kernels, processed fruits & juices) | ... | 9045 | 1479 | ... | 11084 | 1693 | ... | 13854 | 2066 |
| I. 13 | Miscellaneous processed foods (incl. processed fruits and juices) | ... | 13037 | 2132 | ... | 14100 | 2154 | ... | 12449 | 1856 |
| II. | Ores and minerals (excl. coal) | ... | 28684 | 4691 | ... | 26634 | 4068 | ... | 35947 | 5360 |
| | of which | | | | | | | | | |
| II.1 | Mica | 140.4 | 342 | 56 | 135.01 | 344 | 53 | 135.3 | 376 | 56 |
| II.2 | Iron ore (million tonne) | 7.3 | 3143 | 514 | 5.4 | 1263 | 193 | 30.4 | 10175 | 1517 |
| III. | Manufactured goods | ... | 1266137 | 207076 | ... | 1251146 | 191107 | ... | 1363232 | 203255 |
| | of which | | | | | | | | | |
| III. 1 | Textile fabrics & manufactures (excl. carpets hand-made) | ... | 42456 | 6944 | ... | 40314 | 6158 | ... | 32253 | ... |
| | of which | | | | | | | | | |
| III.1.1 | Cotton yarn, fabrics, made-ups etc. | ... | 57832 | 9458 | ... | 58073 | 8870 | ... | 57544 | 8580 |
| III.1.2 | Readymade garments of all textile materials | ... | 102943 | 16836 | ... | 111019 | 16958 | ... | 117067 | 17454 |
| III. 2 | Coir yarn and manufactures | ... | 1725 | 282 | ... | 1717 | 262 | ... | 1986 | 296 |
| III. 3 | Jute manufactures incl. twist & yarn | ... | 1934 | 316 | ... | 2049 | 313 | ... | 2088 | 311 |
| III. 4 | Leather & leather manufactures incl. leather footwear, leather travel goods & leather garments | ... | 37853 | 6191 | ... | 36326 | 5549 | ... | 35731 | 5327 |
| III. 5 | Handicrafts (incl. carpets hand-made) ^c of which | ... | 16728 | 2736 | ... | 20145 | 3077 | ... | 22892 | 3413 |
| III. 5.1 | Gems and jewellery | ... | 252208 | 41248 | ... | 257416 | 39319 | ... | 291984 | 43534 |
| III. 6 | Chemicals and allied products ^a | ... | 228282 | 37335 | ... | 244779 | 37389 | ... | 308529 | 46001 |
| III. 7 | Machinery, transport & metal manufactures including iron and steel ^b | ... | 433863 | 70958 | ... | 384385 | 58713 | ... | 436542 | 65087 |
| IV. | Mineral fuels and lubricants (incl. coal)^d | ... | 351090 | 57421 | ... | 203735 | 31120 | ... | 216280 | 32247 |
| Total Exports | | ... | 1896445 | 310352 | ... | 1716378 | 262290 | ... | 1852340 | 276280 |

Source: DGCI&S, Kolkata

Notes:

... : Not available

P : Provisional

a : Chemicals and allied products figures relate to "Basic Chemicals" and "Plastic Linoleum products"

b : Also includes electronic goods and computer software

c : Gems and Jewellery excluded from Handicrafts and reported as individual item since 1997-98

d : During 1990-91 and 2000-01 Crude oil exports amount to Nil

Table 7.3 B. Share and Percentage Change of Major Exports

| Commodity Group | Percentage share | | | Percentage change ^a | | |
|--|------------------|--------------|--------------|--------------------------------|--------------|--------------|
| | 2014-15 | 2015-16 | 2016-17(P) | 2014-15 | 2015-16 | 2016-17 (P) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| I. Agriculture & allied | 12.7 | 12.6 | 12.3 | -8.8 | -16.0 | 2.9 |
| of which | | | | | | |
| 1 Tea | 0.2 | 0.3 | 0.3 | -15.3 | 5.7 | 1.9 |
| 2 Coffee | 0.3 | 0.3 | 0.3 | 2.5 | -3.7 | 8.0 |
| 3 Cereals | 3.1 | 2.4 | 2.2 | -9.2 | -34.4 | -3.2 |
| 4 Unmanufactured Tobacco | 0.2 | 0.3 | 0.2 | -13.9 | -1.9 | -4.7 |
| 5 Spices | 0.8 | 1.0 | 1.0 | -3.0 | 4.6 | 14.1 |
| 6 Cashewnuts | 0.3 | 0.3 | 0.3 | 8.4 | -15.5 | 2.6 |
| 7 Oil Meals | 0.4 | 0.2 | 0.3 | -52.9 | -58.6 | 45.8 |
| 8 Fruits & Vegetables & Pulses | 0.5 | 0.6 | 0.7 | -17.0 | 14.5 | 6.4 |
| 9 Marine Products | 1.8 | 1.8 | 2.1 | 8.8 | -13.4 | 24.2 |
| 10 Raw Cotton | 0.6 | 0.7 | 0.6 | -48.4 | 2.8 | -16.4 |
| II. Ores and Minerals | 1.5 | 1.6 | 1.9 | -18.6 | -13.3 | 31.7 |
| of which | | | | | | |
| 11 Iron Ore | 0.2 | 0.1 | 0.5 | -67.2 | -62.5 | 686.3 |
| 12 Processed minerals | 0.3 | 0.3 | 0.3 | 3.1 | -15.5 | 2.8 |
| 13 Other ores & minerals | 0.7 | 0.8 | 0.7 | -2.9 | -9.5 | 1.3 |
| III. Manufactured goods | 66.7 | 72.9 | 73.6 | 3.7 | -7.7 | 6.4 |
| of which | | | | | | |
| 14 Leather & Manufactures | 1.3 | 1.3 | 1.2 | 5.6 | -13.1 | -6.2 |
| 15 Leather footwear | 0.7 | 0.8 | 0.8 | 11.9 | -5.7 | -0.6 |
| 16 Gems & Jewellery | 13.3 | 15.0 | 15.8 | -0.3 | -4.7 | 10.7 |
| 17 Drugs, Pharmaceuticals & fine chemicals | 1.1 | 1.4 | 1.2 | -1.2 | 0.9 | -5.4 |
| 18 Dyes/intmdts. & Coaltar chemicals | 0.8 | 0.8 | 0.8 | 9.4 | -13.2 | 3.0 |
| 19 Manufactures of metals | 5.4 | 5.2 | 5.0 | 21.0 | -19.1 | 2.0 |
| 20 Machinery & instruments | 5.9 | 6.7 | 6.8 | 12.6 | -4.1 | 5.8 |
| 21 Transport equipments | 7.9 | 7.5 | 7.7 | 21.8 | -20.2 | 8.2 |
| 22 Primary & semi-finished Iron & Steel | 2.8 | 2.1 | 3.2 | -6.3 | -37.0 | 59.5 |
| 23 Electronic Goods | 1.8 | 2.0 | 2.0 | -22.1 | -5.6 | 1.6 |
| 24 Cotton yarn, fabrics, made-ups etc. | 3.0 | 3.4 | 3.1 | -2.5 | -6.2 | -3.3 |
| 25 Readymade Garments | 5.4 | 6.5 | 6.3 | 12.3 | 0.7 | 2.9 |
| 26 Handicrafts | 0.4 | 0.6 | 0.7 | -8.7 | 19.0 | 17.6 |
| IV. Crude & Petroleum Products (incl. Coal) | 18.5 | 11.9 | 11.7 | -11.4 | -45.8 | 3.6 |
| V. Other & unclassified items | 0.5 | 1.1 | 0.5 | 7.5 | 74.5 | -53.1 |
| Total Exports | 100.0 | 100.0 | 100.0 | -1.3 | -15.5 | 5.3 |

Source: DGCI&S, Kolkata

Notes:

P : Provisional

a : In terms of US dollar

Table 7.4 A. Direction of Imports : Imports by Regions and Countries

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Per cent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|------------------------------|---------|-------------------|-----------|-------------------|--------------------------------------|------------|---------------------|-------------------|-----------|-------------------|------------|------------|---------------------------------------|-------------------|---------------------|------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) |
| | | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | (Per cent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | (Per cent) | (US\$ million) | (₹ crore) | (Per cent) |
| 1) Europe | | 71010 | 424266 | 73920 | 451909 | 4.1 | 16.5 | 64633 | 422624 | 60236 | 403972 | -6.8 | 15.7 | | | |
| 1.1 Eu Countries (27) | | 49951 | 301284 | 49208 | 300771 | -1.5 | 11.0 | 43898 | 287133 | 41147 | 275993 | -6.3 | 10.8 | | | |
| 1) Germany | | 12932 | 78210 | 12788 | 78181 | -1.1 | 2.9 | 12088 | 79098 | 11484 | 77036 | -5.0 | 3.0 | | | |
| 2) Belgium | | 10752 | 64672 | 10806 | 65939 | 0.5 | 2.4 | 8256 | 54001 | 6658 | 44617 | -19.4 | 1.7 | | | |
| 3) U K | | 6045 | 36043 | 5018 | 30733 | -17.0 | 1.1 | 5193 | 33936 | 3704 | 24845 | -28.7 | 1.0 | | | |
| 4) France | | 3692 | 22331 | 4416 | 27030 | 19.6 | 1.0 | 3730 | 24420 | 4609 | 30920 | 23.6 | 1.2 | | | |
| 5) Italy | | 4157 | 25141 | 4232 | 25862 | 1.8 | 0.9 | 4072 | 26645 | 3860 | 25888 | -5.2 | 1.0 | | | |
| 6) Netherland | | 3139 | 18921 | 2803 | 17095 | -10.7 | 0.6 | 1860 | 12168 | 1897 | 12740 | 2.0 | 0.5 | | | |
| 7) Spain | | 1843 | 11172 | 2005 | 12281 | 8.8 | 0.4 | 1646 | 10756 | 1969 | 13226 | 19.6 | 0.5 | | | |
| 8) Sweden | | 1679 | 10158 | 1748 | 10702 | 4.1 | 0.4 | 1485 | 9693 | 1162 | 7796 | -21.7 | 0.3 | | | |
| 9) Finland | | 1054 | 6422 | 917 | 5600 | -13.0 | 0.2 | 1002 | 6550 | 976 | 6552 | -2.6 | 0.3 | | | |
| 10) Austria | | 829 | 5018 | 816 | 4982 | -1.6 | 0.2 | 827 | 5422 | 909 | 6087 | 9.9 | 0.2 | | | |
| 11) Poland | | 623 | 3780 | 636 | 3891 | 2.1 | 0.1 | 570 | 3731 | 682 | 4581 | 19.8 | 0.2 | | | |
| 12) Ireland | | 558 | 3379 | 533 | 3260 | -4.5 | 0.1 | 552 | 3613 | 504 | 3383 | -8.5 | 0.1 | | | |
| 13) Czech Republic | | 518 | 3140 | 518 | 3166 | 0.0 | 0.1 | 508 | 3319 | 547 | 3672 | 7.8 | 0.1 | | | |
| 14) Denmark | | 445 | 2692 | 458 | 2801 | 2.9 | 0.1 | 429 | 2812 | 482 | 3232 | 12.4 | 0.1 | | | |
| 15) Romania | | 376 | 2268 | 296 | 1812 | -21.1 | 0.1 | 309 | 2024 | 320 | 2143 | 3.3 | 0.1 | | | |
| 16) Hungary | | 220 | 1334 | 240 | 1466 | 8.6 | 0.1 | 243 | 1586 | 219 | 1466 | -9.9 | 0.1 | | | |
| 17) Portugal | | 340 | 2075 | 145 | 885 | -57.3 | 0.0 | 103 | 671 | 141 | 946 | 37.7 | 0.0 | | | |
| 18) Slovak Rep | | 53 | 322 | 137 | 846 | 157.9 | 0.0 | 65 | 423 | 69 | 464 | 7.1 | 0.0 | | | |
| 19) Greece | | 109 | 659 | 128 | 779 | 16.7 | 0.0 | 111 | 722 | 122 | 820 | 10.0 | 0.0 | | | |
| 20) Estonia | | 115 | 710 | 118 | 720 | 2.4 | 0.0 | 142 | 913 | 102 | 687 | -27.8 | 0.0 | | | |
| 21) Lithuania | | 54 | 323 | 112 | 678 | 108.4 | 0.0 | 214 | 1404 | 271 | 1820 | 26.5 | 0.1 | | | |
| 22) Slovenia | | 118 | 714 | 105 | 639 | -11.5 | 0.0 | 89 | 579 | 102 | 682 | 14.8 | 0.0 | | | |
| 23) Bulgaria | | 94 | 568 | 104 | 634 | 10.7 | 0.0 | 94 | 616 | 182 | 1220 | 94.4 | 0.0 | | | |
| 24) Luxembourg | | 46 | 277 | 42 | 256 | -9.4 | 0.0 | 176 | 1143 | 46 | 310 | -73.8 | 0.0 | | | |
| 25) Latvia | | 104 | 622 | 36 | 220 | -65.1 | 0.0 | 62 | 399 | 40 | 266 | -35.6 | 0.0 | | | |
| 26) Malta | | 34 | 210 | 28 | 174 | -17.5 | 0.0 | 26 | 174 | 22 | 150 | -15.4 | 0.0 | | | |
| 27) Cyprus | | 20 | 122 | 23 | 140 | 12.4 | 0.0 | 48 | 314 | 67 | 445 | 38.2 | 0.0 | | | |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries (Contd....)

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | Share (Per cent) | 2015-16 | | 2016-17 (P) | | Change (10) over (8) (Per cent) | Share (Per cent) |
|--|-------------------|--------|---------|--------|--------------------------------------|---------------------|---------|-------------------|-------------|--------|---------------------------------------|---------------------|
| | (US\$ million) | (2) | (3) | (4) | | | (5) | (US\$ million) | (8) | (9) | | |
| (1) | | | | | | | | | | | | |
| 1.2 European Free Trade Association (EFTA) | 20063 | 116922 | 23140 | 141551 | 15.3 | 5.2 | 19890 | 129967 | 17825 | 119503 | -10.4 | 4.7 |
| 1) Switzerland | 19311 | 112338 | 22133 | 135367 | 14.6 | 4.9 | 19299 | 126074 | 17255 | 115663 | -10.6 | 4.5 |
| 2) Norway | 745 | 4540 | 1001 | 6148 | 34.4 | 0.2 | 585 | 3858 | 565 | 3803 | -3.5 | 0.1 |
| 3) Iceland | 7 | 41 | 5 | 29 | -29.3 | 0.0 | 4 | 27 | 5 | 32 | 10.1 | 0.0 |
| 4) Liechtenstein | 0 | 3 | 1 | 7 | 148.9 | 0.0 | 1 | 8 | 1 | 6 | -27.1 | 0.0 |
| 1.3 Other European Countries | 996 | 6060 | 1572 | 9587 | 57.8 | 0.4 | 845 | 5524 | 1264 | 8475 | 49.6 | 0.3 |
| 1) Turkey | 760 | 4594 | 1464 | 8937 | 92.5 | 0.3 | 777 | 5080 | 1208 | 8101 | 55.5 | 0.3 |
| 2) Albania | 199 | 1244 | 51 | 301 | -74.5 | 0.0 | 17 | 114 | 7 | 44 | -62.2 | 0.0 |
| 3) Croatia | 10 | 58 | 29 | 174 | 194.8 | 0.0 | 36 | 236 | 22 | 147 | -39.4 | 0.0 |
| 4) Union Of Serbia & Montenegro | 6 | 33 | 15 | 93 | 172.6 | 0.0 | 3 | 19 | | | -100.0 | 0.0 |
| 5) Macedonia | 20 | 121 | 9 | 56 | -54.6 | 0.0 | 7 | 46 | 24 | 162 | 240.8 | 0.0 |
| 6) Bosnia-Hrzgovin | 2 | 10 | 4 | 26 | 156.6 | 0.0 | 4 | 29 | 3 | 22 | -24.5 | 0.0 |
| 2) Africa | 36627 | 221340 | 38635 | 235792 | 5.5 | 8.6 | 31667 | 206498 | 28826 | 193327 | -9.0 | 7.5 |
| 2.1 Southern African Customs Union (SACU) | 6598 | 39081 | 7567 | 46262 | 14.7 | 1.7 | 6547 | 42692 | 7235 | 48515 | 10.5 | 1.9 |
| 1) South Africa | 6075 | 35858 | 6497 | 39741 | 6.9 | 1.5 | 5948 | 38785 | 5814 | 38980 | -2.3 | 1.5 |
| 2) Botswana | 383 | 2361 | 1013 | 6168 | 164.5 | 0.2 | 542 | 3539 | 1307 | 8766 | 141.1 | 0.3 |
| 3) Namibia | 13 | 78 | 34 | 209 | 164.8 | 0.0 | 10 | 68 | 50 | 338 | 382.8 | 0.0 |
| 4) Swaziland | 125 | 770 | 22 | 136 | -82.3 | 0.0 | 41 | 268 | 39 | 264 | -3.9 | 0.0 |
| 5) Lesotho | 3 | 14 | 1 | 8 | -45.0 | 0.0 | 5 | 32 | 25 | 167 | 404.3 | 0.0 |
| 2.2 Other South African Countries | 6541 | 39962 | 5259 | 32059 | -19.6 | 1.2 | 3630 | 23656 | 3947 | 26466 | 8.8 | 1.0 |
| 1) Angola | 5992 | 36651 | 4618 | 28118 | -22.9 | 1.0 | 2767 | 17984 | 2596 | 17406 | -6.2 | 0.7 |
| 2) Mozambique | 293 | 1781 | 326 | 1998 | 11.2 | 0.1 | 363 | 2375 | 546 | 3662 | 50.5 | 0.1 |
| 3) Zambia | 243 | 1454 | 283 | 1740 | 16.5 | 0.1 | 475 | 3134 | 744 | 4991 | 56.5 | 0.2 |
| 4) Zimbabwe | 13 | 76 | 33 | 202 | 161.6 | 0.0 | 24 | 162 | 60 | 406 | 147.3 | 0.0 |
| 2.3 West Africa | 17237 | 104580 | 20035 | 122203 | 16.2 | 4.5 | 16741 | 109124 | 13025 | 87368 | -22.2 | 3.4 |
| 1) Nigeria | 14098 | 85767 | 13683 | 83433 | -2.9 | 3.1 | 9949 | 64923 | 7659 | 51375 | -23.0 | 2.0 |
| 2) Ghana | 371 | 2250 | 1258 | 7741 | 239.4 | 0.3 | 2981 | 19405 | 1939 | 13015 | -35.0 | 0.5 |
| 3) Gabon | 868 | 5077 | 793 | 4811 | -8.7 | 0.2 | 106 | 691 | 69 | 466 | -34.2 | 0.0 |
| 4) Equat Guinea | 302 | 1869 | 749 | 4581 | 148.3 | 0.2 | 457 | 3012 | 798 | 5353 | 74.5 | 0.2 |
| 5) Cameroon | 268 | 1624 | 745 | 4542 | 177.8 | 0.2 | 558 | 3619 | 359 | 2411 | -35.6 | 0.1 |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries

| Regions / Countries | (Contd.....) | | | | | | | | | | | |
|---------------------------|-------------------|-------------|-------------------|-------------------|--------------|--------------------------------------|---------------------|-------------------|-------------|-------------------|--------------|---------------------------------------|
| | 2013-14 | | | 2014-15 | | | 2015-16 | | | 2016-17(P) | | |
| | (US\$ million) | (₹ crore) | (US\$ million) | (US\$ million) | (₹ crore) | Change (4) over (2) (Per cent) | Share (Per cent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | Change (10) over (8) (Per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 6) Guinea | 194 | 1116 | 730 | 4449 | 275.4 | 0.2 | 370 | 2405 | 279 | 1874 | -24.6 | 0.1 |
| 7) Cote D' Ivoire | 298 | 1791 | 532 | 3216 | 78.3 | 0.1 | 572 | 3697 | 456 | 3056 | -20.4 | 0.1 |
| 8) Congo P Rep | 90 | 539 | 366 | 2231 | 308.3 | 0.1 | 202 | 1305 | 157 | 1049 | -22.4 | 0.0 |
| 9) Benin | 168 | 1001 | 222 | 1343 | 32.5 | 0.0 | 276 | 1778 | 207 | 1391 | -24.8 | 0.1 |
| 10) Senegal | 154 | 954 | 208 | 1270 | 35.5 | 0.0 | 264 | 1727 | 316 | 2118 | 19.7 | 0.1 |
| 11) Togo | 156 | 949 | 196 | 1198 | 25.1 | 0.0 | 225 | 1454 | 138 | 929 | -38.5 | 0.0 |
| 12) Guinea Bissau | 110 | 678 | 158 | 967 | 44.4 | 0.0 | 198 | 1294 | 216 | 1443 | 8.8 | 0.1 |
| 13) Burkina Faso | 17 | 101 | 152 | 937 | 816.3 | 0.0 | 238 | 1550 | 256 | 1715 | 7.7 | 0.1 |
| 14) Mali | 71 | 426 | 79 | 476 | 10.8 | 0.0 | 243 | 1606 | 99 | 662 | -59.1 | 0.0 |
| 15) Liberia | 27 | 156 | 58 | 359 | 114.7 | 0.0 | 32 | 205 | 8 | 51 | -76.2 | 0.0 |
| 16) Mauritania | 7 | 44 | 43 | 265 | 489.9 | 0.0 | 19 | 122 | 11 | 73 | -41.0 | 0.0 |
| 17) Gambia | 29 | 182 | 36 | 220 | 23.6 | 0.0 | 31 | 204 | 43 | 290 | 37.8 | 0.0 |
| 18) Sierra Leone | 6 | 34 | 24 | 144 | 324.3 | 0.0 | 17 | 108 | 12 | 82 | -26.1 | 0.0 |
| 19) Cape Verde Is | 3 | 19 | 3 | 18 | -6.6 | 0.0 | 3 | 18 | 2 | 13 | -31.4 | 0.0 |
| 20) Niger | 1 | 3 | 1 | 3 | 1.9 | 0.0 | 0 | 2 | 0 | 0 | -90.6 | 0.0 |
| 21) St Helena | 0 | 1 | 0 | 1 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 22) Sao Tome | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 2.4 Central Africa | 108 | 647 | 266 | 1630 | 145.7 | 0.1 | 531 | 3438 | 369 | 2475 | -30.5 | 0.1 |
| 1) Congo D. Rep. | 47 | 277 | 126 | 770 | 167.4 | 0.0 | 98 | 624 | 86 | 576 | -12.1 | 0.0 |
| 2) Chad | 11 | 68 | 63 | 390 | 457.5 | 0.0 | 321 | 2077 | 169 | 1138 | -47.2 | 0.0 |
| 3) Uganda | 33 | 200 | 38 | 230 | 13.7 | 0.0 | 46 | 300 | 69 | 462 | 51.4 | 0.0 |
| 4) Malawi | 15 | 94 | 37 | 228 | 142.8 | 0.0 | 64 | 422 | 41 | 278 | -35.7 | 0.0 |
| 5) Rwanda | 0 | 2 | 1 | 7 | 384.0 | 0.0 | 1 | 9 | 1 | 8 | -12.6 | 0.0 |
| 6) C. Afri Rep | 1 | 5 | 1 | 4 | -30.8 | 0.0 | 1 | 5 | 0 | 3 | -54.2 | 0.0 |
| 7) Burundi | 0 | 1 | 0 | 2 | 61.1 | 0.0 | 0 | 1 | 2 | 11 | 1,354.5 | 0.0 |
| 2.5 East Africa | 1034 | 6160 | 1442 | 8837 | 39.5 | 0.3 | 1327 | 8724 | 1319 | 8854 | -0.6 | 0.3 |
| 1) Tanzania Rep | 724 | 4298 | 1089 | 6680 | 50.3 | 0.2 | 925 | 6086 | 948 | 6370 | 2.6 | 0.2 |
| 2) Kenya | 127 | 763 | 117 | 717 | -7.3 | 0.0 | 128 | 837 | 104 | 699 | -18.2 | 0.0 |
| 3) Madagascar | 53 | 317 | 95 | 585 | 80.3 | 0.0 | 142 | 933 | 120 | 802 | -15.5 | 0.0 |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries (Contd....)

| Regions / Countries | 2013-14 | | | 2014-15 | | | Share (Per cent) | Change (4) over (2) (Per cent) | | 2015-16 | | | 2016-17 (P) | | Change (10) over (8) (Per cent) | | Share (Per cent) |
|--------------------------|---------|-------------------|---------------|-------------------|---------------|--------------|---------------------|--------------------------------------|-------------------|---------------|-------------------|---------------|-------------|-------------|---------------------------------------|--|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | | (7) | (8) | (9) | (10) | (11) | (12) | (13) | | | |
| | | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | | (Per cent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | (Per cent) | | | |
| 4) Ethiopia | | 28 | 170 | 44 | 272 | 55.8 | 0.0 | 0.0 | 61 | 399 | 67 | 449 | 10.0 | 0.0 | | | |
| 5) Somalia | | 46 | 279 | 38 | 231 | -17.5 | 0.0 | 0.0 | 16 | 101 | 18 | 119 | 13.6 | 0.0 | | | |
| 6) Reunion | | 23 | 137 | 23 | 138 | -0.8 | 0.0 | 0.0 | 19 | 123 | 14 | 93 | -26.0 | 0.0 | | | |
| 7) Mauritius | | 21 | 125 | 21 | 129 | 1.9 | 0.0 | 0.0 | 20 | 133 | 18 | 123 | -9.8 | 0.0 | | | |
| 8) Comoros | | 7 | 41 | 11 | 70 | 71.5 | 0.0 | 0.0 | 15 | 100 | 26 | 173 | 69.9 | 0.0 | | | |
| 9) Djibouti | | 4 | 24 | 1 | 9 | -64.6 | 0.0 | 0.0 | 1 | 8 | 3 | 19 | 129.3 | 0.0 | | | |
| 10) Seychelles | | 1 | 6 | 1 | 7 | 18.2 | 0.0 | 0.0 | 1 | 4 | 1 | 6 | 38.8 | 0.0 | | | |
| 2.6 North Africa | | 5109 | 30910 | 4066 | 24801 | -20.4 | 0.9 | 0.9 | 2893 | 18864 | 2930 | 19650 | 1.3 | 0.8 | | | |
| 1) Egypt A Rp | | 2389 | 14391 | 1742 | 10645 | -27.1 | 0.4 | 0.4 | 1221 | 7922 | 1161 | 7794 | -4.9 | 0.3 | | | |
| 2) Morocco | | 879 | 5388 | 936 | 5725 | 6.5 | 0.2 | 0.2 | 1078 | 7051 | 796 | 5343 | -26.1 | 0.2 | | | |
| 3) Sudan | | 436 | 2697 | 570 | 3440 | 30.5 | 0.1 | 0.1 | 149 | 964 | 245 | 1639 | 64.5 | 0.1 | | | |
| 4) Algeria | | 861 | 5232 | 552 | 3380 | -35.9 | 0.1 | 0.1 | 299 | 1972 | 605 | 4055 | 102.1 | 0.2 | | | |
| 5) Tunisia | | 92 | 557 | 196 | 1191 | 114.3 | 0.0 | 0.0 | 136 | 899 | 115 | 769 | -15.9 | 0.0 | | | |
| 6) Libya | | 452 | 2645 | 70 | 419 | -84.5 | 0.0 | 0.0 | 9 | 56 | 7 | 50 | -15.9 | 0.0 | | | |
| 3) America | | 57454 | 347400 | 55909 | 341700 | -2.7 | 12.5 | 12.5 | 45990 | 300963 | 46372 | 311093 | 0.8 | 12.1 | | | |
| 3.1 North America | | 29326 | 176996 | 28957 | 177103 | -1.3 | 6.5 | 6.5 | 28299 | 185376 | 29117 | 195332 | 2.9 | 7.6 | | | |
| 1) U S A | | 22505 | 135613 | 21815 | 133421 | -3.1 | 4.9 | 4.9 | 21781 | 142678 | 22104 | 148241 | 1.5 | 5.8 | | | |
| 2) Canada | | 3148 | 19030 | 3749 | 22966 | 19.1 | 0.8 | 0.8 | 4234 | 27793 | 4069 | 27314 | -3.9 | 1.1 | | | |
| 3) Mexico | | 3672 | 22353 | 3393 | 20717 | -7.6 | 0.8 | 0.8 | 2283 | 14905 | 2945 | 19776 | 29.0 | 0.8 | | | |
| 3.2 Latin America | | 28128 | 170404 | 26952 | 164596 | -4.2 | 6.0 | 6.0 | 17692 | 115587 | 17255 | 115762 | -2.5 | 4.5 | | | |
| 1) Venezuela | | 13940 | 84384 | 11730 | 71586 | -15.9 | 2.6 | 2.6 | 5702 | 37150 | 5512 | 36964 | -3.3 | 1.4 | | | |
| 2) Brazil | | 3721 | 22547 | 5401 | 33037 | 45.1 | 1.2 | 1.2 | 4040 | 26392 | 4115 | 27653 | 1.8 | 1.1 | | | |
| 3) Chile | | 2508 | 15230 | 3081 | 18806 | 22.8 | 0.7 | 0.7 | 1961 | 12759 | 1226 | 8229 | -37.5 | 0.3 | | | |
| 4) Colombia | | 4971 | 29996 | 2135 | 13070 | -57.0 | 0.5 | 0.5 | 808 | 5266 | 594 | 3985 | -26.5 | 0.2 | | | |
| 5) Argentina | | 1338 | 8155 | 1992 | 12167 | 48.9 | 0.4 | 0.4 | 2472 | 16251 | 2501 | 16763 | 1.2 | 0.7 | | | |
| 6) Ecuador | | 255 | 1588 | 1066 | 6415 | 317.2 | 0.2 | 0.2 | 564 | 3652 | 356 | 2384 | -36.9 | 0.1 | | | |
| 7) Peru | | 524 | 3172 | 590 | 3617 | 12.6 | 0.1 | 0.1 | 820 | 5407 | 1077 | 7227 | 31.3 | 0.3 | | | |
| 8) Dominic Rep | | 13 | 76 | 291 | 1803 | 2,225.3 | 0.1 | 0.1 | 479 | 3146 | 675 | 4515 | 41.0 | 0.2 | | | |
| 9) Suriname | | 13 | 79 | 211 | 1309 | 1,503.6 | 0.0 | 0.0 | 43 | 279 | 46 | 309 | 6.0 | 0.0 | | | |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries*(Contd.....)*

