INDIA: COUNTRY CONTEXT

A. Main Features of the Economy

1. India is the world's second most populous country with a population of 1.27 billion in 2015 and the world's third largest economy in purchasing power parity (PPP) terms.[1] More than 50% of India's population is currently below the age of 25, and more than 12 million people enter the labor market every year. By 2030, India is expected to have the largest labor force in the world. At more than 1 billion people of working age, India's labor force will be larger than the combined labor forces of the United States, the eurozone, and Indonesia. India's share of the world gross domestic product (GDP) has increased substantially from an average of 4.8% during 2001–2007 to an average of 7.0% during 2014–2015 in current PPP terms.[2] Its GDP per capita using market prices and exchange rates rose to $1,584 in 2015 or $6,261 on PPP basis.[3]

2. India remains predominantly rural, with two-thirds of the population living in the countryside and more than half the labor force working in the agriculture sector. However, agriculture's share of real GDP has fallen significantly, from 25% in financial year (FY)[4] 2000 to 18% in FY2015.[5] A host of factors have inhibited productivity growth in the sector, including stressed natural resources, poor rural infrastructure, inadequate irrigation facilities and technology, limited access to credit, underdeveloped extension and marketing services, lack of storage facilities, inability to adapt output to the changing consumer preferences for agricultural products, and insufficient agricultural planning at the local level.

3. The industrial sector remains underdeveloped. Its share of GDP remained unchanged at 16% from 1986 to 1992 and it grew only slowly thereafter. It accounted for about 28% of GDP in FY2015, a small share compared with the percentages in the other BRIICS.[6] Outdated labor laws, inadequate access to land and capital, the plethora of mandatory forms, licenses, inspections, and clearances, and crucially, the dearth of skilled workers have all contributed to the slow growth of manufacturing output, in particular. There is some evidence that the broad specialization of Indian manufacturing toward skill-intensive activities may have contributed to India's sluggish industrial expansion, as sustained growth is constrained by an inelastic skilled labor supply, leading to rising wages and declining profits.[7] Arguably, the skill-intensive production trend has also prevented India from benefiting fully from its comparative advantage in labor-intensive industrial activities to increase exports.

4. The services sector—particularly distribution, transport, communication, and finance—have grown rapidly and accounted for a combined 54% of GDP in FY2015. The information technology (IT) sector is a major contributor to exports. India is an important player in the global IT industry, and is a leader in the use of IT for e-government and the delivery of services. It is home to companies that have become global industry leaders in pharmaceuticals, steel, and space technologies.

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[1] India's land mass is the seventh largest in the world, spanning 3.28 million square kilometers, or 2.3% of the globe's land area.

[2] Government of India, Ministry of Finance. 2015. *Government of India Economic Survey 2015–16*. Delhi.

[3] International Monetary Fund. 2015. *World Economic Outlook*. Washington, DC. In comparison, in 2015, the People's Republic of China's per capita GDP was $8,154 in nominal terms and $13,801 in purchasing power parity terms.

[4] Financial years in India are indicated by the year in which they start, e.g., FY2000 covers the period 1 April 2000–31 March 2001.

[5] Footnote 2. A revised national income series was introduced in 2011.

[6] Brazil, Russia, India, Indonesia, People's Republic of China, and South Africa.

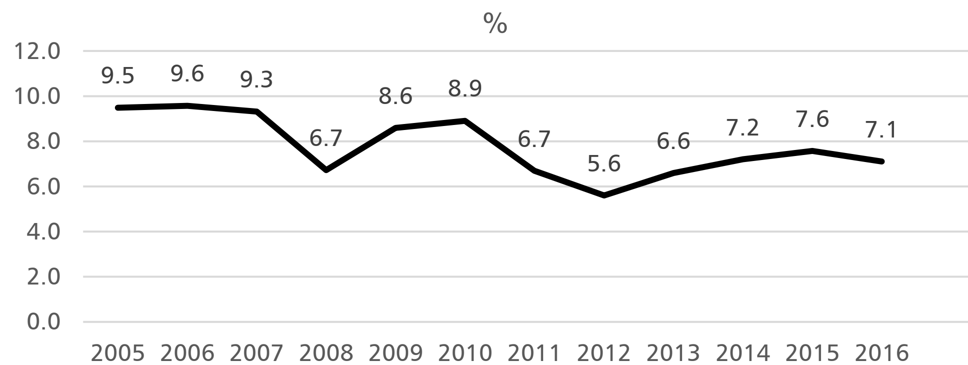
[7] The Indian manufacturing sector is more skilled-labor-intensive than those of comparable countries. A. Amirapu and A. Subramanian. 2015. Manufacturing or Services? An Indian Illustration of a Development Dilemma. *Working Paper No. 409*. Washington, DC: Center for Global Development.

B. Recent Economic and Social Developments

1. Macroeconomic Developments

5. The macroeconomic, financial, and structural policies and reforms implemented since the early 1990s have strengthened India's macroeconomic fundamentals, allowing it to weather periods of crisis. India has pursued a cautious approach to liberalizing its financial and capital sector, managing the capital account, maintaining a flexible but managed exchange rate, improving monetary and fiscal coordination, carrying out fiscal consolidation, reducing inflation and inflation expectations, and continuing structural reforms. The most recent reforms have focused on enhancing the implementation of monetary policy, improving efficiency of fiscal policy, encouraging financial inclusion and a sound financial system, creating a better environment for private sector activities, and facilitating infrastructure investment. These reforms have led to a period of strong economic expansion, with growth averaging 8% during FY2004–FY2009, despite a sharp decline in FY2008 owing to the global financial crisis (Figure 1).[8] After declining to 5.6% in FY2012, growth picked up gradually to 7.6% in FY2015, making India the fastest growing large economy in the world (Table 1).[9] Growth is estimated to have dipped to 7.1% in FY2016, as exports declined and both public and private investment slowed, and the demonetization of large rupee notes adversely impacted economic activity. GDP growth is expected to pick up again to reach 7.6% in FY2017 as domestic spending revives.[10]

Figure 1: India: Gross Domestic Product Growth, 2005−2016
(% per year)



Sources: Government of India, Ministry of Finance. 2015. *Government of India Economic Survey 2014–15 Statistical Appendix*. Delhi; Government of India, Ministry of Finance. 2016. *Government of India Economic Survey 2016–17*. Delhi.

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8 For many decades following independence, India was beset by a low rate of growth, referred to as the "Hindu rate of growth". The economy barely grew during 1967–1973. D. Rodrik and A. Subramanian. 2005. From "Hindu Growth" to Productivity Surge: The Mystery of the Indian Growth Transition. *IMF Staff Papers*. Vol. 52, No. 2. Washington, DC: IMF.

9 A new GDP series was released in January 2015 and the base year was changed to 2011-2012 from 2004-2005.

10 ADB. 2016. *Asian Development Outlook 2016 Supplement: Asia's Potential Growth*. Manila. According to GIES 2017, demonetization may raise potential growth by generating long-term benefits through reduced corruption, greater digitalization of the economy, increased flows of financial savings, and greater formalization of the economy.

Table 1: Economic Indicators, FY2011–FY2015

Item	FY2011	FY2012	FY2013	FY2014	FY2015
Growth (%)					
Real GDP (at market prices)	6.6	5.1	6.9	7.3	7.6
Prices (% change, period average)					
Consumer Prices–Combined	9.5	9.9	9.4	5.9	5.0
Saving and Investment (% of GDP)					
Gross Saving	34.7	31.5	30.8	30.2	29.8
Gross Investment	38.9	36.3	32.5	31.6	31.1
Fiscal Position (% of GDP)					
Central Government Deficit	(6.1)	(5.1)	(4.6)	(4.2)	(4.2)
General Government Deficit	(8.1)	(7.4)	(7.6)	(7.0)	(7.0)
General Government Debt	68.1	67.5	65.8	66.1	66.3
Money and credit (year-on-year % change, end-period)					
Broad Money	13.5	13.6	13.4	10.8	11.1
Credit to Private Sector	17.8	13.5	13.7	9.2	11.1
External Trade					
Merchandise Exports ($ billion)	309.8	306.6	318.6	316.5	277.9
(annual % change)	20.9	(1.0)	3.9	(0.6)	(12.2)
Merchandise Imports ($ billion)	499.5	502.2	466.2	461.5	429.8
(annual % change)	30.3	0.5	(7.2)	(1.0)	(6.9)
Terms of Trade (annual % change)	(6.1)	(0.3)	2.3	3.5	7.0
Balance of Payments ($ billion)					
Current account balance	(78.2)	(88.2)	(32.4)	(26.7)	(27.7)
(% of GDP)	(4.2)	(4.8)	(1.7)	(1.3)	(1.3)
Net Foreign Direct Investment	22.1	19.8	21.6	31.3	34.2
Net Portfolio Investment (equity and debt)	17.2	26.9	4.8	42.2	(6.8)
Overall Balance	(12.8)	3.8	15.5	61.4	22.7
External Indicators					
Gross Reserves ($ billion, end-period)	294.4	292.0	304.2	341.6	364.3
(months of imports)	6.1	6.4	6.7	7.9	8.0
External Debt ($ billion, end-period)	360.8	409.4	446.3	475.2	513.3
External Debt ($ billion, end-period)	19.6	22.3	23.8	23.2	24.0
Of Which: Short-Term Debt ($ billion end-period)	7.5	9.0	9.8	9.0	9.6
Ratio of Gross Reserves to Short-Term Debt (end-period)	2.1	1.8	1.7	1.9	1.8
Debt Service Ratio	6.0	5.9	5.9	7.5	7.1
Real Effective Exchange Rate (% change) (based on annual average level)	(3.4)	(2.3)	(2.4)	7.3	6.0
Exchange Rate (₹/$, end-period)	50.3	54.4	61.0	62.6	66.8
Memorandum Item (% of GDP)					
Fiscal Balance, Official Definition	(5.8)	(4.9)	(4.3)	(4.0)	(3.9)

( ) = negative, FY = fiscal year, GDP = gross domestic product.
Sources: Asian Development Bank. 2016. *Asian Development Outlook 2016: Asia's Potential Growth*. Manila; International Monetary Fund. 2016. *Staff Report for the 2016 Article IV Consultation*. Washington, DC.

6. High rates of economic growth have been more broadly shared than ever before across the Indian states. Under the Eleventh Five-Year Plan, 2007–2012, some of India's low-income states grew at a record pace, with Bihar (one of the poorest states) outperforming even the most advanced states, and the GDP of Madhya Pradesh and Rajasthan (both low income and highly populous states) rising faster than the India's overall GDP. Similar growth patterns have been experienced so far under the Twelfth Five Year Plan, 2012–2017. Growth in India has been accompanied by a prolonged period of high inflation driven by persistently rising food prices resulting from growing excess demand for food as income

rose and agriculture stagnated.[11] However, food policy has also played a role. Excessive buffer stock build-up since FY2007 and the lack of a proactive stock liquidation policy increased food inflation and its volatility. Consumer price inflation was reduced to 5.9% in FY2014, after hovering above 9% during 2008–2013, following monetary tightening by the Reserve Bank of India (RBI), better buffer stock management, and control of agricultural procurement prices. It declined further to an average of 5.0% in FY2015, and 4.9% in April 2016 (year on year), but it is expected to edge up again to 5.4% in FY2016 and 5.8% in FY2017 (footnote 10). In early 2015, a flexible inflation targeting regime was formally adopted with an annual consumer price inflation target band of 4% ± 2% and a medium-term inflation target of 4%. The ensuing favorable inflation figures allowed the RBI to cut the policy rate, but real interest rates remained positive.

