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BASIC STATISTICS OF INDIA, 2013

(Numbers in parentheses refer to the OECD average)[a]

LAND, PEOPLE AND ELECTORAL CYCLE

Population (million)	1 252		Population density per km²	421.1	(34.7)
Under 15 (%)	29.1	(18.3)	Life expectancy (years, 2012)	66.2	(80.2)
Over 65 (%)	17.9	(15.7)	Men	64.5	(77.5)
Foreign-born (%, 2010)	0.4		Women	68.0	(82.9)
Latest 5-year average growth (%)	1.3	(0.5)	Latest general election	April-May 2014	

ECONOMY

Gross domestic product (GDP)			Value added shares (%)		
In current prices (billion USD)	1 877		Primary sector	18.0	(2.6)
In current prices (billion EUR)	1 413		Industry including construction	25.1	(27.8)
Latest 5-year average real growth (%)	6.7	(0.8)	Services	56.9	(69.4)
Per capita (000 USD PPP)	5.4	(37.7)			

GENERAL GOVERNMENT

Per cent of GDP

Expenditure	28.4	(42.6)	Gross financial debt	66.7	(107.6)
Revenue	20.3	(36.7)			

EXTERNAL ACCOUNTS

Exchange rate (INR per USD)	58 660		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	16 238		Petroleum and crude products	23.6	
In per cent of GDP			Engineering goods	19.0	
Exports of goods and services	24.6	(53.5)	Gems and jewellery	13.2	
Imports of goods and services	29.1	(49.4)	Main imports (% of total merchandise imports)		
Current account balance	-2.5	(-0.1)	Machinery and transport equipment	36.1	
Net international investment position	-17.6		Mineral fuels, lubricants and related materials	9.0	
			Chemicals and related products, n.e.s.	6.8	

LABOUR MARKET, SKILLS AND INNOVATION

Employment rate for 15+ year-olds (%, 2012)	53.7	(54.9)	Gross domestic expenditure on R&D (% of GDP, 2012)	0.8	(2.4)
Men	78.3	(63.5)	Unemployment rate (age 15 and over) (%), 2012	3.6	(3.59)
Women	27.6	(46.8)	Youth (age 15-24, %)	10.7	(17.0)
Participation rate for 15+ year-olds (%, 2012)	53.4	(60.2)	Long-term unemployed (1 year and over, %)	13.0	(2.7)

ENVIRONMENT

Fine particulate matter concentration (urban, PM_{10}, µg/m^3, 2011)	99.7	(28.0)	Water abstractions per capita (1 000 m^3, 2011)	0.6	
CO2 emissions from fuel combustion per capita (tonnes, 2010)	1.7	(9.9)[b]	Municipal waste per capita (tonnes, 2011)	0.2	(0.5)

SOCIETY

Public and private spending (% of GDP)			Education outcomes (PISA score, 2012)[c]		
Health care (2011)	4	(9.2)	Reading	327	(497)
Pensions (2009)	1	(8.7)	Mathematics	345	(494)
Education (only public for India, 2012)	3.4	(4.0)	Science	337	(501)
			Share of women in parliament (%, June 2014)	11.4	(26.7)
			Net official development assistance (% of GNI)	0.09	(0.37)

Better life index: *www.oecdbetterlifeindex.org*

a) Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

b) 2011 for OECD.

c) For India data refer to 2009 and only to two states: Himachal Pradesh and Tamil Nadu.

Source: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union.

Executive summary

- *Main findings*
- *Key recommendations*

Main findings

Improving the macroeconomic framework to support sustainable and inclusive growth. India enjoyed nearly a decade of strong economic growth sparked in part by structural reforms, during which poverty was cut in half. However, growth faltered between 2012 and 2014 as gains from past reforms diminished, and fiscal and monetary stimuli could no longer be sustained due to high inflation and current account deficit. External factors also played a role. As fiscal and monetary policies have been gradually tightened, the fiscal deficit and inflation have started to decline while the current account deficit has narrowed. Activity has rebounded in 2014 and is projected to accelerate but the implementation of reforms is critical. The government efforts to simplify regulations and administrative procedures should enhance rule of law. Still-high inflation, the fiscal deficit, rising non-performing loans, and structural bottlenecks are also key downside risks. Large energy and fertiliser subsidies and delays in passing key tax reforms constrain the public investment in physical and social infrastructure, including education and health, needed for long-term growth and lower inequalities.

Raising employment and valued added from the manufacturing sector. The manufacturing sector could contribute more to income, export and employment growth. In recent years, structural bottlenecks have affected the manufacturing sector more than services. Labour and tax regulations are complex and raise cost of doing business above a certain size. Manufacturing firms therefore tend to be small and their productivity is low. Firms often cannot find employees with the right education and training. Frequent power outages, difficulty in acquiring land and poor transport infrastructure also make it difficult for firms to be competitive and reach new markets.

Increasing female economic participation. Creating more and better employment for women has a high growth potential. Female economic participation is low, reducing growth and living standards. Many women work in marginal jobs and have much lower pay than men. A host of factors constrain women in the labour market, including cultural norms, safety concerns, lack of child care and poor infrastructure. At the same time, high unemployment among educated women, revealed preference for work in surveys, and low net job creation point to demand problems.

Improving health outcomes for all. Health outcomes have improved substantially but remain below countries at a similar level of development. Lack of access to a clean water supply, nutrition deficiencies and smoking all lower health but the recent initiative on sanitation should help. And when they fall sick, most Indians do not have access to high quality medical services. The low level of public resources invested in health, the lack of health care professionals, poor regulation of health services, large out-of-pocket payments and inequality in access to health care are serious issues, in particular for the poor and those living in rural areas and urban slums.

Key recommendations

Improving the macroeconomic framework to support sustainable and inclusive growth

- Implement flexible inflation targeting.
- Pursue fiscal consolidation while avoiding one-off measures and cuts in growth-enhancing spending.
- Shift public spending away from energy subsidies towards investment in physical and social infrastructure. Implement a national value-added tax (GST) with only limited exemptions.
- Strengthen bank supervision by early recognition of asset deterioration and stricter provisioning standards.

Raising employment creation and valued added from the manufacturing sector

- Reduce barriers to formal employment by introducing a simpler and more flexible labour law which does not discriminate by size of enterprise.
- Continue improving access to education, especially at the secondary level, and better focus on the quality of education at all levels. Provide better and earlier vocational training.
- In the infrastructure sector, impose clear timelines, rationalise documentation, and implement single-window clearance.
- Continue improving the business environment and opening up the economy.

Increasing female economic participation

- Extend female quotas to state and national parliaments.
- Further modernise labour laws to ensure equal work opportunities for women.
- Enhance the implementation of gender-related laws.
- Expand secondary and higher education for women and skills training for female entrepreneurs.

Improving health outcomes for all

- Increase public spending on health care with particular focus on preventive and primary care, especially in rural areas and urban slums.
- Expand the number of health professionals and up-skill professionals located in rural areas.
- Strengthen the management of public health care facilities and ensure that private facilities and their employees meet minimum quality standards.

Assessment and recommendations

- *Recent economic developments and projections*
- *Enhancing the monetary and fiscal policy frameworks*
- *Addressing structural problems in product, labour and financial markets to promote inclusive and greener growth*

India experienced strong inclusive growth between 2003 and 2011, with average growth above 8% and the incidence of poverty cut in half. This reflected gains from past structural reforms, strong capital inflows up to 2007 and expansionary fiscal and monetary policies since 2009. These growth engines faltered in 2012. Stubbornly high inflation as well as large current and fiscal deficits left little room for monetary and fiscal stimulus to revive growth. The prospect of "tapering" monetary stimulus in OECD countries and the reversal in capital inflows, as well as the difficulty to pass reforms to remove growth bottlenecks in the run-up to the 2014 general elections further weighed on India's economic performance.

In 2014, the economy has shown signs of a turnaround and imbalances have lessened. Fiscal consolidation at the central government level has been accompanied by a decline in both inflation and the current account deficit. Confidence has been boosted by on-going reforms to the monetary policy framework, with more weight given to inflation. The large depreciation in the rupee has also helped revive exports. Industrial production has

Table 1. **Macroeconomic indicators and projections**[1]

Annual percentage changes

(Fiscal year basis)	2011	2012	2013	2014	2015	2016
GDP, at constant prices[2]	6.6	4.7	5.0	5.4	6.6	6.8
Inflation[3]	8.6	7.2	6.9	6.9	5.4	5.6
Consumer price index (CPI)[4]	9.5	10.2	9.5	7.1	6.3	6.0
Wholesale price index (WPI)[5]	8.9	7.4	6.0	4.3	3.8	4.3
Short-term interest rate[6]	8.1	7.9	7.6	7.8	7.2	6.6
Long-term interest rate[7]	8.4	8.2	8.5	8.6	8.2	7.8
Fiscal balance (per cent of GDP)[8]	-7.6	-6.8	-7.0	-6.9	-6.6	-6.2
Current account balance (per cent of GDP)	-4.2	-4.7	-1.6	-1.7	-1.7	-2.5
Memorandum: calendar year basis						
GDP, at constant prices	**7.8**	**4.9**	**4.7**	**5.4**	**6.4**	**6.6**
Private final consumption expenditure	10.4	5.6	4.0	5.6	5.9	6.2
Government final consumption expenditure	6.2	7.4	4.4	6.1	4.0	5.0
Gross fixed capital formation, total	11.5	2.3	1.0	4.1	9.0	11.1
Total domestic expenditure	8.0	6.2	2.8	3.8	6.1	7.1
Exports of goods and services, National Accounts basis	20.6	8.0	5.4	7.1	8.1	9.1
Imports of goods and services, National Accounts basis	18.2	11.6	-1.0	1.2	6.8	10.6
Net exports, contribution to growth in real GDP	-0.8	-1.8	1.7	1.4	0.0	-0.9

Note: Data refer to fiscal years starting in April.

1. The projections shown here are those presented in the *OECD Economic Outlook No. 96*.
2. GDP is measured at market prices, which corresponds to GDP measured at factor costs plus indirect taxes less subsidies.
3. Percentage change in GDP deflator.
4. Percentage change in the consumer price index.
5. Percentage change in the all commodities index.
6. RBI repo rate.
7. 10-year government bond.
8. Gross fiscal balance for central and state governments.

Source: OECD Economic Outlook 96 Database.

rebounded and business sentiment has surged, triggered by a decline in political uncertainty. Reducing macroeconomic imbalances further is key to sustaining consumer and investor confidence and to containing external vulnerabilities – this will require adhering to the fiscal roadmap and implementing the proposed changes to the monetary policy framework.

Structural reforms would raise India's economic growth. In their absence, however, growth will remain below the 8% growth rate achieved during the previous decade (Table 1). Infrastructure bottlenecks, a cumbersome business environment, complex and distorting taxes, inadequate education and training, and outdated labour laws are increasingly impeding growth and job creation. Female economic participation remains exceptionally low, holding down incomes and resulting in severe gender inequalities. Although absolute poverty has declined, it remains high, and income inequality has in fact risen since the early 1990s. Inefficient subsidy programmes for food, energy and fertilisers have increased steadily while public spending on health care and education has remained low.