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Per cent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|---------------------|-------------------|-----------|-------------------|-----------|--------------------------------------|---------|---------------------|-----|-------------------|-----------|-------------------|-----------|---------------------------------------|------|---------------------|------|
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (5) | (6) | (7) | (8) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (10) | (11) | (12) | (13) |
| 10) Costa Rica | 204 | 1236 | 155 | 942 | 942 | -23.9 | 0.0 | 62 | 403 | 59 | 394 | -5.4 | 0.0 | | | |
| 11) Paraguay | 5 | 33 | 88 | 540 | 540 | 1,568.9 | 0.0 | 112 | 736 | 155 | 1042 | 38.3 | 0.0 | | | |
| 12) Trinidad | 5 | 33 | 68 | 427 | 427 | 1,178.9 | 0.0 | 92 | 609 | 174 | 1164 | 88.8 | 0.0 | | | |
| 13) Panama Republic | 42 | 251 | 30 | 186 | 186 | -26.8 | 0.0 | 72 | 473 | 166 | 1114 | 128.5 | 0.0 | | | |
| 14) Honduras | 23 | 137 | 25 | 155 | 155 | 12.0 | 0.0 | 16 | 104 | 22 | 149 | 39.3 | 0.0 | | | |
| 15) Uruguay | 20 | 124 | 20 | 124 | 124 | -0.3 | 0.0 | 18 | 116 | 13 | 90 | -24.1 | 0.0 | | | |
| 16) Guatemala | 13 | 78 | 17 | 104 | 104 | 30.5 | 0.0 | 13 | 81 | 22 | 146 | 73.3 | 0.0 | | | |
| 17) Netherlandantil | 4 | 26 | 11 | 69 | 69 | 160.0 | 0.0 | 59 | 395 | 67 | 448 | 13.1 | 0.0 | | | |
| 18) Guyana | 7 | 44 | 10 | 63 | 63 | 41.5 | 0.0 | 18 | 121 | 14 | 97 | -21.6 | 0.0 | | | |
| 19) El Salvador | 8 | 48 | 10 | 63 | 63 | 28.5 | 0.0 | 6 | 40 | 6 | 39 | -6.6 | 0.0 | | | |
| 20) Bolivia | 2 | 14 | 4 | 22 | 22 | 47.1 | 0.0 | 240 | 1580 | 174 | 1167 | -27.8 | 0.0 | | | |
| 21) Falkland Is | 2 | 10 | 3 | 16 | 16 | 65.0 | 0.0 | 2 | 11 | | | -100.0 | 0.0 | | | |
| 22) Nicaragua | 3 | 16 | 2 | 13 | 13 | -17.4 | 0.0 | 4 | 25 | 3 | 18 | -31.9 | 0.0 | | | |
| 23) Jamaica | 1 | 6 | 2 | 11 | 11 | 97.8 | 0.0 | 2 | 10 | 1 | 8 | -24.5 | 0.0 | | | |
| 24) Haiti | 1 | 6 | 2 | 10 | 10 | 65.3 | 0.0 | 3 | 21 | 4 | 24 | 10.1 | 0.0 | | | |
| 25) Cuba | 2 | 15 | 2 | 10 | 10 | -34.6 | 0.0 | 1 | 9 | 1 | 9 | -1.5 | 0.0 | | | |
| 26) Fr Guiana | 2 | 15 | 1 | 9 | 9 | -42.9 | 0.0 | 1 | 8 | 1 | 10 | 25.0 | 0.0 | | | |
| 27) Br Virgn Is | 0 | 1 | 1 | 5 | 5 | 412.5 | 0.0 | 2 | 10 | 7 | 45 | 333.5 | 0.0 | | | |
| 28) Bahamas | 494 | 3052 | 1 | 4 | 4 | -99.9 | 0.0 | 77 | 511 | 259 | 1728 | 235.1 | 0.1 | | | |
| 29) Virgin Is Us | 2 | 14 | 1 | 4 | 4 | -73.5 | 0.0 | 1 | 7 | 5 | 30 | 319.4 | 0.0 | | | |
| 30) Antigua | 0 | 0 | 0 | 3 | 3 | 1,125.0 | 0.0 | 0 | 0 | 0 | 0 | -100.0 | 0.0 | | | |
| 31) St Kitt N A | 0 | 0 | 0 | 2 | 2 | 1,750.0 | 0.0 | 0 | 1 | 0 | 0 | -93.8 | 0.0 | | | |
| 32) Belize | 2 | 9 | 0 | 1 | 1 | -86.5 | 0.0 | 1 | 7 | 1 | 3 | -48.5 | 0.0 | | | |
| 33) Barbados | 0 | 1 | 0 | 1 | 1 | 54.5 | 0.0 | 0 | 1 | 0 | 1 | 5.9 | 0.0 | | | |
| 34) St Lucia | 1 | 3 | 0 | 1 | 1 | -72.0 | 0.0 | 0 | 3 | 0 | 2 | -46.7 | 0.0 | | | |
| 35) Dominica | 0 | 0 | 0 | 1 | 1 | 42.9 | 0.0 | 0 | 1 | 1 | 5 | 670.0 | 0.0 | | | |
| 36) Martinique | 0 | 1 | 0 | 1 | 1 | -25.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 | | | |
| 37) Bermuda | 0 | 0 | 0 | 1 | 1 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 | | | |
| 38) Guadeloupe | 0 | 2 | 0 | 0 | 0 | -77.1 | 0.0 | 0 | 0 | 0 | 0 | -100.0 | 0.0 | | | |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries

| Regions / Countries | (Contd....) | | | | | | | | | | | |
|-------------------------|--------------------------|----------------|---------------|--------------------------|-------------|-------------|--------------------------|----------------|---------------|--------------------------|------------|-------------|
| | 2013-14 | | | 2014-15 | | | 2015-16 | | | 2016-17 (P) | | |
| | (US\$ (₹ crore) million) | (2) | (3) | (US\$ (₹ crore) million) | (4) | (5) | (US\$ (₹ crore) million) | (8) | (9) | (US\$ (₹ crore) million) | (10) | (11) |
| (1) | | | | | | | | | | | | |
| 39) Turks C Is | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40) Montserrat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 41) Cayman Is | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 42) St Vincent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 43) Grenada | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4) Asia | 273198 | 1650452 | 263913 | 1612004 | -3.4 | 58.9 | 222628 | 1455055 | 230300 | 1544520 | 3.4 | 60.2 |
| 4.1 East Asia (Oceania) | 10628 | 63822 | 11024 | 67445 | 3.7 | 2.5 | 9703 | 63430 | 11798 | 79181 | 21.6 | 3.1 |
| 1) Australia | 9823 | 58958 | 10247 | 62701 | 4.3 | 2.3 | 8899 | 58181 | 11124 | 74658 | 25.0 | 2.9 |
| 2) New Zealand | 615 | 3701 | 591 | 3608 | -3.8 | 0.1 | 548 | 3585 | 504 | 3385 | -7.9 | 0.1 |
| 3) Papua N Gna | 178 | 1084 | 157 | 961 | -11.8 | 0.0 | 180 | 1161 | 108 | 726 | -39.8 | 0.0 |
| 4) Solomon Is | 5 | 33 | 13 | 84 | 154.2 | 0.0 | 68 | 444 | 54 | 364 | -20.3 | 0.0 |
| 5) Nauru Rp | 5 | 30 | 10 | 62 | 114.1 | 0.0 | 6 | 38 | 0 | 0 | -99.3 | 0.0 |
| 6) Fiji Is | 2 | 11 | 2 | 11 | -10.0 | 0.0 | 0 | 2 | 1 | 4 | 62.2 | 0.0 |
| 7) Tuvalu | 0 | 0 | 1 | 9 | 0 | 0.0 | 0 | 0 | 0 | 1 | 1,200.0 | 0.0 |
| 8) Samoa | 0 | 0 | 1 | 7 | 5,800.0 | 0.0 | 2 | 16 | 6 | 42 | 156.1 | 0.0 |
| 9) Timor Leste | 1 | 5 | 0 | 2 | -62.7 | 0.0 | 0 | 0 | 0 | 1 | 466.7 | 0.0 |
| 10) Kiribati Rep | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 11) Vanuatu Rep | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 2 | 0 | 0 | -100.0 | 0.0 |
| 12) Tonga | 0 | 0 | 0 | 0 | -50.0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 4.2 ASEAN | 41278 | 249595 | 44715 | 273405 | 8.3 | 10.0 | 39910 | 260744 | 40637 | 272530 | 1.8 | 10.6 |
| 1) Indonesia | 14748 | 89035 | 15005 | 91845 | 1.7 | 3.3 | 13132 | 85800 | 13431 | 90101 | 2.3 | 3.5 |
| 2) Malaysia | 9230 | 55902 | 11118 | 67919 | 20.5 | 2.5 | 9084 | 59373 | 8938 | 59912 | -1.6 | 2.3 |
| 3) Singapore | 6762 | 41063 | 7124 | 43552 | 5.4 | 1.6 | 7308 | 47735 | 7095 | 47598 | -2.9 | 1.9 |
| 4) Thailand | 5340 | 32380 | 5866 | 35862 | 9.8 | 1.3 | 5510 | 36011 | 5421 | 36350 | -1.6 | 1.4 |
| 5) Vietnam Soc Rep | 2594 | 15568 | 3003 | 18398 | 15.8 | 0.7 | 2560 | 16763 | 3321 | 22263 | 29.7 | 0.9 |
| 6) Myanmar | 1396 | 8391 | 1232 | 7477 | -11.8 | 0.3 | 984 | 6378 | 1066 | 7146 | 8.3 | 0.3 |
| 7) Brunei | 764 | 4575 | 841 | 5134 | 10.1 | 0.2 | 554 | 3610 | 628 | 4208 | 13.3 | 0.2 |
| 8) Philippines | 392 | 2372 | 423 | 2585 | 8.0 | 0.1 | 542 | 3532 | 495 | 3318 | -8.8 | 0.1 |
| 9) Lao Pd Rp | 39 | 229 | 85 | 523 | 116.4 | 0.0 | 180 | 1182 | 207 | 1391 | 15.2 | 0.1 |

Contd....

Table 7.4 A. Direction of Imports : Imports by Regions and Countries*(Contd....)*

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Per cent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|----------------------------|-------------------|---------------|-------------------|---------------|--------------------------------------|-------------|---------------------|---------------|-------------------|---------------|-------------------|-------------|---------------------------------------|------|---------------------|------|
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (5) | (6) | (7) | (8) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (10) | (11) | (12) | (13) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 10) Cambodia | 13 | 77 | 18 | 110 | 41.2 | 0.0 | 54 | 360 | 36 | 242 | -33.7 | 0.0 | | | | |
| 4.3 West Asia- GCC | 101799 | 614287 | 84433 | 514788 | -17.1 | 18.8 | 55790 | 364147 | 55080 | 369347 | -1.3 | 14.4 | | | | |
| 1) Saudi Arab | 36404 | 220515 | 28108 | 171221 | -22.8 | 6.3 | 20321 | 132580 | 19957 | 133842 | -1.8 | 5.2 | | | | |
| 2) U Arab Emis | 29020 | 174127 | 26140 | 159625 | -9.9 | 5.8 | 19446 | 126981 | 21471 | 143973 | 10.4 | 5.6 | | | | |
| 3) Qatar | 15708 | 95005 | 14605 | 89064 | -7.0 | 3.3 | 9022 | 58912 | 7632 | 51183 | -15.4 | 2.0 | | | | |
| 4) Kuwait | 17154 | 103363 | 13382 | 81511 | -22.0 | 3.0 | 4970 | 32379 | 4457 | 29863 | -10.3 | 1.2 | | | | |
| 5) Oman | 2951 | 17828 | 1752 | 10648 | -40.6 | 0.4 | 1675 | 10957 | 1272 | 8535 | -24.0 | 0.3 | | | | |
| 6) Bahrain Is | 563 | 3449 | 446 | 2720 | -20.8 | 0.1 | 357 | 2339 | 291 | 1951 | -18.5 | 0.1 | | | | |
| 4.4 Other West Asia | 32646 | 197386 | 26997 | 164590 | -17.3 | 6.0 | 20140 | 131170 | 25070 | 168143 | 24.5 | 6.6 | | | | |
| 1) Iraq | 18521 | 111638 | 14248 | 86779 | -23.1 | 3.2 | 10838 | 70564 | 11702 | 78476 | 8.0 | 3.1 | | | | |
| 2) Iran | 10307 | 62798 | 8955 | 54588 | -13.1 | 2.0 | 6279 | 40823 | 10507 | 70478 | 67.3 | 2.7 | | | | |
| 3) Israel | 2312 | 13888 | 2328 | 14229 | 0.7 | 0.5 | 2095 | 13713 | 1966 | 13182 | -6.2 | 0.5 | | | | |
| 4) Jordan | 611 | 3637 | 858 | 5253 | 40.5 | 0.2 | 853 | 5580 | 828 | 5556 | -2.9 | 0.2 | | | | |
| 5) Yemen Republic | 782 | 4727 | 541 | 3326 | -30.9 | 0.1 | 7 | 44 | 5 | 32 | -30.1 | 0.0 | | | | |
| 6) Lebanon | 37 | 224 | 40 | 242 | 6.7 | 0.0 | 28 | 180 | 30 | 203 | 9.4 | 0.0 | | | | |
| 7) Syria | 77 | 474 | 28 | 173 | -63.0 | 0.0 | 41 | 266 | 32 | 216 | -20.4 | 0.0 | | | | |
| 4.5 North East Asia | 84373 | 510353 | 93813 | 573828 | 11.2 | 20.9 | 94110 | 616105 | 95083 | 637666 | 1.0 | 24.8 | | | | |
| 1) China P Rp | 51035 | 309235 | 60413 | 369565 | 18.4 | 13.5 | 61707 | 404043 | 61311 | 411288 | -0.6 | 16.0 | | | | |
| 2) Korea Rp | 12471 | 75283 | 13529 | 82720 | 8.5 | 3.0 | 13047 | 85363 | 12581 | 84376 | -3.6 | 3.3 | | | | |
| 3) Japan | 9481 | 57212 | 10131 | 61990 | 6.9 | 2.3 | 9850 | 64493 | 9748 | 65372 | -1.0 | 2.5 | | | | |
| 4) Hong Kong | 7322 | 44107 | 5572 | 34089 | -23.9 | 1.2 | 6052 | 39636 | 8205 | 54912 | 35.6 | 2.1 | | | | |
| 5) Taiwan | 4041 | 24382 | 4029 | 24618 | -0.3 | 0.9 | 3354 | 21921 | 3144 | 21081 | -6.3 | 0.8 | | | | |
| 6) Korea Dp Rp | 12 | 68 | 132 | 805 | 957.1 | 0.0 | 88 | 567 | 85 | 570 | -2.9 | 0.0 | | | | |
| 7) Mongolia | 9 | 51 | 4 | 26 | -50.9 | 0.0 | 4 | 27 | 2 | 13 | -51.9 | 0.0 | | | | |
| 8) Macao | 3 | 16 | 2 | 14 | -13.2 | 0.0 | 8 | 54 | 8 | 53 | -4.6 | 0.0 | | | | |
| 4.6 South Asia | 2473 | 15009 | 2931 | 17948 | 18.5 | 0.7 | 2975 | 19459 | 2631 | 17653 | -11.6 | 0.7 | | | | |
| 1) Sri Lanka | 667 | 4064 | 756 | 4643 | 13.4 | 0.2 | 743 | 4854 | 596 | 3997 | -19.8 | 0.2 | | | | |
| 2) Nepal | 530 | 3204 | 640 | 3916 | 20.8 | 0.1 | 471 | 3069 | 442 | 2965 | -6.1 | 0.1 | | | | |
| 3) Bangladesh | 484 | 2903 | 621 | 3794 | 28.3 | 0.1 | 727 | 4767 | 701 | 4701 | -3.6 | 0.2 | | | | |

Contd....

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Per cent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|--------------------------------|-------------------|----------------|-------------------|----------------|--------------------------------------|--------------|---------------------|---------------|-------------------|---------------|-------------------|--------------|---------------------------------------|------|---------------------|------|
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (4) over (2) (Per cent) | (6) | (7) | (8) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (10) over (8) (Per cent) | (12) | (13) | (14) |
| 4) Pakistan | 427 | 2607 | 497 | 3041 | 16.5 | 0.1 | 0.1 | 441 | 2885 | 456 | 3056 | 3.3 | 0.1 | | | |
| 5) Afghanistan | 209 | 1288 | 262 | 1613 | 25.5 | 0.1 | 0.1 | 308 | 2029 | 293 | 1967 | -4.9 | 0.1 | | | |
| 6) Bhutan | 152 | 919 | 150 | 915 | -1.5 | 0.0 | 0.0 | 281 | 1827 | 135 | 905 | -52.0 | 0.0 | | | |
| 7) Maldives | 4 | 24 | 4 | 26 | 8.8 | 0.0 | 0.0 | 4 | 28 | 9 | 62 | 113.8 | 0.0 | | | |
| 5) CIS & Baltics | 7723 | 46694 | 7665 | 46737 | -0.8 | 1.7 | 1.7 | 7078 | 46269 | 9334 | 62544 | 31.9 | 2.4 | | | |
| 5.1 CARs Countries | 703 | 4267 | 776 | 4723 | 10.3 | 0.2 | 0.2 | 457 | 2980 | 612 | 4085 | 34.0 | 0.2 | | | |
| 1) Kazakhstan | 656 | 3978 | 702 | 4267 | 6.9 | 0.2 | 0.2 | 353 | 2295 | 439 | 2933 | 24.5 | 0.1 | | | |
| 2) Uzbekistan | 32 | 192 | 56 | 345 | 77.3 | 0.0 | 0.0 | 45 | 298 | 47 | 312 | 2.8 | 0.0 | | | |
| 3) Turkmenistan | 14 | 87 | 13 | 79 | -7.4 | 0.0 | 0.0 | 47 | 310 | 21 | 143 | -54.6 | 0.0 | | | |
| 4) Tajikistan | 1 | 5 | 4 | 27 | 410.5 | 0.0 | 0.0 | 10 | 65 | 22 | 146 | 118.6 | 0.0 | | | |
| 5) Kyrgyzstan | 1 | 4 | 1 | 5 | 20.3 | 0.0 | 0.0 | 2 | 12 | 84 | 550 | 4,564.8 | 0.0 | | | |
| 5.2 Other CIS Countries | 7020 | 42427 | 6890 | 42014 | -1.9 | 1.5 | 1.5 | 6621 | 43289 | 8722 | 58459 | 31.7 | 2.3 | | | |
| 1) Russia | 3894 | 23570 | 4249 | 25924 | 9.1 | 0.9 | 0.9 | 4585 | 29986 | 5564 | 37257 | 21.3 | 1.5 | | | |
| 2) Ukraine | 1805 | 10896 | 2239 | 13662 | 24.1 | 0.5 | 0.5 | 1751 | 11465 | 2481 | 16657 | 41.7 | 0.6 | | | |
| 3) Azerbaijan | 1137 | 6857 | 199 | 1189 | -82.5 | 0.0 | 0.0 | 77 | 487 | 462 | 3105 | 498.9 | 0.1 | | | |
| 4) Belarus | 158 | 947 | 182 | 1114 | 15.5 | 0.0 | 0.0 | 165 | 1066 | 171 | 1143 | 3.4 | 0.0 | | | |
| 5) Georgia | 24 | 144 | 18 | 112 | -23.0 | 0.0 | 0.0 | 24 | 160 | 32 | 211 | 28.8 | 0.0 | | | |
| 6) Moldova | 1 | 3 | 1 | 9 | 175.0 | 0.0 | 0.0 | 5 | 32 | 12 | 79 | 139.9 | 0.0 | | | |
| 7) Armenia | 2 | 10 | 1 | 5 | -51.8 | 0.0 | 0.0 | 14 | 93 | 1 | 7 | -92.5 | 0.0 | | | |
| 6) Unspecified Region | 4187 | 25282 | 7992 | 48944 | 90.9 | 1.8 | 1.8 | 9010 | 58889 | 7673 | 51364 | -14.8 | 2.0 | | | |
| Total Imports | 450200 | 2715434 | 448033 | 2737087 | -0.5 | 100.0 | 100.0 | 381007 | 2490298 | 384319 | 2577422 | 0.9 | 100.0 | | | |

Source: Department of Commerce based on DGCI&S data

Note:

P : Provisional.

Table 7.4 B. Direction of Exports : Exports by Regions and Countries

| Regions / Countries | 2013-14 | | | 2014-15 | | Change (4) over (2) (Per cent) | Share (Percent) | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | Share (Per cent) |
|-----------------------|-------------------|-----------|-------------------|-------------------|-----------|--------------------------------------|--------------------|-------------------|-----------|------------|--------|---------------------------------------|---------------------|
| | (US\$ million) | (₹ crore) | (US\$ million) | (US\$ million) | (₹ crore) | | | (US\$ million) | (₹ crore) | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1) Europe | 58326 | 353711 | 56304 | 344197 | | -3.5 | 18.1 | 50344 | 329678 | 53559 | 359072 | 6.4 | 19.4 |
| 1.1 EU Countries (27) | 51635 | 313144 | 49358 | 301724 | | -4.4 | 15.9 | 44496 | 291392 | 47497 | 318428 | 6.7 | 17.2 |
| 1) U K | 9822 | 59478 | 9354 | 57179 | | -4.8 | 3.0 | 8858 | 57962 | 8581 | 57521 | -3.1 | 3.1 |
| 2) Germany | 7523 | 45561 | 7540 | 46077 | | 0.2 | 2.4 | 7095 | 46468 | 7245 | 48581 | 2.1 | 2.6 |
| 3) Netherland | 7998 | 48757 | 6327 | 38662 | | -20.9 | 2.0 | 4727 | 30957 | 5056 | 33922 | 6.9 | 1.8 |
| 4) Belgium | 6377 | 38687 | 5520 | 33719 | | -13.4 | 1.8 | 5028 | 32959 | 5668 | 37990 | 12.7 | 2.0 |
| 5) Italy | 5274 | 31892 | 5093 | 31124 | | -3.4 | 1.6 | 4218 | 27638 | 4948 | 33163 | 17.3 | 1.8 |
| 6) France | 5109 | 30954 | 4957 | 30327 | | -3.0 | 1.6 | 4634 | 30328 | 5381 | 36054 | 16.1 | 1.9 |
| 7) Spain | 2885 | 17494 | 3148 | 19252 | | 9.1 | 1.0 | 3237 | 21215 | 3439 | 23061 | 6.2 | 1.2 |
| 8) Poland | 996 | 6040 | 1051 | 6420 | | 5.6 | 0.3 | 1025 | 6718 | 1204 | 8072 | 17.4 | 0.4 |
| 9) Ireland | 414 | 2511 | 760 | 4673 | | 83.3 | 0.2 | 526 | 3445 | 487 | 3267 | -7.4 | 0.2 |
| 10) Sweden | 733 | 4446 | 740 | 4526 | | 1.0 | 0.2 | 684 | 4476 | 711 | 4770 | 4.0 | 0.3 |
| 11) Denmark | 762 | 4610 | 724 | 4426 | | -4.9 | 0.2 | 689 | 4515 | 696 | 4664 | 1.0 | 0.3 |
| 12) Portugal | 627 | 3809 | 636 | 3888 | | 1.5 | 0.2 | 590 | 3866 | 671 | 4500 | 13.8 | 0.2 |
| 13) Romania | 286 | 1731 | 417 | 2554 | | 45.5 | 0.1 | 256 | 1676 | 258 | 1732 | 1.1 | 0.1 |
| 14) Czech Republic | 387 | 2371 | 379 | 2308 | | -2.2 | 0.1 | 489 | 3181 | 534 | 3585 | 9.4 | 0.2 |
| 15) Austria | 336 | 2037 | 363 | 2218 | | 7.9 | 0.1 | 340 | 2228 | 385 | 2581 | 13.3 | 0.1 |
| 16) Greece | 335 | 2025 | 361 | 2204 | | 7.7 | 0.1 | 336 | 2204 | 382 | 2554 | 13.7 | 0.1 |
| 17) Hungary | 344 | 2080 | 349 | 2134 | | 1.6 | 0.1 | 345 | 2258 | 408 | 2733 | 18.1 | 0.1 |
| 18) Finland | 416 | 2531 | 331 | 2020 | | -20.5 | 0.1 | 249 | 1629 | 273 | 1830 | 9.7 | 0.1 |
| 19) Malta | 168 | 1028 | 328 | 2018 | | 95.1 | 0.1 | 325 | 2117 | 138 | 925 | -57.6 | 0.0 |
| 20) Bulgaria | 168 | 1018 | 266 | 1636 | | 58.5 | 0.1 | 146 | 949 | 240 | 1609 | 65.0 | 0.1 |
| 21) Slovenia | 212 | 1277 | 246 | 1503 | | 15.8 | 0.1 | 265 | 1744 | 252 | 1690 | -4.9 | 0.1 |
| 22) Slovak Rep | 104 | 631 | 137 | 837 | | 31.1 | 0.0 | 138 | 899 | 147 | 984 | 6.8 | 0.1 |
| 23) Lithuania | 105 | 635 | 103 | 631 | | -1.6 | 0.0 | 88 | 579 | 96 | 645 | 9.2 | 0.0 |
| 24) Latvia | 102 | 617 | 98 | 600 | | -3.9 | 0.0 | 80 | 519 | 116 | 778 | 45.8 | 0.0 |
| 25) Estonia | 79 | 479 | 68 | 417 | | -14.0 | 0.0 | 64 | 417 | 98 | 656 | 53.4 | 0.0 |
| 26) Cyprus | 62 | 375 | 51 | 313 | | -17.0 | 0.0 | 60 | 391 | 72 | 483 | 20.7 | 0.0 |
| 27) Luxembourg | 12 | 70 | 10 | 59 | | -18.3 | 0.0 | 8 | 53 | 12 | 77 | 42.8 | 0.0 |

Contd....

| Table 7.4 B. Direction of Exports : Exports by Regions and Countries (Contd....) | | | | | | | | | | | |
|---|-------------------|-----------|-------------------|-----------|--------------------------------------|-------|--------------------|-------|-------------------|-----------|---------------------------------------|
| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Percent) | | 2015-16 | | Change (10) over (8) (Per cent) |
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (5) | (6) | (7) | (8) | (US\$ million) | (₹ crore) | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1.2 European Free Trade Association (EFTA) | 2047 | 12250 | 1353 | 8271 | 8271 | -33.9 | 0.4 | 1538 | 10042 | 8322 | -19.2 |
| 1) Switzerland | 1797 | 10739 | 1069 | 6542 | 6542 | -40.5 | 0.3 | 977 | 6422 | 6559 | 0.3 |
| 2) Norway | 229 | 1389 | 263 | 1606 | 1606 | 15.0 | 0.1 | 542 | 3493 | 1645 | -54.7 |
| 3) Iceland | 20 | 120 | 20 | 122 | 122 | 0.2 | 0.0 | 19 | 122 | 112 | -9.9 |
| 4) Liechtenstein | 0 | 2 | 0 | 1 | 1 | -40.6 | 0.0 | 1 | 5 | 5 | -11.0 |
| 1.3 Other European Countries | 4644 | 28317 | 5594 | 34201 | 34201 | 20.4 | 1.8 | 4309 | 28245 | 4820 | 11.8 |
| 1) Turkey | 4434 | 27042 | 5359 | 32761 | 32761 | 20.9 | 1.7 | 4140 | 27136 | 4640 | 12.1 |
| 2) Croatia | 139 | 842 | 176 | 1083 | 1083 | 26.8 | 0.1 | 112 | 737 | 124 | 83.3 |
| 3) Albania | 19 | 115 | 19 | 119 | 119 | 3.7 | 0.0 | 24 | 158 | 27 | 10.7 |
| 4) Bosnia-Hrzgovin | 12 | 70 | 18 | 109 | 109 | 54.5 | 0.0 | 20 | 129 | 13 | -33.0 |
| 5) Macedonia | 11 | 65 | 15 | 89 | 89 | 34.5 | 0.0 | 13 | 84 | 15 | 15.6 |
| 6) Union Of Serbia & Montenegro | 30 | 182 | 7 | 41 | 41 | -77.9 | 0.0 | 0 | 1 | 0 | 20.0 |
| 2) Africa | 31226 | 189782 | 32842 | 200559 | 200559 | 5.2 | 10.6 | 25027 | 163540 | 23127 | -7.6 |
| 2.1 Southern African Customs Union (SACU) | 5395 | 32757 | 5532 | 33777 | 33777 | 2.5 | 1.8 | 3805 | 24820 | 3794 | -0.3 |
| 1) South Africa | 5074 | 30770 | 5302 | 32363 | 32363 | 4.5 | 1.7 | 3589 | 23411 | 3554 | -1.0 |
| 2) Namibia | 212 | 1330 | 108 | 663 | 663 | -49.2 | 0.0 | 74 | 484 | 89 | 21.3 |
| 3) Botswana | 54 | 332 | 44 | 271 | 271 | -18.3 | 0.0 | 52 | 341 | 77 | 47.2 |
| 4) Swaziland | 23 | 137 | 40 | 246 | 246 | 75.1 | 0.0 | 60 | 387 | 40 | -34.0 |
| 5) Lesotho | 31 | 189 | 38 | 234 | 234 | 23.3 | 0.0 | 30 | 196 | 33 | 10.5 |
| 2.2 Other South African Countries | 2329 | 14186 | 3214 | 19645 | 19645 | 38.0 | 1.0 | 1968 | 12822 | 1483 | -24.7 |
| 1) Mozambique | 1257 | 7679 | 2071 | 12652 | 12652 | 64.7 | 0.7 | 1242 | 8087 | 981 | -21.0 |
| 2) Angola | 536 | 3266 | 553 | 3378 | 3378 | 3.1 | 0.2 | 223 | 1454 | 155 | -30.4 |
| 3) Zambia | 377 | 2283 | 367 | 2243 | 2243 | -2.8 | 0.1 | 298 | 1947 | 238 | -20.3 |
| 4) Zimbabwe | 158 | 958 | 224 | 1373 | 1373 | 41.7 | 0.1 | 205 | 1333 | 109 | -46.7 |
| 2.3 West Africa | 6993 | 42441 | 6980 | 42672 | 42672 | -0.2 | 2.2 | 6095 | 39911 | 5637 | -7.5 |
| 1) Nigeria | 2668 | 16181 | 2681 | 16376 | 16376 | 0.5 | 0.9 | 2222 | 14523 | 1771 | -20.3 |
| 2) Togo | 444 | 2721 | 688 | 4204 | 4204 | 55.1 | 0.2 | 532 | 3504 | 284 | -46.6 |
| 3) Ghana | 831 | 5045 | 680 | 4170 | 4170 | -18.2 | 0.2 | 624 | 4091 | 682 | 9.4 |
| 4) Senegal | 426 | 2580 | 519 | 3173 | 3173 | 21.6 | 0.2 | 546 | 3576 | 638 | 16.8 |

Contd....