7. Rapid growth in 2003–2007 enabled a sharp drop in the central government budget deficit to 2.5% in FY2007, lowering the combined central and state deficits to 4%.[12] The improvement in the fiscal balance had positive spillovers, including an increase in public savings, lower inflation, low nominal and real interest rates, and a sharp increase in corporate profitability and investments. However, relatively little was done during this time to widen the tax base and tax revenue stagnated. After peaking at about 12% of GDP in FY2007, the central government tax revenue declined to about 10% of GDP in FY2013, lower than in the 1980s and well below the ratios in countries with similar levels of income (footnote 2). Direct tax receipts amount to 5.7% of GDP, among the lowest in the world, and cover only about 40 million corporate and individual taxpayers.

8. The countercyclical fiscal policy responses to the global financial crisis quickly reversed the decline in the central government's fiscal deficit, which peaked at 7% of GDP in FY2008. The deficit has been on a downward trend since FY2012, owing to renewed fiscal consolidation and lower oil prices, reaching 3.8% of GDP in FY2017, which is nevertheless still above the 3% medium-term ceiling of the Fiscal Responsibility and Budget Management Act of 2003.

9. This fiscal retrenchment was achieved largely as a result of cuts in capital spending, although India was able to take advantage of the sharp decline in global oil and commodity prices in 2015 to reduce petrol and diesel subsidies from about 0.8% of GDP in 2013 to just 0.1% of GDP in 2015, and to increase excise taxes.[13] The ratio of India's public debt to GDP fell from 83.0% in 2005 to 65.0% at end-March 2015, due in large part to ongoing fiscal consolidation.[14] The public debt remains sustainable, with a favorable maturity structure and currency composition and a captive domestic investor base, allowing some room for further borrowing to finance productive expenditure.

10. The largely market-determined exchange rate system, a prudent approach to management and liberalization of the capital account and sterilized interventions, and an environment of progressive deregulation and liberalization of the real economy have led to a sustained increase in the exports of goods and services (largely software and business outsourcing). Nevertheless, the deficit in the balance of payments current account widened to almost 5.0% in 2012–2013 from an average of less than 1% of GDP during 1992–2008. The drop in oil prices, a policy-induced reduction in imports of gold, and an improvement in the terms of trade by 3.5% in FY2014 and 7.0% in FY2015, narrowed the current account deficit to 1.3% again in FY2015, which was easily financed by capital inflows leading to an increase in international reserves to $352 billion at end-December 2015 (Budget 2016–2017). Net capital flows rose from 1.8% of GDP in FY2008 to 4.3% of GDP in FY2015 but declined to 1.9% of GDP

[11] R. Anand et al. 2014. Food Inflation in India: The Role for Monetary Policy. *IMF Working Paper.* No. WP/14/178. Washington, DC: International Monetary Fund (IMF).

[12] Reserve Bank of India database on Indian Economy.

[13] The government provides major subsidies for food, fertilizer and petroleum products. Excise duties on petrol and diesel have been raised on multiple occasions since 2014.

[14] International Monetary Fund. 2016. India: *Staff Report for the 2016 Article IV Consultation*. Washington, DC.

in FY2016 and are likely to weaken further because of global uncertainties.[15] India's external debt remains low, amounting to 24.0% of GDP ($483.2 billion) at end-September 2015 and its maturity profile is favorable, with long-term debt accounting for more than 82.0% of total and short-term debt amounting to 24.6% of foreign exchange reserves.

2. Poverty and Social Developments

11. Over the last 2 decades, significant progress has been made toward many of the Millennium Development Goals (Table 2).[16] India has already achieved the first Millennium Development Goal by halving (to less than 30%) the proportion of population living on less than $1.25 a day (or even on less than $1.90 a day, the level set by the World Bank's Global Monitoring Report 2015/2016). According to the Government of India Economic Survey (GIES), 2015–2016, the incidence of poverty declined from 37.2% in FY2005 to 21.9% in FY2011 for the country as a whole, with a sharper decline in rural poverty than urban poverty. India has achieved almost universal primary education, gender parity at all levels of education, and adult literacy of 69.3% in 2011—although female literacy is significantly lower. It has made strong progress in fighting infectious diseases, such as AIDS, tuberculosis, and polio. Advances have been made toward environmental sustainability. Life expectancy has risen significantly (to 66.5 years in 2013).

12. However, India still has a very long way to go along the development path. It continues to have the largest number of poor (approximately 300 million) in the world, most of whom live in rural areas. According to the World Bank, India had 17.5% of world's population but 20.6% of the world's poorest in 2011. In this light, and given the likely trend in population growth, increasing the rate of reducing the number of poor and eradicating extreme poverty by 2030 will be a formidable task. UNDP's 2015 Human Development Index ranks India 130th among 188 countries, an improvement from 135th position in 2014 because of a rise in life expectancy and per capita income, but low in comparison to its peers. Widespread famines are rare, but chronic malnutrition remains pervasive. While maternal mortality has been reduced by 33% over 10 years, almost 20% of all maternal deaths worldwide still occur in India. Infant (under 5) mortality is about 50 per 1,000 live births for India as a whole, with that for the poorest quintile double the richest quintile. There are also deficiencies in access to safe water and sanitary facilities, with more than half of the population deprived of both (footnote 2).

13. Despite recent progress, the United Nations Development Programme's Human Development Report (2015) ranks India 130th out of 155 countries on the gender inequality index.[17] The 2014 Annual Employment-Unemployment Survey also shows that the labor force participation rate is 52.5% for all persons (54.7% for rural and 47.2% in urban areas), with participation by women significantly lower than for males in both rural and urban areas. The worker population ratio reflects a similar pattern, with women having a lower participation rate than men in both rural and urban areas. India's female labor force participation rate (FLFP) is the third lowest in South Asia and has been on declining since 2005, in contrast to developments in most other regions. At 27%, the FLFP is now substantially lower than the global average of 50% and well below the East Asia average of 63%.[18] India's gender participation gap (the difference between male and female labor force participation) is 53% (or 80% male participation minus 27% female participation), one of the widest among the G-20 countries. Owing partly to rigidities in the labor market due to strict regulations, the vast majority of the Indian workforce is informally employed, with limited or no job security and no benefits, and of those formally

[15] GIES 2016-17. The sources of the main capital flows are foreign institutional investors, who made net purchases of Indian equities and debt of about $45 billion in FY2014; (ii) net FDI flows, at about $33 billion in FY2014; and (iii) non-resident Indian deposits and overseas borrowings by banks amounting to $14 billion.

[16] The Millennium Development Goals that were in place during 2000–2015 were replaced by the Sustainable Development Goals, which include 17 goals and 169 targets to be achieved by 2030.

[17] United Nations Development Programme. 2015. *Human Development Report 2015.* New York.

[18] S. Das et al. 2015. Women Workers in India: Why So Few Among So Many? *IMF Working Paper.* No. WP/15/55. Washington, DC: IMF.

employed, women constitute only 20% (Census, 2011). In addition to factors such as social norms, education, safety, infrastructure, and gender discrimination—the lack of employment opportunities in the formal (organized) sector contributes to this trend in FLFP.[19]

Table 2: India Progress Toward the Millennium Development Goals, 1990–2014

Goal	1990	1991	1993	1995	2001	2004	2006	2009	2011	2012	2013	2014	Status
Goal 1: Eradicate extreme poverty and hunger													
Poverty headcount ratio at $1.90 a day (2011 PPP, % of population)	…	…	46.06	…	…	38.4	…	31.43	21.25	…	…	…	Poverty: Achieved.
Poverty headcount ratio at national poverty lines (% of population)	…	…	45.3	…	…	37.2	…	29.8	21.9	…	…	…	
Poverty gap at $1.90 a day (2011 PPP, %)	…	…	12.3	…	…	9.26	…	7.02	4.27	…	…	…	
Income share held by lowest 20%	…	…	9.09	…	…	8.63	…	8.54	8.20	…	…	…	
Prevalence of underweight, weight for age (% of children under 5)	…	…	…	…	…	…	43.05	…	…	…	…	…	Hunger: Off-track.
Prevalence of undernourishment (% of population)	…	23.8	22.4	21.6	17.6	21.1	20.6	16.3	15.4	15.3	15.2	…	
Goal 2: Achieve universal primary education													
School enrollment, primary (% net)	78.2	…	…	…	81.2	…	…	93.9	93.3	93.1	…	…	
Primary completion rate, total (% of relevant age group)	…	…	…	73.9	73.7	…	…	99.6	96.5	…	…	…	Moderately on-track.
Persistence to grade 5, total (% of cohort)	…	…	…	57.3	61.4	…	…	…	…	…	…	…	
Literacy rate, youth total (% of people ages 15–24)	…	61.9	…	…	76.4	…	81.1	…	86.1	…	…	…	
Goal 3: Promote gender equality													
School enrollment, primary and secondary (gross), gender parity index	…	…	0.7	0.7	0.8	…	…	1.0	1.0	1.0	…	…	
Literacy rate, youth (ages 15–24), gender parity index	…	0.7	…	…	0.8	…	0.8	…	0.9	…	…	…	On-track.
Share of women in wage employment in the nonagricultural sector (% of total nonagricultural employment)	12.7	13.0	13.7	14.4	16.8	17.9	…	19.1	…	…	…	…	
Proportion of seats held by women in national parliaments (%)	5.0	…	…	…	8.8	8.3	8.3	10.8	11.0	11.0	11.0	11.4	
Goal 4: Reduce child mortality													
Mortality rate, under-5 (per 1,000)	125.8	122.2	115.4	108.7	87.7	77.7	71.5	62.7	57.2	54.5	52.1	49.8	Moderately on-track due to the sharp decline in recent years
Mortality rate, infant (per 1,000 live births)	88.3	86.1	81.7	77.5	64.2	57.8	53.9	48.2	44.4	42.6	40.9	39.3	
Immunization, measles (% of children ages 12–23 months)	56.0	43.0	59.0	72.0	57.0	64.0	69.0	78.0	84.0	83.0	83.0	83.0	
Goal 5: Improve maternal health													
Maternal mortality ratio (modeled estimate, per	560.0	…	…	460.0	…	…	…	…	…	…	190.0	…	Off track.

[19] S. Das et al. 2015. Women Workers in India: Why So Few Among So Many? *IMF Working Paper*. No. WP/15/55. Washington, DC: IMF; Chatterjee, Murgai, and Rama. 2015. Job Opportunities along the Rural-Urban Gradation and Female Labor Force Participation in India. *Policy Research Working Paper*. No. 7412. Washington, DC: World Bank.