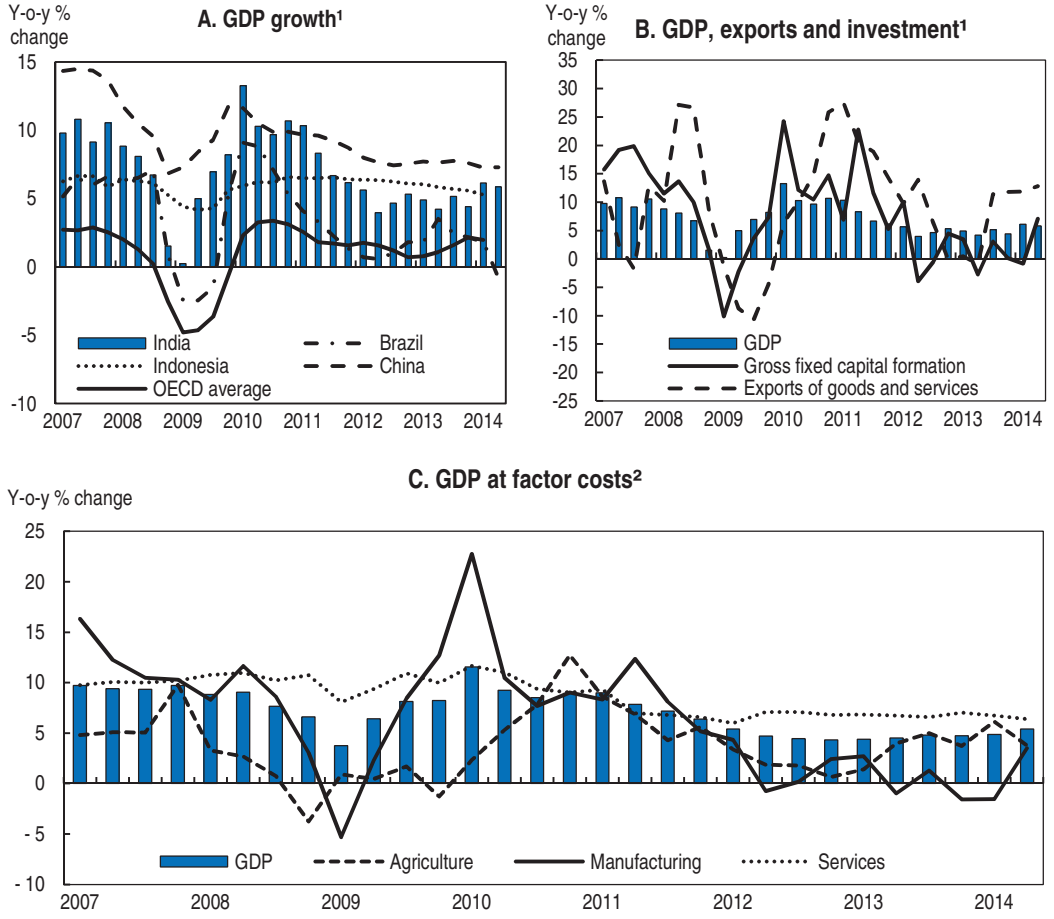
Recent economic developments and projections

The economic slowdown since mid-2011 has been more pronounced in India than in the OECD area and many other emerging economies (Figure 1). In 2013, GDP growth measured at market prices was at its weakest since 2003 – 4.7% compared to an average of 8% over the period 2003-11 – and the manufacturing sector contracted in volume terms for the first time since 1991. By contrast, financial and business services continued to grow at 10% or more. On the demand side, investment and private consumption have been weak, while exports rebounded in the second half of 2013 following the rupee depreciation. Weaker exports of goods during the first months of 2014, however, suggest that competitiveness remains an issue.

Structural bottlenecks have taken a toll on economic growth and on the manufacturing sector in particular. As an illustration, due to unreliable power supply, around half of the manufacturing companies experienced power cuts for more than 5 hours each week (FICCI, 2012). Lengthy authorisation processes and uncertainty surrounding land acquisition have held back infrastructure investment, while corporate investment has suffered from rising input prices which have squeezed corporate margins. Job creation has been sluggish and most jobs remain informal despite some pick-up in formal employment, mostly in services.

Consumer price inflation has remained much higher than in the OECD area and in other BRIICS (Figure 2). A series of one-off factors have contributed to inflation, including: adverse weather conditions, adjustment in administrative prices for core food items, oil products, electricity and railways; the extension of the National Rural Employment Guarantee Scheme (NREGS) which established a wage floor in rural areas; the rupee depreciation in the summer 2013. Supply-side constraints in the food sector – including the lack of cold storage and refrigerated transport facilities – have also contributed to food price volatility. The decline in inflation in the first half of 2014 is encouraging but inflation expectations have remained stubbornly high.

Figure 1. **The economic slowdown has been marked, driven by sluggish investment and manufacturing**

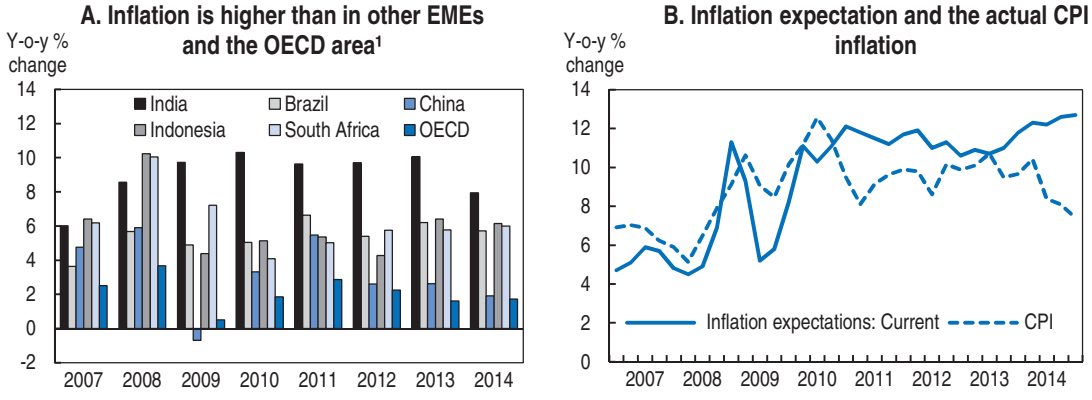


1. At market value and constant prices.
2. At factor costs and constant prices.

Source: OECD Economic Outlook 96 Database.

StatLink http://dx.doi.org/10.1787/888933163108

Figure 2. **Inflation has long been high and inflation expectations remain unabated**



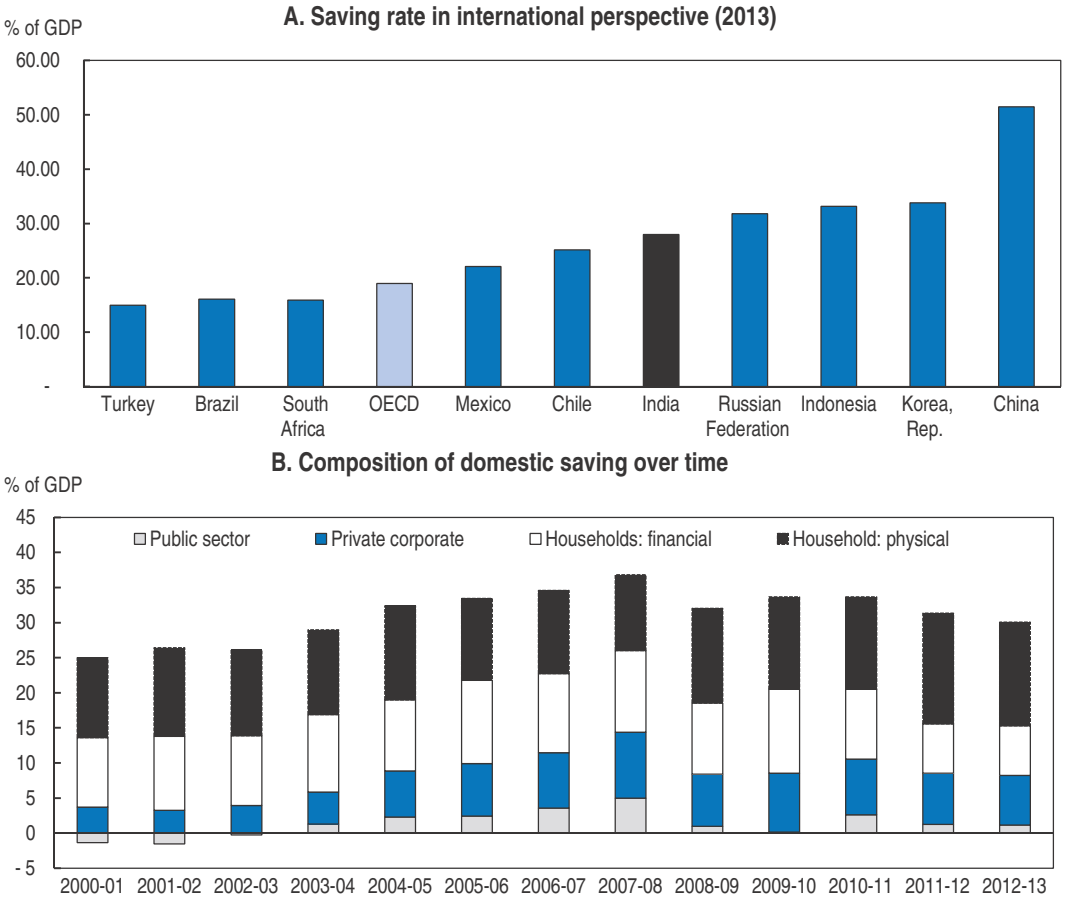
1. The consumer price index (CPI) inflation is shown. Year 2014 is based on the data of the first nine months.

Source: OECD Outlook 96 Database and Reserve Bank of India.

StatLink http://dx.doi.org/10.1787/888933163112

Although the gross national saving rate, at over 30% of GDP, is high by OECD and BRIICS standards, it declined by 6 percentage points of GDP between FY 2007-08 and FY 2012-13 (Figure 3), reflecting the decline in public and corporate saving. At the same time, high inflation and negative real interest rates on bank deposits have distorted household behaviour. Gold and real estate have been preferred to bank deposits. In response, the government introduced bonds indexed on wholesale price inflation in early 2013 and on consumer price inflation later in 2013. To choke off demand for gold and ease the associated current account pressures, the government raised import duties on precious metals. Some industrial companies, in particular large conglomerates, have rapidly increased their debt levels (Morgan Stanley, 2014) which could threaten an investment recovery and, as nonperforming and restructured loans have risen steadily, weakened the banking system.