Table 7.4 B. Direction of Exports : Exports by Regions and Countries

| Regions / Countries | (Contd.....) | | | | | | | | | | | |
|---------------------------|-------------------|--------------|-------------------|-------------------|-------------|--------------------------------------|--------------------|-------------------|-------------|-------------------|--------------|---------------------------------------|
| | 2013-14 | | | 2014-15 | | | 2015-16 | | | 2016-17(P) | | |
| | (US\$ million) | (₹ crore) | (US\$ million) | (US\$ million) | (₹ crore) | Change (4) over (2) (Per cent) | Share (Percent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | Change (10) over (8) (Per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 5) Benin | 764 | 4636 | 498 | 3039 | -34.8 | 0.2 | 427 | 2798 | 453 | 3037 | 6.1 | 0.2 |
| 6) Cote D' Ivoire | 299 | 1814 | 310 | 1897 | 3.6 | 0.1 | 397 | 2601 | 419 | 2817 | 5.6 | 0.2 |
| 7) Guinea | 203 | 1237 | 284 | 1735 | 39.5 | 0.1 | 279 | 1819 | 353 | 2367 | 26.8 | 0.1 |
| 8) Congo P Rep | 210 | 1275 | 253 | 1553 | 20.2 | 0.1 | 167 | 1089 | 133 | 893 | -20.0 | 0.0 |
| 9) Cameroon | 260 | 1570 | 249 | 1526 | -4.1 | 0.1 | 191 | 1246 | 150 | 1006 | -21.5 | 0.1 |
| 10) Liberia | 254 | 1546 | 207 | 1265 | -18.6 | 0.1 | 134 | 874 | 146 | 979 | 9.3 | 0.1 |
| 11) Mali | 109 | 659 | 134 | 820 | 23.3 | 0.0 | 108 | 708 | 108 | 725 | 0.1 | 0.0 |
| 12) Burkina Faso | 103 | 624 | 113 | 688 | 9.3 | 0.0 | 109 | 716 | 115 | 773 | 5.8 | 0.0 |
| 13) Sierra Leone | 101 | 601 | 80 | 493 | -20.4 | 0.0 | 91 | 595 | 94 | 629 | 2.9 | 0.0 |
| 14) Niger | 86 | 525 | 78 | 478 | -9.4 | 0.0 | 80 | 528 | 82 | 548 | 1.9 | 0.0 |
| 15) Gambia | 85 | 516 | 74 | 449 | -13.6 | 0.0 | 60 | 391 | 63 | 422 | 5.9 | 0.0 |
| 16) Mauritania | 58 | 351 | 59 | 360 | 1.6 | 0.0 | 58 | 382 | 66 | 443 | 13.1 | 0.0 |
| 17) Gabon | 53 | 321 | 43 | 260 | -18.8 | 0.0 | 37 | 242 | 44 | 292 | 18.2 | 0.0 |
| 18) Equat Guinea | 17 | 105 | 15 | 92 | -12.9 | 0.0 | 18 | 116 | 11 | 75 | -35.9 | 0.0 |
| 19) Guinea Bissau | 19 | 117 | 10 | 60 | -48.7 | 0.0 | 14 | 95 | 22 | 145 | 49.7 | 0.0 |
| 20) Cape Verde Is | 1 | 9 | 4 | 25 | 188.1 | 0.0 | 1 | 9 | 1 | 8 | -12.6 | 0.0 |
| 21) Sao Tome | 1 | 6 | 1 | 9 | 59.8 | 0.0 | 1 | 6 | 1 | 6 | -1.1 | 0.0 |
| 22) St Helena | 0 | 0 | 0 | 1 | 600.0 | 0.0 | 0 | 1 | 0 | 0 | -87.5 | 0.0 |
| 2.4 Central Africa | 1092 | 6623 | 1251 | 7658 | 14.6 | 0.4 | 1252 | 8194 | 1048 | 7024 | -16.3 | 0.4 |
| 1) Uganda | 531 | 3217 | 554 | 3390 | 4.4 | 0.2 | 570 | 3731 | 496 | 3325 | -13.0 | 0.2 |
| 2) Congo D. Rep. | 181 | 1099 | 254 | 1559 | 40.1 | 0.1 | 318 | 2085 | 200 | 1341 | -37.0 | 0.1 |
| 3) Malawi | 221 | 1343 | 214 | 1307 | -3.2 | 0.1 | 176 | 1154 | 179 | 1198 | 1.5 | 0.1 |
| 4) Rwanda | 88 | 531 | 149 | 913 | 70.5 | 0.0 | 106 | 690 | 88 | 592 | -16.7 | 0.0 |
| 5) Chad | 33 | 202 | 41 | 249 | 23.2 | 0.0 | 43 | 284 | 39 | 258 | -11.3 | 0.0 |
| 6) Burundi | 31 | 186 | 31 | 193 | 2.2 | 0.0 | 29 | 190 | 36 | 241 | 24.0 | 0.0 |
| 7) C. Afri Rep | 8 | 46 | 8 | 47 | 0.4 | 0.0 | 9 | 61 | 10 | 70 | 13.1 | 0.0 |
| 2.5 East Africa | 9975 | 60827 | 10152 | 61958 | 1.8 | 3.3 | 7312 | 47772 | 6745 | 45237 | -7.8 | 2.4 |
| 1) Kenya | 3882 | 23596 | 4118 | 25148 | 6.1 | 1.3 | 3026 | 19778 | 2199 | 14744 | -27.3 | 0.8 |
| 2) Tanzania Rep | 3401 | 20907 | 2485 | 15133 | -26.9 | 0.8 | 1655 | 10800 | 1786 | 11984 | 8.0 | 0.6 |

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Table 7.4 B. Direction of Exports : Exports by Regions and Countries (Contd....)

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Percent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|--------------------------|-------------------|---------------|-------------------|---------------|--------------------------------------|-------------|--------------------|---------------|-------------------|---------------|-------------------|-------------|---------------------------------------|------------|---------------------|------------|
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | (Percent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (Per cent) | (Per cent) | (Per cent) | (Per cent) |
| 3) Mauritius | 1000 | 6077 | 1910 | 11649 | 90.9 | 0.6 | 856 | 5572 | 883 | 5929 | 3.2 | 0.3 | | | | |
| 4) Ethiopia | 817 | 4950 | 783 | 4792 | -4.1 | 0.3 | 794 | 5198 | 776 | 5202 | -2.3 | 0.3 | | | | |
| 5) Somalia | 211 | 1287 | 353 | 2157 | 67.3 | 0.1 | 487 | 3190 | 506 | 3395 | 4.1 | 0.2 | | | | |
| 6) Djibouti | 307 | 1844 | 238 | 1453 | -22.5 | 0.1 | 205 | 1334 | 282 | 1888 | 37.7 | 0.1 | | | | |
| 7) Madagascar | 239 | 1456 | 167 | 1021 | -30.0 | 0.1 | 197 | 1284 | 215 | 1436 | 9.1 | 0.1 | | | | |
| 8) Reunion | 52 | 318 | 49 | 298 | -6.9 | 0.0 | 43 | 279 | 41 | 278 | -2.9 | 0.0 | | | | |
| 9) Seychelles | 53 | 309 | 33 | 199 | -38.2 | 0.0 | 34 | 224 | 36 | 241 | 5.5 | 0.0 | | | | |
| 10) Comoros | 14 | 82 | 18 | 108 | 29.6 | 0.0 | 17 | 112 | 21 | 139 | 22.2 | 0.0 | | | | |
| 2.6 North Africa | 5442 | 32948 | 5712 | 34849 | 5.0 | 1.8 | 4595 | 30022 | 4421 | 29632 | -3.8 | 1.6 | | | | |
| 1) Egypt A Rp | 2562 | 15561 | 3026 | 18443 | 18.1 | 1.0 | 2338 | 15272 | 2072 | 13885 | -11.4 | 0.7 | | | | |
| 2) Algeria | 1070 | 6450 | 1064 | 6494 | -0.5 | 0.3 | 788 | 5135 | 844 | 5658 | 7.1 | 0.3 | | | | |
| 3) Sudan | 863 | 5213 | 882 | 5395 | 2.3 | 0.3 | 782 | 5110 | 751 | 5039 | -4.0 | 0.3 | | | | |
| 4) Morocco | 386 | 2330 | 326 | 1993 | -15.4 | 0.1 | 342 | 2246 | 376 | 2523 | 10.0 | 0.1 | | | | |
| 5) Tunisia | 274 | 1660 | 250 | 1526 | -8.9 | 0.1 | 222 | 1459 | 256 | 1720 | 15.3 | 0.1 | | | | |
| 6) Libya | 287 | 1734 | 164 | 999 | -43.0 | 0.1 | 123 | 801 | 120 | 807 | -1.7 | 0.0 | | | | |
| 7) Canary Is | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| 3) America | 54215 | 328173 | 59050 | 360849 | 8.9 | 19.0 | 52754 | 345069 | 55072 | 369236 | 4.4 | 19.9 | | | | |
| 3.1 North America | 43423 | 262605 | 47522 | 290481 | 9.4 | 15.3 | 45223 | 295886 | 47815 | 320570 | 5.7 | 17.3 | | | | |
| 1) U S A | 39158 | 236686 | 42464 | 259523 | 8.4 | 13.7 | 40340 | 263886 | 42332 | 283810 | 4.9 | 15.3 | | | | |
| 2) Mexico | 2228 | 13572 | 2862 | 17528 | 28.5 | 0.9 | 2865 | 18794 | 3474 | 23291 | 21.2 | 1.3 | | | | |
| 3) Canada | 2037 | 12346 | 2196 | 13431 | 7.8 | 0.7 | 2018 | 13207 | 2009 | 13468 | -0.5 | 0.7 | | | | |
| 3.2 Latin America | 10792 | 65568 | 11528 | 70368 | 6.8 | 3.7 | 7531 | 49183 | 7258 | 48666 | -3.6 | 2.6 | | | | |
| 1) Brazil | 5552 | 33871 | 5964 | 36340 | 7.4 | 1.9 | 2650 | 17261 | 2408 | 16150 | -9.1 | 0.9 | | | | |
| 2) Colombia | 1008 | 6115 | 1105 | 6762 | 9.7 | 0.4 | 888 | 5803 | 787 | 5279 | -11.3 | 0.3 | | | | |
| 3) Peru | 621 | 3766 | 820 | 5022 | 32.1 | 0.3 | 703 | 4596 | 699 | 4686 | -0.6 | 0.3 | | | | |
| 4) Chile | 664 | 4029 | 566 | 3461 | -14.8 | 0.2 | 679 | 4451 | 676 | 4532 | -0.5 | 0.2 | | | | |
| 5) Argentina | 611 | 3708 | 460 | 2811 | -24.7 | 0.1 | 537 | 3510 | 512 | 3434 | -4.5 | 0.2 | | | | |
| 6) Panama Republic | 211 | 1285 | 302 | 1851 | 43.0 | 0.1 | 201 | 1319 | 222 | 1489 | 10.2 | 0.1 | | | | |
| 7) Venezuela | 197 | 1196 | 258 | 1580 | 31.0 | 0.1 | 131 | 852 | 62 | 416 | -52.4 | 0.0 | | | | |

Contd....

Table 7.4 B. Direction of Exports : Exports by Regions and Countries

| Regions / Countries | (Contd.....) | | | | | | | | | | | |
|---------------------|-------------------|-----------|-------------------|-------------------|-----------|--------------------------------------|--------------------|-------------------|-----------|-------------------|-----------|---------------------------------------|
| | 2013-14 | | | 2014-15 | | | 2015-16 | | | 2016-17(P) | | |
| | (US\$ million) | (₹ crore) | (US\$ million) | (US\$ million) | (₹ crore) | Change (4) over (2) (Per cent) | Share (Percent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | Change (10) over (8) (Per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 8) Guatemala | 212 | 1289 | 229 | 1401 | 7.8 | 0.1 | 256 | 1676 | 243 | 1628 | -5.1 | 0.1 |
| 9) Ecuador | 290 | 1761 | 225 | 1375 | -22.5 | 0.1 | 153 | 1000 | 199 | 1334 | 29.8 | 0.1 |
| 10) Uruguay | 161 | 975 | 208 | 1270 | 29.4 | 0.1 | 153 | 995 | 189 | 1268 | 23.4 | 0.1 |
| 11) Honduras | 108 | 655 | 188 | 1150 | 73.8 | 0.1 | 155 | 1014 | 136 | 910 | -12.4 | 0.0 |
| 12) Trinidad | 105 | 630 | 165 | 1011 | 57.9 | 0.1 | 93 | 607 | 85 | 567 | -9.0 | 0.0 |
| 13) Dominic Rep | 126 | 765 | 141 | 863 | 12.1 | 0.0 | 175 | 1149 | 225 | 1512 | 28.7 | 0.1 |
| 14) Bahamas | 228 | 1302 | 124 | 733 | -45.8 | 0.0 | 12 | 79 | 6 | 40 | -50.4 | 0.0 |
| 15) Paraguay | 89 | 539 | 106 | 654 | 19.8 | 0.0 | 98 | 644 | 125 | 841 | 27.6 | 0.0 |
| 16) Costa Rica | 81 | 492 | 96 | 586 | 18.2 | 0.0 | 135 | 884 | 160 | 1073 | 18.8 | 0.1 |
| 17) Haiti | 59 | 358 | 85 | 524 | 44.3 | 0.0 | 62 | 406 | 72 | 482 | 15.4 | 0.0 |
| 18) Bolivia | 53 | 320 | 71 | 433 | 33.2 | 0.0 | 74 | 487 | 80 | 535 | 7.4 | 0.0 |
| 19) Nicaragua | 59 | 361 | 66 | 401 | 10.6 | 0.0 | 83 | 541 | 87 | 585 | 5.8 | 0.0 |
| 20) El Salvador | 65 | 394 | 61 | 376 | -5.6 | 0.0 | 69 | 448 | 60 | 405 | -11.7 | 0.0 |
| 21) Fr Guiana | 37 | 219 | 59 | 364 | 61.0 | 0.0 | 1 | 8 | 2 | 10 | 28.2 | 0.0 |
| 22) Netherlandantil | 69 | 416 | 41 | 250 | -40.2 | 0.0 | 37 | 243 | 38 | 256 | 2.5 | 0.0 |
| 23) Jamaica | 36 | 219 | 38 | 232 | 4.4 | 0.0 | 40 | 263 | 43 | 291 | 8.0 | 0.0 |
| 24) Cuba | 36 | 215 | 37 | 228 | 5.0 | 0.0 | 54 | 353 | 42 | 280 | -22.9 | 0.0 |
| 25) Belize | 22 | 134 | 24 | 150 | 9.0 | 0.0 | 15 | 95 | 15 | 103 | 5.9 | 0.0 |
| 26) Guyana | 24 | 147 | 24 | 149 | 0.9 | 0.0 | 22 | 143 | 20 | 135 | -8.2 | 0.0 |
| 27) Suriname | 24 | 146 | 18 | 108 | -27.1 | 0.0 | 13 | 84 | 11 | 71 | -17.7 | 0.0 |
| 28) Barbados | 6 | 39 | 10 | 62 | 58.2 | 0.0 | 11 | 69 | 12 | 83 | 18.0 | 0.0 |
| 29) Cayman Is | 3 | 19 | 7 | 40 | 114.3 | 0.0 | 4 | 23 | 5 | 32 | 35.9 | 0.0 |
| 30) Martinique | 8 | 47 | 6 | 38 | -19.9 | 0.0 | 4 | 29 | 4 | 28 | -7.0 | 0.0 |
| 31) Virgin Is Us | 4 | 24 | 5 | 30 | 23.8 | 0.0 | 4 | 28 | 5 | 36 | 26.0 | 0.0 |
| 32) Guadeloupe | 7 | 39 | 4 | 25 | -36.1 | 0.0 | 3 | 19 | 4 | 29 | 53.0 | 0.0 |
| 33) Bermuda | 3 | 16 | 3 | 17 | 5.4 | 0.0 | 3 | 17 | 4 | 28 | 62.5 | 0.0 |
| 34) Dominica | 2 | 15 | 3 | 16 | 5.0 | 0.0 | 1 | 10 | 2 | 16 | 62.6 | 0.0 |
| 35) St Lucia | 2 | 14 | 2 | 13 | -6.6 | 0.0 | 3 | 18 | 4 | 29 | 62.2 | 0.0 |
| 36) Antigua | 2 | 13 | 2 | 13 | -5.5 | 0.0 | 3 | 17 | 2 | 13 | -23.0 | 0.0 |

Contd....

Table 7.4 B. Direction of Exports : Exports by Regions and Countries

| Regions / Countries | (Contd.....) | | | | | | | | | | | |
|----------------------------|-------------------|---------------|-------------------|-------------------|--------------|--------------------------------------|--------------------|-------------------|--------------|-------------------|-------------|---------------------------------------|
| | 2013-14 | | | 2014-15 | | | 2015-16 | | | 2016-17(P) | | |
| | (US\$ million) | (₹ crore) | (US\$ million) | (US\$ million) | (₹ crore) | Change (4) over (2) (Per cent) | Share (Percent) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | Change (10) over (8) (Per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 8) Cambodia | 141 | 858 | 143 | 874 | 0.9 | 0.0 | 143 | 935 | 105 | 707 | -26.4 | 0.0 |
| 9) Lao Pd Rp | 50 | 305 | 67 | 413 | 34.9 | 0.0 | 38 | 246 | 26 | 172 | -32.2 | 0.0 |
| 10) Brunei | 32 | 196 | 42 | 256 | 29.4 | 0.0 | 28 | 186 | 43 | 287 | 50.8 | 0.0 |
| 4.3 West Asia- GCC | 48221 | 291908 | 49297 | 301109 | 2.2 | 15.9 | 41679 | 272665 | 41885 | 280709 | 0.5 | 15.1 |
| 1) U Arab Emits | 30520 | 184779 | 33028 | 201853 | 8.2 | 10.6 | 30290 | 198140 | 31258 | 209490 | 3.2 | 11.3 |
| 2) Saudi Arab | 12219 | 73864 | 11163 | 68037 | -8.6 | 3.6 | 6394 | 41798 | 5140 | 34450 | -19.6 | 1.9 |
| 3) Oman | 2812 | 17156 | 2379 | 14548 | -15.4 | 0.8 | 2191 | 14408 | 2732 | 18287 | 24.7 | 1.0 |
| 4) Kuwait | 1061 | 6435 | 1199 | 7333 | 13.0 | 0.4 | 1248 | 8161 | 1494 | 10022 | 19.8 | 0.5 |
| 5) Qatar | 969 | 5911 | 1055 | 6443 | 8.9 | 0.3 | 902 | 5899 | 787 | 5280 | -12.7 | 0.3 |
| 6) Bahrain Is | 639 | 3763 | 473 | 2897 | -26.0 | 0.2 | 654 | 4259 | 474 | 3180 | -27.5 | 0.2 |
| 4.4 Other West Asia | 13067 | 79241 | 11185 | 68287 | -14.4 | 3.6 | 7883 | 51561 | 7877 | 52818 | -0.1 | 2.8 |
| 1) Iran | 4972 | 30060 | 4175 | 25530 | -16.0 | 1.3 | 2782 | 18177 | 2393 | 16046 | -14.0 | 0.9 |
| 2) Israel | 3747 | 22757 | 3290 | 20071 | -12.2 | 1.1 | 2821 | 18467 | 3065 | 20548 | 8.6 | 1.1 |
| 3) Jordan | 1596 | 9827 | 1431 | 8697 | -10.3 | 0.5 | 500 | 3265 | 524 | 3514 | 4.8 | 0.2 |
| 4) Yemen Republic | 1307 | 7886 | 992 | 6045 | -24.1 | 0.3 | 400 | 2635 | 446 | 2986 | 11.5 | 0.2 |
| 5) Iraq | 918 | 5525 | 829 | 5090 | -9.7 | 0.3 | 1004 | 6550 | 1115 | 7483 | 11.1 | 0.4 |
| 6) Lebanon | 294 | 1776 | 280 | 1708 | -4.7 | 0.1 | 240 | 1571 | 212 | 1420 | -11.6 | 0.1 |
| 7) Syria | 234 | 1409 | 188 | 1145 | -19.7 | 0.1 | 137 | 896 | 122 | 821 | -10.6 | 0.0 |
| 4.5 North East Asia | 40816 | 248095 | 37816 | 231103 | -7.4 | 12.2 | 30842 | 201885 | 34700 | 232664 | 12.5 | 12.5 |
| 1) Hong Kong | 12732 | 77241 | 13600 | 83119 | 6.8 | 4.4 | 12092 | 79307 | 14157 | 94852 | 17.1 | 5.1 |
| 2) China P Rp | 14867 | 90819 | 11957 | 73169 | -19.6 | 3.9 | 9014 | 58953 | 10203 | 68461 | 13.2 | 3.7 |
| 3) Japan | 6814 | 41256 | 5386 | 32838 | -21.0 | 1.7 | 4663 | 30435 | 3855 | 25849 | -17.3 | 1.4 |
| 4) Korea Rp | 4209 | 25475 | 4604 | 28092 | 9.4 | 1.5 | 3524 | 23045 | 4239 | 28424 | 20.3 | 1.5 |
| 5) Taiwan | 1990 | 12061 | 2182 | 13355 | 9.6 | 0.7 | 1429 | 9347 | 2189 | 14700 | 53.2 | 0.8 |
| 6) Korea Dp Rp | 187 | 1143 | 77 | 468 | -59.0 | 0.0 | 111 | 730 | 45 | 302 | -59.4 | 0.0 |
| 7) Mongolia | 16 | 90 | 8 | 48 | -49.0 | 0.0 | 8 | 55 | 10 | 66 | 16.0 | 0.0 |
| 8) Macao | 2 | 10 | 2 | 15 | 50.0 | 0.0 | 2 | 13 | 2 | 11 | -18.3 | 0.0 |
| 4.6 South Asia | 17504 | 106335 | 20480 | 125256 | 17.0 | 6.6 | 18620 | 121864 | 19005 | 127464 | 2.1 | 6.9 |
| 1) Sri Lanka | 4534 | 27644 | 6704 | 41038 | 47.8 | 2.2 | 5310 | 34652 | 3921 | 26286 | -26.1 | 1.4 |

Contd....

| Regions / Countries | 2013-14 | | 2014-15 | | Change (4) over (2) (Per cent) | | Share (Percent) | | 2015-16 | | 2016-17(P) | | Change (10) over (8) (Per cent) | | Share (Per cent) | |
|--------------------------------|-------------------|----------------|-------------------|----------------|--------------------------------------|--------------|--------------------|----------------|-------------------|----------------|-------------------|----------------|---------------------------------------|-------------|---------------------|--------------|
| | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (6) | (7) | (8) | (9) | (US\$ million) | (₹ crore) | (US\$ million) | (₹ crore) | (10) | (11) | (12) | (13) |
| 2) Bangladesh | 6167 | 37411 | 6451 | 39440 | 4.6 | 2.1 | 6035 | 39527 | 6695 | 44910 | 6695 | 44910 | 10.9 | 10.9 | 2.4 | 2.4 |
| 3) Nepal | 3592 | 21770 | 4559 | 27859 | 26.9 | 1.5 | 3930 | 25724 | 5361 | 35965 | 5361 | 35965 | 36.4 | 36.4 | 1.9 | 1.9 |
| 4) Pakistan | 2274 | 13833 | 1857 | 11353 | -18.3 | 0.6 | 2171 | 14286 | 1832 | 12289 | 1832 | 12289 | -15.6 | -15.6 | 0.7 | 0.7 |
| 5) Afghanistan | 474 | 2879 | 423 | 2581 | -10.9 | 0.1 | 527 | 3436 | 507 | 3404 | 507 | 3404 | -3.6 | -3.6 | 0.2 | 0.2 |
| 6) Bhutan | 356 | 2155 | 334 | 2051 | -6.1 | 0.1 | 469 | 3068 | 489 | 3281 | 489 | 3281 | 4.4 | 4.4 | 0.2 | 0.2 |
| 7) Maldives | 106 | 643 | 152 | 933 | 43.7 | 0.0 | 179 | 1171 | 198 | 1329 | 198 | 1329 | 10.8 | 10.8 | 0.1 | 0.1 |
| 5) CIS & Baltics | 3492 | 21149 | 3396 | 20763 | -2.7 | 1.1 | 2392 | 15670 | 2794 | 18726 | 2794 | 18726 | 16.8 | 16.8 | 1.0 | 1.0 |
| 5.1 CARS Countries | 538 | 3256 | 605 | 3696 | 12.4 | 0.2 | 362 | 2368 | 339 | 2274 | 339 | 2274 | -6.4 | -6.4 | 0.1 | 0.1 |
| 1) Kazakhstan | 262 | 1580 | 251 | 1532 | -4.1 | 0.1 | 152 | 994 | 121 | 811 | 121 | 811 | -20.4 | -20.4 | 0.0 | 0.0 |
| 2) Uzbekistan | 114 | 692 | 170 | 1042 | 49.4 | 0.1 | 95 | 618 | 109 | 730 | 109 | 730 | 15.4 | 15.4 | 0.0 | 0.0 |
| 3) Turkmenistan | 74 | 448 | 92 | 563 | 24.9 | 0.0 | 69 | 447 | 58 | 388 | 58 | 388 | -15.7 | -15.7 | 0.0 | 0.0 |
| 4) Tajikistan | 54 | 327 | 54 | 328 | -1.0 | 0.0 | 22 | 145 | 20 | 136 | 20 | 136 | -8.8 | -8.8 | 0.0 | 0.0 |
| 5) Kyrgyzstan | 35 | 208 | 38 | 231 | 9.3 | 0.0 | 25 | 164 | 31 | 208 | 31 | 208 | 23.8 | 23.8 | 0.0 | 0.0 |
| 5.2 Other CIS Countries | 2954 | 17893 | 2792 | 17066 | -5.5 | 0.9 | 2029 | 13302 | 2454 | 16452 | 2454 | 16452 | 20.9 | 20.9 | 0.9 | 0.9 |
| 1) Russia | 2121 | 12829 | 2097 | 12824 | -1.1 | 0.7 | 1588 | 10409 | 1933 | 12956 | 1933 | 12956 | 21.7 | 21.7 | 0.7 | 0.7 |
| 2) Ukraine | 481 | 2932 | 349 | 2129 | -27.5 | 0.1 | 259 | 1697 | 311 | 2083 | 311 | 2083 | 19.9 | 19.9 | 0.1 | 0.1 |
| 3) Azerbaijan | 124 | 747 | 110 | 676 | -10.9 | 0.0 | 33 | 218 | 40 | 271 | 40 | 271 | 20.9 | 20.9 | 0.0 | 0.0 |
| 4) Armenia | 72 | 442 | 91 | 560 | 26.2 | 0.0 | 23 | 150 | 32 | 213 | 32 | 213 | 39.7 | 39.7 | 0.0 | 0.0 |
| 5) Georgia | 91 | 555 | 87 | 530 | -5.1 | 0.0 | 83 | 542 | 92 | 613 | 92 | 613 | 10.8 | 10.8 | 0.0 | 0.0 |
| 6) Belarus | 53 | 325 | 48 | 294 | -9.7 | 0.0 | 36 | 235 | 40 | 271 | 40 | 271 | 13.0 | 13.0 | 0.0 | 0.0 |
| 7) Moldova | 10 | 64 | 9 | 54 | -16.0 | 0.0 | 8 | 51 | 7 | 45 | 7 | 45 | -14.0 | -14.0 | 0.0 | 0.0 |
| 6) Unspecified Region | 11720 | 70151 | 4935 | 30061 | -57.9 | 1.6 | 3927 | 25724 | 4091 | 27429 | 4091 | 27429 | 4.2 | 4.2 | 1.5 | 1.5 |
| Total Exports | 314405 | 1905011 | 310338 | 1896348 | -1.3 | 100.0 | 262290 | 1716378 | 276280 | 1852340 | 276280 | 1852340 | 5.3 | 5.3 | 100.0 | 100.0 |

Source: D/o Commerce based on DGCI&S data

Note:

P: Provisional

Table 7.5. India's Share in World Exports by Commodity Divisions and Groups

(US \$ million)

| Div. | Code | Commodity | 1980 | | | 1985 | | |
|----------------------|-------|---|----------------|-------------|-------------------|----------------|-------------|-------------------|
| Sl. No. | Group | Division/Group | World | India | India's share (%) | World | India | India's share (%) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 01 | | Meat and meat preparations | 17832 | 67 | 0.4 | 15755 | 61 | 0.4 |
| 03 | | Fish, crustaceans and molluscs & preparations | 12258 | 242 | 2.0 | 14335 | 337 | 2.4 |
| 04 | | Cereals and cereal preparations | 41989 | 201 | 0.5 | 32643 | 211 | 0.6 |
| | 042 | Rice | 4355 | 160 | 3.7 | 2916 | 162 | 5.6 |
| 05 | | Vegetables and fruits | 24018 | 259 | 1.1 | 23606 | 332 | 1.4 |
| 06 | | Sugar, sugar preparations and honey | 16183 | 46 | 0.3 | 10113 | 0 | 0.0 |
| 07 | | Coffee, tea, cocoa, spices and manufactures | 22121 | 879 | 4.0 | 20779 | 971 | 4.7 |
| | 071 | Coffee and coffee substitutes | 12979 | 271 | 2.1 | 11676 | 226 | 1.9 |
| | 074 | Tea and mate | 1631 | 452 | 27.7 | 1973 | 517 | 26.2 |
| | 075 | Spices | 1072 | 156 | 14.5 | 1188 | 229 | 19.3 |
| 08 | | Feeding stuff for animals | 10322 | 164 | 1.6 | 8515 | 127 | 1.5 |
| 12 | | Tobacco and tobacco manufactures | 3423 | 151 | 4.4 | 7822 | 140 | 1.8 |
| | 121 | Unmanufactured tobacco and refuse | 3423 | 151 | 4.4 | 3798 | 113 | 3.0 |
| | 122 | Manufactured tobacco | ... | ... | ... | 4024 | 27 | 0.7 |
| 22 | | Oilseeds and oleaginous fruit | 9487 | 30 | 0.3 | 7896 | 20 | 0.3 |
| 28 | | Metalliferous ores and metal scrap | 30239 | 465 | 1.5 | 23137 | 557 | 2.4 |
| | 281 | Iron ore and concentrates | 6515 | 411 | 6.3 | 6154 | 478 | 7.8 |
| 51 | | Organic chemicals | 31841 | 17 | 0.1 | 36923 | 25 | 0.1 |
| 52 | | Inorganic chemicals | 15491 | 26 | 0.2 | 16318 | 22 | 0.1 |
| 53 | | Dyeing, tanning and colouring materials | 7986 | 65 | 0.8 | 8024 | 62 | 0.8 |
| 54 | 541 | Medicinal and pharmaceutical products | 13918 | 109 | 0.8 | 15920 | 130 | 0.8 |
| 55 | | Essential oils and perfume materials | 7647 | 86 | 1.1 | 8136 | 56 | 0.7 |
| | | soap, cleansing etc. | | | | | | |
| 58 | | Artificial resins, plastic materials, cellulose esters & ethers | 27223 | 3 | 0.0 | 28456 | 5 | 0.0 |
| 59 | | Chemical materials and products n.e.s. | 15960 | 8 | 0.0 | 16613 | 28 | 0.2 |
| 61 | | Leather, leather manufactures & dressed fur skins | 5967 | 405 | 6.8 | 6444 | 534 | 8.3 |
| | 611 | Leather | 3415 | 342 | 10.0 | 4185 | 331 | 7.9 |
| | 612 | Manufactures of leather or of composition leather | 975 | 62 | 6.3 | 1233 | 202 | 16.4 |
| | 613 | Fur skins, tanned or dressed etc. | 1577 | 1 | 0.1 | 1026 | 0 | 0.0 |
| 65 | | Textile yarn, fabrics, made-up articles | 48884 | 1145 | 2.3 | 48218 | 1037 | 2.1 |
| | 652 | Woven cotton fabrics | 6632 | 351 | 5.3 | 6804 | 327 | 4.8 |
| | 653 | Woven fabrics of man made fibres | 9325 | 44 | 0.5 | 9735 | 20 | 0.2 |
| | 654 | Woven fabrics other than of cotton or man-made fibres | 3188 | 204 | 6.4 | 3462 | 167 | 4.8 |
| 66 | 667 | Pearls, precious and semi-precious stones | 18563 | 579 | 3.1 | 12073 | 1165 | 9.6 |
| 67 | | Iron and steel | 68231 | 87 | 0.1 | 61891 | 46 | 0.1 |
| 69 | | Manufactures of metals n.e.s. | 36840 | 221 | 0.6 | 32884 | 125 | 0.4 |
| 71 | | Power-generating machinery & equipment | 35722 | 88 | 0.2 | 38433 | 59 | 0.2 |
| 72 | | Machinery specialized for particular industries | 58495 | 65 | 0.1 | 54707 | 97 | 0.2 |
| 73 | | Metal-working machinery | 15671 | 32 | 0.2 | 12696 | 55 | 0.4 |
| 74 | | General industrial machinery & equipment & machine parts thereof | 59443 | 67 | 0.1 | 53954 | 60 | 0.1 |
| 75 | | Office machinery and ADP equipment | 24750 | 2 | 0.0 | 53604 | 30 | 0.1 |
| 76 | | Telecommunication and sound recording and reproducing apparatus and equipment | 26799 | 11 | 0.0 | 47318 | 4 | 0.0 |
| 77 | | Electrical machinery, apparatus and appliances | 60947 | 114 | 0.2 | 75739 | 121 | 0.2 |
| 78 | | Road vehicles (including air cushion vehicles) | 127347 | 208 | 0.2 | 157446 | 126 | 0.1 |
| 79 | | Other transport equipment | 41291 | 32 | 0.1 | 50709 | 27 | 0.1 |
| 84 | | Articles of apparel and clothing accessories | 32365 | 590 | 1.8 | 38718 | 887 | 2.3 |
| Total Exports | | | 1997686 | 8486 | 0.4 | 1930849 | 8904 | 0.5 |

Contd....