Goal	1990	1991	1993	1995	2001	2004	2006	2009	2011	2012	2013	2014	Status
100,000 live births)													
Births attended by skilled health staff (% of total)	…	…	34.2	…	…	…	46.6	…	…	…	…	…	
Goal 6: Combat HIV/AIDS, malaria, and other diseases													
Prevalence of HIV, female (% ages 15–24)	…	…	…	…	…	…	…	…	…	…	…	…	
Prevalence of HIV, total (% of population ages 15–49)	…	…	…	…	…	…	…	…	…	…	…	…	
Condom use, population ages 15–24, female (% of females ages 15–24)	…	…	…	…	…	…	5.6	…	…	…	…	…	
Condom use, population ages 15–24, male (% of males ages 15–24)	…	…	…	…	…	…	14.6	…	…	…	…	…	Moderately on-track.
Incidence of tuberculosis (per 100,000 people)	217.0	216.0	216.0	216.0	216.0	212.0	205.0	191.0	180.0	176.0	171.0	…	
Tuberculosis case detection rate (%, all forms)	81.0	81.0	54.0	59.0	47.0	48.0	52.0	60.0	60.0	59.0	58.0	…	
Goal 7: Ensure environmental sustainability													
CO_2 emissions (metric tons per capita)	0.79	0.83	0.88	0.96	1.12	1.20	1.29	1.62	1.66	…	…	…	
Terrestrial protected areas (% of total land area)	4.75	4.72	4.89	4.93	5.03	5.03	5.03	5.03	…	5.21	…	…	
GDP per unit of energy use (constant 2011 PPP $ per kg of oil equivalent)	4.88	4.74	4.92	5.15	6.00	6.50	7.05	7.14	7.77	7.79	…	…	On-track for water, off-track for sanitation: unclear for rest.
Improved water source (% of population with access)	70.5	71.5	73.6	75.6	81.5	84.5	86.5	89.4	91.3	92.2	93.1	94.1	
Improved sanitation facilities (% of population	16.8	16.9	18.8	20.8	26.6	29.6	31.6	34.6	36.5	37.5	38.5	39.5	
Percentage of slum households to urban households (slum reported towns)	…	…	…	…	…	..	…	…	22.17	…	…	…	
Goal 8: Develop a global partnership for development													
Debt service (public and publicly guaranteed debt and IMF only, % of exports of goods, services and primary income)	29.08	28.59	26.66	31.73	12.79	7.71	3.04	2.43	1.77	1.75	3.05	…	On-track for "make available the benefits of new tech-nologies, especially ICT."
Fixed telephone subscriptions (per 100 people)	0.58	0.66	0.87	1.25	3.64	4.16	3.57	3.11	2.69	2.50	2.32	2.13	
Mobile cellular subscriptions (per 100 people)	0.00	0.00	0.00	0.01	0.62	4.70	14.52	44.12	73.20	69.92	70.78	74.48	
Internet users (per 100 people)	0.00	…	0.00	0.03	0.66	1.98	2.81	5.12	10.07	12.58	15.10	18.00	
General Indicators													
Fertility rate, total (births per woman)	3.88	3.79	3.63	3.47	3.08	2.88	2.75	2.60	2.53	2.51	2.48	…	
Life expectancy at birth, total (years)	58.53	58.82	59.47	60.19	62.56	63.72	64.46	65.41	65.96	66.21	66.46	…	
Literacy rate, adult total (% of people ages 15 and above)	…	48.22	…	…	61.01	…	62.75	…	69.30	…	…	…	
GNI per capita, Atlas method (current $)	390	350	330	380	460	620	810	1150	1410	1500	1530	1570	

… = not available, CO_2 = carbon dioxide, ICT = information and communication technology, IMF = International Monetary Fund, PPP = purchasing power parity.

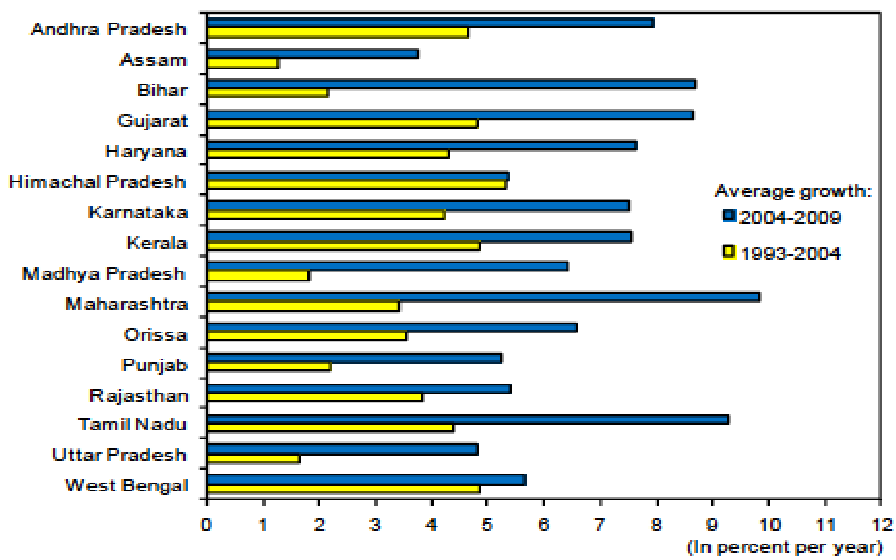
Source: World Bank. 2015. *World Development Indicators 2015*. Washington, DC; Government of India, Ministry of Statistics and Programme Implementation. Delhi.

3. Unequal Development

14. Trends in human development indexes across states have varied considerably. The best performer, Kerala, has achieved a literacy rate of 93.9% and of 12 per 1,000 live births. At the other end of the spectrum, Bihar has the lowest literacy rate of 63.8% and Madhya Pradesh the highest infant mortality rate of 67 per thousand live births. Despite witnessing impressive growth rates, Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh remained at the bottom in terms of human development indicators. Richer states were not immune from poor performances and Haryana and Punjab, two of India's richest states, performed poorly on indicators such as female literacy rates. The human development gap between the rich and poor states is narrowing according to the India human development index report 2011.

15. The period of rapid growth (2004–2009) also witnessed a rise in income inequality across states, as population and GDP growth rates have diverged, and between rural and urban areas (Figure 2 and Table 3).

Figure 2: Growth in Real Net State Domestic Product Per Capita in India



Source: R. Anand et al. 2014. India: Defining and Explaining Inclusive Growth and Poverty Reduction. *IMF Working Paper.* No. WP/14/63. Washington, DC: International Monetary Fund.

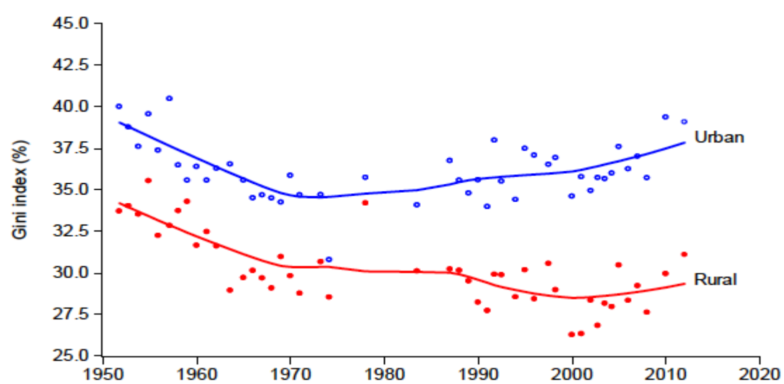
Table 3: India: Social Indicators by State
(%)

State	Poverty Ratio[a]	Literacy Rate	Female Literacy	Infant Mortality Rate (2009)
Andhra Pradesh	9.20	67.66	59.74	49
Assam	32.00	73.18	67.27	61
Bihar	33.70	63.82	53.33	52
Jharkhand	37.00	67.63	56.21	44
Gujarat	16.60	79.31	70.73	48
Haryana	11.20	76.64	66.77	51
Himachal Pradesh	8.10	83.78	76.60	45
Karnataka	20.90	75.60	68.13	41
Kerala	7.10	93.91	91.98	12
Madhya Pradesh	9.90	70.63	60.02	67
Chhattisgarh	33.90	71.04	60.59	54
Maharashtra	17.40	82.91	75.48	31
Orissa	32.60	73.45	64.36	65
Punjab	8.30	76.68	71.34	38
Rajasthan	14.70	67.06	52.66	59
Tamil Nadu	11.30	80.33	73.86	28
Uttar Pradesh	11.30	69.72	59.26	63
Uttarakhand	29.40	79.63	70.70	41
West Bengal	20.00	77.08	71.16	33

[a] Poverty rate is estimated using Suresh Tendulkar panel's recommendations in 2011–2012, which fixes the poverty line at ₹27 per day in rural areas and ₹33 in urban areas, levels at which affording two meals a day may be difficult.
Sources: Government of India, Planning Commission; Asian Development Bank database.

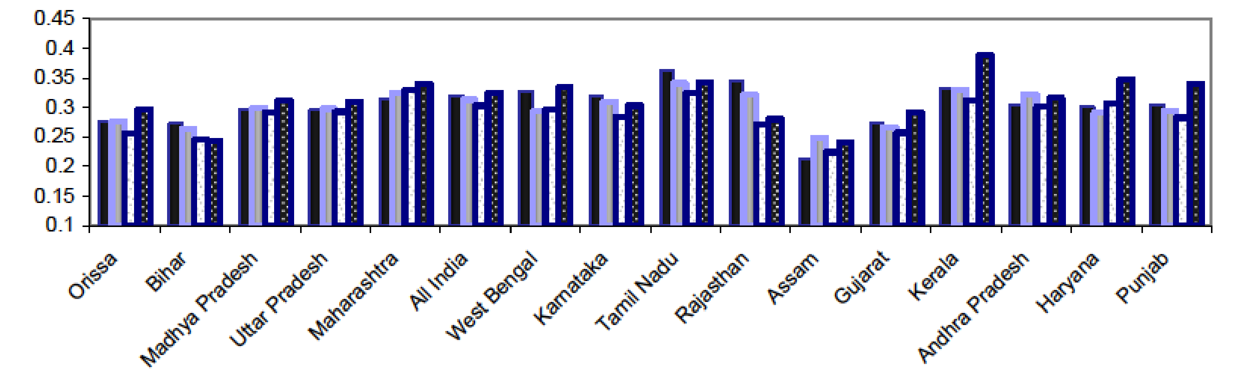
16. The India-wide Gini coefficient masks substantial variations in inequality across states, with inequality rising in most of the richer states (Figure 4). Rural inequality rose in most states from FY2004 to FY2009 and remained highest in some of the richer states, such as Haryana, Kerala, and Punjab (Figure 5). It was lowest in the poorer states of Assam, Bihar, and Rajasthan in FY2010. Urban inequality also grew in almost all states during the same period, except in Tamil Nadu and Uttar Pradesh, and was highest again in the richer states of Kerala and Maharashtra (Figure 6).