Figure 3. **Saving has declined and shifted to less productive assets**



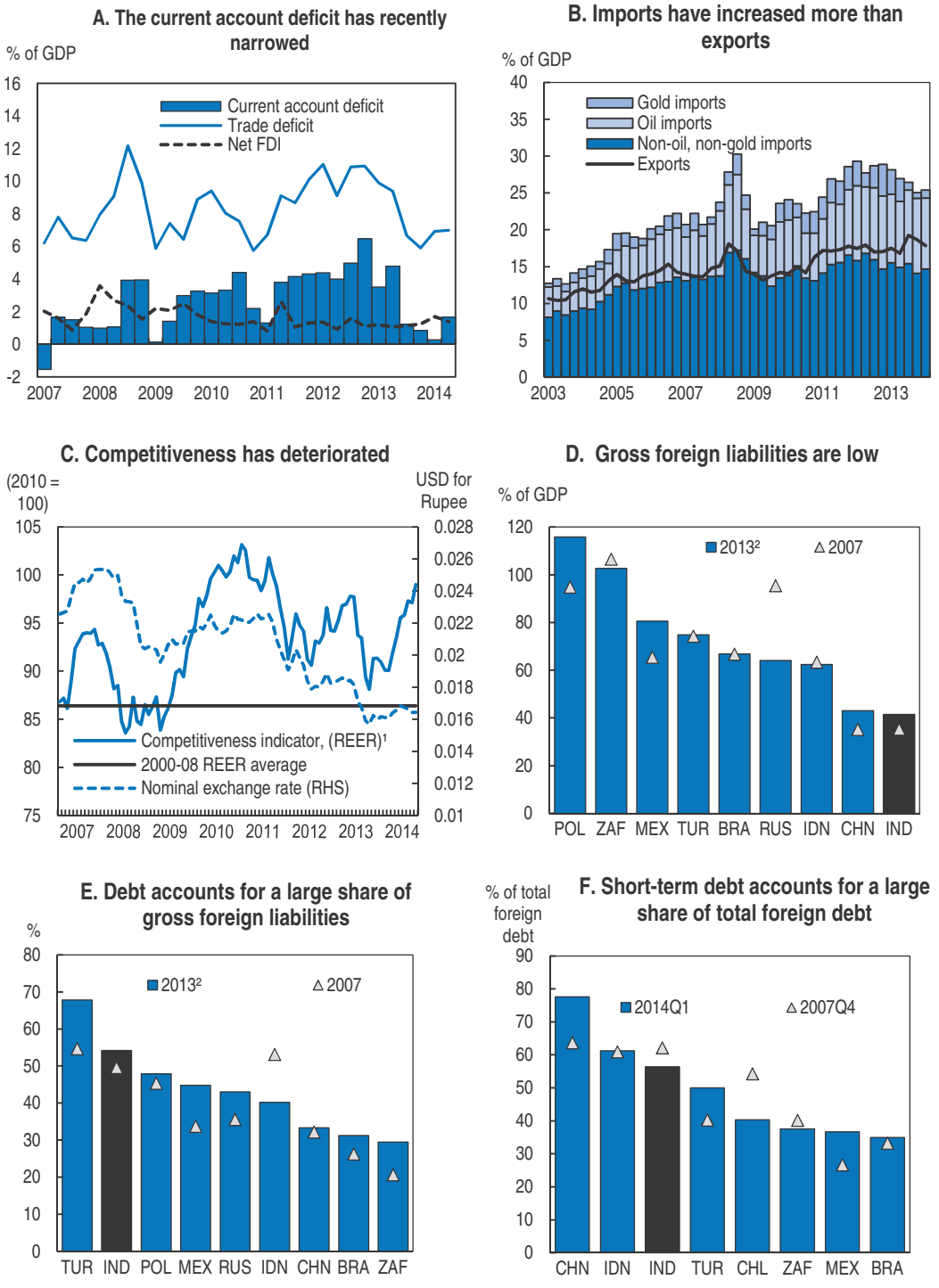
Note: Savings is equal to the difference between gross national disposable income and final consumption. Public sector includes public enterprises. The public sector saving is equal to public sector net lending plus net capital outlays.

Source: World Bank World Development Indicators, Central Statistics Office of India.

StatLink http://dx.doi.org/10.1787/888933163121

External vulnerabilities pose medium-term risks. Trade openness has increased steadily in India. The ratio of merchandise imports to GDP was approaching 25% in 2013, twice higher than 10 years before, although the exports to GDP ratio increased less dramatically (Figure 4, Panel B). As the saving rate fell, the current account deficit widened,

Figure 4. **External vulnerability remains a medium-term concern**



1. Real effective exchange rate (REER) based on consumer prices. An increase implies a loss of competitiveness.
2. Or latest available figures.

Source: India Ministry of Commerce and Trade, Reserve Bank of India, OECD – *International Trade and Balance of Payments Database*, OECD – *National Accounts Database*, Bank for International Settlements and IMF Balance of Payments Statistics.

StatLink http://dx.doi.org/10.1787/888933163135

reaching an all-time high of 5% of GDP in 2012 (Figure 4, Panel A). The trade deficit is considerably larger, and has been pushed up by rising oil imports (encouraged by low regulated domestic prices) and gold imports (to hedge against inflation). The October 2014 deregulation of diesel and a hike in gas prices may contain import growth. Sluggish domestic demand, the import duties on precious metals along with a lower international price for gold and stronger exports helped to sharply narrow the current account deficit to about 1% of GDP in the second half of 2013.

Maintaining the current account deficit near its sustainable level, estimated at around 2.5 % of GDP by the RBI (Goyal, 2013), requires dealing with its structural causes. Key among these is a deterioration in competitiveness. Gains in export market shares were rapid in the previous decade but have stalled since 2011, and despite the sharp depreciation over the summer of 2013 the real effective exchange rate remains above its long-term average (Figure 4, Panel C). In addition, supply-side constraints, particularly in transport and energy infrastructure, as well as stringent labour regulations have held back manufacturing exports. Services exports, by contrast, have grown strongly, with software exports doubling from 2% of GDP in FY 2003-04 to over 4% in 2012-13.

The widening current account deficit was financed largely by portfolio and short-term debt inflows in 2013. Foreign direct investment (FDI) has stagnated at about 1.25% of GDP since 2010. India's foreign liabilities to GDP are well below those of most EMEs, but the debt component is large and increasingly short-term (Figure 4, Panels D, E and F).

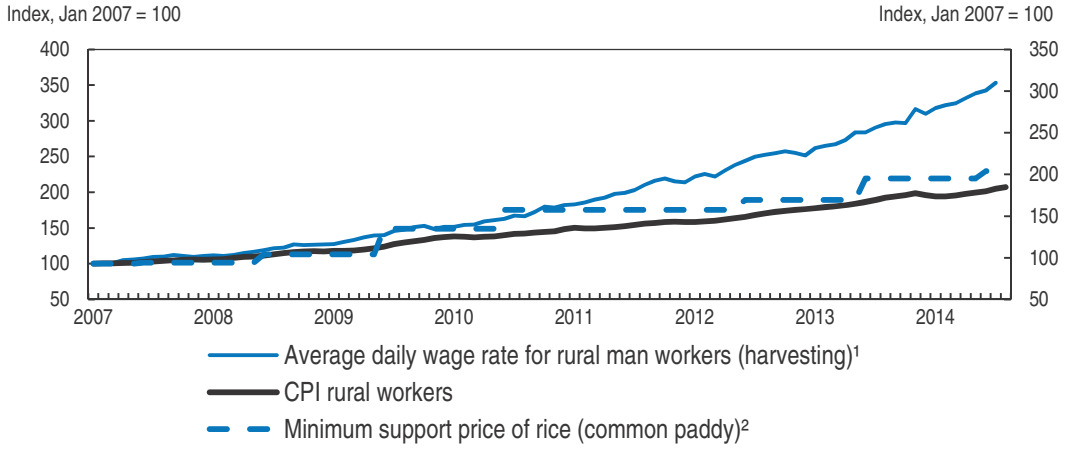
The government has adopted a series of measures to boost capital inflows, including increasing the cap for foreign institutional investment in government securities and corporate bonds, deregulating the interest rate on non-residents' deposits, allowing public financial institutions to raise funds abroad through quasi-sovereign bonds (i.e. with implicit government guarantee) and easing restrictions on external commercial borrowing. Recent FDI deregulation for selected sectors (including telecom, civil aviation and multi-brand retail in 2013, as well as defense and insurance in 2014) is not yet fully reflected in the numbers. However, the uptick in FDI early in 2014 may signal a shift away from debt financing.

Prospects and risks

Activity is projected to pick up gradually. Private consumption should grow steadily, in particular in rural areas, reflecting past rises in agricultural minimum support prices (MSPs) and rural wages (Figure 5). Investment should recover as the decline in political uncertainty has boosted business sentiment. If successful, efforts to put large stalled infrastructure projects back on track would also raise investment. The projected rebound in external demand should boost exports. Tight monetary and fiscal stances and high corporate leverage will restrain domestic demand. Inflation and inflation expectations are projected to decline gradually, reflecting some moderation in wages and food prices as well as the implementation of the new monetary policy framework.

Current risks are broadly balanced, although for the medium term risks are on the downside, contingent on the implementation of reforms. Exports, which have been showing signs of recovery after the rupee depreciation in the summer 2013, may be restrained by supply-side bottlenecks. High corporate leverage and deteriorating asset quality in the banking sector may put the investment recovery at risk. Poor weather conditions (a deficient monsoon) could weigh on agriculture and add to inflation pressures.

Figure 5. **Past hikes in minimum support prices and rural wages sustain private consumption**



1. Among rural activities, harvesting has been chosen as representative of the dynamics of wages in rural areas. There is a break in the series in October 2013. Starting from this date the series on wage for harvesting, winnowing and threshing was used.
2. Among the products covered by minimum support prices (MSPs), rice has been chosen because it has the highest weight in the WPI index. Changes in MSPs for rice over the period are broadly similar to most other MSPs.

Source: Indian Department of Agriculture and Cooperation and Reserve Bank of India.

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A slower than projected recovery, coupled with the impact of the depreciation of the rupee on oil and fertiliser subsidies, could make the planned fiscal consolidation more challenging, potentially undermining macroeconomic stability. On the other hand, a firm commitment to contain both inflation and the fiscal deficit would boost confidence and thus investment and consumption. Implementation of badly needed structural reforms would boost growth and, if properly designed, could also hasten the short-term recovery.

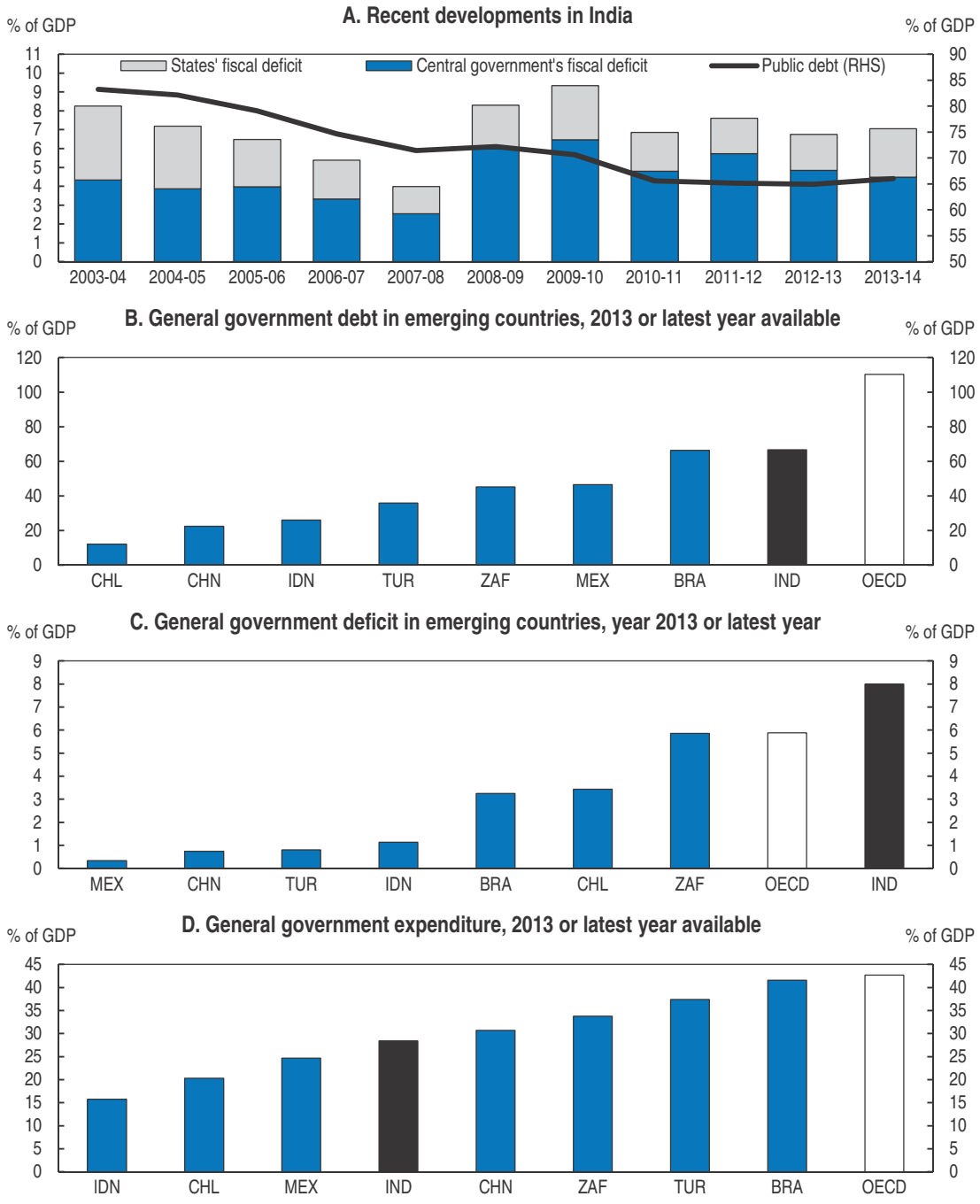
Fiscal and monetary policies have been gradually tightened

India's public deficit and debt are high compared with other emerging economies. Although the debt to GDP ratio has fallen significantly over the past decade (Figure 6), the combined central government and states deficit remained high following the economic slowdown and because of the higher oil and fertiliser subsidies.