Table 7.5. India's Share in World Exports by Commodity Divisions and Groups (Contd....)

| (US \$ million) | | | | | | | | |
|----------------------|-------|---|----------------|--------------|-------------------|----------------|--------------|-------------------|
| Div. | Code | Commodity | 1990 | | | 2000 | | |
| Sl. No. | Group | Division/Group | World | India | India's share (%) | World | India | India's share (%) |
| (1) | (2) | (3) | (10) | (11) | (12) | (13) | (14) | (15) |
| 01 | | Meat and meat preparations | 34118 | 77 | 0.2 | 44690 | 324 | 0.7 |
| 03 | | Fish, crustaceans and molluscs & preparations | 32847 | 521 | 1.6 | 50875 | 1391 | 2.7 |
| 04 | | Cereals and cereal preparations | 45314 | 285 | 0.6 | 53575 | 783 | 1.5 |
| | 042 | Rice | 3995 | 254 | 6.4 | 6411 | 654 | 10.2 |
| 05 | | Vegetables and fruits | 50225 | 400 | 0.8 | 68355 | 856 | 1.3 |
| 06 | | Sugar, sugar preparations and honey | 14236 | 21 | 0.1 | 13866 | 118 | 0.9 |
| 07 | | Coffee, tea, cocoa, spices and manufactures | 21131 | 842 | 4.0 | 27953 | 956 | 3.4 |
| | 071 | Coffee and coffee substitutes | 8659 | 148 | 1.7 | 11559 | 264 | 2.3 |
| | 074 | Tea and mate | 2650 | 585 | 22.1 | 3087 | 431 | 14.0 |
| | 075 | Spices | 1415 | 109 | 7.7 | 2541 | 261 | 10.3 |
| 08 | | Feeding stuff for animals | 15603 | 336 | 2.2 | 20295 | 469 | 2.3 |
| 12 | | Tobacco and tobacco manufactures | 17860 | 145 | 0.8 | 21628 | 147 | 0.7 |
| | 121 | Unmanufactured tobacco and refuse | 5187 | 107 | 2.1 | 5525 | 147 | 2.7 |
| | 122 | Manufactured tobacco | 12674 | 39 | 0.3 | 16103 | 0 | 0.0 |
| 22 | | Oilseeds and oleaginous fruit | 10477 | 83 | 0.8 | 14388 | 244 | 1.7 |
| 28 | | Metalliferous ores and metal scrap | 35734 | 753 | 2.1 | 49515 | 510 | 1.0 |
| | 281 | Iron ore and concentrates | 7653 | 578 | 7.6 | 9229 | 363 | 3.9 |
| 51 | | Organic chemicals | 70721 | 232 | 0.3 | 134109 | 1491 | 1.1 |
| 52 | | Inorganic chemicals | 26079 | 59 | 0.2 | 33117 | 99 | 0.3 |
| 53 | | Dyeing, tanning and colouring materials | 19952 | 233 | 1.2 | 34105 | 481 | 1.4 |
| 54 | 541 | Medicinal and pharmaceutical products | 37753 | 453 | 1.2 | 107482 | 1255 | 1.2 |
| 55 | | Essential oils and perfume materials soap, cleansing etc. | 21027 | 240 | 1.1 | 44279 | 216 | 0.5 |
| 58 | | Artificial resins, plastic materials, cellulose esters & ethers | 65712 | 29 | 0.0 | 123353 | 174 | 0.1 |
| 59 | | Chemical materials and products n.e.s. | 33418 | 76 | 0.2 | 63411 | 437 | 0.7 |
| 61 | | Leather, leather manufactures & dressed fur skins | 13226 | 832 | 6.3 | 24440 | 808 | 3.3 |
| | 611 | Leather | 9295 | 447 | 4.8 | 16551 | 388 | 2.3 |
| | 612 | Manufactures of leather or of composition leather | 2868 | 385 | 13.4 | 6831 | 421 | 6.2 |
| | 613 | Fur skins, tanned or dressed etc. | 1063 | 0 | 0.0 | 1058 | 0 | 0.0 |
| 65 | | Textile yarn, fabrics, made-up articles | 105147 | 2180 | 2.1 | 167528 | 6000 | 3.6 |
| | 652 | Woven cotton fabrics | 15559 | 571 | 3.7 | 22387 | 1103 | 4.9 |
| | 653 | Woven fabrics of man made fibres | 22021 | 156 | 0.7 | 32151 | 506 | 1.6 |
| | 654 | Woven fabrics other than of cotton or man-made fibres | 8466 | 195 | 2.3 | 9432 | 370 | 3.9 |
| 66 | 667 | Pearls, precious and semi-precious stones | 27577 | 2710 | 9.8 | 54105 | 6477 | 12.0 |
| 67 | | Iron and steel | 106342 | 283 | 0.3 | 146147 | 1481 | 1.0 |
| 69 | | Manufactures of metals n.e.s. | 66088 | 341 | 0.5 | 125259 | 1167 | 0.9 |
| 71 | | Power-generating machinery & equipment | 81675 | 126 | 0.2 | 158329 | 218 | 0.1 |
| 72 | | Machinery specialized for particular industries | 118617 | 236 | 0.2 | 167582 | 346 | 0.2 |
| 73 | | Metal-working machinery | 31051 | 58 | 0.2 | 41413 | 117 | 0.3 |
| 74 | | General industrial machinery & equipment & machine parts thereof | 130836 | 132 | 0.1 | 225981 | 78 | 0.0 |
| 75 | | Office machinery and ADP equipment | 126743 | 112 | 0.1 | 378980 | 0 | 0.0 |
| 76 | | Telecommunication and sound recording and reproducing apparatus and equipment | 100965 | 31 | 0.0 | 299356 | 0 | 0.0 |
| 77 | | Electrical machinery, apparatus and appliances | 185364 | 241 | 0.1 | 640575 | 92 | 0.0 |
| 78 | | Road vehicles (including air cushion vehicles) | 312550 | 344 | 0.1 | 549596 | 370 | 0.1 |
| 79 | | Other transport equipment | 96250 | 15 | 0.0 | 157654 | 53 | 0.0 |
| 84 | | Articles of apparel and clothing accessories | 94577 | 2211 | 2.3 | 201379 | 7093 | 3.5 |
| Total Exports | | | 3303563 | 18143 | 0.5 | 6254511 | 41543 | 0.7 |

Contd....

Table 7.5. India's Share in World Exports by Commodity Divisions and Groups *(Contd....)*

(US \$ million)

| Div. | Code | Commodity | 2005 | | | 2010 | | |
|----------------------|-------|---|-----------------|--------------|-------------------|-----------------|---------------|-------------------|
| Sl. No. | Group | Division/Group | World | India | India's share (%) | World | India | India's share (%) |
| (1) | (2) | (3) | (16) | (17) | (18) | (19) | (20) | (21) |
| 01 | | Meat and meat preparations | 73937 | 620 | 0.8 | 112000 | 1821 | 1.6 |
| 03 | | Fish, crustaceans and molluscs & preparations | 71559 | 1590 | 2.2 | 101800 | 2403 | 2.4 |
| 04 | | Cereals and cereal preparations | 72416 | 1753 | 2.4 | 94300 | 3136 | 3.3 |
| | 042 | Rice | 9841 | 1411 | 14.3 | 20300 | 2296 | 11.3 |
| 05 | | Vegetables and fruits | 114274 | 1586 | 1.4 | 180700 | 2338 | 1.3 |
| 06 | | Sugar, sugar preparations and honey | 24042 | 196 | 0.8 | 45500 | 1096 | 2.4 |
| 07 | | Coffee, tea, cocoa, spices and manufactures | 44914 | 1042 | 2.3 | 80700 | 2233 | 2.8 |
| | 071 | Coffee and coffee substitutes | 15729 | 363 | 2.3 | 29600 | 558 | 1.9 |
| | 074 | Tea and mate | 4159 | 393 | 9.4 | 7200 | 720 | 10.0 |
| | 075 | Spices | 2995 | 281 | 9.4 | 6000 | 927 | 15.4 |
| 08 | | Feeding stuff for animals | 30390 | 1127 | 3.7 | 57600 | 2067 | 3.6 |
| 12 | | Tobacco and tobacco manufactures | 24759 | 232 | 0.9 | 35100 | 879 | 2.5 |
| | 121 | Unmanufactured tobacco and refuse | 6875 | 0 | 0.0 | 10800 | 713 | 6.6 |
| | 122 | Manufactured tobacco | 17884 | 0 | 0.0 | 24300 | 165 | 0.7 |
| 22 | | Oilseeds and oleaginous fruit | 22888 | 319 | 1.4 | 56400 | 911 | 1.6 |
| 28 | | Metalliferous ores and metal scrap | 124604 | 4899 | 3.9 | 299000 | 8475 | 2.8 |
| | 281 | Iron ore and concentrates | 27673 | 3816 | 13.8 | 105200 | 6147 | 5.8 |
| 51 | | Organic chemicals | 217584 | 4536 | 2.1 | 335000 | 7735 | 2.3 |
| 52 | | Inorganic chemicals | 55240 | 0 | 0.0 | 92200 | 972 | 1.1 |
| 53 | | Dyeing, tanning and colouring materials | 50885 | 846 | 1.7 | 66300 | 1604 | 2.4 |
| 54 | 541 | Medicinal and pharmaceutical products | 67107 | 564 | 0.8 | 134700 | 1357 | 1.0 |
| 55 | | Essential oils and perfume materials soap, cleansing etc. | 82162 | 511 | 0.6 | 122900 | 1159 | 0.9 |
| 58 | | Artificial resins, plastic materials, cellulose esters & ethers | 72911 | 0 | 0.0 | 108400 | 910 | 0.8 |
| 59 | | Chemical materials and products n.e.s. | 106894 | 1153 | 1.1 | 174100 | 2136 | 1.2 |
| 61 | | Leather, leather manufactures & dressed fur skins | 25347 | 773 | 3.1 | 28200 | 915 | 3.2 |
| | 611 | Leather | 20500 | 638 | 3.1 | 23500 | 785 | 3.3 |
| | 612 | Manufactures of leather or of composition leather | 3125 | 0 | 0.0 | 3100 | 130 | 4.2 |
| | 613 | Fur skins, tanned or dressed etc. | 1722 | 0.0 | 0.0 | 1600 | 0.0 | 0.0 |
| 65 | | Textile yarn, fabrics, made-up articles | 213619 | 8462 | 4.0 | 259700 | 12833 | 4.9 |
| | 652 | Woven cotton fabrics | 28814 | 861 | 3.0 | 28600 | 1050 | 3.7 |
| | 653 | Woven fabrics of man made fibres | 32121 | 981 | 3.1 | 36200 | 1987 | 5.5 |
| | 654 | Woven fabrics other than of cotton or man-made fibres | 11076 | 495 | 4.5 | 9900 | 518 | 5.2 |
| 66 | 667 | Pearls, precious and semi-precious stones | 91907 | 11929 | 13.0 | 129500 | 22589 | 17.4 |
| 67 | | Iron and steel | 312975 | 4959 | 1.6 | 416400 | 10612 | 2.5 |
| 69 | | Manufactures of metals n.e.s. | 215402 | 2774 | 1.3 | 301800 | 4169 | 1.4 |
| 71 | | Power-generating machinery & equipment | 252199 | 926 | 0.4 | 330700 | 2335 | 0.7 |
| 72 | | Machinery specialized for particular industries | 264538 | 1125 | 0.4 | 364800 | 2230 | 0.6 |
| 73 | | Metal-working machinery | 63925 | 268 | 0.4 | 69400 | 381 | 0.5 |
| 74 | | General industrial machinery & equipment | | | | | | |
| | | & machine parts thereof | 375374 | 1825 | 0.5 | 527900 | 3886 | 0.7 |
| 75 | | Office machinery and ADP equipment | 488065 | 470 | 0.1 | 572700 | 619 | 0.1 |
| 76 | | Telecommunication and sound recording and reproducing apparatus and equipment | 492806 | 0 | 0.0 | 626200 | 2408 | 0.4 |
| 77 | | Electrical machinery, apparatus and appliances | 852088 | 2126 | 0.2 | 1240100 | 5522 | 0.4 |
| 78 | | Road vehicles (including air cushion vehicles) | 896733 | 3088 | 0.3 | 1063500 | 8746 | 0.8 |
| 79 | | Other transport equipment | 214311 | 1023 | 0.5 | 333500 | 5804 | 1.7 |
| 84 | | Articles of apparel and clothing accessories | 286840 | 9212 | 3.2 | 372000 | 11229 | 3.0 |
| Total Exports | | | 10355384 | 99618 | 1.0 | 15102605 | 226334 | 1.5 |

Contd....

Table 7.5. India's Share in World Exports by Commodity Divisions and Groups (Contd....)

(US \$ million)

| Div. | Code | Commodity | 2014 | | | 2015 | | |
|----------------------|-------|---|-----------------|--------------------|-------------------|-----------------|--------------------|-------------------|
| Sl. No. | Group | Division/Group | World | India | India's share (%) | World | India | India's share (%) |
| (1) | (2) | (3) | (22) | (23) | (24) | (25) | (26) | (27) |
| 01 | | Meat and meat preparations | 151600 | 5079 | 3.4 | 131866 | 4347 | 3.3 |
| 03 | | Fish, crustaceans and molluscs & preparations | 138600 | 5500 | 4.0 | 126276 | 4778 | 3.8 |
| 04 | | Cereals and cereal preparations | 130000 | 10598 | 8.2 | 118540 | 7380 | 6.2 |
| | 042 | Rice | 25900 | 7906 | 30.5 | 22803 | 6380 | 28.0 |
| 05 | | Vegetables and fruits | 234100 | 3305 | 1.4 | 228540 | 3176 | 1.4 |
| 06 | | Sugar, sugar preparations and honey | 50100 | 1386 | 2.8 | 44392 | 1529 | 3.4 |
| 07 | | Coffee, tea, cocoa, spices and manufactures | 106700 | 3238 | 3.0 | 102459 | 3407 | 3.3 |
| | 071 | Coffee and coffee substitutes | 39600 | 843 | 2.1 | 37908 | 813 | 2.1 |
| | 074 | Tea and mate | 9200 | 694 | 7.5 | 8505 | 713 | 8.4 |
| | 075 | Spices | 9700 | 1575 | 16.2 | 9839 | 1701 | 17.3 |
| 08 | | Feeding stuff for animals | 84800 | 2043 | 2.4 | 73947 | 1066 | 1.4 |
| 12 | | Tobacco and tobacco manufactures | 45600 | 957 | 2.1 | 42623 | 935 | 2.2 |
| | 121 | Unmanufactured tobacco and refuse | 12000 | 688 | 5.7 | 11215 | 639 | 5.7 |
| | 122 | Manufactured tobacco | 33600 | 269 | 0.8 | 31408 | 296 | 0.9 |
| 22 | | Oilseeds and oleaginous fruit | 84900 | 1837 | 2.2 | 72833 | 1408 | 1.9 |
| 28 | | Metalliferous ores and metal scrap | 320600 | 2217 | 0.7 | 233287 | 1543 | 0.7 |
| | 281 | Iron ore and concentrates | 116900 | 874 | 0.7 | 67293 | 211 | 0.3 |
| 51 | | Organic chemicals | 393000 | 10967 | 2.8 | 334703 | 10124 | 3.0 |
| 52 | | Inorganic chemicals | 101300 | 908 | 0.9 | 90759 | 813 | 0.9 |
| 53 | | Dyeing, tanning and colouring materials | 76800 | 2886 | 3.8 | 68143 | 2452 | 3.6 |
| 54 | 541 | Medicinal and pharmaceutical products | 189700 | 2243 | 1.2 | 186774 | 2339 | 1.3 |
| 55 | | Essential oils and perfume materials soap, cleansing etc. | 160400 | 1905 | 1.2 | 149500 | 1833 | 1.2 |
| 58 | | Artificial resins, plastic materials, cellulose esters & ethers | 135200 | 1272 | 0.9 | 123550 | 1223 | 1.0 |
| 59 | | Chemical materials and products n.e.s. | 223600 | 3355 | 1.5 | 200119 | 3156 | 1.6 |
| 61 | | Leather, leather manufactures & dressed fur skins | 34200 | 1603 | 4.7 | 29586 | 1312 | 4.4 |
| | 611 | Leather | 27300 | 1361 | 5.0 | 23077 | 1095 | 4.7 |
| | 612 | Manufactures of leather or of composition leather | 4500 | 243 | 5.4 | 4610 | 216 | 4.7 |
| | 613 | Fur skins, tanned or dressed etc. | 2400 | 0.2 | 0.0 | 1899 | 0.8 | 0.0 |
| 65 | | Textile yarn, fabrics, made-up articles | 319400 | 18266 | 5.7 | 296948 | 17263 | 5.8 |
| | 652 | Woven cotton fabrics | 32100 | 1861 | 5.8 | 29641 | 1771 | 6.0 |
| | 653 | Woven fabrics of man made fibres | 47400 | 2152 | 4.5 | 44623 | 2091 | 4.7 |
| | 654 | Woven fabrics other than of cotton or man-made fibres | 10700 | 322 | 3.0 | 9659 | 301 | 3.1 |
| 66 | 667 | Pearls, precious and semi-precious stones | 166000 | 24402 | 14.7 | 138524 | 22395 | 16.2 |
| 67 | | Iron and steel | 466700 | 11540 | 2.5 | 375863 | 8289 | 2.2 |
| 69 | | Manufactures of metals n.e.s. | 401700 | 7953 | 2.0 | 372406 | 7113 | 1.9 |
| 71 | | Power-generating machinery & equipment | 410700 | 3991 | 1.0 | 373049 | 3637 | 1.0 |
| 72 | | Machinery specialized for particular industries | 428500 | 4233 | 1.0 | 379452 | 4101 | 1.1 |
| 73 | | Metal-working machinery | 90500 | 512 | 0.6 | 78819 | 527 | 0.7 |
| 74 | | General industrial machinery & equipment & machine parts thereof | 694500 | 6137 | 0.9 | 633886 | 6179 | 1.0 |
| 75 | | Office machinery and ADP equipment | 603800 | 528 | 0.1 | 537520 | 590 | 0.1 |
| 76 | | Telecommunication and sound recording and reproducing apparatus and equipment | 784700 | 2036 | 0.3 | 780740 | 1315 | 0.2 |
| 77 | | Electrical machinery, apparatus and appliances | 1501200 | 6218 | 0.4 | 1453566 | 5975 | 0.4 |
| 78 | | Road vehicles (including air cushion vehicles) | 1374200 | 13519 | 1.0 | 1299882 | 13079 | 1.0 |
| 79 | | Other transport equipment | 375500 | 11405 | 3.0 | 376308 | 7923 | 2.1 |
| 84 | | Articles of apparel and clothing accessories | 491700 | 17650 | 3.6 | 469054 | 18168 | 3.9 |
| Total Exports | | | 18653609 | 317544.6423 | 1.7 | 16272345 | 264381.0036 | 1.6 |

Source: Various issues of United Nations' International Trade Statistics Year Book, and for the years 2014 and 2015 data accessed on 02nd May 2017 from <http://comtrade.un.org/>

Table 7.6. Index Numbers of Foreign Trade

(Base : 1999-2000=100)

| Year | Unit Value Index | | Volume Index | | Terms of Trade | | |
|---------|------------------|---------|--------------|---------|----------------|-----|--------|
| | Exports | Imports | Exports | Imports | Gross | Net | Income |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 2000-01 | 102 | 109 | 125 | 99 | 79 | 94 | 117 |
| 2001-02 | 103 | 112 | 126 | 103 | 82 | 92 | 116 |
| 2002-03 | 106 | 128 | 150 | 109 | 73 | 83 | 124 |
| 2003-04 | 114 | 132 | 161 | 128 | 80 | 86 | 139 |
| 2004-05 | 131 | 157 | 179 | 150 | 84 | 83 | 149 |
| 2005-06 | 139 | 179 | 206 | 174 | 84 | 78 | 160 |
| 2006-07 | 158 | 206 | 227 | 191 | 84 | 77 | 174 |
| 2007-08 | 166 | 210 | 245 | 218 | 89 | 79 | 194 |
| 2008-09 | 194 | 239 | 267 | 262 | 98 | 81 | 217 |
| 2009-10 | 196 | 215 | 264 | 288 | 109 | 91 | 241 |
| 2010-11 | 223 | 243 | 304 | 311 | 102 | 92 | 279 |
| 2011-12 | 268 | 425 | 331 | 246 | 74 | 63 | 209 |
| 2012-13 | 284 | 459 | 357 | 261 | 73 | 62 | 221 |
| 2013-14 | 312 | 518 | 378 | 233 | 62 | 60 | 228 |
| 2014-15 | 300 | 518 | 397 | 235 | 59 | 58 | 230 |
| 2015-16 | 372 | 518 | 290 | 214 | 74 | 72 | 208 |

Source: DGCI&S, Kolkata

Notes:

1. Net terms of trade , i.e., the ratio of overall export unit value index to similar Import index .
2. Gross terms of trade , i.e., the ratio of overall import quantum Index to similar export index.
3. Income terms of trade = (NTT x QIE)/100.
4. QIE = Quantum Index of Exports.

Table 8.1 A. Overall External Assistance

(₹ crore)

| Year | Loans | Grants | Total (2+3) |
|-------------------------|----------------|--------------|----------------|
| (1) | (2) | (3) | (4) |
| A. Authorization | | | |
| 1985-86 | 5337.0 | 313.4 | 5650.4 |
| 1986-87 | 5730.0 | 429.5 | 6159.5 |
| 1987-88 | 8203.1 | 1062.2 | 9265.3 |
| 1988-89 | 12855.6 | 214.2 | 13069.8 |
| 1989-90 | 10105.8 | 720.2 | 10826.0 |
| 1990-91 | 7601.3 | 522.1 | 8123.4 |
| 1991-92 | 11805.8 | 901.8 | 12707.6 |
| 1992-93 | 13082.1 | 1011.7 | 14093.8 |
| 1993-94 | 11618.8 | 2415.1 | 14033.9 |
| 1994-95 | 12384.3 | 1075.8 | 13460.1 |
| 1995-96 | 10833.2 | 1330.0 | 12163.2 |
| 1996-97 | 14208.8 | 2932.6 | 17141.4 |
| 1997-98 | 14865.0 | 2101.0 | 16966.0 |
| 1998-99 | 8320.8 | 209.8 | 8530.6 |
| 1999-2000 | 17703.7 | 2615.3 | 20319.0 |
| 2000-01 | 16455.2 | 1963.5 | 18418.7 |
| 2001-02 | 21630.0 | 3465.0 | 25095.0 |
| 2002-03 | 19875.7 | 1296.1 | 21171.8 |
| 2003-04 | 14754.4 | 2350.7 | 17105.1 |
| 2004-05 | 22746.1 | 3071.1 | 25817.2 |
| 2005-06 | 17309.1 | 1628.8 | 18937.9 |
| 2006-07 | 28271.0 | 3518.9 | 31789.9 |
| 2007-08 | 28988.4 | 4294.4 | 33282.8 |
| 2008-09 | 28283.4 | 1242.5 | 29525.9 |
| 2009-10 | 48968.8 | 957.6 | 49926.4 |
| 2010-11 | 35895.1 | 1536.5 | 37431.6 |
| 2011-12 | 59035.3 | 1095.5 | 60130.8 |
| 2012-13 | 66891.6 | 1889.0 | 68780.6 |
| 2013-14 | 54372.6 | 140.2 | 54512.8 |
| 2014-15 | 48135.5 | 119.7 | 48255.2 |
| 2015-16 | 63847.0 | 3655.2 | 67502.2 |
| 2016-17# | 55641.4 | 187.7 | 55829.1 |
| B. Utilization | | | |
| 1985-86 | 2493.1 | 442.9 | 2936.0 |
| 1986-87 | 3175.7 | 429.3 | 3605.0 |
| 1987-88 | 4574.4 | 477.5 | 5051.9 |
| 1988-89 | 4738.6 | 565.8 | 5304.4 |
| 1989-90 | 5137.8 | 664.7 | 5802.5 |
| 1990-91 | 6170.0 | 534.3 | 6704.3 |
| 1991-92 | 10695.9 | 919.1 | 11615.0 |
| 1992-93 | 10102.2 | 879.6 | 10981.8 |
| 1993-94 | 10895.4 | 885.6 | 11781.0 |
| 1994-95 | 9964.5 | 916.0 | 10880.5 |
| 1995-96 | 9958.6 | 1063.6 | 11022.2 |
| 1996-97 | 10892.9 | 1085.6 | 11978.5 |

Contd....

Table 8.1 A. Overall External Assistance*(Contd....)*

(₹ crore)

| Year | Loans | Grants | Total (2+3) |
|-----------------|----------------|---------------|--------------------|
| (1) | (2) | (3) | (4) |
| 1997-98 | 10823.4 | 921.3 | 11744.7 |
| 1998-99 | 12343.4 | 895.5 | 13238.9 |
| 1999-2000 | 13330.7 | 1073.9 | 14404.6 |
| 2000-01 | 13527.2 | 727.2 | 14254.4 |
| 2001-02 | 16111.7 | 1447.6 | 17559.3 |
| 2002-03 | 13898.3 | 1835.8 | 15734.1 |
| 2003-04 | 15271.0 | 2073.4 | 17344.4 |
| 2004-05 | 14660.9 | 2490.7 | 17151.6 |
| 2005-06 | 16097.8 | 2790.6 | 18888.4 |
| 2006-07 | 16890.6 | 2528.4 | 19419.0 |
| 2007-08 | 17177.7 | 2673.7 | 19851.4 |
| 2008-09 | 24089.9 | 2803.8 | 26893.7 |
| 2009-10 | 27617.8 | 3121.2 | 30739.0 |
| 2010-11 | 35116.1 | 2789.5 | 37905.6 |
| 2011-12 | 29349.4 | 2926.2 | 32275.6 |
| 2012-13 | 25494.1 | 2373.6 | 27867.7 |
| 2013-14 | 31772.4 | 3415.8 | 35187.5 |
| 2014-15 | 35257.3 | 1491.7 | 36749.0 |
| 2015-16 | 40146.2 | 2196.5 | 42342.7 |
| 2016-17# | 47313.1 | 985.2 | 48298.3 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes :

: During the year 2016-17 figures are provisional

1. Figures of authorization have been arrived at by applying the average exchange rate of the rupee with individual donor currencies.
2. Figures of utilization are at current rates applicable on the date of transaction.
3. Figures of authorization and utilization include loans and grants on both Government and Non-Government accounts.
4. Totals may not tally due to rounding off.