Figure 3: Trends in Urban and Rural Inequality in India



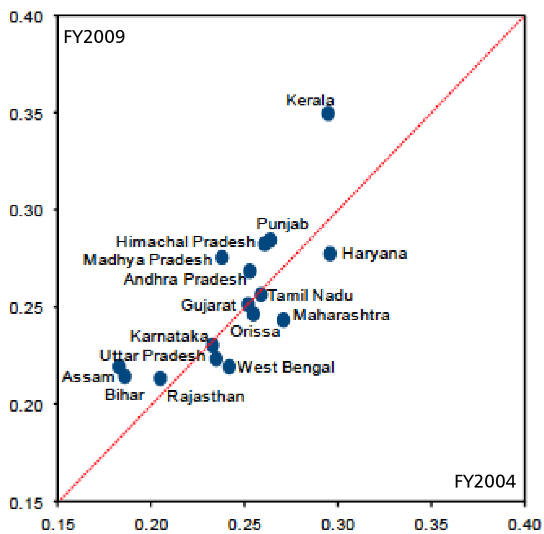
Source: G. Datt et al. 2016. Growth, Urbanization, and Poverty Reduction in India. *Policy Research Working Paper Series*. No. 7568. Washington, DC: World Bank.

Figure 4: Gini Coefficient by State in India



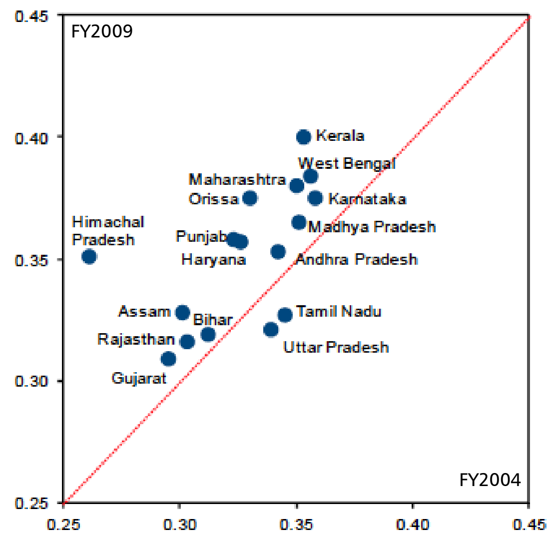
Source: P. Topalova. 2008. India: Is the Rising Tide Lifting All Boats? *IMF Working Paper*. No. WP/08/54. Washington, DC: International Monetary Fund.

Figure 5: India: Gini Coefficient Rural Households



FY = fiscal year.
Source: Government of India, Planning Commission.

Figure 6: India Gini Coefficient Urban Households



FY = fiscal year.
Source: Government of India, Planning Commission.

17. A multitude of factors explain the divergent growth and inequality rates across states. The most crucial are the initial economic and social conditions; differences in public policy, especially social expenditure patterns; and structural constraints and reforms that condition the development of the state (these also lead to disparities in poverty rates).[20] According to the Government of India Economic Survey 2015-2016 (Chapter 9), expenditure on social services has been paltry across most states, but with some variations.[21] The combined expenditure of states on education amounted to about $2 billion (₹111 billion) in FY2013, of which Tamil Nadu accounted for the highest share at about 12%, followed by Uttar Pradesh (8.7%) and Gujarat (6.7%). Expenditure per student also varied, but differently, with

[20] See also P. Topalova. 2008. India: Is the Rising Tide Lifting All Boats? *IMF Working Paper*. No. WP/08/54. Washington, DC: IMF; R. Arora. 2012. Finance and inequality: a study of Indian States. *Applied Economics*. Vol. 44, Issue 34. United Kingdom: Routledge.

[21] According to the GIES 2016-17, welfare spending in India suffers from misallocation. The districts with the most poor are the ones that suffer from the greatest shortfall of funds in social programs. The districts accounting for the poorest 40% receive 29% of the total funding.

Sikkim and Goa spending more than ₹2,000 per student, Tamil Nadu about ₹726, and Rajasthan and Madhya Pradesh as little as ₹37 and ₹40, respectively. However, the differences in educational and health outcomes have not been necessarily positively correlated with the expenditure on these services, pointing to the need to improve the effectiveness of the delivery of the services.

18. Credit availability has generated growth and helped poverty reduction, but has also influenced regional and rural–urban income inequalities, partly because it has widened the gap between small and large borrowers in the state and because women receive less than 20% of the total credit (indicating that the empowerment of women through credit from commercial banks remains a distant goal). These factors also explain why the growth rate targets proposed by the states under the Twelfth Development Plan, 2012–2017 vary substantially.[22] Of the 28 states, 13 proposed a growth rate target of 10% per year or more, with Goa proposing the highest rate at 15%, followed by Bihar at 13%, and Madhya Pradesh at 12%. The lowest rates were proposed by Punjab (6.5%), Manipur (6.6%), and Rajasthan (7.7%).

C. Economic Prospects and Policies

1. Growth and Development Prospects

19. Faster, more environmentally sustainable, and more inclusive growth is the overarching objective of the government's development strategy. Sustained rapid growth is essential to raise subsistence incomes, especially in agriculture, and to create jobs for more than 100 million who will enter the job market in the coming decade. Under the strong growth trajectory of the Twelfth Five Year Plan, GDP growth is expected to average 8.2%, with all states growing faster than under the Eleventh Five-Year Plan. The five-year plan estimates that annual growth rates of 4.0% in agriculture and 10.0% in manufacturing—both important sources of employment and livelihood—will be required to achieve the target.[23] However, sustaining economic growth and rising living standards will require shifting labor into both manufacturing and services, given the evidence that the mix of skilled and unskilled labor in manufacturing and services is becoming increasingly similar.[24]

20. Growth has been slower than envisaged under the strong growth trajectory of the Twelfth Five Year Plan, but India has the potential to achieve more rapid growth while reducing poverty. On the plus side, India's dependency ratio will fall from 55.0% of the working-age population in 2010 to 47.0% in 2030, allowing for a higher output per capita even if output per worker remains constant. With its declining dependency ratio and 12 million people entering the workforce annually, India stands to benefit exponentially from a demographic dividend, which according to GIES 2017 will peak in 2020. Household savings rates are likely to rise as the relative share of the working-age group expands, allowing for faster capital accumulation. Even in the aftermath of the global crisis, gross domestic capital formation has been resilient, never falling below 34.0% of GDP. Total factor productivity has grown by around 2.5% per year, partly reflecting the increase in average schooling of the population aged 25 years and above. Total factor productivity could increase further as markets integrate, average schooling moves toward the goal of 6 years by 2030, and workers shift from low- to high-productivity jobs. Urbanization will be another factor pushing growth, with the ratio of the

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[22] In January 2015, the Planning Commission was replaced by the NITI (National Institution for Transforming India) Aayog, which is a think-tank for central and state governments. Its key objectives are to evolve national development priorities, foster cooperative federalism, develop mechanisms to formulate plans at village level, and focus on technology upgrades.

[23] The 12th plan lists 12 challenges facing India: enhancing the capacity for growth, increasing employment, managing environment, markets for efficiency and inclusion, decentralization, empowerment and information, technology and innovation, securing the energy future for India, accelerated development of transport infrastructure, rural transformation and sustained growth of agriculture, managing urbanization, improved access to quality education, better preventive and curative health care. It also presents 25 indicators to measure the success of plan implementation.

[24] National Bureau of Economic Research Working Paper 16757 (http://www.nber.org/papers/w16757).

population living in cities expected to grow from 31.0% in 2011 to 40.0% in 2030. Combining all these trends, an average growth rate around 8.0% per year could in principle be sustained over the next 2 decades.

21. The challenge is formidable, however. The Indian economy is not immune from weak monsoons that adversely affect farm production nor to slowdowns and volatility in global demand, despite its low trade exposure to the People's Republic of China (PRC), low external debt, and considerable foreign exchange reserves ($351.5 billion as of February 2016). Reflecting India's growing globalization, the correlation between India's growth rate and that of the world has doubled from 0.20 for 1991–2002 to 0.42 (footnote 2). Thus if the world economy remains weak, India's growth will face considerable headwinds. Further, both the RBI and the International Monetary Fund (IMF) have lowered their estimates of potential growth to 6%–7% from a peak of about 8% just before the global financial crisis of 2008—which does not augur well for poverty reduction.[25] Specifically, the contribution of total factor productivity to economic growth is estimated to have declined from about 3 percentage points during the high-growth period of 2002–2007 to about 2 percentage points during 2011–2013, mainly because of regulatory and infrastructure bottlenecks. Over the longer term, growth prospects are affected by the uncertainty regarding the adverse impact of climate change on the economy, especially the poor, and the cost of the needed remedial actions.

22. If India is to achieve high rates of sustainable and inclusive growth and collect its population dividend, action is required on many fronts, as discussed below. These include implementing appropriate macroeconomic policies, in particular to rein in inflationary expectations and maintain foreign capital inflows; ensuring financial system soundness and development, strengthening the business climate, and removing factor market rigidities (land, labor, natural resources) and other key structural constraints. It will also be necessary to increase infrastructure outlays and the central government's education and health spending, which, according to the GIES, 2015–2016, stagnated at 2%–3% of GDP during FY2008–FY2014. The experience of Rajasthan and Karnataka, the two states that combined recent rapid growth with rising inclusiveness, indicates that overcoming the challenge may be feasible and that removing structural bottlenecks is indispensable for inclusive growth.

2. Macroeconomic Policy Challenges

23. With a GDP growth rate that is among the highest in the world, an inflation rate below 5%, a public debt deemed sustainable at current GDP growth rates, a low external debt, and a sizable foreign exchange buffer against possible shocks—India enjoys enviable macroeconomic conditions in the current international economic environment. Nevertheless, inflation remains a key concern given its ingrained nature and elevated inflation expectations. Recent studies have found that (i) low and stable inflation is the best way for monetary policy to support Indian growth over the medium term and (ii) a negative correlation exists between inclusive growth and inflation, owing primarily to inflation's impact on average expenditure growth.[26] Reducing inflation expectations will require a long period of low inflation. This trend may have begun, given the moderation of inflation in the first quarter of 2016 after it rose to 5.6% in December 2015, year on year. The recent introduction of a flexible inflation targeting framework will also provide a robust institutional foundation for maintaining price stability and diminishing the prospect of renewed bouts of high inflation. However, the sustainability of the government's medium-term inflation target will also depend on enhancing food supply to limit food price inflation, especially through agricultural market-based pricing. The Shanta Kumar Committee 2015 Report on Reorienting the Role and Restructuring of Food Corporation of India recommends

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[25] B. Bhoi and H. Behera. 2016. India's Potential Output Revisited. *RBI Working Paper Series*. No. WPS (DEPR) 05/2016. Mumbai: Reserve Bank of India; R. Anand et al. 2014. Potential Growth in Emerging Asia. *IMF Working Paper*. No. WP/14/2. Washington, DC: IMF; Footnote 14.