In September 2012, a new fiscal consolidation roadmap was adopted to cut the central government deficit by 0.6% of GDP each year to 3% in FY 2016/17. The FY 2012/13 target was met and the FY 2013/14 was overfulfilled, thanks to cuts in non-wage spending, in particular investment, delayed subsidy payments (estimated at between 0.6 and 1% of GDP) and larger dividends paid by public enterprises. Still, fiscal pressures remain large. In particular, the 2013 Food Act extended the food subsidy from one to two-thirds of the population at an estimated cost of between 0.2% to over 1% of GDP when the Act is fully implemented (Gulati et al., 2012). The cooking gas subsidy was also raised again early in 2014 and taxes on the production of capital goods were lowered from 12% to 10% to revive the manufacturing sector.

The budget presented by the incoming government for FY 2014/15 confirms India's commitment to fiscal consolidation. The emphasis on capital expenditure with a focus on

Figure 6. **Government debt and deficit remain high**



Source: Brazilian Ministry of Economics, CEIC, Chinese Ministry of Finance, IMF, *OECD Analytical Database*, *OECD Economic Outlook 96 Database* and World Bank.

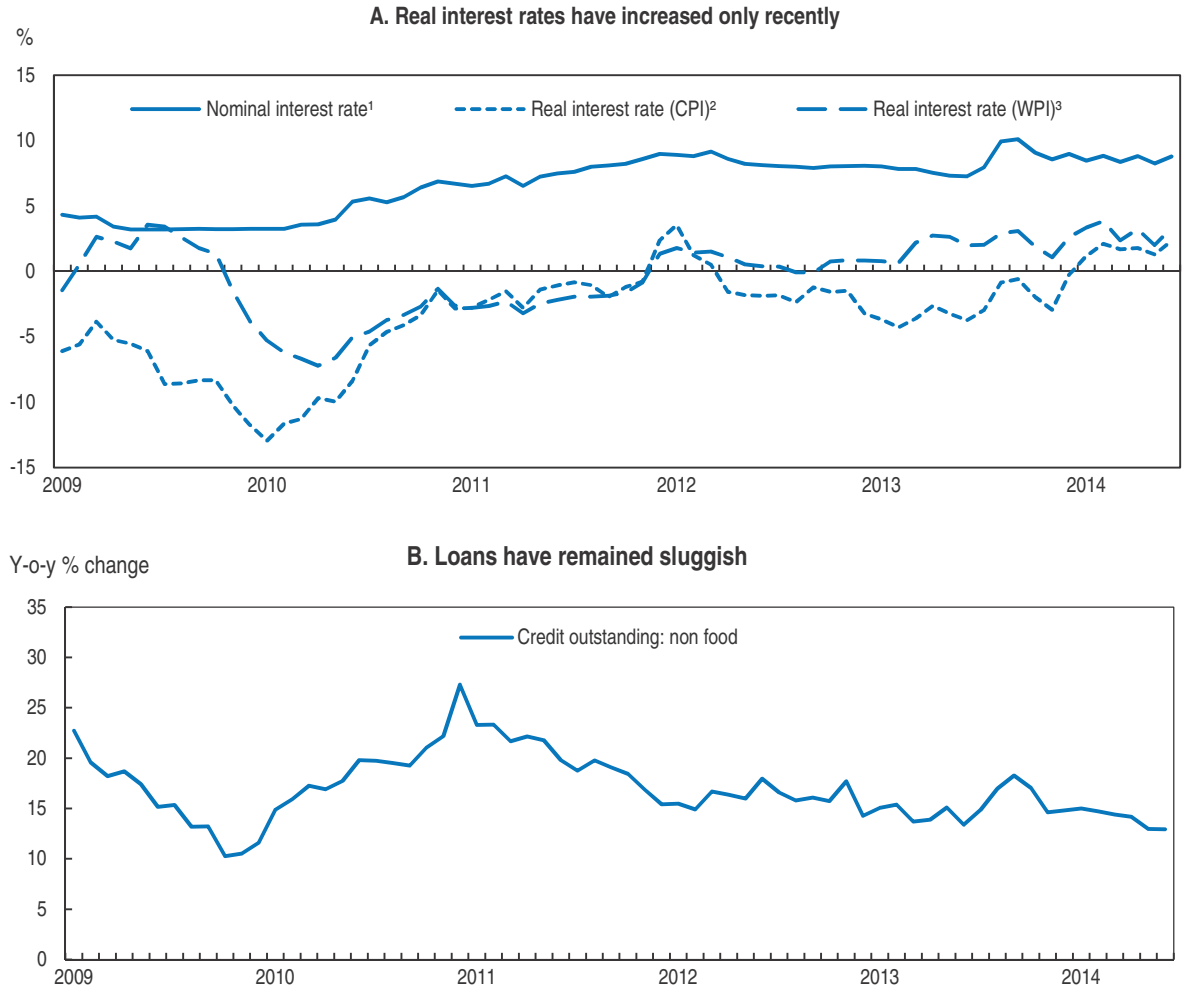
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transport (road, rail and ports), clean energy, rural housing and sanitation is welcome, as such investment is badly needed to sustain economic and social development. This will also reduce the negative impact of fiscal consolidation on growth as the fiscal multiplier for investment tends to be higher (Bose and Bhanumurthy, 2013). The expected surge in privatisation receipts (which in India are included in the net lending position) will help

finance these investments. The budgeted 17% increase in tax revenue seems optimistic, however. Achieving a sustainable and quality fiscal consolidation would require streamlining the many tax breaks which undermine revenues and contribute to the complexity of the tax system, as well as other public finance reforms (see below).

Against the backdrop of high inflation and high inflation expectations, the key monetary challenge is to sustainably reduce inflation. Interest rates have been below those implied by a simple Taylor rule for some years (RBI, 2014a) and real interest rates have long been low or even negative (Figure 7). At the same time, the exchange rate depreciation effectively loosened monetary conditions. However, this was not reflected in a rebound in loans. The planned tighter fiscal stance should help to sustainably reduce inflation but the stance of monetary policy will also have to remain tight.

Figure 7. **Real interest rates have long remained low or negative but loans have not rebounded**



1. Average interest rate at which overnight deposits are offered between prime banks on the wholesale money market or the interbank market.
2. Nominal interest rate minus inflation measured by the consumer price index for industrial workers.
3. Nominal interest rate minus inflation measured by the wholesale price index.

Source: Reserve Bank of India and *OECD Economic Outlook 96 Database*.

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Enhancing the monetary and fiscal policy frameworks

Reforming the monetary policy framework

In January 2014, an RBI expert committee recommended changes to the monetary policy framework to make it "transparent and predictable". This set of recommendations is a coherent roadmap towards a monetary policy framework largely consistent with global best practice:

- Inflation should be the nominal anchor for monetary policy, giving the headline Consumer Price Inflation (CPI) preference over Wholesale Price Inflation (WPI).
- The inflation target should be 4%, with a band of +/-2%, following a 3-year transitional phase (the target would be 8% for one year and 6% for the next two years).
- The RBI should publish an inflation report every 6 months.
- Monetary policy decision-making should be vested in a Monetary Policy Committee (MPC) which publishes with a lag of two weeks.
- The MPC will be held accountable for failure to achieve the inflation target by issuing a public statement stating the reason(s) for failure, remedial actions proposed and the likely period over which inflation will return to target.
- To improve monetary policy transmission, the government should comply with the fiscal roadmap and eliminate the practice of setting prices, wages and interest rates. The Statutory Liquidity Ratio should be reduced to a level consistent with Basel III prescriptions. Existing sectoral interest rate subsidies, in particular for agriculture, should be reconsidered.

Currently, monetary policy in India has three main objectives: maintaining price stability; supporting economic growth by ensuring an adequate flow of credit to productive sectors and securing financial stability. In addition, the RBI intervenes in the foreign exchange market to avoid excessive exchange rate fluctuations.

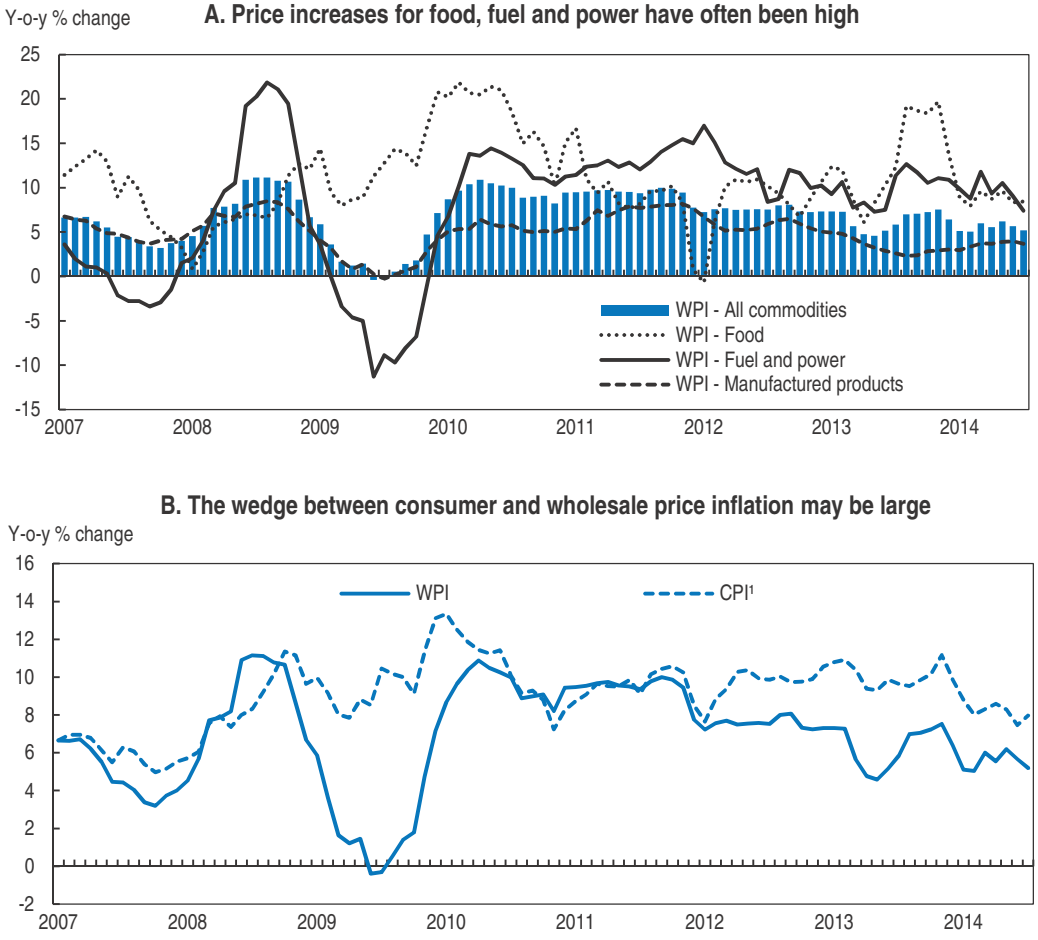
Moving to an inflation targeting regime would focus the RBI on curbing inflation and steadying inflation expectations, which are key to promoting savings and investment and thus growth. Inflation above 4 to 5.5% reduces GDP growth (Mohanty et al., 2011). In the past, inflation has eroded the value of financial assets and, in particular the purchasing power of the poor. Inflation targeting has been successfully implemented in a number of emerging market economies, including Brazil, Chile, Colombia, Indonesia Mexico and South Africa. It has brought greater economic stability without compromising growth or other economic and social goals (Jahan, 2012). Nevertheless, the 2009 global financial crisis made clear that inflation targeting alone is not sufficient for economic stabilisation; fiscal policy and financial stability remain key macroeconomic policy pillars. Strict inflation targeting has high disinflationary costs. The influence of supply shocks, the still large weight of food items in the CPI basket and weaknesses in monetary policy transmission are key challenges. The inflation targeting framework should thus be implemented in a flexible manner.