Table 8.1 B. Overall External Assistance

(US\$ million)

| Year | Loans | Grants | Total (2+3) |
|-------------------------|---------------|-------------|---------------|
| (1) | (2) | (3) | (4) |
| A. Authorization | | | |
| 1985-86 | 4362.1 | 256.2 | 4618.3 |
| 1986-87 | 4484.2 | 336.1 | 4820.3 |
| 1987-88 | 6326.7 | 819.2 | 7145.9 |
| 1988-89 | 8877.0 | 147.9 | 9024.9 |
| 1989-90 | 6069.9 | 432.6 | 6502.5 |
| 1990-91 | 4236.4 | 291.0 | 4527.4 |
| 1991-92 | 4766.0 | 364.1 | 5130.1 |
| 1992-93 | 4275.7 | 330.7 | 4606.4 |
| 1993-94 | 3717.5 | 772.7 | 4490.2 |
| 1994-95 | 3958.2 | 343.8 | 4302.0 |
| 1995-96 | 3249.8 | 399.0 | 3648.8 |
| 1996-97 | 4000.4 | 825.6 | 4826.0 |
| 1997-98 | 4006.8 | 566.3 | 4573.1 |
| 1998-99 | 1979.2 | 49.9 | 2029.1 |
| 1999-2000 | 4091.4 | 604.4 | 4695.8 |
| 2000-01 | 3609.4 | 430.7 | 4040.1 |
| 2001-02 | 4438.7 | 711.1 | 5149.8 |
| 2002-03 | 4183.5 | 244.4 | 4427.9 |
| 2003-04 | 3300.8 | 525.9 | 3826.7 |
| 2004-05 | 5212.2 | 703.7 | 5915.9 |
| 2005-06 | 3912.2 | 368.1 | 4280.4 |
| 2006-07 | 6209.8 | 773.0 | 6982.8 |
| 2007-08 | 7182.2 | 1064.0 | 8246.1 |
| 2008-09 | 6183.2 | 271.6 | 6454.9 |
| 2009-10 | 10318.0 | 201.8 | 10519.8 |
| 2010-11 | 7881.0 | 337.4 | 8218.3 |
| 2011-12 | 12343.4 | 229.1 | 12572.5 |
| 2012-13 | 12301.0 | 347.4 | 12648.3 |
| 2013-14 | 9003.7 | 23.2 | 9027.0 |
| 2014-15 | 7881.8 | 19.6 | 7901.4 |
| 2015-16 | 9763.0 | 559.0 | 10321.9 |
| 2016-17# | 8281.7 | 27.9 | 8309.6 |
| B. Utilization | | | |
| 1985-86 | 2037.7 | 362.0 | 2399.7 |
| 1986-87 | 2485.3 | 336.0 | 2821.3 |
| 1987-88 | 3528.0 | 368.2 | 3896.2 |
| 1988-89 | 3272.1 | 390.7 | 3662.8 |
| 1989-90 | 3086.0 | 399.2 | 3485.2 |
| 1990-91 | 3438.7 | 297.8 | 3736.5 |
| 1991-92 | 4317.9 | 371.0 | 4688.9 |
| 1992-93 | 3301.8 | 287.5 | 3589.3 |
| 1993-94 | 3486.0 | 283.4 | 3769.4 |
| 1994-95 | 3184.8 | 292.7 | 3477.5 |
| 1995-96 | 2987.4 | 319.1 | 3306.4 |
| 1996-97 | 3066.8 | 305.6 | 3372.4 |

Contd....

Table 8.1 B. Overall External Assistance**(Contd....)**

(US\$ million)

| Year | Loans | Grants | Total (2+3) |
|-----------------|---------------|---------------|--------------------|
| (1) | (2) | (3) | (4) |
| 1997-98 | 2917.4 | 248.3 | 3165.7 |
| 1998-99 | 2936.0 | 213.0 | 3149.0 |
| 1999-00 | 3080.8 | 248.2 | 3329.0 |
| 2000-01 | 2967.2 | 159.5 | 3126.7 |
| 2001-02 | 3306.3 | 297.1 | 3603.4 |
| 2002-03 | 2946.6 | 386.6 | 3333.2 |
| 2003-04 | 3416.3 | 463.8 | 3880.1 |
| 2004-05 | 3359.5 | 570.7 | 3930.2 |
| 2005-06 | 3607.0 | 625.3 | 4232.3 |
| 2006-07 | 3918.0 | 586.5 | 4265.5 |
| 2007-08 | 4280.5 | 666.3 | 4946.8 |
| 2008-09 | 4769.3 | 555.1 | 5324.4 |
| 2009-10 | 6130.5 | 692.8 | 6823.3 |
| 2010-11 | 7866.5 | 624.9 | 8491.4 |
| 2011-12 | 6060.2 | 590.1 | 6650.3 |
| 2012-13 | 4715.1 | 439.0 | 5154.1 |
| 2013-14 | 5282.9 | 567.8 | 5850.7 |
| 2014-15 | 5634.2 | 238.4 | 5872.6 |
| 2015-16 | 6034.5 | 330.2 | 6364.7 |
| 2016-17# | 7287.3 | 151.8 | 7439.1 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes:

: During the year 2016-17 figures are provisional

1. Figures in this table are converted from the preceding Table 8.1 A. based on the respective Rupee-US dollar rate.
2. Totals may not tally due to rounding off.

Table 8.2 A. Authorization of External Assistance by Source

| | | | | | | | | (₹ crore) |
|--|---------|---------|---------|---------|---------|---------|---------|-----------|
| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| I. Consortium Members | | | | | | | | |
| (a) Loans | 11189.6 | 28729.7 | 46401.4 | 59893.3 | 35842.5 | 37464.7 | 52068.6 | 39597.3 |
| (b) Grants | 1912.3 | 1185.1 | 230.2 | 813.0 | 93.3 | 98.0 | 3.1 | 154.1 |
| Total | 13101.9 | 29914.8 | 46631.7 | 60706.3 | 35935.9 | 37562.7 | 52071.7 | 39751.4 |
| Country-wise Distribution | | | | | | | | |
| (i) Canada | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 20.5 | ... | ... | ... | ... | ... | ... | ... |
| Total | 20.5 | ... | ... | ... | ... | ... | ... | ... |
| (ii) Denmark | | | | | | | | |
| Grants | 15.6 | ... | ... | ... | ... | ... | ... | ... |
| (iii) France | | | | | | | | |
| Grants | 9.3 | ... | 823.1 | 769.8 | 1645.2 | ... | 1444.0 | 957.3 |
| (iv) Germany | | | | | | | | |
| (a) Loans | 187.7 | 1504.0 | 2960.7 | 3240.2 | 1215.7 | 5659.1 | 1783.4 | 9015.0 |
| (b) Grants | 5.7 | 12.0 | ... | 38.5 | ... | 21.3 | ... | ... |
| Total | 193.4 | 1516.0 | 2960.7 | 3278.7 | 1215.7 | 5680.4 | 1783.4 | 9015.0 |
| (v) Italy | | | | | | | | |
| Loans | 42.6 | ... | ... | ... | ... | ... | ... | ... |
| (vi) Japan | | | | | | | | |
| (a) Loans | 784.1 | 2557.4 | 16186.2 | 23049.8 | 18818.6 | 6756.1 | 17337.0 | 10178.7 |
| (b) Grants | 2.2 | 41.9 | ... | ... | 90.3 | ... | ... | ... |
| Total | 786.3 | 2599.3 | 16186.2 | 23049.8 | 18909.0 | 6756.1 | 17337.0 | 10178.7 |
| (vii) Netherlands | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 6.7 | ... | ... | ... | ... | ... | ... | ... |
| Total | 6.7 | ... | ... | ... | ... | ... | ... | ... |
| (viii) U.K. | | | | | | | | |
| Grants | 474.7 | 905.3 | 160.2 | 764.2 | ... | ... | ... | ... |
| (ix) U.S.A. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 0.8 | 156.6 | ... | ... | ... | ... | ... | ... |
| Total | 0.8 | 156.6 | ... | ... | ... | ... | ... | ... |
| (x) I.B.R.D. | | | | | | | | |
| (a) Loans | 6816.8 | 8237.1 | 15250.5 | 2619.5 | 2361.2 | 14657.3 | 17667.0 | 13819.6 |
| (b) Grants | 391.7 | 60.6 | 70.1 | 10.3 | 3.0 | 76.7 | 3.1 | 154.1 |
| Total | 7208.5 | 8297.7 | 15320.6 | 2629.8 | 2364.2 | 14733.9 | 17670.1 | 13973.7 |
| (xi) I.D.A. | | | | | | | | |
| (a) Loans | 3358.4 | 16431.2 | 11180.9 | 7374.7 | 11801.8 | 10392.3 | 13837.1 | 5626.9 |
| (b) Grants | 985.1 | 8.7 | ... | ... | ... | ... | ... | ... |
| Total | 4343.5 | 16439.9 | 11180.9 | 7374.7 | 11801.8 | 10392.3 | 13837.1 | 5626.9 |
| II. Russia Fed. & East European Countries | | | | | | | | |
| Loans | ... | ... | ... | 22839.3 | ... | ... | ... | ... |
| Country-wise Distribution | | | | | | | | |

Contd....

Table 8.2 A. Authorization of External Assistance by Source**(Contd....)**

(₹ crore)

| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| (i) Russia Fed. | | | | 22839.3 | | | | |
| Loans | ... | ... | ... | 22839.3 | ... | ... | ... | ... |
| III. Others | | | | | | | | |
| (a) Loans | 5265.6 | 7165.3 | 12633.9 | 6998.3 | 18530.1 | 10670.7 | 11778.4 | 16044.1 |
| (b) Grants | 51.2 | 351.5 | 865.2 | 1076.0 | 46.8 | 21.7 | 3652.1 | 33.6 |
| Total | 5316.8 | 7516.8 | 13499.1 | 8074.3 | 18576.9 | 10692.4 | 15430.5 | 16077.7 |
| (i) European Economic Community | | | | | | | | |
| Grants | ... | 4.3 | ... | 559.9 | ... | ... | ... | ... |
| (ii) IFAD (International Fund for Agricultural Development) | | | | | | | | |
| (a) Loans | ... | 87.9 | 426.5 | ... | 400.1 | 383.2 | 475.7 | ... |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | 87.9 | 426.5 | ... | 400.1 | 383.2 | 475.7 | ... |
| (iii) ADB | | | | | | | | |
| (a) Loans | 5265.6 | 7077.5 | 12207.4 | 6998.3 | 18130.0 | 10287.6 | 9858.7 | 16044.1 |
| (b) Grants | ... | ... | ... | ... | ... | 11.0 | 13.1 | 33.59 |
| Total | 5265.6 | 7077.5 | 12207.4 | 6998.3 | 18130.0 | 10298.6 | 9871.8 | 16077.7 |
| (iv) European Investment Bank | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | 1444.0 | ... |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | ... | ... | ... | ... | ... | 1444.0 | ... |
| (v) Other International Institutions^a | | | | | | | | |
| Grants | 51.2 | 347.2 | 865.2 | 516.2 | 46.8 | 10.7 | 3639.0 | ... |
| Grand Total | 18418.7 | 37431.6 | 60130.7 | 68780.6 | 54512.8 | 48255.1 | 67502.2 | 55829.1 |
| (a) Loans | 16455.2 | 35895.1 | 59035.3 | 66891.6 | 54372.6 | 48135.5 | 63847.0 | 55641.4 |
| (b) Grants | 1963.5 | 1536.5 | 1095.4 | 1889.0 | 140.2 | 119.7 | 3655.2 | 187.7 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes:

: During the year 2016-17 figures are provisional

---- Nil or Negligible

a : Other International Institutions include UNDP, UNFPA, Global Fund, IDf(WB), UN-FAO and UPU (Universal Postal Union).

1. Figures of authorization of external assistance include agreements signed on Government and Non-Government accounts.

2. Totals may not tally due to rounding off.

Table 8.2 B. Authorization of External Assistance by Source

| | | | | | | | | (US\$ million) |
|---|---------|---------|---------|---------|---------|---------|---------|----------------|
| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| I. Consortium Members | | | | | | | | |
| (a) Loans | 2454.4 | 6307.8 | 9701.8 | 11014.0 | 5935.3 | 6134.5 | 7961.9 | 5893.7 |
| (b) Grants | 419.5 | 260.2 | 48.2 | 149.5 | 15.5 | 16.0 | 0.5 | 22.9 |
| Total | 2873.9 | 6568.0 | 9750.0 | 11163.5 | 5950.7 | 6150.6 | 7962.4 | 5916.6 |
| Country-wise Distribution | | | | | | | | |
| (i) Canada | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 4.5 | ... | ... | ... | ... | ... | ... | ... |
| Total | 4.5 | ... | ... | ... | ... | ... | ... | ... |
| (ii) Denmark | | | | | | | | |
| Grants | 3.4 | ... | ... | ... | ... | ... | ... | ... |
| (iii) France | | | | | | | | |
| Grants | 2.1 | ... | 172.1 | 141.6 | 272.4 | | 220.8 | 142.5 |
| (iv) Germany | | | | | | | | |
| (a) Loans | 41.2 | 330.2 | 619.0 | 595.9 | 201.3 | 926.6 | 272.7 | 1341.8 |
| (b) Grants | 1.3 | 2.6 | ... | 7.1 | ... | 3.5 | ... | ... |
| Total | 42.4 | 332.8 | 619.0 | 602.9 | 201.3 | 930.1 | 272.7 | 1341.8 |
| (v) Italy | | | | | | | | |
| Loans | 9.4 | ... | ... | ... | ... | ... | ... | ... |
| (vi) Japan | | | | | | | | |
| (a) Loans | 172.0 | 561.5 | 3384.3 | 4238.7 | 3116.2 | 1106.3 | 2651.0 | 1515.0 |
| (b) Grants | 0.5 | 9.2 | ... | ... | 15.0 | | | |
| Total | 172.5 | 570.7 | 3384.3 | 4238.7 | 3131.2 | 1106.3 | 2651.0 | 1515.0 |
| (vii) Netherlands | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | | | |
| (b) Grants | 1.5 | ... | ... | ... | ... | ... | ... | ... |
| Total | 1.5 | ... | ... | ... | ... | ... | ... | ... |
| (viii) U.K. | | | | | | | | |
| Grants | 104.1 | 198.8 | 33.5 | 140.5 | ... | ... | ... | ... |
| (ix) U.S.A. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 0.2 | 34.4 | ... | ... | ... | ... | ... | ... |
| Total | 0.2 | 34.4 | ... | ... | ... | ... | ... | ... |
| (x) I.B.R.D. | | | | | | | | |
| (a) Loans | 1495.3 | 1808.5 | 3188.7 | 481.7 | 391.0 | 2400.0 | 2701.5 | 2056.9 |
| (b) Grants | 85.9 | 13.3 | 14.7 | 1.9 | 0.5 | 12.6 | 0.5 | 22.9 |
| Total | 1581.2 | 1821.8 | 3203.3 | 483.6 | 391.5 | 2412.6 | 2702.0 | 2079.8 |
| (xi) I.D.A. | | | | | | | | |
| (a) Loans | 736.7 | 3607.6 | 2337.7 | 1356.2 | 1954.3 | 1701.7 | 2115.9 | 837.5 |
| (b) Grants | 216.1 | 1.9 | ... | ... | ... | ... | | |
| Total | 952.8 | 3609.5 | 2337.7 | 1356.2 | 1954.3 | 1701.7 | 2115.9 | 837.5 |
| II. Russia Fed. & East European Countries | | | | | | | | |
| Loans | ... | ... | ... | 4200.0 | ... | ... | ... | ... |
| Country-wise Distribution | | | | | | | | |

Contd....

Table 8.2 B. Authorization of External Assistance by Source**(Contd....)**

(US\$ million)

| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
|--|---------------|---------------|----------------|----------------|---------------|---------------|----------------|---------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| (i) Russia Fed. | | | | | | | | |
| Loans | ... | ... | ... | 4200.0 | ... | ... | ... | ... |
| III. Others | | | | | | | | |
| (a) Loans | 1155.0 | 1573.2 | 2641.6 | 1286.9 | 3068.5 | 1747.24 | 1801.1 | 2388.0 |
| (b) Grants | 11.2 | 77.1 | 180.9 | 197.9 | 7.8 | 3.6 | 558.4 | 5.0 |
| Total | 1166.2 | 1650.3 | 2822.5 | 1484.8 | 3076.2 | 1750.8 | 2359.5 | 2393.0 |
| (i) European Economic Community | | | | | | | | |
| Grants | ... | 0.9 | ... | 103.0 | ... | ... | ... | ... |
| (ii) IFAD (International Fund for Agricultural Development) | | | | | | | | |
| (a) Loans | ... | 19.3 | 89.2 | ... | 66.3 | 62.7 | 72.7 | ... |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | 19.3 | 89.2 | ... | 66.3 | 62.7 | 72.7 | ... |
| (iii) ADB | | | | | | | | |
| (a) Loans | 1155.0 | 1553.9 | 2552.4 | 1286.9 | 3002.2 | 1684.5 | 1507.5 | 2388.0 |
| (b) Grants | ... | ... | ... | ... | ... | 1.8 | 2.0 | 5 |
| Total | 1155.0 | 1553.9 | 2552.4 | 1286.9 | 3002.2 | 1686.3 | 1509.5 | 2393.0 |
| (iv) European Investment Bank | | | | | | | | |
| (a) Loans | | | | | | | 220.8 | ... |
| (b) Grants | | | | | | | | |
| Total | | | | | | | 220.8 | ... |
| (v) Other International Institutions^a | | | | | | | | |
| Grants | 11.2 | 76.2 | 180.9 | 94.9 | 7.8 | 1.8 | 556.4 | ... |
| Grand Total | 4040.1 | 8218.4 | 12572.4 | 12648.3 | 9026.9 | 7901.4 | 10321.9 | 8309.6 |
| (a) Loans | 3609.4 | 7881.0 | 12343.4 | 12300.9 | 9003.7 | 7881.8 | 9763.0 | 8281.7 |
| (b) Grants | 430.7 | 337.4 | 229.1 | 347.4 | 23.2 | 19.6 | 558.9 | 27.9 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes:

: During the year 2016-17 figures are provisional

---- Nil or Negligible

a : Other International Institutions include UNDP, UNFPA, Global Fund, IDf(WB), UN-FAO and UPU (Universal Postal Union)

1. Figures in this table are converted from the preceding Table 8.2(A) based on the respective Rupee- US dollar rates.

2. Totals may not tally due to rounding off.

Table 8.3 A. Utilization of External Assistance by Source

| | | | | | | | | (₹ crore) |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|-----------|
| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| I. Consortium Members | | | | | | | | |
| (a) Loans | 11168.6 | 27065.8 | 22785.9 | 18390.8 | 25164.7 | 26630.2 | 31137.7 | 33648.1 |
| (b) Grants | 634.0 | 2018.5 | 1916.7 | 1560.1 | 1043.4 | 749.6 | 405.1 | 135.8 |
| Total | 11802.6 | 29084.3 | 24702.6 | 19950.9 | 26208.1 | 27379.8 | 31542.8 | 33784.0 |
| Country-wise Distribution | | | | | | | | |
| (i) Canada | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 2.9 | ... | ... | ... | ... | ... | ... | ... |
| Total | 2.9 | ... | ... | ... | ... | ... | ... | ... |
| (ii) Denmark | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 49.5 | ... | ... | ... | ... | ... | ... | ... |
| Total | 49.5 | ... | ... | ... | ... | ... | ... | ... |
| (iii) France | | | | | | | | |
| (a) Loans | 65.2 | ... | ... | 16.0 | 921.7 | 225.78 | 329.4 | 762.2 |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | -0.16 |
| Total | 65.2 | ... | ... | 16.0 | 921.7 | 225.78 | 329.4 | 762.0 |
| (iv) Germany | | | | | | | | |
| (a) Loans | 318.9 | 1076.9 | 2043.1 | 1379.9 | 3122.0 | 1861.1 | 1888.1 | 2523.5 |
| (b) Grants | 67.8 | 276.2 | 99.4 | 62.1 | 65.6 | 56.0 | 80.1 | 34.7 |
| Total | 386.7 | 1353.1 | 2142.5 | 1442.0 | 3187.6 | 1917.1 | 1968.2 | 2558.2 |
| (v) Japan | | | | | | | | |
| (a) Loans | 2714.0 | 6582.2 | 8474.8 | 7260.0 | 8750.5 | 8825.9 | 10341.5 | 12506.1 |
| (b) Grants | 15.8 | 1.5 | 43.5 | ... | 4.4 | 0.0 | 29.1 | 36.0 |
| Total | 2729.8 | 6583.7 | 8518.3 | 7260.0 | 8754.9 | 8825.9 | 10370.5 | 12542.1 |
| (vi) Netherlands | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 70.3 | ... | ... | ... | ... | ... | ... | ... |
| Total | 70.3 | ... | ... | ... | ... | ... | ... | ... |
| (vii) U.K. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 307.3 | 1682.2 | 1689.4 | 1293.4 | 855.0 | 601.8 | 224.3 | -0.3 |
| Total | 307.3 | 1682.2 | 1689.4 | 1293.4 | 855.0 | 601.8 | 224.3 | -0.3 |
| (viii) U.S.A. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 81.1 | 30.6 | 55.1 | 23.6 | 43.4 | ... | 4.7 | ... |
| Total | 81.1 | 30.6 | 55.1 | 23.6 | 43.4 | ... | 4.7 | ... |
| (ix) I.B.R.D. | | | | | | | | |
| (a) Loans | 3222.4 | 14533.4 | 4861.9 | 4894.8 | 5631.6 | 7703.5 | 9137.3 | 8609.0 |
| (b) Grants | 24.5 | 24.1 | 27.2 | 180.6 | 73.8 | 85.9 | 67.0 | 65.5 |
| Total | 3246.9 | 14557.5 | 4889.0 | 5075.4 | 5705.3 | 7789.4 | 9204.3 | 8674.5 |
| (x) I.D.A. | | | | | | | | |
| (a) Loans | 4848.1 | 4873.3 | 7406.1 | 4840.1 | 6738.9 | 8013.9 | 9441.4 | 9247.4 |
| (b) Grants | 14.8 | 3.9 | 2.2 | 0.5 | 1.2 | 6.0 | 0.0 | 0.0 |

Contd....

Table 8.3 A. Utilization of External Assistance by Source**(Contd....)**

(₹ crore)

| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Total | 4862.9 | 4877.2 | 7408.2 | 4840.6 | 6740.1 | 8019.8 | 9441.4 | 9247.4 |
| II. Russia Fed.& East European Countries | | | | | | | | |
| Loans | 130.1 | 220.5 | 35.9 | 26.4 | 8.2 | 16.9 | 3.7 | 1618.1 |
| Country-wise Distribution | | | | | | | | |
| (i) Russia Federation. | | | | | | | | |
| Loans | 130.1 | 220.5 | 35.9 | 26.4 | 8.2 | 16.9 | 3.7 | 1618.1 |
| III. Others | | | | | | | | |
| (a) Loans | 2228.5 | 7829.8 | 6527.7 | 7076.9 | 6599.5 | 8610.3 | 9004.8 | 12046.9 |
| (b) Grants | 93.2 | 770.95 | 1009.45 | 813.52 | 2371.83 | 742.1 | 1791.44 | 849.4 |
| Total | 2321.7 | 8600.8 | 7537.1 | 7890.5 | 8971.3 | 9352.3 | 10796.2 | 12896.3 |
| Country-wise Distribution | | | | | | | | |
| (i) Other International Institutions^a | | | | | | | | |
| Grants | 50.0 | 501.7 | 795.9 | 710.2 | 1746.0 | 739.68 | 1503.8 | 770.95 |
| (ii) European Economic Community | | | | | | | | |
| Grants | 36.3 | 269.0 | 208.1 | 104.0 | 622.4 | ... | 287.6 | 70.4 |
| (iii) Oil Producing & Exporting Countries | | | | | | | | |
| Loans | 41.5 | 1.0 | 15.5 | 20.8 | 7.9 | 54.5 | 26.3 | 18.7 |
| (iv) Norway | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 6.9 | ... | ... | ... | ... | ... | ... | ... |
| Total | 6.9 | ... | ... | ... | ... | ... | ... | ... |
| (v) IFAD (International Fund for Agricultural Development) | | | | | | | | |
| (a) Loans | 40.1 | 99.1 | 142.6 | 140.7 | 210.3 | 191.7 | 220.1 | 196.2 |
| (b) Grants | ... | 0.3 | 5.5 | -0.8 | 3.5 | ... | ... | 1.0 |
| Total | 40.1 | 99.4 | 148.1 | 140.0 | 213.8 | 191.7 | 220.1 | 197.2 |
| (vi) ADB | | | | | | | | |
| (a) Loans | 2146.9 | 7729.8 | 6369.5 | 6915.4 | 6381.2 | 8364.0 | 8758.4 | 11101.3 |
| (b) Grants | ... | ... | ... | ... | ... | 2.41 | ... | 7 |
| Total | 2146.9 | 7729.8 | 6369.5 | 6915.4 | 6381.2 | 8366.4 | 8758.4 | 11108.3 |
| (vii) European Investment Bank | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | 730.7 |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | ... | ... | ... | ... | ... | ... | 730.7 |
| Grand Total | 14254.4 | 37905.6 | 32275.6 | 27867.7 | 35187.6 | 36749.0 | 42342.7 | 48298.3 |
| (a) Loans | 13527.2 | 35116.2 | 29349.4 | 25494.1 | 31772.4 | 35257.3 | 40146.2 | 47313.1 |
| (b) Grants | 727.2 | 2789.5 | 2926.2 | 2373.7 | 3415.2 | 1491.7 | 2196.5 | 985.2 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes:

: During the year 2016-17 figures are provisional

---- Nil or Negligible

a Other International Institutions include UNICEF, UNDP, ILO, WHO, UNFPA, UNESCO, UPU, WFP, Global Fund, IDF (WB), UN-FAO and Ford Foundation.

1. Utilization figures are exclusive of suppliers' credit and commercial borrowings.

2. Utilization of assistance is on Government and Non-Govt. accounts.

3. Totals may not tally due to rounding off.

Table 8.3 B. Utilization of External Assistance by Source

| (US\$ million) | | | | | | | | |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|----------|
| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| I. Consortium Members | | | | | | | | |
| (a) Loans | 2449.8 | 6063.1 | 4682.1 | 3401.4 | 4184.2 | 4255.6 | 4680.4 | 5182.6 |
| (b) Grants | 139.1 | 452.2 | 383.6 | 288.5 | 173.5 | 119.8 | 60.9 | 21.0 |
| Total | 2588.9 | 6515.3 | 5065.7 | 3689.9 | 4357.7 | 4375.4 | 4741.3 | 5203.6 |
| Country-wise Distribution | | | | | | | | |
| (i) Canada | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 0.6 | ... | ... | ... | ... | ... | ... | ... |
| Total | 0.6 | ... | ... | ... | ... | ... | ... | ... |
| (ii) Denmark | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 10.9 | ... | ... | ... | ... | ... | ... | ... |
| Total | 10.9 | ... | ... | ... | ... | ... | ... | ... |
| (iii) France | | | | | | | | |
| (a) Loans | 14.3 | ... | ... | 3.0 | 153.3 | 36.08 | 49.5 | 117.4 |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | 14.3 | ... | ... | 3.0 | 153.3 | 36.08 | 49.5 | 117.4 |
| (iv) Germany | | | | | | | | |
| (a) Loans | 70.0 | 241.2 | 411.0 | 255.2 | 519.1 | 297.4 | 283.8 | 388.7 |
| (b) Grants | 14.9 | 61.9 | 21.2 | 11.5 | 10.9 | 8.9 | 12.0 | 5.3 |
| Total | 84.9 | 303.1 | 432.2 | 266.7 | 530.0 | 306.4 | 295.8 | 394.0 |
| (v) Japan | | | | | | | | |
| (a) Loans | 595.3 | 1474.5 | 1744.9 | 1342.7 | 1455.0 | 1410.4 | 1554.5 | 1926.2 |
| (b) Grants | 3.5 | 0.3 | 8.8 | ... | 0.7 | ... | 4.4 | 5.6 |
| Total | 598.8 | 1474.8 | 1753.7 | 1342.7 | 1455.7 | 1410.4 | 1558.8 | 1931.8 |
| (vi) Netherlands | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 15.4 | ... | ... | ... | ... | ... | ... | ... |
| Total | 15.4 | ... | ... | ... | ... | ... | ... | ... |
| (vii) U.K. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 67.4 | 376.8 | 335.1 | 239.2 | 142.2 | 96.2 | 33.7 | 0.0 |
| Total | 67.4 | 376.8 | 335.1 | 239.2 | 142.2 | 96.2 | 33.7 | 0.0 |
| (viii) U.S.A. | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 17.8 | 6.8 | 12.3 | 4.4 | 7.2 | ... | 0.7 | ... |
| Total | 17.8 | 6.8 | 12.3 | 4.4 | 7.2 | ... | 0.7 | ... |
| (ix) I.B.R.D. | | | | | | | | |
| (a) Loans | 706.8 | 3255.7 | 991.6 | 905.3 | 936.4 | 1231.1 | 1373.5 | 1326.0 |
| (b) Grants | 5.4 | 5.4 | 5.7 | 33.4 | 12.3 | 13.7 | 10.1 | 10.1 |
| Total | 712.2 | 3261.1 | 997.3 | 938.7 | 948.6 | 1244.8 | 1383.5 | 1336.1 |
| (x) I.D.A. | | | | | | | | |
| (a) Loans | 1063.4 | 1091.7 | 1534.7 | 895.2 | 1120.5 | 1280.6 | 1419.2 | 1424.3 |
| (b) Grants | 3.2 | 0.9 | 0.5 | 0.1 | 0.2 | 1.0 | 0.0 | 0.0 |
| Total | 1066.6 | 1092.6 | 1535.1 | 895.3 | 1120.7 | 1281.6 | 1419.2 | 1424.3 |

Contd....

Table 8.3 B. Utilization of External Assistance by Source**(Contd....)**

(US\$ million)

| Source and type of assistance | 2000-01 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17# |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| II. Russia Fed.& East European Countries | | | | | | | | |
| Loans | 28.5 | 49.4 | 7.4 | 4.9 | 1.4 | 2.7 | 0.6 | 249.2 |
| Country-wise Distribution | | | | | | | | |
| (i) Russia Federation. | | | | | | | | |
| Loans | 28.5 | 49.4 | 7.4 | 4.9 | 1.4 | 2.7 | 0.6 | 249.2 |
| III. Others | | | | | | | | |
| (a) Loans | 488.8 | 1754.0 | 1370.7 | 1308.9 | 1097.3 | 1376.0 | 1353.5 | 1855.5 |
| (b) Grants | 20.5 | 172.7 | 206.5 | 150.5 | 394.4 | 118.6 | 269.3 | 130.8 |
| Total | 509.3 | 1926.7 | 1577.2 | 1459.3 | 1491.7 | 1494.5 | 1622.8 | 1986.3 |
| Country-wise Distribution | | | | | | | | |
| (i) Other International Institutions ^a | | | | | | | | |
| Grants | 11.0 | 112.4 | 157.9 | 131.4 | 290.3 | 118.2 | 226.04 | 118.7 |
| (ii) European Economic Community | | | | | | | | |
| Grants | 8.0 | 60.3 | 47.5 | 19.2 | 103.5 | ... | 43.2 | 10.9 |
| (iii) Oil Producing & Exporting Countries | | | | | | | | |
| Loans | 9.1 | 0.2 | 3.3 | 3.9 | 1.3 | 8.7 | 4.0 | 2.9 |
| (iv) Norway | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | ... |
| (b) Grants | 1.5 | ... | ... | ... | ... | ... | ... | ... |
| Total | 1.5 | ... | ... | ... | ... | ... | ... | ... |
| (v) IFAD (International Fund for Agricultural Development) | | | | | | | | |
| (a) Loans | 8.8 | 22.2 | 30.6 | 26.0 | 35.0 | 30.6 | 33.1 | 30.2 |
| (b) Grants | ... | 0.1 | 1.2 | -0.1 | 0.6 | ... | ... | 0.2 |
| Total | 8.8 | 22.3 | 31.8 | 25.9 | 35.6 | 30.6 | 33.1 | 30.4 |
| (vi) ADB | | | | | | | | |
| (a) Loans | 470.9 | 1731.6 | 1336.8 | 1279.0 | 1061.0 | 1336.6 | 1316.5 | 1709.9 |
| (b) Grants | ... | ... | ... | ... | ... | 0.4 | ... | 1.08 |
| Total | 470.9 | 1731.6 | 1336.8 | 1279.0 | 1061.0 | 1337.0 | 1316.5 | 1710.9 |
| (vii) European Investment Bank | | | | | | | | |
| (a) Loans | ... | ... | ... | ... | ... | ... | ... | 112.6 |
| (b) Grants | ... | ... | ... | ... | ... | ... | ... | ... |
| Total | ... | ... | ... | ... | ... | ... | ... | 112.6 |
| Grand Total | 3126.7 | 8491.4 | 6650.3 | 5154.1 | 5850.7 | 5872.6 | 6364.6 | 7439.1 |
| (a) Loans | 2967.1 | 7866.5 | 6060.2 | 4715.1 | 5282.9 | 5634.2 | 6034.5 | 7287.3 |
| (b) Grants | 159.6 | 624.9 | 590.1 | 439.0 | 567.9 | 238.4 | 330.2 | 151.8 |

Source: Aid Accounts and Audit Division, Department of Economic Affairs, Ministry of Finance

Notes:

: During the year 2016-17 figures are provisional.