[26] K. Mohaddes and M. Raissi. 2014. Does Inflation Slow Long-run Growth in India? *IMF Working Paper*. No. WP/14/222. Washington, DC: IMF, found that an inflation rate persistently above 5.5% is detrimental to long-term economic growth. See also footnote 27.

restructuring the public distribution system and revisiting the National Food Security Act to better serve economically vulnerable households, improve operational efficiency, and implement a pro-active buffer stock liquidation policy. This is particularly important if consumer price inflation rises and real interest rates fall, further limiting the room for monetary policy to support growth.

24. Sustainably reducing inflation also requires lowering the combined budget deficit of the center and states—which could reach 6%–7% of GDP in FY2016—through expenditure reduction and revenue efforts. The recent subsidy reforms, including better targeting and reduction in fuel subsidies, have for the first time reduced the subsidy bill below 2% of GDP in FY2015.[27] However, the GIES, 2015–2016, reports that subsidies continue to involve substantial leakage and benefit mostly higher income households. Further reforms, including better targeting and direct cash transfers (helped by the unique biometric identification system for each citizen [Aadhaar], covering almost 80% of the population, and mobile phone technology), are therefore planned. The government's fiscal consolidation efforts include boosting direct tax receipts through a new tax code with smaller and streamlined deductions, better tax administration as proposed by the 2013 high-level Tax Administration Reform Commission, and implementation of a well-designed goods and services tax (GST). A required constitutional amendment to allow the imposition of the GST has been approved and enactment of legislation to enable implementation is underway at central and state levels. The target for the GST roll out is April 2017.

25. The national GST will replace a myriad of local levies and may initially be revenue-neutral, but it will help integrate markets and facilitate commercial activities.[28] The increase in the devolution of tax receipts to states from 32.0% of Union tax revenue to 42.0%, as proposed by the 14th Finance Commission in 2015, and the introduction of GST mean the center's revenue base will erode as net transfers to states increase (Figure 7)[29] while at the same time the center is expected to guarantee compensation for a limited time to states that lose revenue as a result of the introduction of GST. The increasing devolution of spending power from the center to the states and local bodies means that states could be responsible for more than half of public expenditure (about 16.0% of GDP in FY2016 compared with 12% of GDP in FY2010; Figure 8) and will have greater autonomy in spending. Thus, fiscal consolidation should involve increasing the states' efficiency and good governance in the use of public resources. The FY2016 Union budget emphasizes raising the quality of expenditure by increasing spending to upgrade India's infrastructure, public health, and education, but the medium-term fiscal deficit target of 3.0% by FY2017, subdued direct tax collection, and rising demands for large salary increases for the civil service may provide little fiscal space to support growth and poverty reduction.[30] Indeed it is estimated that the share of capital expenditure in total budgetary expenditure will decline to 12.5% in FY2016 (but rise to 13.5% in FY2017 and 15.6% in FY2018). To mitigate the adverse impact of these developments on poverty reduction efforts, higher income from consumption taxes on items that generate negative externalities—such as fuel products, alcohol, and tobacco—can be used to increased spending on two key social programs, the public distribution system subsidized ration

[27] Gasoline prices were deregulated in 2010 and diesel in 2014 and are now more in line with international prices. The formula for fixing the price of natural gas has been revised and gas prices have been raised and will be revised every 6 months. About 3 million households have given up cash subsidies under the "Give it Up" campaign, but liquefied petroleum gas subsidies have not been targeted, and remain highly regressive. Over the medium term, the expenditure on major subsidies is estimated to gradually decline to 1.4% of GDP in FY2017 and 1.3% in FY2018.

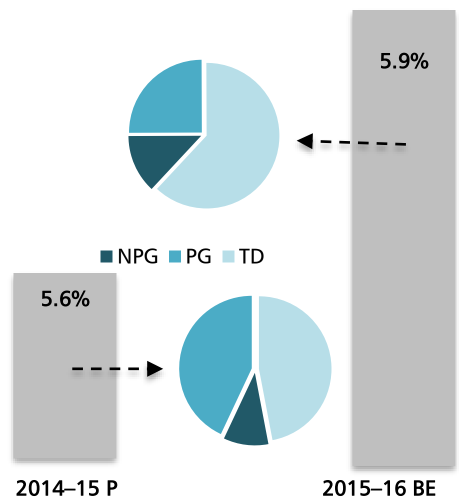
[28] India's aggregate interstate trade (54% of GDP) is smaller than China (74% of GDP) but substantially greater than provincial trade within Canada (GIES 2016-17).

[29] After statutory transfers to the states, the share of revenues collected and retained by the central government will amount to only about 9% of GDP.

[30] An increase of 23.5% in civil service salaries recommended by the Seventh Pay Commission, a national commission that reviews the salaries of the central government employees every decade and pensions, was implemented in FY2017.

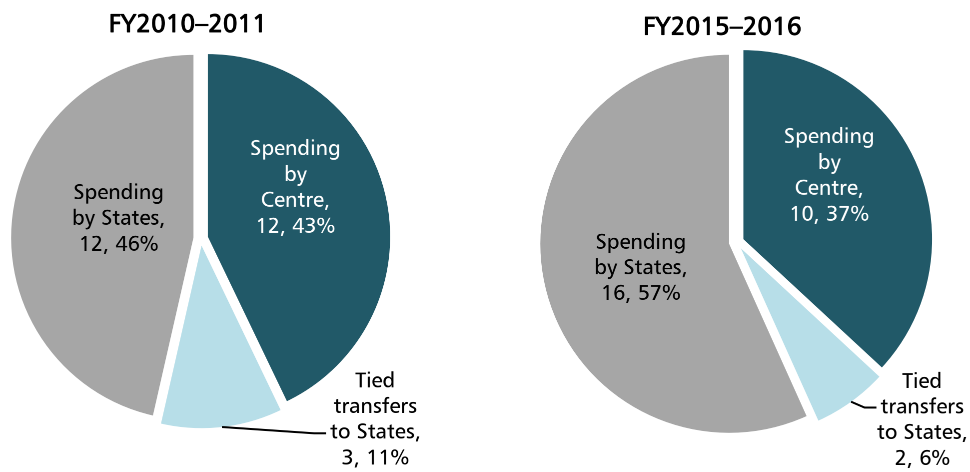
program and the Mahatma Gandhi National Rural Employment Guarantee Act public works program, both of which have been shown to have important impacts on poverty reduction.[31]

Figure 7: India: Resources Transferred to the States
(% of gross domestic product)



BE = budget estimate, NPG = non-plan grant, p = provisional, PG = plan grant, TD = tax devolution.
Source: Government of India, Ministry of Finance. 2015. *Government of India Economic Survey 2015–16*. Delhi.

Figure 8: India Central and State Government Spending
(% of gross domestic product and total expenditure)



FY = fiscal year.
Source: World Bank. 2015. *India Development Update: Fiscal Policy for Equitable Growth*. Washington, DC.

[31] A study by RBI staff found that Mahatma Gandhi National Rural Employment Guarantee Act resulted, among other things, in an increase in wages among for the female labor force in Kerala and smoother consumption during lean periods. It enhanced recipients' capacity to borrow as lenders were assured of their capacity to repay their loans (V. Dhanya. 2016. Implications of MGNREGS on Labour Market, Wages and Consumption Expenditure in Kerala. *RBI Working Paper Series*. No. WPS (DEPR) 02/2016. Mumbai: Reserve Bank of India). Another IMF working paper shows that fiscal consolidation that directs expenditures towards capital outlays could have a positive impact on growth. (C. Abdallah et al. 2015. The Quest for the Holy Grail: Efficient and Equitable Fiscal Consolidation in India. *IMF Working Paper*. No. WP/15/152. Washington, DC: IMF).

26. Growth and stability can be supported by ensuring the sustainability of the deficit in the current account of the balance of payments through an appropriate exchange rate policy. Given India's adequate foreign exchange reserve buffers, greater exchange rate flexibility would be possible and would encourage private sector entities to limit excessive risk taking, with the RBI's exchange market interventions limited to preventing disruptive movements in the exchange rate. If global financial market volatility resurfaces, exchange rate flexibility may prove an important shock absorber. A realistic exchange rate policy, combined with policies promoting factor market flexibility and skill development can raise growth in manufacturing, which together with the dynamic service sector could sustain high GDP growth rates. A sustained pick up in exports would also require arresting the rising trend in the real effective exchange rate to ensure a competitive currency, continued progress in reducing supply-side bottlenecks, and a lower cost of doing business. These conditions can also enhance the environment for attracting stable, non-debt creating capital flows, particularly foreign direct investment (FDI), especially in view of the persistent global savings glut of recent years. As an indication of this potential, gross inflows of FDI amounted to $35 billion during January–October 2015, up from $29 billion during the same period in 2014. The FDI inflows are likely to be strengthened by the government's decision to raise the ceiling on foreign investors' purchases of government bonds in January 2016, revise the rules for the issuance of rupee denominated bonds overseas (known as "masala bonds") in November 2015, relax the limits on foreign ownership in airlines and media, clarify rules for FDI in single-brand retail, and allow FDI in multi-brand retail.

3. Enhancing Growth Through Investment in Infrastructure and Lagging States

27. The Asian Development Bank (ADB)'s country partnership strategy for India, 2013–2017, aims to support the government's Twelfth plan priorities of faster, more inclusive, and more sustainable growth. To this end, ADB has focused on infrastructure development, especially in the lagging states.[32] The economic rationale for this strategy has been that India's poor infrastructure has held back growth, especially in lagging states, as it translates into higher transport costs, which, together with a cumbersome and multilayered system of taxation across states and state-specific restrictions on trade, impede commercial activity and market integration.[33] Support for this viewpoint is provided by comparing India, where growth has been sluggish until recent years, with the PRC, which has had several decades of rapid growth. The PRC's investment in infrastructure has grown exponentially since late 1990s, while India's has stagnated and been inefficient.[34]

28. The productivity of infrastructure investment is related to the role of infrastructure as a complementary factor of production. Infrastructure investment affects aggregate output directly through one-time contribution to value added but it can also provide significant positive spillovers for other sectors, raising total factor productivity by reducing transaction and other costs. A number of studies show a strong positive correlation between good physical infrastructure, economic growth, and poverty reduction.[35] Based on econometric studies, the GIES, 2014–2015, reports that increases in railway investment have positive and durable effects on levels of manufacturing and aggregate output,

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[32] The inclusion of assistance for state-level operations to more undeveloped states proposed in the ADB 2003 country strategy and program (CSP) was aligned with India's Tenth Five Year Plan and ADB's 1999 Poverty Reduction Strategy.

[33] Only 20% of the national highway network (which carries 40% of traffic) is four-lane, and one-third of the rural population lacks access to an all-weather road. Airports have inadequate capacity and poor transport connectivity. Trains move very slowly because of poor maintenance, and the entire railway system is grappling with issues of financial sustainability. Poor road safety (133,000 road fatalities recorded in 2010), is a growing concern in a country that is adding new drivers at a record pace.