Inflation targeting with a flexible exchange rate can be a challenge with volatile capital flows, which can cause large swings in the exchange rate with repercussions for price stability. Volatile capital flows also increase financial vulnerabilities from unhedged bank or company balance sheets with large foreign currency exposures. A number of studies have shown that in dealing with capital flow volatility it is preferable to let the currency depreciate than to raise interest rates and capital controls. This is because the latter tools

tend to have more adverse output effects (Blanchard 2013; Blundell-Wignal and Roulet 2013a, 2013b; Forbes and Klein, 2013). Risks to inflation targeting from capital flow volatility can thus be contained by enhancing the credibility of the monetary policy framework to anchor price expectations and reducing financial vulnerabilities with macroprudential tools as suggested by Lim et al. (2011) and Saborowski et al. (2014).

The RBI has long used the wholesale price index (WPI) as the key inflation measure, partly because it was available more rapidly and frequently than the CPI. The WPI however fails to accurately reflect the cost of living, as it excludes services and puts a much lower weight on food which has experienced severe price pressures since the late 2000s (Figure 8, Panel A). As a result, it does not reflect the prices people experienced and, with WPI inflation lower than CPI inflation almost consistently since 2009 (Figure 8, Panel B), monetary policy credibility was eroded. The choice of a 4% CPI target with a relatively wide band is reasonable given the distorting effects of high inflation and the high volatility of consumer prices due to the large weight of food and energy in Indian consumption.

Figure 8. **Price increases vary significantly across sectors**



1. The new CPI (base 2010) was used. For the years before 2010 the back-casted series provided in the January 2014 Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework were used.

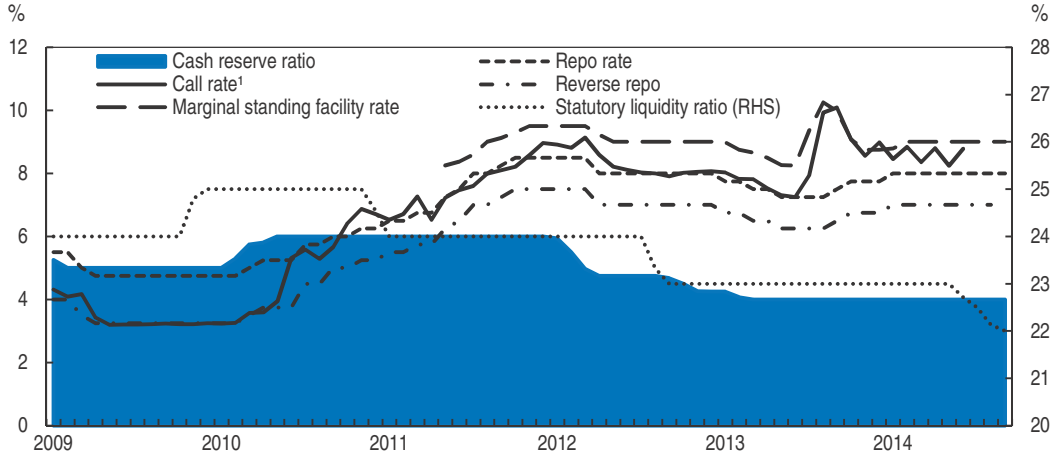
Source: Reserve Bank of India.

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Establishing a Monetary Policy Committee and extensive reporting on policy discussion would greatly increase transparency and provide the RBI with important and regular channels of communication. This would also help anchor inflation expectations. The RBI already has some such channels; notably the minutes of meetings of the Technical Advisory Committee on Monetary Policy, which contains information on concerns expressed by members of the Committee, including dissenting opinions. However, this Committee does not make monetary policy decisions, a role currently reserved for the Governor.

The RBI has relied on a large set of direct and indirect instruments, including: the cash reserve ratio, the statutory liquidity ratio, the Liquidity Adjustment Facility and associated repo and reverse repo rates and open market operations (Figure 9). Over time and along with financial liberalisation, the RBI has gradually moved away from direct instruments towards the repo rate (Mohanty, 2011). A further move in this direction would clarify the RBI's policy stance, thus helping to anchor inflation expectations. Monetary policy transmission is still slow, however. Although this partly reflects the large share of fixed-rate loans, transmission would be improved sharply by reducing the scope of administrative wage and price setting and by a more robust financial sector.

Figure 9. **The RBI has relied on various instruments to adjust liquidity conditions**



1. The overnight Mumbai Interbank Bid Rate, or MIBID, is the average interest rate at which overnight deposits are offered between prime banks in the Indian wholesale money market or interbank market. Data represent the monthly average.

Source: Reserve Bank of India, National stock exchange of India.

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Dealing with structural fiscal problems: More consolidation, more efficiency, more equity

The Fiscal Responsibility and Budget Management Act (FRBMA), adopted in 2003, established a fiscal framework that contributed to rapid consolidation up to 2007. It required the government to submit a series of documents spelling out its fiscal strategy and progress in achieving it. Between 2008 and 2009, fiscal support was introduced to cushion the impact of the global financial crisis and consequently the targets embodied in the FRBMA were not achieved. Fiscal targets embodied in the 2012 fiscal roadmap have been complied with so far, although compression of public investment, larger dividends paid by public enterprises and privatisation receipts cannot be long-term solutions.

Durably resolving the fiscal pressure will require both a stronger fiscal framework and the reconsideration of a number of spending and taxation policies.

Strengthening the fiscal framework

Multi-year spending ceilings would strengthen the budget balance targets that are already in the FRBMA and provide a guide for fiscal planning. Such ceilings need to take account of future spending plans – for example overall spending could rise in relation to GDP so long as tax revenues rose with it. One such expenditure is public investment, which is badly needed to remove bottlenecks that are holding back economic growth. The FRBMA "revenue" balance targets exclude capital spending, but it might be more coherent to recognise infrastructure needs explicitly and incorporate them in the spending ceiling.

Compliance with the fiscal targets and the credibility of fiscal policy would be strengthened by establishing an independent fiscal institution to examine budgets relative to deficit and spending objectives (Hagemann, 2010). A growing number of OECD countries have established such institutions, although they vary significantly in institutional set up and mandate. One option for India would be to empower the Parliamentary Committee on Finance.

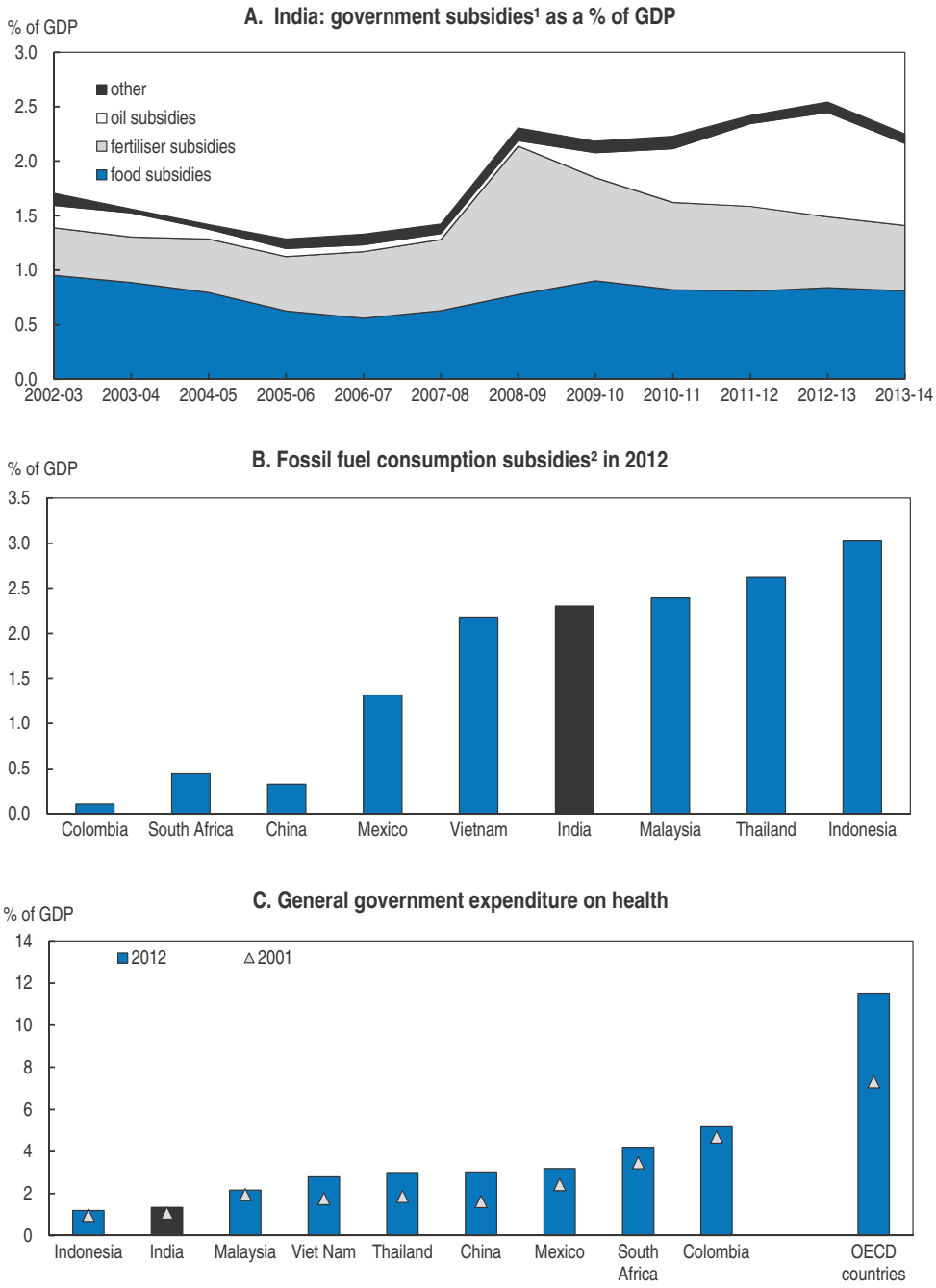
Spending reviews should also be considered for key programmes, in particular subsidy programmes, to assess whether outcomes could be improved and whether objectives could be achieved at a lower cost. The Expenditure Management Commission created by the new government is welcome in this regard. Better accounting rules would promote a more sustainable fiscal consolidation: accrual accounting would reduce incentives to record spending in the next budget year; allowance for capital consumption in the fiscal rule would help avoid a build-up in debt with no commensurate increase in assets (Blanchard and Giavazzi, 2004); and privatisation receipts should not be reflected in the fiscal deficit and be shown, instead, "below the line".