---- Nil or Negligible

a Other International Institutions include UNICEF, UNDP, ILO, WHO, UNFPA, UNESCO, UPU, WFP, Global Fund, IDF (WB), UN-FAO and Ford Foundation.

1. Figures in this table are converted from the preceding Table 8.3 A. based on the respective Rupee- US dollar rates.

2. Totals may not tally due to rounding off.

Table 8.4 A. India's External Debt Outstanding

| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | | (₹ crore) |
|------------|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017QE | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | |
| I. | Multilateral | 154053 | 157901 | 201425 | 193436 | 216672 | 257089 | 279310 | 321560 | 328148 | 359201 | 353807 | |
| | A. Government Borrowing | 141746 | 144627 | 181997 | 170722 | 190326 | 222579 | 235670 | 268491 | 269431 | 294122 | 288259 | |
| | (i) Concessional | 108448 | 107395 | 127771 | 116046 | 120653 | 138691 | 143130 | 163589 | 154581 | 166506 | 156726 | |
| | a) IDA | 107019 | 105947 | 126127 | 114552 | 119068 | 136816 | 141119 | 161165 | 152171 | 163772 | 154050 | |
| | b) Others | 1429 | 1448 | 1644 | 1494 | 1585 | 1875 | 2011 | 2424 | 2410 | 2734 | 2676 | |
| | (ii) Non-concessional | 33298 | 37232 | 54226 | 54676 | 69673 | 83888 | 92540 | 104902 | 114850 | 127616 | 131533 | |
| | a) IBRD | 21864 | 22631 | 29948 | 28874 | 39218 | 45328 | 48239 | 53433 | 57107 | 61553 | 60681 | |
| | b) Others | 11434 | 14601 | 24278 | 25802 | 30455 | 38560 | 44301 | 51469 | 57743 | 66063 | 70852 | |
| | B. Non-Government Borrowing | 12307 | 13274 | 19428 | 22714 | 26346 | 34510 | 43640 | 53069 | 58717 | 65079 | 65548 | |
| | (i) Concessional | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | (ii) Non-concessional | 12307 | 13274 | 19428 | 22714 | 26346 | 34510 | 43640 | 53069 | 58717 | 65079 | 65548 | |
| | a) Public Sector | 9315 | 10352 | 14298 | 14919 | 15802 | 19407 | 23414 | 28105 | 31385 | 35409 | 29485 | |
| | i) IBRD | 4550 | 4690 | 7105 | 8544 | 9193 | 11092 | 12749 | 14412 | 15674 | 17005 | 16625 | |
| | ii) Others | 4765 | 5662 | 7193 | 6375 | 6609 | 8315 | 10664 | 13693 | 15711 | 18404 | 12860 | |
| | b) Financial Institutions | 2414 | 2350 | 3721 | 5385 | 7511 | 10290 | 14370 | 18881 | 21859 | 24901 | 32163 | |
| | i) IBRD | 655 | 593 | 744 | 1343 | 1899 | 2707 | 2973 | 3820 | 3709 | 5984 | 7081 | |
| | ii) Others | 1759 | 1757 | 2977 | 4042 | 5612 | 7583 | 11397 | 15061 | 18150 | 18917 | 25082 | |
| | c) Private Sector | 578 | 572 | 1409 | 2410 | 3033 | 4813 | 5856 | 6083 | 5473 | 4769 | 3900 | |
| | i) IBRD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ii) Others | 578 | 572 | 1409 | 2410 | 3033 | 4813 | 5856 | 6083 | 5473 | 4769 | 3900 | |
| II. | Bilateral | 70034 | 78802 | 104997 | 101976 | 114904 | 137086 | 136329 | 148813 | 136060 | 149483 | 150483 | |
| | A. Government borrowing | 53810 | 59391 | 74662 | 71584 | 80406 | 91641 | 88007 | 96918 | 88452 | 102925 | 109742 | |
| | (i) Concessional | 53810 | 59391 | 74662 | 71584 | 80406 | 91641 | 88007 | 96918 | 88452 | 102925 | 109742 | |
| | (ii) Non-concessional | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | B. Non-Government borrowing | 16224 | 19411 | 30335 | 30392 | 34498 | 45445 | 48322 | 51895 | 47608 | 46558 | 40741 | |

Contd....

Table 8.4 A. India's External Debt Outstanding*(Contd.....)*

(₹ crore)

| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | | 2017QE |
|--------------|---|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017 | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (13) |
| | (i) Concessional | 1727 | 1737 | 3262 | 3169 | 4101 | 7648 | 8435 | 10318 | 10080 | 11892 | 11691 | 11691 |
| | a) Public Sector | 1241 | 1226 | 1156 | 1121 | 1621 | 4963 | 5916 | 7763 | 7546 | 9052 | 6454 | 6454 |
| | b) Financial Institutions | 486 | 511 | 2106 | 2048 | 2480 | 2685 | 2519 | 2555 | 2534 | 2840 | 5237 | 5237 |
| | c) Private Sector | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | (ii) Non-concessional | 14497 | 17674 | 27073 | 27223 | 30397 | 37797 | 39887 | 41577 | 37528 | 34666 | 29050 | 29050 |
| | a) Public Sector | 7420 | 10097 | 15076 | 13845 | 13789 | 14200 | 13010 | 13374 | 11561 | 10938 | 9493 | 9493 |
| | b) Financial Institutions | 3828 | 3735 | 4311 | 3436 | 3754 | 3886 | 4206 | 4361 | 3323 | 3029 | 3167 | 3167 |
| | c) Private Sector | 3249 | 3842 | 7686 | 9942 | 12854 | 19711 | 22671 | 23842 | 22644 | 20699 | 16390 | 16390 |
| III. | IMF^a | 4484 | 4479 | 5188 | 27264 | 28163 | 31528 | 32439 | 36910 | 34350 | 37177 | 35129 | 35129 |
| IV. | Export Credit | 31237 | 41296 | 73772 | 76011 | 83112 | 97117 | 96556 | 93275 | 78915 | 70603 | 62767 | 62767 |
| | a) Buyers' credit | 23617 | 33134 | 64046 | 66849 | 73273 | 85896 | 84667 | 80069 | 66006 | 55565 | 47627 | 47627 |
| | b) Suppliers' credit | 2941 | 2998 | 3234 | 2937 | 2847 | 3252 | 4236 | 4779 | 5217 | 6088 | 5597 | 5597 |
| | c) Export credit component of bilateral credit | 4679 | 5164 | 6492 | 6225 | 6992 | 7969 | 7653 | 8427 | 7692 | 8950 | 9543 | 9543 |
| V. | Commercial Borrowings | 180669 | 249243 | 318209 | 319221 | 448448 | 614623 | 762128 | 897744 | 1128501 | 1198932 | 1122186 | 1122186 |
| | a) Commercial bank loans ^b | 107145 | 160577 | 219925 | 202350 | 261678 | 373194 | 454450 | 582644 | 635246 | 647305 | 571612 | 571612 |
| | b) Securitised borrowings ^c | 68020 | 82641 | 91286 | 113177 | 183504 | 238849 | 306070 | 313416 | 490895 | 549227 | 548298 | 548298 |
| | c) Loans/secritized borrowings etc., with multilateral/bilateral guarantee + IFC(W) | 5504 | 6025 | 6998 | 3694 | 3266 | 2580 | 1608 | 1684 | 2360 | 2400 | 2276 | 2276 |
| VI. | NRI Deposits^d (Above one year Maturity) | 179786 | 174623 | 210118 | 217062 | 230812 | 299840 | 385202 | 624101 | 720997 | 841956 | 757750 | 757750 |
| VII. | Rupee Debt^e | 8508 | 8065 | 7760 | 7480 | 7147 | 6922 | 6839 | 8826 | 9426 | 8479 | 7963 | 7963 |
| | a) Defence | 7533 | 7172 | 6935 | 6709 | 6416 | 6220 | 6164 | 8179 | 8807 | 7887 | 7400 | 7400 |
| | b) Civilian | 975 | 893 | 825 | 771 | 731 | 702 | 675 | 647 | 619 | 592 | 563 | 563 |
| VIII. | Total Long Term Debt (I TO VII) | 628771 | 714409 | 921469 | 942450 | 1129258 | 1444205 | 1698803 | 2131229 | 2436397 | 2665831 | 2490085 | 2490085 |
| IX. | Short-Term Debt | 122631 | 182881 | 220656 | 236188 | 290149 | 399962 | 525931 | 550985 | 535145 | 553044 | 570452 | 570452 |
| | a) Trade-Related Credits | 113256 | 167540 | 203345 | 214267 | 261006 | 333202 | 472026 | 491271 | 510938 | 530806 | 560781 | 560781 |

Contd....

Table 8.4 A. India's External Debt Outstanding

(Contd....)

| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | | (₹ crore) |
|---------|---|--------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017QE | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | |
| | 1) Above 6 Months | 52188 | 91502 | 118936 | 126391 | 157806 | 200454 | 321010 | 330500 | 334267 | 339674 | 364104 | |
| | 2) Upto 6 Months | 61068 | 76038 | 84409 | 87876 | 103200 | 132748 | 151016 | 160771 | 176671 | 191132 | 196677 | |
| b) | FII Investment in Govt. Treasury Bills and other instruments | 1732 | 2603 | 10522 | 15153 | 24214 | 48066 | 29671 | 33686 | 7307 | 132 | 260 | |
| c) | Investment in Treasury Bills by foreign central banks and other international institutions etc. | 712 | 620 | 534 | 467 | 225 | 326 | 447 | 572 | 714 | 714 | 642 | |
| d) | External Debt Liabilities of: | 6931 | 12118 | 6255 | 6301 | 4704 | 18368 | 23787 | 25456 | 16186 | 21392 | 8769 | |
| | 1) Central Bank | 2185 | 4458 | 3892 | 3139 | 693 | 871 | 985 | 892 | 939 | 1197 | 1575 | |
| | 2) Commercial banks | 4746 | 7660 | 2363 | 3162 | 4011 | 17497 | 22802 | 24564 | 15247 | 20195 | 7194 | |
| X. | Grand Total (VIII+IX) | 751402 | 897290 | 1142125 | 1178638 | 1419407 | 1844167 | 2224734 | 2682214 | 2971542 | 3218875 | 3060537 | |

Source: Ministry of Finance (Department of Economic Affairs), Ministry of Defence, Reserve Bank of India, Securities & Exchange Board of India.

Notes:

PR: Partially Revised QE: Quick Estimates.

IFC(W): International Finance Corporation, Washington DC

FII: Foreign Institutional Investors

a: Relates to SDR allocations from March 2004 onwards

b: Includes Financial Lease since 1996

c: Also includes India Development Bonds (IDBs), Resurgent India Bonds (RIBs), India Millennium Deposits (IMDs), Foreign Currency Convertible Bonds (FCCBs) and net investment by 100% FII debt funds and securitized borrowings of commercial banks, FCCB debt has been adjusted since end-March, 1998 after netting out conversion into equity and redemptions.

d: Figures include accrued interest.

e: Rupee denominated debt owed to Russia and payable through exports.

NRO Deposits are included under NRI Deposits from the quarter ended June 2005. Supplier's Credits upto 180 days and FII investment in short-term debt instruments are included under short-term debt from the quarter ended March 2005. Vostro balances / Nostro overdrafts of commercial banks, balances of foreign central banks/international institutions with RBI and investment in T-bills/securities by foreign central banks/ international institutions have been included in external debt from the quarter ended March 2007.

8.4 B. India's External Debt Outstanding

(US\$ million)

| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | |
|---------------------------|-----------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017QE |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| I. | Multilateral | 35337 | 39490 | 39538 | 42857 | 48475 | 50452 | 51590 | 53418 | 52391 | 53956 | 54452 |
| | A. Government Borrowing | 32514 | 36171 | 35724 | 37825 | 42579 | 43686 | 43539 | 44598 | 43015 | 44170 | 44359 |
| | (i) Concessional | 24876 | 26859 | 25080 | 25711 | 26992 | 27221 | 26443 | 27173 | 24679 | 25005 | 24118 |
| | a) IDA | 24548 | 26497 | 24757 | 25380 | 26637 | 26853 | 26071 | 26770 | 24294 | 24595 | 23706 |
| | b) Others | 328 | 362 | 323 | 331 | 355 | 368 | 372 | 403 | 385 | 410 | 412 |
| | (ii) Non-concessional | 7638 | 9312 | 10644 | 12114 | 15587 | 16465 | 17096 | 17425 | 18336 | 19165 | 20241 |
| | a) IBRD | 5015 | 5660 | 5878 | 6397 | 8774 | 8897 | 8912 | 8876 | 9117 | 9244 | 9338 |
| | b) Others | 2623 | 3652 | 4766 | 5717 | 6813 | 7568 | 8184 | 8549 | 9219 | 9921 | 10903 |
| | B. Non-Government Borrowing | 2823 | 3319 | 3814 | 5032 | 5896 | 6766 | 8051 | 8820 | 9376 | 9786 | 10093 |
| | (i) Concessional | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | (ii) Non-concessional | 2823 | 3319 | 3814 | 5032 | 5896 | 6766 | 8051 | 8820 | 9376 | 9786 | 10093 |
| | a) Public Sector | 2136 | 2589 | 2807 | 3305 | 3536 | 3808 | 4324 | 4669 | 5010 | 5320 | 4538 |
| | i) IBRD | 1043 | 1173 | 1395 | 1893 | 2057 | 2177 | 2355 | 2394 | 2502 | 2554 | 2558 |
| ii) Others | 1093 | 1416 | 1412 | 1412 | 1479 | 1631 | 1969 | 2275 | 2508 | 2766 | 1980 | |
| b) Financial Institutions | 554 | 587 | 730 | 1193 | 1681 | 2017 | 2650 | 3139 | 3492 | 3747 | 4954 | |
| i) IBRD | 150 | 148 | 146 | 298 | 425 | 531 | 549 | 635 | 592 | 899 | 1090 | |
| ii) Others | 404 | 439 | 584 | 895 | 1256 | 1486 | 2101 | 2504 | 2900 | 2848 | 3864 | |
| c) Private Sector | 133 | 143 | 277 | 534 | 679 | 941 | 1077 | 1012 | 874 | 719 | 601 | |
| i) IBRD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ii) Others | 133 | 143 | 277 | 534 | 679 | 941 | 1077 | 1012 | 874 | 719 | 601 | |
| II. | Bilateral | 16065 | 19708 | 20610 | 22593 | 25712 | 26884 | 25158 | 24727 | 21726 | 22464 | 23164 |
| | A. Government borrowing | 12344 | 14853 | 14655 | 15860 | 17988 | 17987 | 16259 | 16099 | 14121 | 15457 | 16887 |
| | (i) Concessional | 12344 | 14853 | 14655 | 15860 | 17988 | 17987 | 16259 | 16099 | 14121 | 15457 | 16887 |
| | (ii) Non-concessional | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | B. Non-Government borrowing | 3721 | 4855 | 5955 | 6733 | 7724 | 8897 | 8899 | 8628 | 7605 | 7007 | 6277 |

Contd....

| 8.4 B. India's External Debt Outstanding (Contd....) | | | | | | | | | | | | |
|--|---|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| (US\$ million) | | | | | | | | | | | | |
| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | |
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017QE |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| | (i) Concessional | 396 | 435 | 641 | 702 | 918 | 1501 | 1558 | 1714 | 1610 | 1786 | 1799 |
| | a) Public Sector | 285 | 307 | 227 | 248 | 363 | 974 | 1093 | 1290 | 1205 | 1359 | 993 |
| | b) Financial Institutions | 111 | 128 | 414 | 454 | 555 | 527 | 465 | 424 | 405 | 427 | 806 |
| | c) Private Sector | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | (ii) Non-concessional | 3325 | 4420 | 5314 | 6031 | 6806 | 7396 | 7341 | 6914 | 5995 | 5221 | 4478 |
| | a) Public Sector | 1702 | 2525 | 2959 | 3072 | 3087 | 2781 | 2397 | 2223 | 1846 | 1646 | 1462 |
| | b) Financial Institutions | 878 | 934 | 846 | 761 | 840 | 762 | 776 | 724 | 531 | 455 | 488 |
| | c) Private Sector | 745 | 961 | 1509 | 2198 | 2879 | 3853 | 4168 | 3967 | 3618 | 3120 | 2528 |
| III. | IMF ^a | 1029 | 1120 | 1018 | 6041 | 6308 | 6163 | 5964 | 6149 | 5488 | 5605 | 5410 |
| IV. | Export Credit | 7165 | 10328 | 14481 | 16841 | 18647 | 18990 | 17760 | 15518 | 12608 | 10639 | 9677 |
| | a) Buyers' credit | 5417 | 8287 | 12572 | 14811 | 16437 | 16790 | 15567 | 13323 | 10547 | 8377 | 7345 |
| | b) Suppliers' credit | 675 | 750 | 635 | 651 | 646 | 636 | 779 | 795 | 833 | 918 | 863 |
| | c) Export credit component of bilateral credit | 1073 | 1291 | 1274 | 1379 | 1564 | 1564 | 1414 | 1400 | 1228 | 1344 | 1469 |
| V. | Commercial Borrowings | 41443 | 62334 | 62461 | 70726 | 100476 | 120136 | 140125 | 149375 | 180295 | 180744 | 173074 |
| | a) Commercial bank loans ^b | 24577 | 40159 | 43169 | 44832 | 58643 | 72946 | 83555 | 96946 | 101492 | 97584 | 88159 |
| | b) Securitised borrowings ^c | 15603 | 20668 | 17918 | 25075 | 41100 | 46686 | 56274 | 52149 | 78426 | 82798 | 84564 |
| | c) Loans/secritized borrowings etc., with multilateral/bilateral guarantee + IFC(W) | 1263 | 1507 | 1374 | 819 | 733 | 504 | 296 | 280 | 377 | 362 | 351 |
| VI. | NRI Deposits ^d (Above one year Maturity) | 41240 | 43672 | 41554 | 47890 | 51682 | 58608 | 70822 | 103845 | 115163 | 126929 | 116867 |
| VII. | Rupee Debt ^e | 1951 | 2017 | 1523 | 1658 | 1601 | 1354 | 1258 | 1468 | 1506 | 1278 | 1228 |
| | a) Defence | 1728 | 1794 | 1361 | 1487 | 1437 | 1216 | 1133 | 1361 | 1407 | 1189 | 1141 |
| | b) Civilian | 223 | 223 | 162 | 171 | 164 | 138 | 125 | 107 | 99 | 89 | 87 |
| VIII. | Total Long Term Debt (I TO VII) | 144230 | 178669 | 181185 | 208606 | 252901 | 282587 | 312677 | 354500 | 389177 | 401615 | 383872 |
| IX. | Short-Term Debt | 28130 | 45738 | 43313 | 52329 | 64990 | 78179 | 96697 | 91678 | 85498 | 83374 | 87980 |
| | a) Trade-Related Credits | 25079 | 41901 | 39915 | 47473 | 58463 | 65130 | 86787 | 81743 | 81631 | 80021 | 86488 |
| | 1) Above 6 Months | 11971 | 22884 | 23346 | 28003 | 35347 | 39182 | 50021 | 54992 | 53405 | 51207 | 56155 |

Contd....

8.4 B. India's External Debt Outstanding*(Contd.....)*

(US\$ million)

| Sl. No. | Components of External Debt | At End-March | | | | | | | | | | |
|--------------|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016PR | 2017QE |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| | 2) Upto 6 Months | 14008 | 19017 | 16569 | 19470 | 23116 | 25948 | 27766 | 26751 | 28226 | 28814 | 30333 |
| b) | FII Investment in Govt. Treasury Bills and other instruments | 397 | 651 | 2065 | 3357 | 5424 | 9395 | 5455 | 5605 | 1167 | 20 | 40 |
| c) | Investment in Treasury Bills by foreign central banks and other international institutions etc. | 164 | 155 | 105 | 103 | 50 | 64 | 82 | 95 | 114 | 108 | 99 |
| d) | External Debt Liabilities of: | 1590 | 3031 | 1228 | 1396 | 1053 | 3590 | 4373 | 4235 | 2586 | 3225 | 1353 |
| | 1) Central Bank | 501 | 1115 | 764 | 695 | 155 | 170 | 181 | 148 | 150 | 180 | 243 |
| | 2) Commercial banks | 1089 | 1916 | 464 | 701 | 898 | 3420 | 4192 | 4087 | 2436 | 3045 | 1110 |
| X. | Grand Total (VIII+IX) | 172360 | 224407 | 224498 | 260935 | 317891 | 360766 | 409374 | 446178 | 474675 | 484989 | 471852 |
| Memo Items : | | | | | | | | | | | | |
| | Concessional Debt ^f | 39567 | 44164 | 41899 | 43931 | 47499 | 48063 | 45518 | 46454 | 41916 | 43526 | 44052 |
| | Concessional Debt to total external debt (per cent) | 23.0 | 19.7 | 18.7 | 16.8 | 14.9 | 13.3 | 11.1 | 10.4 | 8.8 | 9 | 9.3 |
| | Short-term debt | 28130 | 45738 | 43313 | 52329 | 64990 | 78179 | 96697 | 91678 | 85498 | 83374 | 87980 |
| | Short-term debt to total external debt (per cent) | 16.3 | 20.4 | 19.3 | 20.1 | 20.4 | 21.7 | 23.6 | 20.6 | 18 | 17.2 | 18.6 |

Source: Ministry of Finance (Department of Economic Affairs), Ministry of Defence, Reserve Bank of India, Securities & Exchange Board of India.

Notes:

PR: Partially Revised; QE : Quick Estimates.

IPC(W): International Finance Corporation, Washington DC

FII: Foreign Institutional Investors

a: Relates to SDR allocations from March 2004 onwards

b: Includes Financial Lease since 1996

c: Also includes India Development Bonds (IDBs), Resurgent India Bonds (RIBs), India Millennium Deposits (IMDs), Foreign Currency Convertible Bonds (FCCBs) and net investment by 100% FII debt funds and securitized borrowings of commercial banks, FCCB debt has been adjusted since end-March, 1998 after netting out conversion into equity and redemptions.

d: Figures include accrued interest.

e: Rupee denominated debt owed to Russia and payable through exports.

f: The definition of concessional debt here includes 'Concessional' categories under multilateral and bilateral debt and rupee debt under item VII

NRO Deposits are included under NRI Deposits from the quarter ended June 2005. Supplier's Credits upto 180 days and FII investment in short-term debt instruments are included under short-term debt from the quarter ended March 2005. Vostro balances / Nostro overdrafts of commercial banks, balances of foreign central banks/international institutions with RBI and investment in T-bills/securities by foreign central banks/ international institutions have been included in external debt from the quarter ended March 2007.

| Table 9.1. Selected Indicators of Human Development for Major States | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------------------|--------|-------|---------|--------|-------|--|--------|-------|------|--------|-------|-----------------------|-------|-------|-------|-----------------------|-------|-------|-------|----------------------|-------|-------|--|
| States | Life expectancy at birth (in years) | | | | | | Infant mortality rate (per 1000 live births) | | | | | | Birth rate (per 1000) | | | | Death rate (per 1000) | | | | Total fertility Rate | | | |
| | 2007-11 | | | 2011-15 | | | 2005 | | | 2015 | | | 2005 | | 2015 | | 2005 | | 2015 | | 2005 | | 2015 | |
| | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | |
| (1) | | | | | | | | | | | | | | | | | | | | | | | | |
| Andhra Pradesh | 64.0 | 68.6 | 66.3 | 67.1 | 71.2 | 69.0 | 56 | 58 | 57 | 36 | 38 | 37 | 19.1 | 16.8 | 7.3 | 7.1 | 2.0 | 2.0 | 1.7 | | | | | |
| Assam | 61.2 | 63.6 | 62.2 | 63.5 | 66.2 | 64.7 | 66 | 69 | 68 | 47 | 47 | 47 | 25.0 | 22.0 | 8.7 | 7.1 | 2.9 | 2.9 | 2.3 | | | | | |
| Bihar | 65.9 | 66.8 | 66.3 | 68.5 | 68.3 | 68.4 | 60 | 62 | 61 | 36 | 50 | 42 | 30.4 | 26.3 | 8.1 | 6.2 | 4.3 | 4.3 | 3.2 | | | | | |
| Gujarat | 65.2 | 69.6 | 67.3 | 66.9 | 71.6 | 69.1 | 52 | 55 | 54 | 33 | 34 | 33 | 23.7 | 20.4 | 7.1 | 6.1 | 2.8 | 2.8 | 2.2 | | | | | |
| Haryana | 65.0 | 69.8 | 67.3 | 66.9 | 71.9 | 69.1 | 51 | 70 | 60 | 36 | 37 | 36 | 24.3 | 20.9 | 6.7 | 6.1 | 2.8 | 2.8 | 2.2 | | | | | |
| Himachal Pradesh | 67.9 | 72.3 | 70.1 | 69.1 | 75.2 | 72.0 | 47 | 51 | 49 | 28 | 27 | 28 | 20.0 | 16.3 | 6.9 | 6.6 | 2.2 | 2.2 | 1.7 | | | | | |
| Jammu & Kashmir | 69.4 | 71.9 | 70.5 | 71.2 | 76.1 | 73.2 | 47 | 55 | 50 | 25 | 27 | 26 | 18.9 | 16.2 | 5.5 | 4.9 | 2.4 | 2.4 | 1.6 | | | | | |
| Karnataka | 65.2 | 70.0 | 67.5 | 67.2 | 70.9 | 69.0 | 48 | 51 | 50 | 26 | 30 | 28 | 20.6 | 17.9 | 7.1 | 6.6 | 2.2 | 2.2 | 1.8 | | | | | |
| Kerala | 71.5 | 77.3 | 74.4 | 72.2 | 78.2 | 75.2 | 14 | 15 | 14 | 10 | 13 | 12 | 15.0 | 14.8 | 6.4 | 6.6 | 1.7 | 1.7 | 1.8 | | | | | |
| Madhya Pradesh | 61.3 | 64.5 | 62.8 | 63.2 | 66.5 | 64.8 | 72 | 79 | 76 | 51 | 48 | 50 | 29.4 | 25.5 | 9.0 | 7.5 | 3.6 | 3.6 | 2.8 | | | | | |
| Maharashtra | 68.3 | 72.4 | 70.3 | 70.3 | 73.9 | 72.0 | 34 | 37 | 36 | 19 | 22 | 21 | 19.0 | 16.3 | 6.7 | 5.8 | 2.2 | 2.2 | 1.8 | | | | | |
| Odisha | 62.9 | 64.5 | 63.7 | 65.6 | 68.3 | 66.9 | 74 | 77 | 75 | 45 | 47 | 46 | 22.3 | 19.2 | 9.5 | 7.6 | 2.6 | 2.6 | 2.0 | | | | | |
| Punjab | 67.7 | 72.2 | 69.8 | 70.3 | 74.2 | 72.1 | 41 | 48 | 44 | 22 | 24 | 23 | 18.1 | 15.2 | 6.7 | 6.2 | 2.1 | 2.1 | 1.7 | | | | | |
| Rajasthan | 65.0 | 68.7 | 66.8 | 65.7 | 70.4 | 67.9 | 64 | 72 | 68 | 40 | 47 | 43 | 28.6 | 24.8 | 7.0 | 6.3 | 3.7 | 3.7 | 2.7 | | | | | |
| Tamil Nadu | 67.6 | 71.4 | 69.4 | 69.1 | 73.0 | 71.0 | 35 | 39 | 37 | 19 | 19 | 19 | 16.5 | 15.2 | 7.4 | 6.7 | 1.7 | 1.7 | 1.6 | | | | | |
| Uttar Pradesh | 61.9 | 64.2 | 63.0 | 63.4 | 65.6 | 64.5 | 71 | 75 | 73 | 44 | 48 | 46 | 30.4 | 26.7 | 8.7 | 7.2 | 4.2 | 4.2 | 3.1 | | | | | |
| West Bengal | 67.8 | 71.3 | 69.4 | 69.4 | 71.8 | 70.5 | 38 | 39 | 38 | 25 | 28 | 26 | 18.8 | 15.5 | 6.4 | 5.9 | 2.1 | 2.1 | 1.6 | | | | | |
| All India | 64.9 | 68.2 | 66.5 | 66.9 | 70.0 | 68.3 | 56 | 61 | 58 | 35 | 39 | 37 | 23.8 | 20.8 | 7.6 | 6.5 | 2.9 | 2.9 | 2.3 | | | | | |

Source : Office of the Registrar General of India, Ministry of Home Affairs

Table 9.2. Gross Enrolment Ratio 2015-16 (Provisional)