[34] P. Sahoo. 2010. Infrastructure Development and Economic Growth in China. *IDE Discussion Paper.* No. 261. Chiba: Institute for Developing Economies.

[35] The RBI annual report 2011–2012 reports the long-run multiplier of capital outlays on GDP to be 2.4. An IMF working paper identifies a productivity-boosting role for public infrastructure investment in India (footnote 33, pp. 193–228). Another World Bank research working paper shows that a 10% increase in infrastructure spending raises output on average by about 1% in the long term, but the result varies by country (C. Calderon and L. Serven. 2008. Infrastructure and Economic Development in Sub-Saharan Africa. *World Bank Policy Research Working Paper*. No. 4712. Washington, DC: World Bank).

and a country assistance program evaluation 2007 concluded that a 1% change in total road length could increase GDP in 4 years by 0.19% and by 0.05% in installed electric capacity.

29. The report by the Planning Commission also indicates a strong correlation between the infrastructure development index and poverty reduction (Table 4). The states that improved their infrastructure, such as Kerala and Uttar Pradesh, also showed declines in poverty. Other states such as Maharashtra and Haryana dropped in rank despite substantial infrastructure expenditure because projects did not lead to better roads, railways, and irrigation systems.

Table 4: Rank Correlation between Infrastructure, Per Capita Income, and Poverty Ratio in India

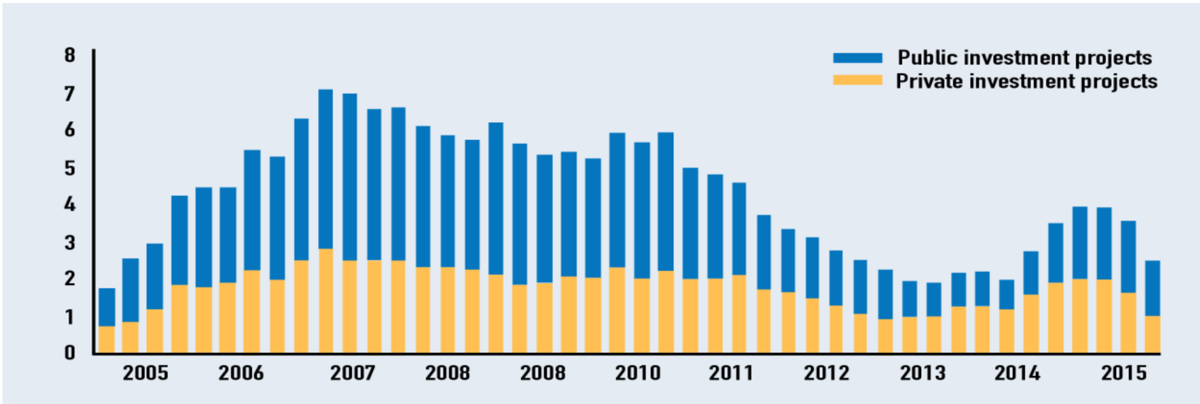
Item	1999–2000	2007–2008[a]	2008–2009[b]
Between Infra Index and PCI	0.7895	0.8623	0.8506
Between Infra Index and Poverty Ratio	(0.6386)	(0.8727)	(0.8208)
Between PCI and Poverty Ratio	(0.8193)	(0.7390)	(0.7481)

PCI = per capita income.
[a] Poverty ratio (2009–2010) and PCI of states (2007–2008).
[b] PCI (2008–2009) and poverty ratio (2009–2010).
Source: Government of India, Planning Commission. 2012. *Report of the Working Group and Development at Sub-national Level.* Delhi.

30. Several studies have also indicated that, because of the major structural changes that the Indian economy underwent during the 1980s and early 1990s, the interaction between private and public investment during the past 3 decades has changed from "crowding out" to "crowding in" (Figure 9).[36] Public investment initiatives that target infrastructure and those that result in completion tend to have a more pronounced positive impact on private investment.[37] Based on this evidence, given India's undeveloped infrastructure, the overall emphasis on improving infrastructure seems appropriate, but the level of infrastructure spending alone cannot be considered when examining the relations of infrastructure and growth, as projects with low marginal returns clearly do not contribute to growth. Empirical studies suggest that weaknesses in public investment management could lead to poor selection of projects (owing to a lack of unbiased project appraisals), cost overruns, waste and leakage of resources, and weak technical expertise. These problems are pervasive in many countries and India is not spared from them.[38]

[36] A report by Serven finds that government investment in infrastructure in India "crowds in" private investment over the long run. Interim multiplier estimates suggest that Re1 in public investment leads to an increase of about ₹1.1–₹1.25 in private investment after eight quarters. L. Serven. 1999. Does Public Capital Crowd Out Private Capital? Evidence from India. *Policy Research Working Paper.* No. WPS1613. Washington, DC: World Bank.
[37] G. Bahal et al. 2015. Crowding-Out or Crowding-In? Public and Private Investment in India. *IMF Working Paper.* No. IMF WP15/264. Washington, DC: IMF.
[38] Some studies indicate that only around half of public investment expenditure translates into effective investment that enhances the public capital stock (A. Berg and J. Ostry. 2011. Inequality and Unsustainable Growth: Two Sides of the Same Coin? *IMF Staff Discussion Note.* No. SDN11/08. Washington, DC: IMF).

Figure 9: India—Crowding In or Crowding Out?
(₹ trillion, 4-quarter moving average)



Source: International Monetary Fund (IMF). 2016. IMF Survey. Washington, DC.

31. Against this background, assessing whether ADB's emphasis on infrastructure in the lagging states is justified from a macroeconomic perspective requires several factors to be examined. The productivity of the projects and hence their impact on economic growth is clearly the most important consideration. The broad conclusions of the studies on public infrastructure investment indicate that the productivity of infrastructure investment is shaped by the efficiency of public investment and how it is financed. Efficiency will depend on whether the projects are properly designed, backed by robust cost–benefit analysis, implemented as scheduled, and sustainable. These in turn require tailoring the projects not only to the state's needs but also to its absorptive and/or implementation capacity, and ensuring good governance. These considerations are more critical going forward, as spending and delivery becomes increasingly the responsibility of states.

32. Other factors affecting the overall impact of ADB projects include, among other things, (i) whether the opportunity cost of projects and, in particular, their local cost contribution (if any) have led to a reduction of other important expenditure by the beneficiary state;[39] (ii) how the financing of the projects has affected fiscal and debt sustainability; and (iii) whether the projects have encouraged or replaced private sector activity. The analysis of these factors requires detailed study of individual projects—to gauge their cost and benefits and determine their spillovers and multiplier effects on the value added of other activities and variables (using input–output or macroeconomic simulation models).

33. The intention of the government to scale up public infrastructure spending, as outlined in the FY2016 Union budget, and to prioritize investment in irrigation, roads, and railways (where the productivity of expenditure is estimated to be the highest), has implications for the productivity of all projects, including those financed by ADB. While the share of ADB in total infrastructure spending of India may be negligible, the large government outlays may stretch the absorptive capacity of the country as a whole, potentially reducing the productivity of ADB investments.

34. ADB's overall lending volumes could be linked to fiscal discipline at the central and local government levels and to progress in structural reforms. New lending could be concentrated on reforming states, supported by an assistance strategy agreed with the state government, while ADB maintains a strong policy dialogue with the center. Similarly, sectoral lending volumes should be linked to agreements on sector-specific policies and institutional frameworks. This strategy would become

[39] In the case of projects financed by development partners, the majority of the local cost is financed by the central government.

more effective as labor mobility across states improves. Indeed, when a high level of labor mobility is assured, resources should be channeled to states where rates of returns are higher, rather than to those where the infrastructure needs are higher, if these two conditions diverge.

35. Apart from efficiency, the main issues concern the best way of financing infrastructure investments. The Twelfth plan has projected an investment of ₹55.75 trillion ($836.40 billion) in infrastructure during 2012–2017—more than twice that achieved during the Eleventh plan period. The plan assumes that 48% of the investment will be financed by the private sector, mainly through public–private partnerships (PPPs), compared with 36.6% in the Eleventh plan and 22.0% in the Tenth plan).[40] Even if this level of private sector involvement is achieved and measures noted earlier to expand the fiscal space are implemented, budgetary resources alone will not be adequate to finance the remaining 52.0%. The infrastructure financing gap is enormous. The 2016–2017 budget has allocated ₹3.18 trillion for infrastructure finance, compared with the Twelfth plan's infrastructure expenditure of ₹11.00 trillion per year. India is well positioned to access domestic and external financial markets, as the risks to medium-term debt sustainability are not high since the public debt to GDP ratio (currently about 67%) is likely to be on a downward path in future, especially if rapid economic growth and a declining primary fiscal deficit can be maintained. The risk is further mitigated by the current low level and favorable profile of external debt (mostly from official creditors), manageable level of contingent liability shocks, and adequate international reserves.[41] Evidence from advanced economies suggests public investment that is financed by issuing debt has larger output effects than investment financed by raising taxes or by cutting other spending. However, excessive borrowing that imperils debt sustainability or crowds out the private sector needs to be avoided.

36. PPP arrangements have been an important source of infrastructure financing in India.[42] A typical PPP takes the form of a design-build-finance-operate scheme, whereby the government specifies the services it wants the private sector to deliver and the private partner designs, finances, and builds a dedicated asset for that purpose, and subsequently operates the asset, providing the services deriving from it for a specified period. PPP financing is often provided via special purpose vehicles, typically a consortium of banks and other financial institutions, set up to combine and coordinate the use of their capital and expertise. Whether or not PPP arrangements have been successful on the whole is open to debate. A number of the 1,200 projects implemented through PPPs remain unfinished or under litigation. According to the GIES, 2014–2015, the value of the projects, mostly in infrastructure, that were stalled at the end of December 2014 stood at ₹8.8 trillion ($132 billion, 7.0% of GDP). These problems may have contributed to a drop in gross fixed capital formation from 35.0% of GDP at current market prices in FY2011 to 29.7% in FY2013. GIES, 2014–2015, reports that infrastructure investment has slowed, with a likely shortfall of 30.0% in investment under the Twelfth plan.

37. Numerous institutional issues have led to these problems, including regulatory uncertainties, the government's unfamiliarity with negotiating and managing long-term projects (most government spending is short- to medium-term), and inadequate attention to the allocation of rights and risks

[40] The total expenditure envelope of the 12th plan is R80.5 trillion (of which expenditure by the center is R43.3 trillion and expenditure by states is ₹37.2 trillion). This implies an increase in center outlays from 5.96% of GDP realized under 11th plan to 6.35% under the 12th plan and in states' outlays from 5.01% of GDP to 5.45% of GDP (12th plan document, p. 314).