Spending: better targeting subsidies and reducing abuses

A key objective of subsidies has been to protect vulnerable households from rising and fluctuating prices for essential products. However, their cost has been increasing steadily (Figure 10) and they have disproportionately benefitted the rich and the middle-class. For rice and wheat, leakages in the food subsidy, including widespread diversion to the black market, have been estimated by Gulati et al. (2012) at 40%, and up to 55% by Jha and Ramaswami (2011). According to Jha and Ramaswami (2011), the poor benefit from only around 10% of the spending on food subsidy. Many of the poor do not benefit from the subsidy because the system fails to correctly identify who is eligible (in 2004/05 only about one third of the poor benefitted), while a large share of the recipients are non-poor (Jha and Ramaswami, 2011). For oil, Anand et al. (2013) estimated that the implicit subsidy is 7 times higher for the richest 10% of households than for the poorest 10%.

Subsidies crowd out important spending. Increasing public spending on infrastructure would have a stronger impact on long-term growth while public spending on health care, which contributes to reduce inequality in well-being, has remained very low in India (Figure 10, Panel C). Burniaux and Chateau (2011) estimate that phasing out fossil fuel subsidies in India would boost real income by more than 2%. Finally, energy subsidies raise energy intensity, encouraging energy imports and increasing greenhouse gas emissions.

Figure 10. **Energy subsidies are large while public spending on health is low**



1. Only subsidies recognised in the central government budget are shown. Oil subsidies, estimated at 0.8% of GDP in the central government budget in FY 2012/13, do not fully reflect the fiscal costs. As an indication, the so-called under-recoveries of the public sector Oil Marketing Companies (OMCs) – i.e. the difference between the revenues and (international) costs and revenues of distributing petroleum – amounted to 1.6% of GDP in the FY 2012/13. The OMCs' under-recoveries are partly financed by state-owned oil and gas production companies, thereby reducing the potential dividends these companies pay to the government.
2. The fossil fuel consumption subsidies refer to subsidies for oil, coal and natural gas. The IEA estimates subsidies to fossil fuels that are consumed directly by end-users or consumed as inputs to electricity generation with the price-gap approach. It compares average end-use prices paid by consumers with reference prices that correspond to the full cost of supply. They include also subsidies that result from the under-pricing of electricity generated by fossil fuels.

Source: CEIC, International Energy Agency 2011, World Health Organisation 2013.

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Recent initiatives to reduce the cost of subsidies and improve their effectiveness include hiking some administered prices (fuel, diesel, gas and railway fares), capping subsidised consumption (cooking gas and fertilisers) and partially deregulating the energy sector. As recognised in the FY 2014/15 Budget, better targeting subsidies would also help. Moving from price to cash subsidies would reduce diversion and leakages, thus reducing the cost and increasing the effectiveness of subsidies. Indonesia raised oil prices by 44% in the summer 2013 and simultaneously introduced a cash transfer for the poorest households. Even better would be, in the medium term, to expand the social safety net to protect the poor.

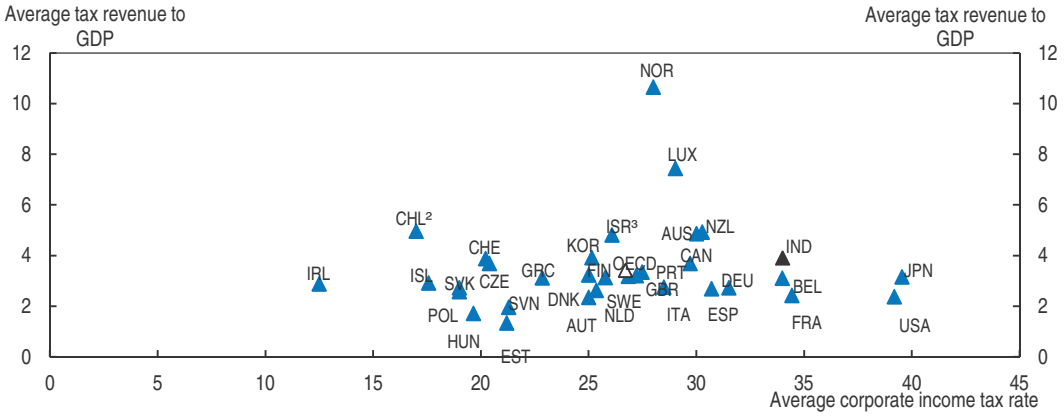
The Direct Benefit Transfer (DBT) scheme, introduced in 2013 and supported by a unique personal identification number (Aadhaar) and Aadhaar-linked bank accounts, is a welcome step in this direction. It could serve as an example of best practice for many countries. It should speed up benefit delivery and reduce costs and corruption, while promoting financial inclusion (Drèze and Sen, 2013; CGAP, 2013). As of January 2014, an Aadhaar number had been granted to 560 million citizens, or almost half of the population, and 28 subsidy programmes were managed through the DBT, mostly scholarship and pension programmes. Extending the DBT system to consumer subsidies, would capitalise on its success. In this respect, the 2013 decision to suspend the DBT/Aadhaar system for the subsidy on cooking gas (LPG) is a step back.

The National Rural Employment Guarantee Scheme (NREGS), fully in place since 2008, aims to provide a welfare safety net for rural inhabitants and to promote local development by funding small-scale farm and infrastructure projects. It provides off-season job opportunities for about 46 days a year per household at minimum wages. In 2013, about 46 million households benefitted from the NREGS. It has reduced rural poverty, improved rural infrastructure and, by providing equal pay and half the jobs for women, reduced gender wage gaps (Zimmermann, 2012) and encouraged many women to join the work force (Khera and Nayak 2009). However, it suffers from corruption, the economic impact of supported projects, mostly roads, is uncertain (Ghose, 2011; Imbert and Papp, 2013), and implementation has been uneven across states (Imbert and Papp, 2012; Comptroller and Auditor General of India, 2013). The scheme may also have crowded out private sector work. It would be useful to thoroughly assess the NREGS outcomes with a view to enhancing effectiveness. In this respect, the government's plan to better monitor outputs is commendable and should be implemented swiftly. The proposed promotion of sanitation projects within the NREGS is especially welcome, as better sanitation is closely linked to better health, well-being and productivity. More should be done, however. In particular, restrictions on the use of machines should be reconsidered. A study for instance showed that the durability of roads financed by the NREGS is low due to non-use of road rollers which are necessary for compaction (Ministry of Rural Development, Government of India, 2012).

Raising more revenue in a less distortive way

Tax revenues (excluding social contributions) stood at 17.1% of GDP in FY 2012-13, which is below the level in most other BRIICS. Tax rates tend to be high, but the base is narrow and compliance is low: central government tax expenditures are estimated at 6.5 % of GDP. The corporate income tax, for example, has a high tax rate – 30% on domestic companies *plus* a 5 to 10% surcharge for large companies – but only average revenue (Figure 11). The 2010 Direct Tax Code Bill aimed at reducing the corporate income tax rate

Figure 11. **The high corporate income tax rate fails to produce large revenue**[1]



1. 2007-12 average.
2. For Chile, data refer to years 2007-09.
3. For Israel, Luxembourg, New Zealand and Switzerland, data refer to years 2007-11.

Source: Indian Ministry of Finance and *OECD Tax Database*.

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to 30% and removing some tax allowances. The Direct Tax Code Bill lapsed, however. For individuals, the lowest marginal tax rate is applied at over 2.5 times the average wage or 3 times GDP per capita, a very high level compared to Brazil, China, Indonesia and South Africa (Gandullia et al., 2012). The Direct Tax Code Bill envisaged widening income slabs while also keeping most exemptions for saving, as well as on interest paid on housing and education loans. Since such tax reliefs entail significant revenue losses and tend to benefit the rich most, they should be abolished.

Much also remains to be done to broaden the bases of indirect taxes. A welcome move by the government has been to list the services exempted under the Service Tax, replacing a list of those to be taxed. The suggestion by the Tax Administration Reform Commission (TARC) to amalgamate the Direct tax and Indirect tax Departments, to make it easier for companies to file returns, has merit. The long-awaited Good and Service Tax (GST, a value-added tax), yet to be passed by the Parliament, provides an opportunity to restrict the use of reduced rates and exemptions. Replacing the existing complex and multilayer indirect tax system by a broad-based GST would promote growth and competitiveness (NCAER, 2009; Indian Institute of Corporate Affairs, 2011; Vaidya and Kanagasabapathy, 2013). International experience suggests that distributional concerns are poorly addressed by special and low VAT rates. In Colombia for instance, the implicit subsidy associated with VAT exemptions and reduced rates is more than 10 times higher for the 10% richest households than for the 10% poorest because the rich consume more in absolute terms than the poor (Joumard and Londoño, 2013). Expanding the social safety net or, in the short term, implementing targeted cash transfers within the Aadhaar system would be more effective to address distributional concerns.

Recommendations to strengthen the monetary and fiscal policy frameworks

Key recommendations

- Implement flexible inflation targeting.
- Pursue fiscal consolidation while avoiding one-off measures and cuts in growth-enhancing spending.
- Shift public spending away from energy subsidies towards investment in physical and social infrastructure. Implement a national value-added tax (GST) with only limited exemptions.

Further recommendations

- Monetary policy should err on the prudent side to restore confidence and avoid a rebound in inflationary pressures.
- Extend the current fiscal rules to include spending ceilings and improve the accounting framework.
- Carry out spending reviews for core spending programmes with the view to improve their effectiveness. Reconsider the prohibition on using machines for NREGS projects.
- Shift further from in-kind subsidies towards people-based cash transfers. Extend the Direct Benefit Transfer (DBT) to core subsidy programmes and use of the unique identification number (Aadhaar).
- Improve the Income Tax Act by further broadening its base, including by abolishing the tax allowance for interest paid on housing and education loans.

Addressing structural problems in product, labour and financial markets to promote inclusive and greener growth

Addressing structural bottlenecks – in particular gaps in energy and transport infrastructure, overly stringent labour regulations, the shortage of skills, and market and institutional failures that keep women outside the labour force – will promote job creation and inclusive growth.