(in per cent)

| States/UTs | Classes I-V | | | Classes VI-VIII | | | Classes I-VIII | | |
|-------------------|-------------|--------------|-------------|-----------------|-------------|-------------|----------------|-------------|-------------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Andhra Pradesh | 84.9 | 84.1 | 84.5 | 81.1 | 81.6 | 81.3 | 83.5 | 83.1 | 83.3 |
| Arunachal Pradesh | 127.6 | 125.9 | 126.8 | 127.1 | 133.2 | 130.1 | 127.5 | 128.1 | 127.8 |
| Assam | 104.7 | 107.6 | 106.1 | 87.7 | 98.8 | 93.1 | 98.8 | 104.6 | 101.6 |
| Bihar | 104.4 | 111.3 | 107.7 | 98.2 | 119.4 | 107.9 | 102.4 | 113.7 | 107.7 |
| Chhattisgarh | 100.2 | 99.9 | 100.0 | 101.6 | 103.1 | 102.3 | 100.7 | 101.1 | 100.9 |
| Gujarat | 95.6 | 99.1 | 97.2 | 94.7 | 97.0 | 95.7 | 95.3 | 98.3 | 96.7 |
| Haryana | 90.0 | 93.2 | 91.4 | 87.4 | 99.2 | 92.4 | 89.0 | 95.4 | 91.8 |
| Himachal Pradesh | 98.0 | 99.7 | 98.8 | 103.4 | 105.5 | 104.4 | 100.0 | 101.9 | 100.9 |
| Jammu & Kashmir | 84.9 | 87.2 | 86.0 | 68.8 | 71.9 | 70.2 | 78.8 | 81.5 | 80.1 |
| Jharkhand | 108.6 | 109.9 | 109.2 | 97.8 | 108.2 | 102.7 | 104.9 | 109.4 | 107.1 |
| Karnataka | 102.9 | 103.0 | 103.0 | 92.4 | 94.4 | 93.4 | 99.0 | 99.8 | 99.4 |
| Kerala | 95.5 | 95.4 | 95.4 | 94.6 | 96.3 | 95.4 | 95.1 | 95.8 | 95.4 |
| Madhya Pradesh | 95.4 | 93.5 | 94.5 | 90.5 | 98.1 | 94.0 | 93.5 | 95.2 | 94.3 |
| Maharashtra | 97.9 | 97.6 | 97.7 | 97.4 | 101.4 | 99.2 | 97.7 | 99.0 | 98.3 |
| Manipur | 128.9 | 132.9 | 130.9 | 127.0 | 132.9 | 129.9 | 128.3 | 132.9 | 130.6 |
| Meghalaya | 138.8 | 143.1 | 140.9 | 126.0 | 146.2 | 135.9 | 134.9 | 144.0 | 139.4 |
| Mizoram | 124.9 | 121.0 | 123.0 | 135.9 | 133.6 | 134.8 | 128.3 | 124.8 | 126.6 |
| Nagaland | 98.1 | 101.0 | 99.5 | 98.6 | 106.4 | 102.3 | 98.3 | 102.7 | 100.4 |
| Odisha | 104.9 | 102.5 | 103.7 | 94.9 | 93.6 | 94.3 | 101.2 | 99.2 | 100.2 |
| Punjab | 99.9 | 104.0 | 101.7 | 95.0 | 102.9 | 98.4 | 98.0 | 103.6 | 100.4 |
| Rajasthan | 101.3 | 99.5 | 100.4 | 91.5 | 91.2 | 91.3 | 97.8 | 96.6 | 97.2 |
| Sikkim | 107.3 | 98.3 | 102.9 | 143.7 | 157.9 | 150.6 | 119.5 | 118.0 | 118.8 |
| Tamil Nadu | 103.4 | 104.4 | 103.9 | 92.6 | 95.7 | 94.0 | 99.0 | 100.9 | 99.9 |
| Telangana | 103.1 | 102.9 | 103.0 | 88.6 | 90.3 | 89.4 | 97.6 | 98.0 | 97.8 |
| Tripura | 107.6 | 108.4 | 108.0 | 125.8 | 130.3 | 128.0 | 113.4 | 115.3 | 114.3 |
| Uttar Pradesh | 88.6 | 96.2 | 92.2 | 68.2 | 83.5 | 75.1 | 81.3 | 91.8 | 86.2 |
| Uttarakhand | 98.9 | 99.8 | 99.3 | 85.8 | 88.1 | 86.9 | 93.9 | 95.3 | 94.6 |
| West Bengal | 103.1 | 104.3 | 103.7 | 97.9 | 112.6 | 105.0 | 101.2 | 107.3 | 104.2 |
| A & N Islands | 91.1 | 86.8 | 88.9 | 86.4 | 82.0 | 84.1 | 89.3 | 84.9 | 87.1 |
| Chandigarh | 77.4 | 86.6 | 81.4 | 90.4 | 102.4 | 95.5 | 82.3 | 92.3 | 86.7 |
| D&N Haveli | 84.7 | 80.2 | 82.5 | 93.7 | 88.0 | 91.0 | 88.0 | 83.0 | 85.6 |
| Daman & Diu | 79.7 | 85.0 | 82.0 | 74.9 | 84.6 | 79.2 | 77.9 | 84.8 | 81.0 |
| Delhi | 108.0 | 113.9 | 110.7 | 118.9 | 140.6 | 128.1 | 111.8 | 122.6 | 116.6 |
| Goa | 100.9 | 104.5 | 102.6 | 96.8 | 100.9 | 98.7 | 99.3 | 103.1 | 101.1 |
| Lakshadweep | 77.9 | 69.9 | 73.8 | 92.5 | 75.7 | 83.3 | 83.3 | 72.2 | 77.5 |
| Puducherry | 80.2 | 90.2 | 84.8 | 82.4 | 92.6 | 87.0 | 81.0 | 91.1 | 85.6 |
| All India | 97.9 | 100.7 | 99.2 | 88.7 | 97.6 | 92.8 | 94.5 | 99.6 | 96.9 |

Source: School Education in India, U-DISE 2015-16 (Provisional)

Table 9.3. Number of Recognised Educational Institutions in India 2015-16

| States/UTs | | 2015-16 (Provisional) ¹ | | | | 2015-16 ² | | | | | | (in numbers) | |
|--------------------------------------|--------|------------------------------------|--------|-----------------------------|----------------------------|--|----------|--|------|---------|---------------------|-----------------------------------|-----|
| Intermediate/ Sr. Sec. Schools | (2) | High/ Secondary Schools | (3) | Upper Primary Schools | Only Primary Schools | Universities / University level Institutes | Colleges | Technical Education (Polytechnics) | PGDM | Nursing | Teacher Training | Institutes under Ministries | |
| | | | | | | | | | | | | | (1) |
| Andhra Pradesh | 2589 | 11234 | 10086 | 38793 | 28 | 2532 | 156 | 3 | 11 | 297 | 351 | na | |
| Arunachal Pradesh | 155 | 263 | 1266 | 2363 | 9 | 28 | 3 | na | 2 | 7 | na | na | |
| Assam | 2075 | 6987 | 13451 | 48529 | 21 | 539 | 16 | 1 | 539 | 45 | 22 | 1 | |
| Bihar | 3926 | 3701 | 33204 | 43405 | 22 | 744 | 29 | 4 | 80 | 44 | 3 | 3 | |
| Chhattisgarh | 3818 | 2465 | 14672 | 32826 | 22 | 706 | 1 | 10 | 38 | 32 | 3 | 3 | |
| Gujarat | 6592 | 4350 | 29642 | 11840 | 57 | 2019 | 1 | 18 | 126 | 149 | 7 | 7 | |
| Haryana | 4300 | 3363 | 4658 | 9994 | 39 | 1113 | 204 | 21 | 42 | 37 | 5 | 5 | |
| Himachal Pradesh | 2212 | 1570 | 2930 | 11327 | 25 | 348 | 41 | 1 | 31 | 18 | 2 | 2 | |
| Jammu & Kashmir | 1061 | 3141 | 10286 | 14604 | 11 | 329 | 36 | na | 12 | 25 | na | na | |
| Jharkhand | 1229 | 3372 | 15917 | 28010 | 14 | 328 | 32 | 8 | 33 | 7 | 10 | 10 | |
| Karnataka | 4509 | 13627 | 30563 | 26790 | 52 | 3555 | 314 | 26 | 572 | 757 | 8 | 8 | |
| Kerala | 2949 | 1733 | 4020 | 8428 | 20 | 1302 | 79 | 8 | 233 | 273 | 7 | 7 | |
| Madhya Pradesh | 8100 | 6793 | 47276 | 88593 | 43 | 2260 | 103 | 19 | 128 | 204 | 7 | 7 | |
| Maharashtra | 8738 | 16287 | 29448 | 53151 | 45 | 4569 | 1091 | 75 | 167 | 1147 | 21 | 21 | |
| Manipur | 210 | 899 | 933 | 2951 | 4 | 87 | 1 | na | 6 | 8 | 1 | 1 | |
| Meghalaya | 300 | 1255 | 3597 | 9362 | 10 | 63 | 3 | na | 7 | 11 | 1 | 1 | |
| Mizoram | 138 | 615 | 1511 | 1561 | 3 | 29 | 2 | na | 4 | 9 | na | na | |
| Nagaland | 175 | 561 | 825 | 1265 | 4 | 65 | 4 | na | 3 | 4 | na | na | |
| Odisha | 1291 | 9454 | 22795 | 36760 | 21 | 1076 | 143 | 11 | 179 | 65 | 2 | 2 | |
| Punjab | 4553 | 4618 | 5446 | 14371 | 26 | 1050 | 173 | 2 | 209 | 31 | 4 | 4 | |
| Rajasthan | 16958 | 11237 | 37656 | 42577 | 70 | 3050 | 199 | 19 | 160 | 202 | 5 | 5 | |
| Sikkim | 87 | 140 | 346 | 706 | 7 | 16 | 2 | na | 1 | 2 | na | na | |
| Tamil Nadu | 6877 | 5594 | 9733 | 35379 | 58 | 2368 | 476 | 10 | 115 | 399 | 13 | 13 | |
| Telangana | 2162 | 11333 | 7189 | 21948 | 21 | 2454 | 107 | 25 | 234 | 207 | 11 | 11 | |
| Tripura | 411 | 603 | 1262 | 2568 | 3 | 51 | 3 | na | 5 | 4 | na | na | |
| Uttar Pradesh | 15937 | 8632 | 75644 | 155756 | 67 | 6491 | 370 | 128 | 245 | 182 | 12 | 12 | |
| Uttarakhand | 2218 | 1294 | 5017 | 15497 | 28 | 439 | 103 | 3 | 9 | 17 | 2 | 2 | |
| West Bengal | 6898 | 3296 | 8839 | 76703 | 34 | 1082 | 118 | 12 | 54 | 100 | 11 | 11 | |
| A & N Islands | 63 | 49 | 84 | 218 | na | 7 | 1 | na | 2 | 1 | na | na | |
| Chandigarh | 90 | 70 | 29 | 12 | 3 | 25 | 3 | 1 | na | 3 | na | na | |
| D & N Haveli | 21 | 20 | 129 | 177 | na | 8 | na | na | 1 | 1 | na | 1 | |
| Daman & Diu | 24 | 18 | 44 | 59 | na | 8 | na | na | na | 2 | na | na | |
| Delhi | 1684 | 377 | 939 | 2755 | 26 | 191 | 35 | 21 | 17 | 36 | 20 | 20 | |
| Goa | 110 | 385 | 86 | 973 | 2 | 55 | 8 | 1 | 2 | 1 | na | na | |
| Lakshadweep | 13 | 1 | 14 | 17 | na | 0 | na | na | na | na | na | na | |
| Puducherry | 164 | 202 | 87 | 278 | 4 | 84 | 10 | na | 1 | 46 | na | na | |
| All India | 112637 | 139539 | 429624 | 840546 | 799 | 39071 | 3867 | 435 | 3060 | 4403 | 158 | 158 | |

Source: ¹ : School Education in India, U-DISE 2015-16; ² : AISHE, 2015-16, Ministry of Human Resource Development

Note:

n.a : not available

1: Upper primary means primary schools/sections, secondary means secondary schools/sections and senior secondary means senior secondary schools/sections unless otherwise mentioned.

Table 9.4. State-Wise Literacy Rates (1951-2011)

| | | | | | | | (per cent) |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| States/UTs | 1951 | 1961 | 1971 | 1981 | 1991 | 2001 | 2011 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Andhra Pradesh | na | 21.2 | 24.6 | 35.7 | 44.1 | 60.5 | 67.0 |
| Arunachal Pradesh | na | 7.1 | 11.3 | 25.6 | 41.6 | 54.3 | 65.4 |
| Assam | 18.5 | 33.0 | 33.9 | na | 52.9 | 63.3 | 72.2 |
| Bihar | 13.5 | 22.0 | 23.2 | 32.3 | 37.5 | 47.0 | 61.8 |
| Chhattisgarh | 9.4 | 18.1 | 24.1 | 32.6 | 42.9 | 64.7 | 70.3 |
| Gujarat | 21.8 | 31.5 | 37.0 | 44.9 | 61.3 | 69.1 | 78.0 |
| Haryana | na | na | 25.7 | 37.1 | 55.9 | 67.9 | 75.6 |
| Himachal Pradesh | na | na | na | na | 63.9 | 76.5 | 82.8 |
| Jammu & Kashmir | na | 13.0 | 21.7 | 30.6 | na | 55.5 | 67.2 |
| Jharkhand | 12.9 | 21.1 | 23.9 | 35.0 | 41.4 | 53.6 | 66.4 |
| Karnataka | na | 29.8 | 36.8 | 46.2 | 56.0 | 66.6 | 75.4 |
| Kerala | 47.2 | 55.1 | 69.8 | 78.9 | 89.8 | 90.9 | 94.0 |
| Madhya Pradesh | 13.2 | 21.4 | 27.3 | 38.6 | 44.7 | 63.7 | 69.3 |
| Maharashtra | 27.9 | 35.1 | 45.8 | 57.2 | 64.9 | 76.9 | 82.3 |
| Manipur ^a | 12.6 | 36.0 | 38.5 | 49.7 | 59.9 | 70.5 | 76.9 |
| Meghalaya | na | 26.9 | 29.5 | 42.1 | 49.1 | 62.6 | 74.4 |
| Mizoram | 31.1 | 44.0 | 53.8 | 59.9 | 82.3 | 88.8 | 91.3 |
| Nagaland | 10.5 | 22.0 | 33.8 | 50.3 | 61.7 | 66.6 | 79.6 |
| Odisha | 15.8 | 21.7 | 26.2 | 33.6 | 49.1 | 63.1 | 72.9 |
| Punjab | na | na | 34.1 | 43.4 | 58.5 | 69.7 | 75.8 |
| Rajasthan | 8.5 | 18.1 | 22.6 | 30.1 | 38.6 | 60.4 | 66.1 |
| Sikkim | na | na | 17.7 | 34.1 | 56.9 | 68.8 | 81.4 |
| Tamil Nadu | na | 36.4 | 45.4 | 54.4 | 62.7 | 73.5 | 80.1 |
| Tripura | na | 20.2 | 31.0 | 50.1 | 60.4 | 73.2 | 87.2 |
| Uttar Pradesh | 12.0 | 20.9 | 24.0 | 32.7 | 40.7 | 56.3 | 67.7 |
| Uttarakhand | 18.9 | 18.1 | 33.3 | 46.1 | 57.8 | 71.6 | 78.8 |
| West Bengal | 24.6 | 34.5 | 38.9 | 48.7 | 57.7 | 68.6 | 76.3 |
| A & N Islands | 30.3 | 40.1 | 51.2 | 63.2 | 73.0 | 81.3 | 86.6 |
| Chandigarh | na | na | 70.4 | 74.8 | 77.8 | 81.9 | 86.0 |
| D & N Haveli | na | na | 18.1 | 32.9 | 40.7 | 57.6 | 76.2 |
| Daman & Diu | na | na | na | na | 71.2 | 78.2 | 87.1 |
| Delhi | na | 62.0 | 65.1 | 71.9 | 75.3 | 81.7 | 86.2 |
| Goa | 23.5 | 35.4 | 52.0 | 65.7 | 75.5 | 82.0 | 88.7 |
| Lakshadweep | 15.2 | 27.2 | 51.8 | 68.4 | 81.8 | 86.7 | 91.8 |
| Puducherry | na | 43.7 | 53.4 | 65.1 | 74.7 | 81.2 | 85.8 |
| All India ^a | 18.3 | 28.3 | 34.5 | 43.6 | 52.2 | 64.8 | 73.0 |

Source: Office of the Registrar General of India, Ministry of Home Affairs

Notes:

a : India and Manipur figures exclude those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

na : not available

1. Literacy rates for 1951, 1961 and 1971 Censuses relate to population aged five years and above and from 1981 onwards Literacy rates relate to the population aged seven years and above. The literacy rate for 1951 in case of West Bengal relates to total population including 0-4 age group. Literacy rate for 1951 in respect of Chhattisgarh, Madhya Pradesh and Manipur are based on sample population

Table 9.5. Households with Access to Safe Drinking Water in India

(per cent)

| States/ UTs | (Tap/Handpump/Tubewell) | | | | | | | | |
|-------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1991 | | | 2001 | | | 2011 | | |
| | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Andhra Pradesh | 55.1 | 49.0 | 73.8 | 80.1 | 76.9 | 90.2 | 90.5 | 88.6 | 94.5 |
| Arunachal Pradesh | 70.0 | 66.9 | 88.2 | 77.5 | 73.7 | 90.7 | 78.6 | 74.3 | 91.3 |
| Assam | 45.9 | 43.3 | 64.1 | 58.8 | 56.8 | 70.4 | 69.9 | 68.3 | 78.2 |
| Bihar | 58.8 | 56.5 | 73.4 | 86.6 | 86.1 | 91.2 | 94.0 | 93.9 | 94.7 |
| Chhattisgarh | a | a | a | 70.5 | 66.2 | 88.8 | 86.3 | 84.1 | 93.9 |
| Gujarat | 69.8 | 60.0 | 87.2 | 84.1 | 76.9 | 95.4 | 90.3 | 84.9 | 97.0 |
| Haryana | 74.3 | 67.1 | 93.2 | 86.1 | 81.1 | 97.3 | 93.8 | 92.0 | 96.7 |
| Himachal Pradesh | 77.3 | 75.5 | 91.9 | 88.6 | 87.5 | 97.0 | 93.7 | 93.2 | 97.8 |
| Jammu & Kashmir | na | na | na | 65.2 | 54.9 | 95.7 | 76.8 | 70.1 | 96.1 |
| Jharkhand | a | a | a | 42.6 | 35.5 | 68.2 | 60.1 | 54.3 | 78.4 |
| Karnataka | 71.7 | 67.3 | 81.4 | 84.6 | 80.5 | 92.1 | 87.5 | 84.4 | 92.3 |
| Kerala | 18.9 | 12.2 | 38.7 | 23.4 | 16.9 | 42.8 | 33.5 | 28.3 | 39.4 |
| Madhya Pradesh | 53.4 | 45.6 | 79.4 | 68.4 | 61.5 | 88.6 | 78.0 | 73.1 | 92.1 |
| Maharashtra | 68.5 | 54.0 | 90.5 | 79.8 | 68.4 | 95.4 | 83.4 | 73.2 | 95.7 |
| Manipur | 38.7 | 33.7 | 52.1 | 37.0 | 29.3 | 59.4 | 45.4 | 38.1 | 60.8 |
| Meghalaya | 36.2 | 26.8 | 75.4 | 39.0 | 29.5 | 73.5 | 44.7 | 35.1 | 79.5 |
| Mizoram | 16.2 | 12.9 | 19.9 | 36.0 | 23.8 | 47.8 | 60.4 | 43.4 | 75.8 |
| Nagaland | 53.4 | 55.6 | 45.5 | 46.5 | 47.5 | 42.3 | 53.8 | 54.6 | 51.8 |
| Odisha | 39.1 | 35.3 | 62.8 | 64.2 | 62.9 | 72.3 | 75.3 | 74.4 | 79.8 |
| Punjab | 92.7 | 92.1 | 94.2 | 97.6 | 96.9 | 98.9 | 97.6 | 96.7 | 98.9 |
| Rajasthan | 59.0 | 50.6 | 86.5 | 68.2 | 60.4 | 93.5 | 78.1 | 72.8 | 94.3 |
| Sikkim | 73.1 | 70.8 | 92.8 | 70.7 | 67.0 | 97.1 | 85.3 | 82.7 | 92.2 |
| Tamil Nadu | 67.4 | 64.3 | 74.2 | 85.6 | 85.3 | 85.9 | 92.5 | 92.2 | 92.9 |
| Tripura | 37.2 | 30.6 | 71.1 | 52.5 | 45.0 | 85.8 | 67.5 | 58.1 | 91.9 |
| Uttar Pradesh | 62.2 | 56.6 | 85.8 | 87.8 | 85.5 | 97.2 | 95.1 | 94.3 | 97.9 |
| Uttarakhand | a | a | a | 86.7 | 83.0 | 97.8 | 92.2 | 89.5 | 98.7 |
| West Bengal | 82.0 | 80.3 | 86.2 | 88.5 | 87.0 | 92.3 | 92.2 | 91.4 | 93.9 |
| A & N Islands | 67.9 | 59.4 | 90.9 | 76.7 | 66.8 | 97.8 | 85.5 | 78.2 | 98.1 |
| Chandigarh | 97.7 | 98.1 | 97.7 | 99.8 | 99.9 | 99.8 | 99.3 | 98.7 | 99.4 |
| D & N Haveli | 45.6 | 41.2 | 91.0 | 77.0 | 70.5 | 96.1 | 91.6 | 84.3 | 98.4 |
| Daman & Diu | 71.4 | 56.9 | 86.8 | 96.3 | 94.9 | 98.9 | 98.7 | 97.8 | 99.0 |
| Delhi | 95.8 | 91.0 | 96.2 | 97.2 | 90.1 | 97.7 | 95.0 | 87.9 | 95.2 |
| Goa | 43.4 | 30.5 | 61.7 | 70.1 | 58.3 | 82.1 | 85.7 | 78.4 | 90.4 |
| Lakshadweep | 11.9 | 3.4 | 18.8 | 4.6 | 4.6 | 4.6 | 22.8 | 31.2 | 20.2 |
| Puducherry | 88.8 | 92.9 | 86.1 | 95.9 | 96.6 | 95.5 | 97.8 | 99.6 | 97.0 |
| All India | 62.3 | 55.5 | 81.4 | 77.9 | 73.2 | 90.0 | 85.5 | 82.7 | 91.4 |

Source: Office of the Registrar General of India, Ministry of Home Affairs

Notes:

a : Created in 2001. Uttarakhand, Jharkhand and Chhattisgarh for 1991 are included under Uttar Pradesh, Bihar and Madhya Pradesh respectively.

na : not available as no census was carried out in Jammu & Kashmir during 1991.

Table 9.6. Population of India (1951-2011)

(in thousands)

| States /UTs | 1951 | 1961 | 1971 | 1981 | 1991 | 2001 | 2011 |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Andhra Pradesh | 31115 | 35983 | 43503 | 53551 | 66508 | 76210 | 84581 |
| Arunachal Pradesh ^a | na | 337 | 468 | 632 | 865 | 1098 | 1384 |
| Assam ^b | 8029 | 10837 | 14625 | 18041 | 22414 | 26656 | 31206 |
| Bihar | 29085 | 34841 | 42126 | 52303 | 64531 | 82999 | 104099 |
| Chhatisgarh | 7457 | 9154 | 11637 | 14010 | 17615 | 20834 | 25545 |
| Gujarat | 16263 | 20633 | 26697 | 34086 | 41310 | 50671 | 60440 |
| Haryana | 5674 | 7591 | 10036 | 12922 | 16464 | 21145 | 25351 |
| Himachal Pradesh | 2386 | 2812 | 3460 | 4281 | 5171 | 6078 | 6865 |
| Jammu & Kashmir ^c | 3254 | 3561 | 4617 | 5987 | 7837 | 10144 | 12541 |
| Jharkhand | 9697 | 11606 | 14227 | 17612 | 21844 | 26946 | 32988 |
| Karnataka | 19402 | 23587 | 29299 | 37136 | 44977 | 52851 | 61095 |
| Kerala | 13549 | 16904 | 21347 | 25454 | 29099 | 31841 | 33406 |
| Madhya Pradesh | 18615 | 23218 | 30017 | 38169 | 48566 | 60348 | 72627 |
| Maharashtra | 32003 | 39554 | 50412 | 62783 | 78937 | 96879 | 112374 |
| Manipur ^d | 578 | 780 | 1073 | 1421 | 1837 | 2294 | 2856 |
| Meghalaya | 606 | 769 | 1012 | 1336 | 1775 | 2319 | 2967 |
| Mizoram | 196 | 266 | 332 | 494 | 690 | 889 | 1097 |
| Nagaland | 213 | 369 | 516 | 775 | 1210 | 1990 | 1979 |
| Odisha | 14646 | 17549 | 21945 | 26370 | 31660 | 36805 | 41974 |
| Punjab | 9161 | 11135 | 13551 | 16789 | 20282 | 24359 | 27743 |
| Rajasthan | 15971 | 20156 | 25766 | 34262 | 44006 | 56507 | 68548 |
| Sikkim | 138 | 162 | 210 | 316 | 406 | 541 | 611 |
| Tamil Nadu | 30119 | 33687 | 41199 | 48408 | 55859 | 62406 | 72147 |
| Tripura | 639 | 1142 | 1556 | 2053 | 2757 | 3199 | 3674 |
| Uttar Pradesh | 60274 | 70144 | 83849 | 105137 | 132062 | 166198 | 199812 |
| Uttarakhand | 2946 | 3611 | 4493 | 5726 | 7051 | 8489 | 10086 |
| West Bengal | 26300 | 34926 | 44312 | 54581 | 68078 | 80176 | 91276 |
| A & N Islands | 31 | 64 | 115 | 189 | 281 | 356 | 381 |
| Chandigarh | 24 | 120 | 257 | 452 | 642 | 901 | 1055 |
| D & N Haveli | 42 | 58 | 74 | 104 | 138 | 220 | 344 |
| Daman & Diu | 49 | 37 | 63 | 79 | 102 | 158 | 243 |
| Delhi | 1744 | 2659 | 4066 | 6220 | 9421 | 13851 | 16788 |
| Goa | 547 | 590 | 795 | 1008 | 1170 | 1348 | 1459 |
| Lakshadweep | 21 | 24 | 32 | 40 | 52 | 61 | 64 |
| Puducherry | 317 | 369 | 472 | 604 | 808 | 974 | 1248 |
| All India ^d | 361088 | 439235 | 548160 | 683329 | 846421 | 1028737 | 1210855 |

Source : Office of the Registrar General of India, Ministry of Home Affairs

Notes:

na : not available

a : Census conducted for the first time in 1961.

b : The 1981 Census could not be held in Assam. Total population for 1981 has been worked out by interpolation.

c : The 1991 Census could not be held in Jammu & Kashmir. Total population for 1991 has been worked out by interpolation.

d : India and Manipur figures include estimated population for those of the three sub-divisions viz. Mao Maram, Paomata and Purul Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

Table 9.7. Population under different age groups and Child Sex Ratio in 2001 and 2011

| States/UTs | Age Group (2001) | | | | | Age Group (2011) | | | | | Child Sex Ratio (0-6 years) | | |
|-------------------|------------------|----------|----------|------------|----------------|------------------|----------|----------|------------|----------------|-----------------------------|------|--|
| | 0-14 | 15-34 | 35-59 | 60 & above | Age not stated | 0-14 | 15-34 | 35-59 | 60 & above | Age not stated | 2001 | 2011 | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | |
| Andhra Pradesh | 24398125 | 26904637 | 18985717 | 5788078 | 133450 | 21790792 | 30609248 | 23131065 | 8278241 | 771431 | 961 | 939 | |
| Arunachal Pradesh | 442825 | 366838 | 237279 | 49916 | 1110 | 493361 | 512549 | 312669 | 63639 | 1509 | 964 | 972 | |
| Assam | 9970342 | 9220063 | 5875783 | 1560366 | 28974 | 10248899 | 11123193 | 7736116 | 2078544 | 18824 | 965 | 962 | |
| Bihar | 34874151 | 24971476 | 17473783 | 5501274 | 177825 | 41721188 | 32264872 | 22002745 | 7707145 | 403502 | 942 | 935 | |
| Chhattisgarh | 7692654 | 6782442 | 4826242 | 1504383 | 28082 | 8183836 | 8861697 | 6472641 | 2003909 | 23115 | 975 | 969 | |
| Gujarat | 16624168 | 18233455 | 12267094 | 3499063 | 47237 | 17445613 | 21695832 | 16272844 | 4786559 | 238844 | 883 | 890 | |
| Haryana | 7579980 | 7458045 | 4441951 | 1584089 | 80499 | 7529954 | 9370426 | 6225793 | 2193755 | 31534 | 819 | 834 | |
| Himachal Pradesh | 1884390 | 2159835 | 1471395 | 547564 | 14716 | 1775385 | 2419844 | 1956201 | 703009 | 10163 | 896 | 909 | |
| Jammu & Kashmir | 3617025 | 3523571 | 2282065 | 675324 | 45715 | 4240710 | 4411400 | 2951417 | 922656 | 15119 | 941 | 862 | |
| Jharkhand | 10708694 | 8563383 | 6061782 | 1578662 | 33308 | 11891118 | 10992825 | 7630779 | 2356678 | 116734 | 965 | 948 | |
| Karnataka | 16845601 | 18667321 | 13223774 | 4062022 | 51844 | 16024874 | 22349821 | 16883719 | 5791032 | 45851 | 946 | 948 | |
| Kerala | 8296545 | 11271154 | 8911546 | 3335675 | 26454 | 7830974 | 10335954 | 11011254 | 4193393 | 34486 | 960 | 964 | |
| Madhya Pradesh | 23252416 | 19871596 | 12783564 | 4280924 | 159523 | 24302242 | 25176834 | 17351555 | 5713316 | 82862 | 932 | 918 | |
| Maharashtra | 31100375 | 34038392 | 23167117 | 8454660 | 118083 | 29917215 | 40661653 | 30280834 | 11106935 | 407696 | 913 | 894 | |
| Manipur | 706705 | 813358 | 496722 | 145470 | 4533 | 861688 | 1060221 | 726088 | 200020 | 7777 | 957 | 930 | |
| Meghalaya | 980877 | 776836 | 452223 | 105726 | 3160 | 1177942 | 1052138 | 592123 | 138902 | 5784 | 973 | 970 | |
| Mizoram | 313736 | 331766 | 193272 | 49023 | 776 | 356002 | 412771 | 259172 | 68628 | 633 | 964 | 970 | |
| Nagaland | 728409 | 762383 | 404177 | 90323 | 4744 | 679032 | 760810 | 434463 | 102726 | 1471 | 964 | 943 | |
| Odisha | 12207872 | 12591532 | 8904094 | 3039100 | 62062 | 12076422 | 14385953 | 11408224 | 3984448 | 119171 | 953 | 941 | |
| Punjab | 7617876 | 8609860 | 5845668 | 2191693 | 93902 | 7084950 | 10174719 | 7576330 | 2865817 | 41522 | 798 | 846 | |
| Rajasthan | 22543231 | 18257954 | 11608147 | 3810272 | 287584 | 23725426 | 23811691 | 15629580 | 5112138 | 269602 | 909 | 888 | |
| Sikkim | 188907 | 205320 | 115646 | 29040 | 1938 | 165937 | 251098 | 151614 | 40752 | 1176 | 963 | 957 | |
| Tamil Nadu | 16710874 | 22392020 | 17366443 | 5507400 | 428942 | 17007503 | 25144641 | 22418323 | 7509758 | 66805 | 942 | 943 | |
| Tripura | 1075552 | 1135652 | 750645 | 232549 | 4805 | 1017991 | 1362144 | 1002622 | 289544 | 1616 | 966 | 957 | |
| Uttar Pradesh | 67923332 | 51963534 | 33924676 | 11649468 | 736911 | 71308266 | 68153539 | 43288570 | 15439904 | 1622062 | 916 | 902 | |

Contd...