[41] According to the GIES, 2015–2016, the total outstanding liabilities of the central government amounted to 49.6% of GDP, comprising 39.2% internal plus external debt and 10.3% other liabilities (such as small savings and provident funds). Contingent liabilities shocks include the central government having to bear the full cost of public sector banks' recapitalization, and state governments having to assume the debt of the electricity distribution companies. Public–private partnership arrangements also create contingent liabilities, such as annuities, termination payments, or the need to finish a desired program after an investor goes bankrupt.

[42] India has the largest PPP program in the world. According to the 2015 Infrascope report of The Economist Intelligence Unit, "Evaluating the Environment for PPPs in Asia-Pacific 2014," India ranks first in the world in "operational maturity" for PPP projects, third for subnational PPP activity and fifth overall in terms of having an ideal environment for PPP projects.

among the partners at the outset.[43] Insufficient due diligence led to bids being accepted without adequate consideration of the bidder's overall financial health, government clearance delays, inadequate project implementation capacity, and a weak dispute resolution process. In response to these issues, the government is considering the recommendations of a 2015 report by the Kelkar Committee on improving PPP arrangements.[44] The report recognizes that efficiency gains are greatest when private parties assume the risks that they can manage better than the public sector. It notes that, as the government's reputation for honoring past PPPs erodes, attracting future private partners becomes more difficult. It recommends approaches to resolving legacy issues, properly identifying and allocating risks among stakeholders, strengthening PPP-related policy and governance and institutional capacity, and revitalizing contractual processes. It highlights the need to improve operating procedures at the state level regarding land acquisition, environmental clearances, power purchase agreements, and toll revenue collection. As a step toward implementing the report's recommendations, a bill on insolvency and bankruptcy (the Public Contract Bill 2015) was presented to Parliament in December 2015. This includes a legal framework for impartial, time-bound, and transparent dispute resolution and renegotiations of PPP projects. Currently, disputes are governed only by the renegotiation clauses and other mechanisms embedded in concession agreements. The lack of uniformity and clarity of these documents has in many instances caused disputes to drag on for years. Financial support to make PPP infrastructure projects commercially viable were also introduced. These include a viability gap funding scheme—whereby the central government provides a grant of up to 20% of the capital costs for a PPP project—and enhanced access to the India Infrastructure Project Development Fund for a pipeline of bankable PPP projects. Expediting PPPs can also take the form of asset recycling by the government, whereby partially or fully completed projects can be sold to the private sector as some investors may have a preference for brownfield rather than greenfield investments. These efforts should enhance the private sector's participation in development projects, but interest in PPPs is unlikely to grow while the corporate sector suffers from a high level of stressed debt. In addition, price subsidies for utility services could serve as a disincentive for PPPs, unless the financial implications of these subsidies for build and operate arrangements are fully reflected in the contracts.

38. To encourage infrastructure PPPs, the government has established several institutions the most prominent of which is the India Infrastructure Finance Company Limited (IIFCL), in operation since 2006. The IIFCL is designed to facilitate the provision of stable, long-term, predictable, mostly private sector finance for infrastructure. It raises funds through the issuance of government-guaranteed bonds, but its main sources of funds are in the form of lines of credit from ADB and the World Bank. It can participate in syndicated loans for PPP projects, contributing up to 20% of resources. Increasingly, the IIFCL is providing "take-out finance" which involves taking over the outstanding amount of the banks' loans to the developer after the completion of the project. Its disbursements have been small relative to the enormous need for infrastructure finance, amounting to $5 billion since 2006 out of total commitments of $17 billion.

39. The company has followed a conservative and commercial approach to lending, reducing credit risk by participating in viable projects, and making sure that the concession is profitable before providing take-out finance. Its profitability has been high (net profits amounting to almost $100 million in FY2014, or 20% of disbursed loans) and it has used derivatives and other financial instruments to hedge against foreign exchange risk on its external borrowing (arranged through its subsidiary in the United Kingdom).

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[43] Risks include construction risk (design problems, building cost overruns, and project delays), financial risk related to changes in interest rates, exchange rates, and other factors affecting financing costs, performance risk related to the continuity and quality of service provision, demand risk related to the ongoing need for services, and residual value risk related to the future market price of an asset. Investment in infrastructure is of a high-risk, long-term, capital intensive nature, reflected in the creation of durable assets with high sunk costs. Such investment decisions can be subject to a time-inconsistency problem.

[44] Government of India, Department of Economic Affairs, Ministry of Finance. 2015. *Report of the Committee on Revisiting and Revitalizing Public Private Partnership Model of Infrastructure*. Delhi.

40. To some extent, the IIFCL has achieved its objective of supporting private sector investment and it has provided an avenue for ADB to finance private sector projects. It has supported both greenfield and brownfield projects; issued long-term infrastructure bonds, including tax free bonds for projects in the rail, road, and irrigation sectors; and provided guarantees and credit enhancements for bonds issued by private sector. These activities have, to a small degree, helped to reduce market failures in capital market, enhance the liquidity of the bond market, and ease investors' access to the market.[45]

41. The operations of the IIFCL were expanded by the establishment of Infrastructure Debt Funds (IDFs) and a National Investment and Infrastructure Fund under the 2016–2017 budget law. The National Investment and Infrastructure Fund will receive an annual allocation of ₹200 billion ($3 billion) from the government budget to be used for raising debt and investing in infrastructure finance companies. Besides augmenting debt resources for financing infrastructure, the IDFs would refinance PPP projects after their construction is completed and operations have stabilized. By refinancing bank loans of existing projects, the IDFs are expected to take over a significant volume of the existing bank debt, thereby releasing an equivalent volume of fresh lending for infrastructure projects.

4. Enabling Private Sector Development

42. The need to encourage private sector participation in development projects highlights the importance of a healthy investment climate that creates opportunities for domestic and foreign investors. Efforts to improve the business climate have gathered momentum under the current government. The Prime Minister has set a target of dramatically improving India's ranking in the World Bank's Doing Business survey, and has launched "Make in India," "Make for India," "Startup India," "Skill India," and "Digital India" campaigns to attract investment. The government intends to introduce regulatory reforms and set up dedicated commercial courts for the quick resolution of commercial disputes. Also, cooperative federalism is allowing some states to introduce major reforms to ease labor market restrictions, including by removing obstacles to overtime and night shifts by women. However, other legal and institutional barriers continue to hinder the entry of women into the labor market.

43. Corporate governance has been enhanced with the introduction of the 2010 mandatory guidelines for central public sector enterprises, and the public financial management is being strengthened by a central plan scheme monitoring system—a real-time tracking system for expenditure—and by electronic transfer of funds for social protection programs. The government has introduced a national public procurement bill, and e-procurement is being rolled out aggressively across India. Accountability institutions have become more assertive in uncovering instances of fraud and corruption. A performance management system has also been instituted under which each ministry or department has to prepare and disclose a results framework. The system has already been replicated in six states.

44. To enhance private sector activity, these efforts need to be complemented by further structural reforms, especially to provide reliable and affordable sources of energy, transportation, and communication. To this end, the government is planning a debt restructuring plan for utility companies, involving the takeover of most of their debt by state governments.[46] This could result in

[45] In an effort to deepen the bond market, the government is setting up a Public Debt Management Agency which will bring India's external borrowings and domestic debt under one roof. A gold monetization scheme involving payment of interest on gold holdings and issuance of sovereign gold bonds should also help the deepening of the bond market and investment financing.

[46] Under the Ujwal Discom Assurance Yojana scheme, state electricity distribution companies will enter a tripartite agreement with the Ministry of Power and relevant state governments, and 75% of their outstanding debt (as of September 2015) will be taken up by states in a staggered manner over the next 2 years.

more reliable electricity provision in some states as the high debt burden (caused by low electricity tariffs) has undermined the ability of utility providers to expand investment.

45. Realizing the importance of the micro, small and medium-sized enterprises sector, several schemes and programs have been launched to facilitate their operations, provide access to technology and credit, and promote start-ups.[47] These enterprises contribute 37.5% of the country's GDP and employ 80.5 million people in 36 million units spread across the country. The sector has huge potential for helping address structural problems of unemployment, regional imbalances, and unequal distribution of national income and wealth across the country.

46. These efforts to develop the private sector will help economic activity in the poorer states, although the income inequality gap between states may persist. The integration of markets and the ease of inter-state migration, which are expected from both regulatory and structural reforms and the development of infrastructure, particularly in transport and communications, should help to reduce the this income gap. The government's urban development strategy will also be an important instrument for reducing income gaps across states as urbanization can improve economic efficiency and create employment.

5. Financial Institutions and Inclusion

47. A sound and thriving financial system will expand the availability of finance for development projects and enhance financial inclusion. Although the capital adequacy ratio of banks in India averages about 12.7%, well above the 9.0% regulatory requirement, heightened corporate vulnerabilities have led to a substantial deterioration of banks' asset quality as corporate credit accounts for over 80.0% of banks' lending portfolios. The share of public sector banks' stressed assets (comprising nonperforming and structured loans) in total advances increased to 13.5% in March 2015 from 11.9 % a year earlier. More than 41.0% of the stressed loans are in the infrastructure and iron and steel sectors, which have been affected adversely by domestic supply-side issues and export headwinds. The RBI has introduced measures to deal with the stressed asset problem focusing on rescheduling amortizations, to give firms more time to repay, and on solvency issues. However, the poor and deteriorating asset quality of public sector banks, which account for three-fourths of domestic credit, is the biggest challenge facing the financial sector and acts as a drag on credit growth, especially since, under the Twelfth plan, 42% of all debt financing, including 21.0% of financing for infrastructure, is expected to come from banks. The impaired financial position of the public sector banks and some large corporations shows the need to recapitalize the public sector banks.[48] Strengthening their capital base is also essential if they are to comply with Basel III capital requirements by 2019 as planned.

48. To reduce these vulnerabilities, the authorities are also addressing the underlying challenges in the infrastructure sector, especially power and roads, while further strengthening debt restructuring and bankruptcy procedures and risk-based regulations, and monitoring companies' unhedged foreign exchange exposures. The government also intends to dilute its share in public sector banks to 52%, which should help raise efficiency and improve governance at public banks. The reform of the financial system should also include the alleviation of a statutory liquidity ratio requirement that forces banks to hold government securities, and a priority sector lending requirement that forces them to lend to priority, sometime inefficient, activities. This requirement also inhibits the development of a government securities market, which remains relatively underdeveloped with little secondary market

[47] The schemes include the Prime Minister's Employment Generation Program (PMEGP), Credit Guarantee Trust Fund for Micro and Small Enterprises, Credit Linked Capital Subsidy Scheme for Technology Upgradation, Fund for Regeneration of Traditional Industries, and Micro and Small Enterprises- Cluster Development Program for the establishment of new enterprises and development of existing ones.

[48] The estimated capital requirement of public sector banks up to FY2018 is likely to be about R1800 billion, of which the R700 billion is likely to be provided by the government (footnote 2).

trading. A developed government securities market is essential for the deepening of the bond market to serve as a vehicle for raising long-term development finance.