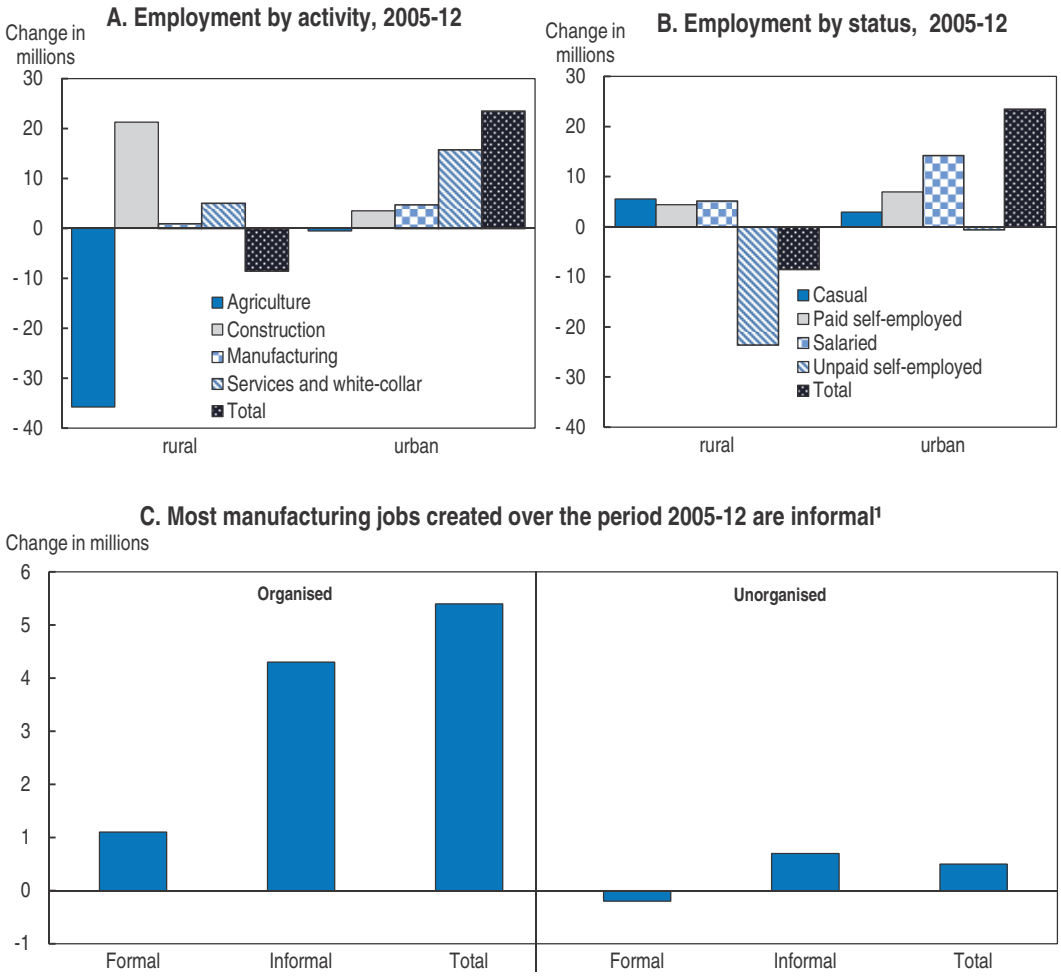
Boosting job creation

The labour market has performed poorly

Although the data are weak, it is clear that labour market performance is mixed. Almost 23 million net jobs were created over the period March 2005-March 2012 according to household survey data (NSSO). While agriculture employment fell by almost 37 million, employment surged in the rural construction sector and, to a lesser extent, in urban services (Figure 12). The unemployment rate is very low – slightly above 2%. However, under-employment is high and the rate of employment creation has been too low to prevent a decline in the employment to working-age population ratio (Figure 13). This ratio is now much lower than in most other BRIICS, partly because many women stay out of the labour force.

The vast majority of workers, particularly those in agriculture and the service sector, are not covered by core labour laws. In manufacturing, NSSO data suggest that about 65% of jobs were in firms with less than 10 employees in 2012 (Mehrotra et al., 2014) – the so-called "unorganised sector" – and thus not covered by Employment protection legislation (EPL) and many other core labour laws which apply only to larger firms.

Figure 12. **Jobs were created mostly in construction in rural areas and in services**



1. Informal workers are those with no social security benefits (Mehrotra et al., 2014).

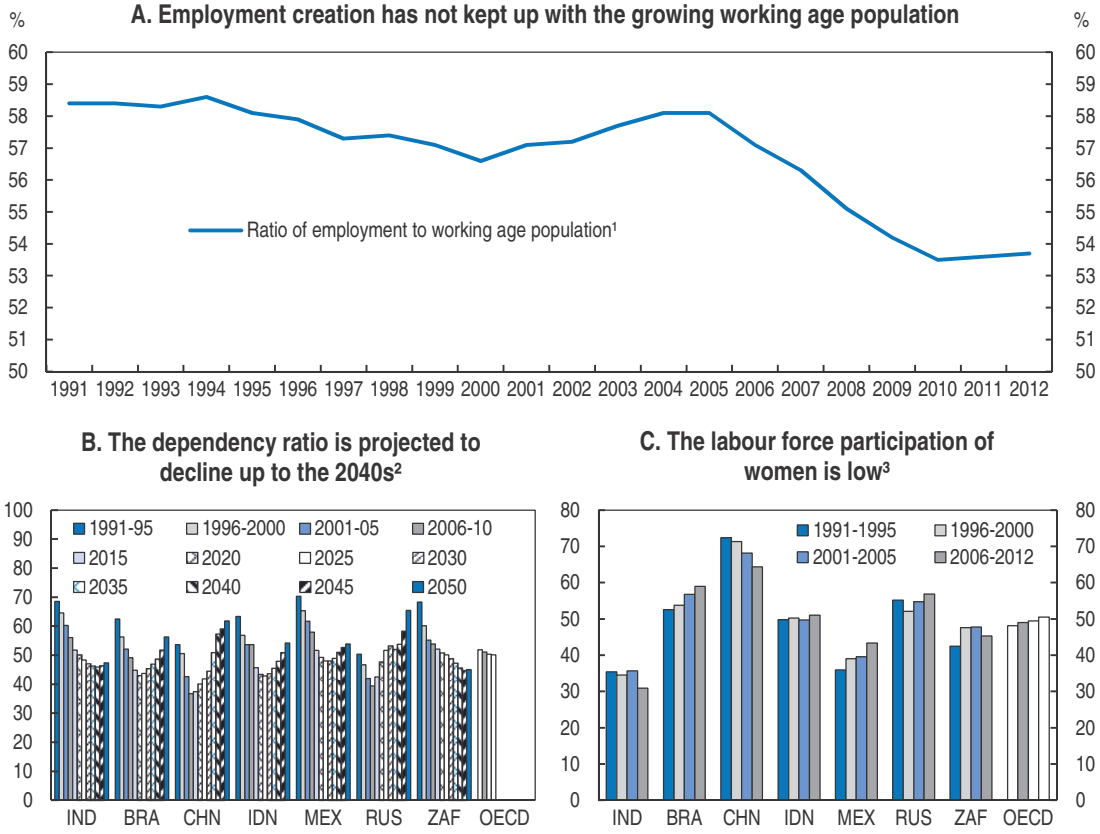
Source: NSSO, Employment and Unemployment Survey, Rounds No. 61 and 68, and Mehrotra et al. (2014).

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In addition, the Annual Survey of Industries (ASI) reveals that of those working in the organised manufacturing sector (more than 10 employees) 13% were on temporary contracts or employed by a sub-contractor ("contract labour") in 2010, up from 8% in 2000. Contract workers are also not covered by key employment or social protection regulations. NSSO data further suggest that earnings dispersion is significant.

To seize the demographic dividend and avoid a lost generation, the pace of job creation will have to pick up. Demographics will favour labour force growth for some years. The government projects the labour force to increase by 88 to 113 million people between 2010 and 2020, mainly through the entrance of the young who tend to be better educated. Moreover, the agriculture sector is projected to lose 15 million jobs (Government of India, 2013). The supply of labour available for non-agriculture sectors is thus projected to increase by up to 130 million between 2010 and 2020. An increase in the currently very low female labour force participation could add to the picture.

Figure 13. **The demographic challenge**



1. According to the ILO definition, working age population is made of individuals aged 15 or more.
2. The age dependency ratio is the ratio of the population younger than 15 or older than 64 to the working-age population, which is those aged 15-64. From 2015 World Bank projections are shown.
3. The labour force participation of women is equal to the percentage of working women aged 15-64 over the overall female population aged 15-64. Data refer to the simple average of the dependency ratio for each period.

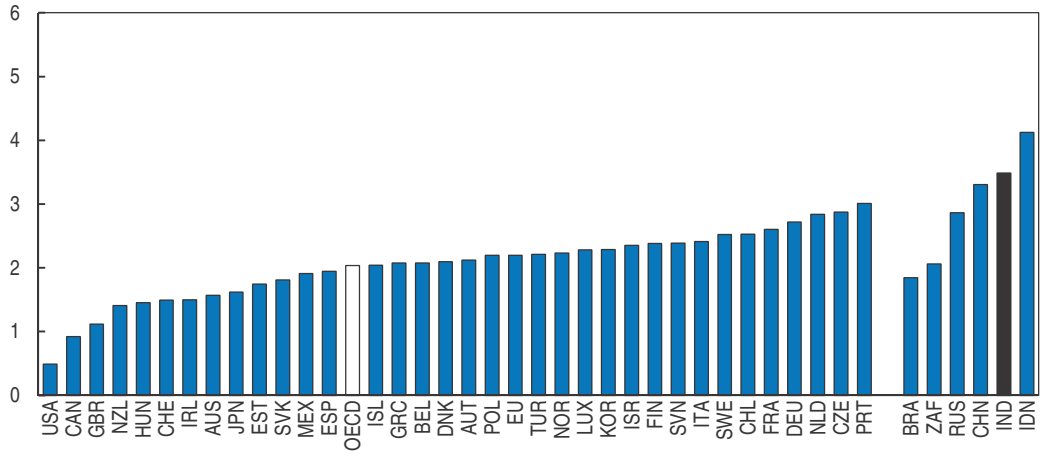
Source: ILO (2013), *Key Indicators of the Labour Market (KILM) Database*, OECD (2014), *Perspectives on Global Development* and World Bank WDI databank.

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Creating more and better quality employment

Although direct labour costs are relatively low, labour regulations are complex and strict, in particular for large industrial firms. Employment protection legislation (EPL) is particularly restrictive compared to both OECD countries and EMEs (Figure 14). There is also uncertainty regarding enforcement since many labour laws are old and responsibilities are often shared across government jurisdictions. Companies have reacted by substituting capital for labour, staying small, or relying on informal or "contract" labour, and labour regulations have weighed on firms' productivity and on formal job creation (Dougherty, 2009 and Dougherty et al., 2011). Recent efforts at the central government and state levels to modernise labour regulations and reduce compliance requirements are steps in the right direction. A comprehensive labour law to consolidate, modernise and simplify existing regulations would allow firms to expand employment and output, and would be more enforceable, thereby extending social protection to more workers. One option would be to create a labour contract for new permanent jobs with less stringent employment protection legislation but with basic rights – standard hours of work, holidays, minimum safety standards and maternity benefits – for all workers irrespective of the firm size.

Figure 14. **Employment protection legislation is highly restrictive,**[1] **2013**



1. The OECD indicator of employment protection legislation (EPL) for regular employment measures the procedures and costs involved in dismissing individual regular employees. The indicator runs from 0 to 6, representing the least to most restrictive EPL. The last available data refer to 2012 for BRIICS countries.

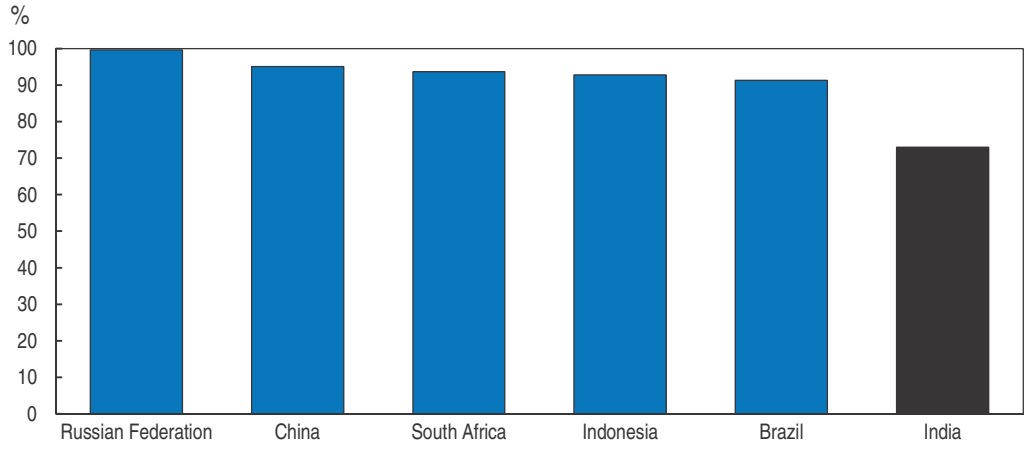
Source: *OECD Employment Protection Database*, 2013 update.