Table 9.7. Population under different age groups and Child Sex Ratio in 2001 and 2011

| States/UTs | Age Group (2001) | | | | | | | | | | Child Sex Ratio (0-6 years) | | |
|------------------|------------------|------------------|------------------|-----------------|----------------|------------------|------------------|------------------|------------------|----------------|-----------------------------|------------|--|
| | Age Group (2001) | | | | | Age Group (2011) | | | | | | | |
| | 0-14 | 15-34 | 35-59 | 60 & above | Age not stated | 0-14 | 15-34 | 35-59 | 60 & above | Age not stated | 2001 | 2011 | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | |
| Uttarakhand | 3086976 | 2845406 | 1884841 | 654356 | 17770 | 3129008 | 3602662 | 2437205 | 900809 | 16608 | 908 | 890 | |
| West Bengal | 26645405 | 27999332 | 19719644 | 5700099 | 111717 | 24737475 | 32655852 | 26027955 | 7742382 | 112451 | 960 | 956 | |
| A & N Islands | 104044 | 142088 | 90375 | 17366 | 2279 | 92675 | 147586 | 114528 | 25424 | 368 | 957 | 968 | |
| Chandigarh | 261188 | 364690 | 228545 | 44912 | 1300 | 266512 | 426702 | 294812 | 67078 | 346 | 845 | 880 | |
| D & N Haveli | 77758 | 90151 | 43663 | 8814 | 104 | 107813 | 147931 | 73701 | 13892 | 372 | 979 | 926 | |
| Daman & Diu | 43194 | 75924 | 30973 | 8042 | 71 | 54985 | 122110 | 54435 | 11361 | 356 | 926 | 904 | |
| Delhi | 4492939 | 5368740 | 3248002 | 719650 | 21176 | 4565319 | 6534460 | 4524015 | 1147445 | 16702 | 868 | 871 | |
| Goa | 331226 | 523205 | 373952 | 112273 | 7012 | 318160 | 503105 | 471691 | 163495 | 2094 | 938 | 942 | |
| Lakshadweep | 20734 | 21382 | 14752 | 3729 | 53 | 16457 | 22857 | 19774 | 5270 | 115 | 959 | 911 | |
| Puducherry | 262686 | 373118 | 256712 | 81016 | 813 | 298392 | 440449 | 387575 | 120436 | 1101 | 967 | 967 | |
| All India | 363610812 | 347676459 | 237962264 | 76622321 | 2738472 | 372444116 | 421959587 | 308112432 | 103849040 | 4489802 | 927 | 918 | |

Source: Office of the Registrar General of India, Ministry of Home Affairs

Table 9.8. Socio-Economic Profiles &

| Socio-economic Indicators/Items | Andhra Pradesh | Assam | Bihar | Chhattisgarh | Gujarat | Haryana | Himachal Pradesh | Jammu & Kashmir |
|---|----------------|-------|--------|--------------|---------|---------|------------------|-----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Demographic indicators* | | | | | | | | |
| Population 2001 (in '000) | 76210 | 26656 | 82999 | 20834 | 50671 | 21145 | 6078 | 10144 |
| Population 2011 (in '000) | 84581 | 31206 | 104099 | 25545 | 60439 | 25351 | 6865 | 12541 |
| Percentage decadal growth rate of population (1991-2001) | 14.6 | 18.9 | 28.6 | 18.3 | 22.7 | 28.4 | 17.5 | 29.4 |
| Percentage decadal growth rate of population (2001-2011) | 11.0 | 17.1 | 25.4 | 22.6 | 19.3 | 19.9 | 12.9 | 23.6 |
| Sex-ratio 2001 (Females per 1000 males) | 978 | 935 | 919 | 989 | 920 | 861 | 968 | 892 |
| Sex-ratio 2011 (Females per 1000 males) | 993 | 958 | 918 | 991 | 919 | 879 | 972 | 889 |
| Sex ratio at birth 2012-14 (Females per 1000 males) | 919 | 918 | 907 | 973 | 907 | 866 | 938 | 899 |
| Sex ratio at birth 2013-15 (Females per 1000 males) | 918 | 900 | 916 | 961 | 854 | 831 | 924 | 899 |
| States HDI and its components** | | | | | | | | |
| HDI Ranking 1999-2000 | 15 | 17 | 19 | 21 | 10 | 7 | 4 | 11 |
| HDI 1999-2000 | 0.368 | 0.336 | 0.292 | 0.278 | 0.466 | 0.501 | 0.581 | 0.465 |
| Health Index 1999-2000 | 0.521 | 0.339 | 0.506 | 0.341 | 0.562 | 0.576 | 0.681 | 0.457 |
| Income Index 1999-2000 | 0.197 | 0.152 | 0.100 | 0.127 | 0.323 | 0.417 | 0.426 | 0.431 |
| Education Index 1999-2000 | 0.385 | 0.516 | 0.271 | 0.365 | 0.512 | 0.512 | 0.636 | 0.507 |
| HDI Ranking 2007-08 | 15 | 16 | 21 | 23 | 11 | 9 | 3 | 10 |
| HDI 2007-08 | 0.473 | 0.444 | 0.367 | 0.358 | 0.527 | 0.552 | 0.652 | 0.529 |
| Health Index 2008 | 0.580 | 0.407 | 0.563 | 0.417 | 0.633 | 0.627 | 0.717 | 0.530 |
| Income Index 2007-08 | 0.287 | 0.288 | 0.127 | 0.133 | 0.371 | 0.408 | 0.491 | 0.459 |
| Education Index 2007-08 | 0.553 | 0.636 | 0.409 | 0.526 | 0.577 | 0.622 | 0.747 | 0.597 |
| Growth and Per capita income at constant prices (2011-12)# | | | | | | | | |
| GSDP 2013-14 | 7.0 | 4.9 | 5.0 | 9.8 | 7.6 | 8.2 | 7.1 | 6.2 |
| GSDP 2014-15 | 8.5 | 7.9 | 13.0 | 7.6 | 7.8 | 5.7 | 7.5 | -0.3 |
| Average GSDP 2012-13 to 2014-15 | 5.3 | 5.2 | 7.3 | 7.5 | 8.8 | 7.2 | 7.0 | 2.9 |
| Per capita income (PCY) 2013-14 | 4.9 | 3.3 | 2.6 | 8.0 | 6.1 | 7.1 | 6.6 | 4.2 |
| Per capita income (PCY) 2014-15 | 8.0 | 6.3 | 11.5 | 5.8 | 7.1 | 4.0 | 6.5 | -2.9 |
| Poverty Headcount Ratio (HCR) *** | | | | | | | | |
| 2011-12 (Rural) | 10.9 | 33.9 | 34.1 | 44.6 | 21.5 | 11.6 | 8.5 | 11.5 |
| 2011-12 (Urban) | 5.8 | 20.5 | 31.2 | 24.8 | 10.1 | 10.3 | 4.3 | 7.2 |
| 2011-12 (Total) | 9.20 | 31.9 | 33.7 | 39.9 | 16.6 | 11.2 | 8.1 | 10.4 |
| 2009-10 (Rural) | 22.8 | 39.9 | 55.3 | 56.1 | 26.7 | 18.6 | 9.1 | 8.1 |
| 2009-10 (Urban) | 17.7 | 26.1 | 39.4 | 23.8 | 17.9 | 23.0 | 12.6 | 12.8 |
| 2009-10 (Total) | 21.1 | 37.9 | 53.5 | 48.7 | 23.0 | 20.1 | 9.5 | 9.4 |
| Rural Urban Disparity ## | | | | | | | | |
| Rural Average MPCE 2009-10 (in ₹) | 1234 | 1003 | 780 | 784 | 1110 | 1510 | 1536 | 1344 |
| Rural share of food expenditure 2009-10 (%) | 58.0 | 64.4 | 64.7 | 58.2 | 57.7 | 54.0 | 51.6 | 57.8 |
| Urban Average MPCE 2009-10 (in ₹) | 2238 | 1755 | 1238 | 1647 | 1909 | 2321 | 2654 | 1759 |
| Urban share of food expenditure 2009-10 (%) | 44.8 | 52.9 | 52.9 | 43.7 | 46.2 | 43.1 | 41.5 | 51.3 |
| Rural Average MPCE 2011-12 (in ₹) | 1754 | 1219 | 1127 | 1027 | 1536 | 2176 | 2034 | 1743 |
| Rural share of food expenditure 2011-12 (%) | 51.4 | 61.3 | 59.3 | 52.7 | 54.9 | 52.1 | 47.3 | 55.3 |
| Urban Average MPCE 2011-12 (in ₹) | 2685 | 2189 | 1507 | 1868 | 2581 | 3817 | 3259 | 2485 |
| Urban share of food expenditure 2011-12 (%) | 42.3 | 47.7 | 50.5 | 42.2 | 45.2 | 39.2 | 42.4 | 47.8 |

Inter State Comparison of Selected Major States of India

| Jharkhand | Karna- taka | Kerala | Madhya Pradesh | Mahar- ashtra | Odisha | Punjab | Rajasthan | Tamil Nadu | Uttar Pradesh | Uttara- khand | West Bengal | All India |
|-----------|----------------|--------|-------------------|------------------|--------|--------|-----------|---------------|------------------|------------------|----------------|----------------|
| (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) |
| 26946 | 52851 | 31841 | 60348 | 96879 | 36805 | 24359 | 56507 | 62406 | 166198 | 8489 | 80176 | 1028737 |
| 32988 | 61095 | 33406 | 72627 | 112374 | 41974 | 27743 | 68548 | 72147 | 199812 | 10086 | 91276 | 1210855 |
| 23.4 | 17.5 | 9.4 | 24.3 | 22.7 | 16.3 | 20.1 | 28.4 | 11.7 | 25.9 | 20.4 | 17.8 | 21.5 |
| 22.4 | 15.6 | 4.9 | 20.3 | 16.0 | 14.0 | 13.9 | 21.3 | 15.6 | 20.2 | 18.8 | 13.8 | 17.7 |
| 941 | 965 | 1058 | 919 | 922 | 972 | 876 | 921 | 987 | 898 | 962 | 934 | 933 |
| 948 | 973 | 1084 | 931 | 929 | 979 | 895 | 928 | 996 | 912 | 963 | 950 | 943 |
| 910 | 950 | 974 | 927 | 896 | 953 | 870 | 893 | 921 | 869 | 871 | 952 | 906 |
| 902 | 939 | 967 | 919 | 878 | 950 | 889 | 861 | 911 | 879 | 844 | 951 | 900 |
| 23 | 12 | 2 | 20 | 6 | 22 | 5 | 14 | 8 | 18 | 16 | 13 | |
| 0.268 | 0.432 | 0.677 | 0.285 | 0.501 | 0.275 | 0.543 | 0.387 | 0.480 | 0.316 | 0.339 | 0.422 | 0.387 |
| 0.434 | 0.567 | 0.782 | 0.363 | 0.601 | 0.376 | 0.632 | 0.520 | 0.586 | 0.398 | 0.465 | 0.600 | 0.497 |
| 0.100 | 0.260 | 0.458 | 0.127 | 0.297 | 0.076 | 0.455 | 0.293 | 0.285 | 0.179 | 0.179 | 0.210 | 0.223 |
| 0.271 | 0.468 | 0.789 | 0.365 | 0.606 | 0.372 | 0.542 | 0.348 | 0.570 | 0.371 | 0.371 | 0.455 | 0.442 |
| 19 | 12 | 1 | 20 | 7 | 22 | 5 | 17 | 8 | 18 | 14 | 13 | |
| 0.376 | 0.519 | 0.790 | 0.375 | 0.572 | 0.362 | 0.605 | 0.434 | 0.570 | 0.380 | 0.490 | 0.492 | 0.467 |
| 0.500 | 0.627 | 0.817 | 0.430 | 0.650 | 0.450 | 0.667 | 0.587 | 0.637 | 0.473 | 0.530 | 0.650 | 0.563 |
| 0.142 | 0.326 | 0.629 | 0.173 | 0.351 | 0.139 | 0.495 | 0.253 | 0.355 | 0.175 | 0.302 | 0.252 | 0.271 |
| 0.485 | 0.605 | 0.924 | 0.522 | 0.715 | 0.499 | 0.654 | 0.462 | 0.719 | 0.492 | 0.638 | 0.575 | 0.568 |
| 1.6 | 10.5 | 3.9 | 3.6 | 6.2 | 8.7 | 6.3 | 6.1 | 6.9 | 6.4 | 8.2 | na | 6.5 |
| 12.5 | 7.3 | 7.3 | 5.4 | 5.8 | 6.0 | 4.9 | 6.1 | 6.9 | 6.3 | 5.0 | na | 7.2 |
| 7.4 | 8.0 | 5.9 | 6.8 | 6.2 | 6.4 | 5.5 | 5.5 | 6.2 | 5.7 | 6.8 | na | 6.4 |
| -0.9 | 9.0 | 4.1 | 3.4 | 4.9 | 6.1 | 5.2 | 4.6 | 4.0 | 4.1 | 6.0 | na | 4.8 |
| 10.9 | 6.2 | 7.4 | 3.4 | 4.1 | 4.5 | 3.3 | 4.6 | 5.8 | 4.7 | 3.0 | na | 5.8 |
| 40.8 | 24.5 | 9.1 | 35.7 | 24.2 | 35.7 | 7.7 | 16.1 | 15.8 | 30.4 | 11.6 | 22.5 | 25.7 |
| 24.8 | 15.3 | 4.9 | 21.0 | 9.1 | 17.3 | 9.2 | 10.7 | 6.5 | 26.1 | 10.5 | 14.7 | 13.7 |
| 36.9 | 20.9 | 7.1 | 31.7 | 17.4 | 32.6 | 8.3 | 14.7 | 11.3 | 29.4 | 11.3 | 19.9 | 21.9 |
| 41.6 | 26.1 | 12.0 | 42.0 | 29.5 | 39.2 | 14.6 | 26.4 | 21.2 | 39.4 | 14.9 | 28.8 | 33.8 |
| 31.1 | 19.6 | 12.1 | 22.9 | 18.3 | 25.9 | 18.1 | 19.9 | 12.8 | 31.7 | 25.2 | 22.0 | 20.9 |
| 39.1 | 23.6 | 12.0 | 36.7 | 24.5 | 37.0 | 15.9 | 24.8 | 17.1 | 37.7 | 18.0 | 26.7 | 29.8 |
| 825 | 1020 | 1835 | 903 | 1153 | 818 | 1649 | 1179 | 1160 | 899 | 1747 | 952 | 1054 |
| 60.9 | 56.5 | 45.9 | 55.8 | 54.0 | 61.9 | 48.2 | 54.8 | 54.7 | 57.9 | 45.1 | 63.4 | 57.0 |
| 1584 | 2053 | 2413 | 1666 | 2437 | 1548 | 2109 | 1663 | 1948 | 1574 | 1745 | 1965 | 1984 |
| 51.5 | 42.3 | 40.2 | 41.7 | 41.0 | 48.4 | 44.3 | 48.0 | 45.0 | 46.3 | 48.5 | 46.2 | 44.4 |
| 1006 | 1561 | 2669 | 1152 | 1619 | 1003 | 2345 | 1598 | 1693 | 1156 | 1726 | 1291 | 1430 |
| 58.4 | 51.4 | 43.0 | 52.9 | 52.4 | 57.2 | 44.1 | 50.5 | 51.5 | 53.0 | 49.6 | 58.2 | 52.9 |
| 2018 | 3026 | 3408 | 2058 | 3189 | 1941 | 2794 | 2442 | 2622 | 2051 | 2339 | 2591 | 2630 |
| 46.5 | 40.1 | 37.0 | 42.2 | 41.6 | 45.4 | 41.0 | 44.8 | 42.7 | 44.0 | 46.3 | 44.2 | 42.6 |

Contd....

Table 9.8. Socio-Economic Profiles &

| Socio-economic Indicators/Items | Andhra Pradesh | Assam | Bihar | Chhattisgarh | Gujarat | Haryana | Himachal Pradesh | Jammu & Kashmir |
|--|----------------|-------|-------|--------------|---------|---------|------------------|-----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| WPR 2015-16 (15 Years & above) @ | | | | | | | | |
| Rural (%) | 68.6 | 51.4 | 49.3 | 72.7 | 52.9 | 47.1 | 40.5 | 36.1 |
| Urban (%) | 42.9 | 45.9 | 40.8 | 45.8 | 41.9 | 39.5 | 43.1 | 38.5 |
| Total (%) | 61.6 | 50.6 | 48.4 | 67.3 | 49.0 | 44.7 | 40.8 | 36.7 |
| Unemployment Rate 2015-16 (15 Years & above)@ | | | | | | | | |
| Rural (%) | 3.3 | 3.3 | 4.2 | 0.5 | 0.6 | 2.6 | 11.2 | 7.8 |
| Urban (%) | 4.3 | 8.5 | 6.2 | 5.7 | 0.6 | 4.9 | 2.3 | 3.2 |
| Total (%) | 3.5 | 4.0 | 4.4 | 1.2 | 0.6 | 3.3 | 10.2 | 6.6 |
| Health related* | | | | | | | | |
| Male Life expectancy at birth (2010-14) | 66.3 | 62.7 | 67.8 | 63.3 | 66.6 | 66.3 | 69.3 | 70.9 |
| Female Life expectancy at birth (2010-14) | 70.8 | 65.5 | 68.4 | 66.3 | 71.0 | 71.3 | 74.1 | 74.9 |
| Total Life expectancy at birth (2010-14) | 68.5 | 63.9 | 68.1 | 64.8 | 68.7 | 68.6 | 71.6 | 72.6 |
| Male Life expectancy at birth (2011-15) | 67.1 | 63.5 | 68.5 | 63.6 | 66.9 | 66.9 | 69.1 | 71.2 |
| Female Life expectancy at birth (2011-15) | 71.2 | 66.2 | 68.3 | 66.8 | 71.6 | 71.9 | 75.2 | 76.1 |
| Total Life expectancy at birth (2011-15) | 69.0 | 64.7 | 68.4 | 65.2 | 69.1 | 69.1 | 72.0 | 73.2 |
| Infant Mortality Rates (per 1000 live births) 2014 | 39 | 49 | 42 | 43 | 35 | 36 | 32 | 34 |
| Infant Mortality Rates (per 1000 live births) 2015 | 37 | 47 | 42 | 41 | 33 | 36 | 28 | 26 |
| Birth Rate (per 1000) 2014 | 17.0 | 22.4 | 25.9 | 23.4 | 20.6 | 21.2 | 16.4 | 16.8 |
| Death Rate (per 1000) 2014 | 7.3 | 7.2 | 6.2 | 7.7 | 6.2 | 6.1 | 6.7 | 5.1 |
| Birth Rate (per 1000) 2015 | 16.8 | 22.0 | 26.3 | 23.2 | 20.4 | 20.9 | 16.3 | 16.2 |
| Death Rate (per 1000) 2015 | 7.1 | 7.1 | 6.2 | 7.5 | 6.1 | 6.1 | 6.6 | 4.9 |
| Education related \$ | | | | | | | | |
| GER (I-V Class) (2015-16) | 84.5 | 106.1 | 107.7 | 100.0 | 97.2 | 91.4 | 98.8 | 86.0 |
| GER(VI-VIII Class) (2015-16) | 81.3 | 93.1 | 107.9 | 102.3 | 95.7 | 92.4 | 104.4 | 70.2 |
| GER(IX-X Class) (2015-16) | 75.5 | 77.6 | 78.4 | 91.9 | 74.1 | 84.2 | 107.1 | 66.8 |
| Pupil-Teacher Ratio (2015-16) Primary School | 21 | 21 | 36 | 20 | 19 | 20 | 12 | 9 |
| Pupil-Teacher Ratio (2015-16) Upper Primary School | 16 | 13 | 24 | 17 | 13 | 13 | 10 | 6 |
| Pupil-Teacher Ratio (2015-16) High School | 20 | 14 | 66 | 33 | 34 | 15 | 18 | 15 |
| GER (I-V Class) (2014-15) | 88.2 | 115.0 | 101.1 | 103.1 | 98.7 | 97.6 | 99.4 | 86.0 |
| GER(VI-VIII Class) (2014-15) | 79.5 | 95.9 | 98.1 | 101.2 | 93.6 | 96.0 | 103.1 | 70.9 |
| GER(IX-X Class) (2014-15) | 72.4 | 74.8 | 69.1 | 101.8 | 74.3 | 84.3 | 115.9 | 66.3 |
| Pupil-Teacher Ratio (2014-15) Primary School | 21 | 24 | 35 | 21 | 20 | 22 | 12 | 9 |
| Pupil-Teacher Ratio (2014-15) Upper Primary School | 15 | 14 | 23 | 18 | 13 | 14 | 10 | 6 |
| Pupil-Teacher Ratio (2014-15) High School | 19 | 13 | 59 | 33 | 34 | 14 | 19 | 16 |

Source:

*: Office of Registrar General of India(RGI). Andhra Pradesh includes Telangana for health related data excluding IMR, Birth Rate & Death Rate

**: India HDR 2011 & 1999-2000

***: NITI Aayog (Planning Commission)

\$: School Education in India, U-DISE 2015-16 (Provisional)

#: CSO

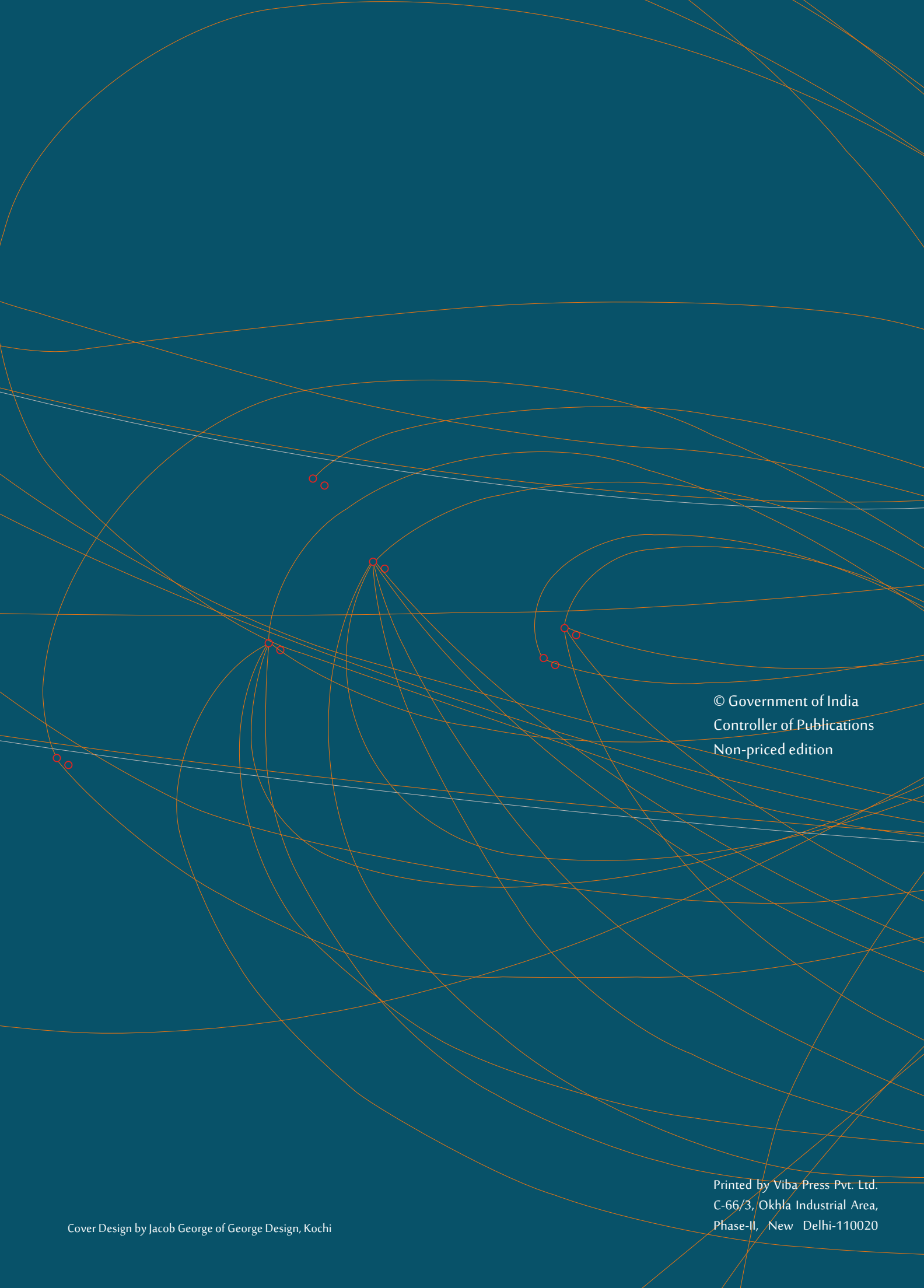
##: NSSO, Monthly per capita expenditure (MPCE) is based on mixed modified recall period

@: 5th EUS 2015-16 (Labour Bureau), WPR (Worker Participation Rate) and Employment Rate are based on Usual Principal & Subsidiary Status (UPSS)

Note:

na: not available

| Inter State Comparison of Selected Major States of India | | | | | | | | | | | | (Contd....) |
|--|----------------|--------|-------------------|------------------|--------|--------|-----------|---------------|------------------|------------------|----------------|--------------|
| Jharkhand | Karna- taka | Kerala | Madhya Pradesh | Mahar- ashtra | Odisha | Punjab | Rajasthan | Tamil Nadu | Uttar Pradesh | Uttara- khand | West Bengal | All India |
| (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) |
| 71.9 | 58.6 | 46.0 | 47.1 | 61.1 | 52.7 | 40.6 | 57.9 | 65.5 | 45.8 | 46.4 | 53.4 | 53.9 |
| 42.0 | 49.9 | 44.2 | 37.8 | 39.0 | 42.7 | 39.3 | 38.7 | 45.1 | 35.6 | 39.4 | 43.8 | 41.8 |
| 65.2 | 55.5 | 45.2 | 44.8 | 52.2 | 51.2 | 40.2 | 53.7 | 56.3 | 43.7 | 44.6 | 50.7 | 50.5 |
| 1.2 | 1.1 | 10.2 | 3.0 | 1.3 | 3.7 | 5.7 | 2.4 | 3.9 | 5.6 | 7.1 | 3.0 | 3.4 |
| 7.9 | 1.9 | 11.0 | 2.9 | 1.9 | 4.4 | 6.2 | 3.3 | 3.5 | 6.5 | 2.7 | 5.4 | 4.4 |
| 2.2 | 1.4 | 10.6 | 3.0 | 1.5 | 3.8 | 5.8 | 2.5 | 3.8 | 5.8 | 6.1 | 3.6 | 3.7 |
| 66.2 | 66.9 | 72.0 | 62.5 | 69.9 | 64.7 | 69.7 | 65.5 | 68.6 | 62.9 | 69.1 | 68.9 | 66.4 |
| 66.9 | 70.8 | 77.8 | 66.0 | 73.6 | 67.1 | 73.8 | 70.2 | 72.7 | 65.4 | 74.5 | 71.6 | 69.6 |
| 66.6 | 68.8 | 74.9 | 64.2 | 71.6 | 65.8 | 71.6 | 67.7 | 70.6 | 64.1 | 71.7 | 70.2 | 67.9 |
| 67.0 | 67.2 | 72.2 | 63.2 | 70.3 | 65.6 | 70.3 | 65.7 | 69.1 | 63.4 | 68.9 | 69.4 | 66.9 |
| 67.5 | 70.9 | 78.2 | 66.5 | 73.9 | 68.3 | 74.2 | 70.4 | 73.0 | 65.6 | 74.9 | 71.8 | 70.0 |
| 67.2 | 69.0 | 75.2 | 64.8 | 72.0 | 66.9 | 72.1 | 67.9 | 71.0 | 64.5 | 71.8 | 70.5 | 68.3 |
| 34 | 29 | 12 | 52 | 22 | 49 | 24 | 46 | 20 | 48 | 33 | 28 | 39 |
| 32 | 28 | 12 | 50 | 21 | 46 | 23 | 43 | 19 | 46 | 34 | 26 | 37 |
| 23.8 | 18.1 | 14.8 | 25.7 | 16.5 | 19.4 | 15.5 | 25.0 | 15.4 | 27.0 | 18.2 | 15.6 | 21.0 |
| 5.9 | 6.8 | 6.6 | 7.8 | 6.0 | 7.9 | 6.4 | 6.4 | 7.0 | 7.4 | 6.0 | 6.1 | 6.7 |
| 23.5 | 17.9 | 14.8 | 25.5 | 16.3 | 19.2 | 15.2 | 24.8 | 15.2 | 26.7 | 17.8 | 15.5 | 20.8 |
| 5.8 | 6.6 | 6.6 | 7.5 | 5.8 | 7.6 | 6.2 | 6.3 | 6.7 | 7.2 | 6.4 | 5.9 | 6.5 |
| 109.2 | 103.0 | 95.4 | 94.5 | 97.7 | 103.7 | 101.7 | 100.4 | 103.9 | 92.2 | 99.3 | 103.7 | 99.2 |
| 102.7 | 93.4 | 95.4 | 94.0 | 99.2 | 94.3 | 98.4 | 91.3 | 94.0 | 75.1 | 86.9 | 105.0 | 92.8 |
| 73.7 | 83.2 | 102.4 | 80.5 | 90.0 | 79.6 | 87.1 | 76.1 | 93.9 | 67.8 | 85.7 | 83.6 | 80.0 |
| 27 | 19 | 18 | 20 | 24 | 17 | 18 | 17 | 18 | 39 | 18 | 25 | 23 |
| 19 | 13 | 14 | 18 | 17 | 14 | 12 | 10 | 15 | 31 | 17 | 27 | 17 |
| 62 | 16 | 17 | 39 | 23 | 20 | 16 | 21 | 21 | 56 | 16 | 39 | 27 |
| 108.4 | 101.9 | 95.1 | 101.1 | 99.0 | 105.5 | 105.1 | 98.6 | 103.1 | 95.0 | 100.5 | 102.3 | 100.1 |
| 100.0 | 93.2 | 96.9 | 96.6 | 98.8 | 90.1 | 96.8 | 85.8 | 94.6 | 74.5 | 85.5 | 103.2 | 91.2 |
| 71.9 | 81.8 | 103.2 | 80.2 | 89.3 | 77.1 | 85.6 | 76.2 | 91.9 | 67.8 | 90.4 | 78.2 | 78.5 |
| 29 | 18 | 17 | 22 | 25 | 19 | 19 | 17 | 18 | 39 | 19 | 25 | 24 |
| 20 | 13 | 14 | 19 | 17 | 14 | 12 | 10 | 15 | 33 | 17 | 28 | 17 |
| 61 | 16 | 17 | 40 | 23 | 20 | 17 | 23 | 21 | 57 | 18 | 37 | 27 |



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