49. Access to financial services and credit is a crucial component of financial inclusion and a key link between economic opportunity and economic outcome. As fiscal consolidation progresses and the deficit continues to shrink, Indian banks can reorient their balance sheets away from holding government securities toward more lending to the private sector for investment and growth. India is also making progress in creating an enabling financial environment. Availability of microfinance is growing, including through ADB support, with increased direct lending to qualified women entrepreneurs. The Prime Minister's *Pradhan Mantri Jan-Dhan Yojana* scheme, launched in August 2014, envisages universal access to banking services by 2018, which is an ambitious goal, given that, according to the Twelfth Five Year Plan document, more than 40% of households had no access to banking services in 2013. Financial services had been extended to more than 198 million previously unbanked individuals by end 2015 from 54 million in September 2014, but some 200 million people still do not have access to banking services. To encourage the use of bank accounts, there has been a gradual channeling of add-on services, including debit cards and direct benefit transfers and cash payments for social programs, as well as bundling of life and accident insurance, and pension products.[49] Direct transfers to targeted beneficiaries will help to improve public expenditure management. To build on the financial inclusion steps already taken, in April 2015, a new institution, *Pradhan Mantri Mudra Yojana*, was set up and supported by a Credit Guarantee Fund to develop financing outlets for micro non-corporate units.

D. Climate Change and the Economy

50. Both India's medium- to long-term economic prospects and the government's financial resource requirements are subject to the major uncertainty of climate developments and the imperative of reducing carbon emissions. The Indian economy is highly vulnerable to climate change owing the high levels of poverty, high population density, heavy reliance on natural resources and climate sensitive sectors such as agriculture, and an environment already under stress.[50] The climate impacts India faces include increased frequency and magnitude of extreme weather events resulting in flooding and landslides; damage to property, infrastructure, and agricultural crops; and reduction of hydropower generation. The coastal areas of India are at high risk from a projected rise in sea level that may cause displacement of human settlements, saltwater intrusion, loss of agricultural land and wetlands, and devastation of tourism and fisheries industries. More immediately, greenhouse gas emissions are projected to grow over the next decade. India's emissions relative to GDP are on par with the global average, and its per capita emissions are among the lowest in the world, but, due to the size of its economy, India is the third largest emitter in the world, albeit far behind the first two, accounting for 5.80% of the world total. Urban air pollution, particularly in Delhi, is a consequence of uncontrolled emissions. At the same time, India's demand for energy far outstrips the domestic supply and foreign sources are costly. According to a World Bank study, the annual cost of environmental degradation in India—e.g., soil erosion, water and air pollution, growing water scarcity, and the declining quality of forests—amounts to 5.70% of 2013 GDP.[51] India's long-term growth is predicated on its ability to

[49] *Pradhan Mantri Jan-Dhan Yojana* is backed by the unique biometric identification of each citizen (Aadhaar), and is facilitated by fixed-point agents—"Bank Mitra"—which execute financial transactions on the part of banks. India's Postal network, with 154,000 points of presence across villages, is expected to act as a key agent for banks. Women are explicitly targeted under the scheme, with overdraft facilities and other benefits provided on a priority basis to the wife in each family.

[50] An FEEM working paper estimates that growth could be almost 4 percentage points lower than potential for a 1.9ºC increase in temperature by 2050. Kolkata is among the six fastest-growing cities worldwide that are classified to be at extreme risk owing to climate change, and Mumbai, Delhi, and Chennai are among the ten classified as high risk. F. Bosello et al. 2012. Assessing the Economic Impacts of Climate Change. An Updated CGE Point of View. *FEEM Working Paper*. No. 2. Venice: Fondazione Eni Enrico Mattei.

[51] World Bank. 2013. *Diagnostic Assessment of Select Environmental Challenges in India, Economic Growth and Environmental Sustainability: What Are the Tradeoffs?* Washington, DC.

address these environmental problems. In particular, to keep emissions from increasing rapidly and to provide adequate energy for the economy, India will have to maximize the use of clean energy and improve energy efficiency. The World Bank study estimates that the required strategies to address these issues are unlikely to cost more than 0.04% in terms of foregone annual GDP growth rate.

51. India launched a National Action Plan on Climate Change in 2008 and has made tangible progress on adaptation and mitigation strategies at national and state levels, with a voluntary goal of reducing the emission intensity of GDP by 25% from its 2005 level by 2020 and by 35% by 2030.[52] The action plan recognizes that environmental sustainability is no longer a peripheral issue and must be addressed directly. The impact on the economy of climate change and the strategies that respond to it goes beyond fiscal costs. Climate change and economic development are linked; as the economy diversifies, it becomes less reliant on sectors such as agriculture that are more vulnerable to climate change. Better education, health care, and infrastructure facilitate adaptation. Efficient water use, climate-resilient housing, and robust crops facilitate development. However, extreme weather conditions can severely reduce output, increasing fiscal spending in the short term, generating borrowing needs for both public and private sectors, and eroding their capacity for debt repayment. The macroeconomic shock from natural disasters, including balance of payment pressures and currency depreciations, could also intensify external debt vulnerabilities. Debt sustainability can also be adversely affected as long-term growth potential is reduced.

52. Climate change requirements will make substantial claims on budgetary resources over the medium and long term, even if the 2015 Paris Agreement's binding obligation on developed countries to provide financial resources to developing countries for both mitigation and adaptation is respected. Estimates of the cost of mitigation activities until 2030 range from about $834.0 billion (at 2011 prices) to $3.5 trillion (at 2014–2015 prices), while adaptation actions will require another $206.0 billion (at 2014–2015 prices) between 2015 and 2030. An ADB study on assessing the costs of climate change adaptation in South Asia indicates that the approximate adaptation cost for India in the energy sector alone would be about $7.7 billion by 2030s.[53] Implementing a carbon tax could help to mitigate the claim on public resources and is an important component of government's climate change policy and revenue generation. The tax increases prices for fossil fuels, electricity, etc. with one instrument and strikes a balance across the entire range of mitigation opportunities. It can raise significant revenues, creating space to reduce other taxes that create economic distortions.[54]

53. Responding to climate change uncertainty requires the government to develop innovative policies and procedures that reconcile the need for growth with environmental concerns. As a first step, the 14th Finance Commission has proposed that forest cover be a factor in determining states' share of tax revenues. Development partners including ADB can play a role in developing and supporting such policies. A binding medium-term fiscal framework is needed to incorporate all climate-related elements and to ensure that climate change policies are reconciled with growth and poverty objectives. Development partners can assist the government by providing policy advice to integrate the implications of climate-related policies into a binding macroeconomic framework, ensure that fiscal and monetary strategies build and maintain adequate buffers to enable a response to climate shocks,

[52] Adaptation measures being implemented include development of crops for arid areas; water harvesting techniques and recycling; coastal protection infrastructure; cyclone shelters; diversification of cropping schemes; early warning systems for extreme events; crop insurance schemes for farmers; and surveillance and control of vector borne diseases. Key mitigation measures include (i) expanding renewable energy capacity fivefold from 2014 to 2022 to provide energy access to nearly 300 million households and lower carbon dioxide (CO_2) emissions; (ii) introducing and increasing the clean energy process on coal; (iii) promoting climate-resilient agriculture systems and smart cities; and (iv) developing domestic carbon markets.

[53] M. Ahmed and S. Suphachalasai. 2014. *Assessing the Costs of Climate Change and Adaptation in South Asia.* Manila: ADB.

[54] According to the 2016–2017 budget, revenues generated by a *de facto* carbon tax on most petroleum products compares favorably with international norms. GIES, 2015–2016, reports that the duties levied on petroleum products are equivalent to a carbon tax of $140 a ton for petrol and $64 for diesel. These are substantially above the global norm of $25 to $35 a ton. This level of taxation is expected to lower CO_2 discharge by 11 million ton per year, or 0.6% of India's annual emissions.

and maintain consistency between debt sustainability and the infrastructure spending needed to enhance natural disaster and climate change resilience.

E. India's Role in Global Development Cooperation

54. India is emerging as a key player in development cooperation.[55] Befitting from its own long experience as a recipient of aid, India has vigorously pursued a policy of allying itself effectively with development assistance programs of partner countries in South Asia and beyond, including Africa and Latin America.[56] India's development cooperation also takes the form of its participation in many multilateral and regional fora, such as the Group of 20, Shanghai Cooperation Organization, South Asian Association for Regional Cooperation, and Association of Southeast Asian Nations. India is the lead partner for the East Coast Economic Corridor, which will allow a connection to global production networks and value chains in Association of Southeast Asian Nations (ASEAN) countries, and a founding member of both the BRICS bank established in 2014, and the Asia Infrastructure Investment Bank established in 2015.

55. India has favored project-specific aid, and, in contrast to the PRC, which has provided aid for transportation and power facilities, it has mainly provided capacity-building programs, including Indian Technical and Economic Corporation, the Special Commonwealth Assistance for Africa Program, and, most recently, the Pan-African e-Network in support of its cooperation agenda. India has not attached specific conditions to its aid, but much of its financial assistance has been in the forms of tied aid (a minimum of 75% of the contract goods and services must come from Indian sources, with some exceptions).[57] Although some grants are offered to support social services, chiefly in South Asian countries, an estimated 80% of its financial aid takes the form of lines of credit. Under the Indian Development and Economic Assistance Scheme, India's Export-Import (Exim) Bank extends lines of credit to friendly countries with the government subsidizing the interest cost.[58] The scheme is aimed at boosting India's exports, opening new markets for Indian companies, establishing India's reputation for high-quality goods and services, and increasing India's political influence and goodwill internationally. However, India's domestic requirements for natural resources, food, and energy security are increasingly conditioning its aid; for example, through the Indian Development and Economic Assistance Scheme's focus on Africa. The scheme has faced challenges with selection, procurement, and monitoring procedures but it has proved a safe financing option for Indian exporters, especially small and medium enterprises, and has strengthened Indian development partnerships.

56. Continuing its development cooperation efforts in the current international context creates opportunities for India, as demand for its financial support and technical expertise are growing, but it also poses challenges. Ensuring the effectiveness of its financial and technical support requires qualified staff to approve and monitor projects, and enhanced cooperation with other major donor countries and institutions, such as the Organisation for Economic Co-operation and Development. However, an important challenge for the Indian policy makers will be to galvanize public support for incurring substantial foreign-aid-related expenditure, given the need for resources to finance the daunting domestic tasks that lie ahead.

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[55] S. Chaturvedi and A. Mulakala. 2016. *India's Approach to Development Cooperation*. New York: Routledge.

[56] The latest examples are the Bangladesh–Bhutan–India–Nepal, Motor Vehicle Agreement, and negotiations on the India–Myanmar–Thailand Highway, all of which have been supported by the ADB. The recent cooperation efforts include the creation of an International Solar Alliance to boost solar energy in developing countries.

[57] India's financial aid, measured in Indian rupees registered a five-fold increase during 1990–2010 and then quadrupled over the next 5 years to 2015 (footnote 53).

[58] Outstanding Exim letters of credit were estimated to exceed $40.1 billion in FY2014 on purchasing power parity basis and benefit over 66 countries (footnote 53).