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In this vein, the authorities should also consider gradually extending basic social benefits to all workers, while taking care to keep fiscal costs under control and reducing incentives to work in the informal sector.

Literacy is low compared to that in other emerging markets (Figure 15), and even those with higher education or vocational training (VET) are often ill-equipped and require significant on-the-job training (Crisil, 2014; World Bank, 2008). Still, India is now approaching near-universal enrolment in elementary education, spending on secondary education has risen significantly in recent years, and the 2009 "Secondary Education for All Action Plan" aims at providing universal access to secondary education by 2017. However,

Figure 15. **The literacy rate is low**[1]



1. Adult literacy rate (age 15 and above). For India the data concern population aged 7 and above, thus the figure slightly overestimates the literacy rate in comparison to other countries. For India and Indonesia, data are for 2011, for China and Russian Federation for 2010, for Brazil and Indonesia for 2009, and for South Africa, for 2012.

Source: World Bank WDI databank and Census 2011 for India.

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educational quality is poor. According to the 2009 OECD Programme for International Student Assessment (PISA), in which two Indian states participated, the average performance of 15-year-old students in India was far below the OECD average and well behind other emerging economies. To shift the focus to better educational outcomes, the authorities should implement a system to monitor school achievement and track implementation of reforms, and to strengthen employment incentives and training arrangements for public school teachers (OECD, 2011).

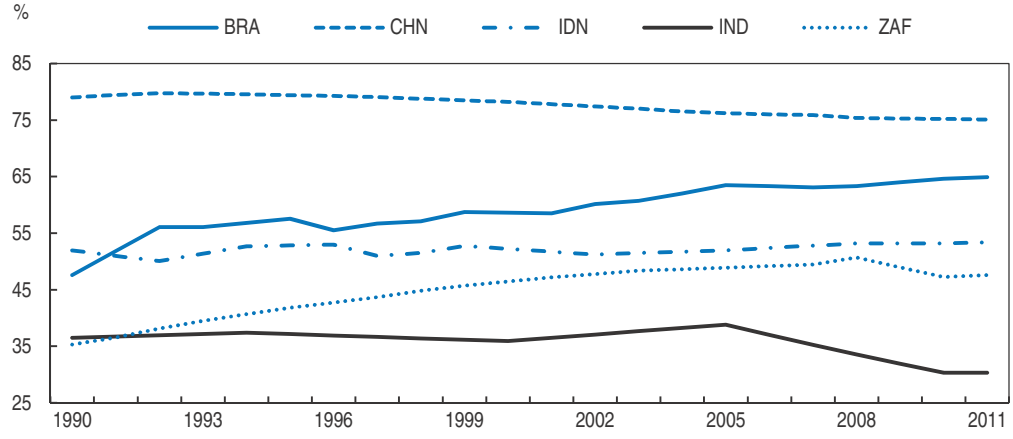
Vocational education should also be strengthened. Only 10% of the labour force aged 15-59 is vocationally trained (66th Round of NSS for 2009-10), and of those only a quarter received formal vocational training (Planning Commission, 2013). The National Policy on Skill Development, adopted in 2009 aims to increase skill levels of 500 million people by 2022, including 150 million through a public-private partnership – the National Skill Development Corporation (IDFC Foundation, 2013). However, it is important that industry skill requirements be better taken into account and that on-the-job training be an essential part of training (OECD, 2010). Curricula should be reviewed and updated more frequently, with inputs from academic and industry experts.

Raising female economic participation

India stands out with less than a third of working-age women in work; this is, for example, half that of Brazil (Figure 16). Female participation has in fact declined, especially since 2005. Men's wage employment has risen, increasing household incomes, and thereby allowing more women to stay home. This has been important for the large drop in participation of unpaid self-employed rural female workers. On the other hand, lack of jobs also led many women to drop out of the labour force (Table 2).

Participation is higher among the poor and somewhat surprisingly declines with education and family incomes (Figure 17). This reflects various supply and demand factors (see Technical background papers; Klasen and Pieters, 2013; Khera and Nayak, 2009), including social norms, as staying at home is often considered to increase the family's social status, although such influence is declining. There are also large regional

Figure 16. **Female labour force participation rate**[1]



1. Data refer to working age population (15 to 64 years).

Source: International Labour Organisation, *Economically Active Population, Estimates and Projections* (6th edition, October 2011).

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Table 2. **Employment trends**

Millions, 15-64 years of age

Net increase in…	2000	2012	Change 2000-12
	Female		
Working age population	**304**	**403**	**99**
Labour force			
Employment	123	129	6
Unemployment	2	3	1
Remaining outside labour force			
In education	18	42	24
Not in education	161	229	68
	Male		
Working age population	**326**	**427**	**101**
Labour force			
Employment	274	343	69
Unemployment	7	8	1
Remaining outside labour force			
In education	32	61	29
Not in education	13	15	2

Source: Working age population 15-64 years, estimates based on NSSO Rounds No. 61 and 68.

differences, with a much higher participation in Southern India (explained to some extent by religious customs in the regressions). Many women are self-employed in low productivity jobs as unpaid helpers as more formal jobs are scarce (Table 3), and only 6% of women who work, mostly those in the public sector, get social benefits. Affordable child care is inadequate, keeping many urban women out of the labour force. Female participation is also hindered by weak infrastructure, as time available for women to work is limited due to unsafe transport and unavailability of electricity or water.

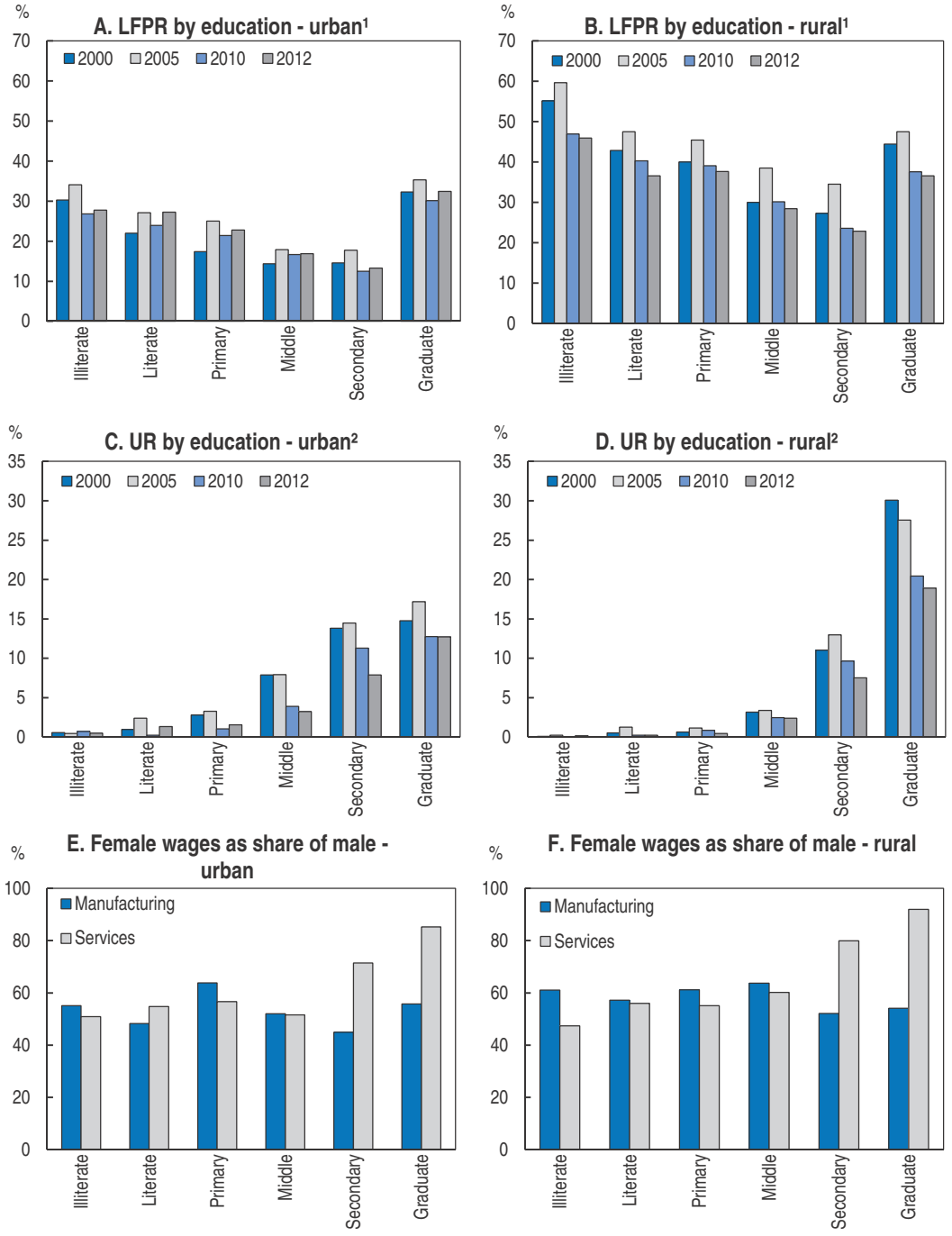
Weak implementation of and remaining gender biases in laws also affect women's opportunities for work. India ranks poorly compared to other BRIICs in the OECD Social Institutions and Gender Indicator (SIGI), which measures the impact of laws and socioeconomic or religious factors on women's status (Figure 18). While many laws provide for gender equality, they are often not implemented in practice. Despite equal pay laws, wage differentials remain large (van Klaveren et al., 2010, Rani and Belser, 2012, Figure 17) and in 2012 60% of women with salaried or casual jobs were paid below the minimum wage, compared to 25% for men (Rani and Belser, 2012). Women are also disadvantaged by inheritance laws, which restrict financial independence, access to credit and independent decision making (van Klaveren et al., 2010). Finally, labour laws restrict women's working hours and access to certain occupations.

At the same time, female entrepreneurship is increasing, especially in manufacturing where women account for 40% of entrepreneurs (Table 4). However, the increase is almost entirely accounted for by subsistence self-employed entrepreneurs, who work from home or as street vendors; the number of female entrepreneurs who have one or more employees has remained broadly stable (see *Technical Background Paper* No. 3). Entrepreneurship has been facilitated by education, work experience and role models, including through quotas in political representation on rural councils (Ghani et al., 2013; *Technical Background Paper* No. 3).

Weak demand is also contributing to lack of job opportunities. Double-digit unemployment among highly educated women suggests that many are willing to work if

Figure 17. **Female labour market indicators in India**

Working age population (15-64 years)



1. LFPR denotes the labour force participation rate of females.
2. UR denotes the unemployment rate of females.

Source: NSSO, Employment and Unemployment Survey, Rounds No. 55, 61, 66 and 68.

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they had access to jobs that matched their skills. Similarly, according to surveys, many women who stay at home report that they would like to work more, especially from home, were suitable work available (NSSO). Jobless growth has also reduced opportunities, and

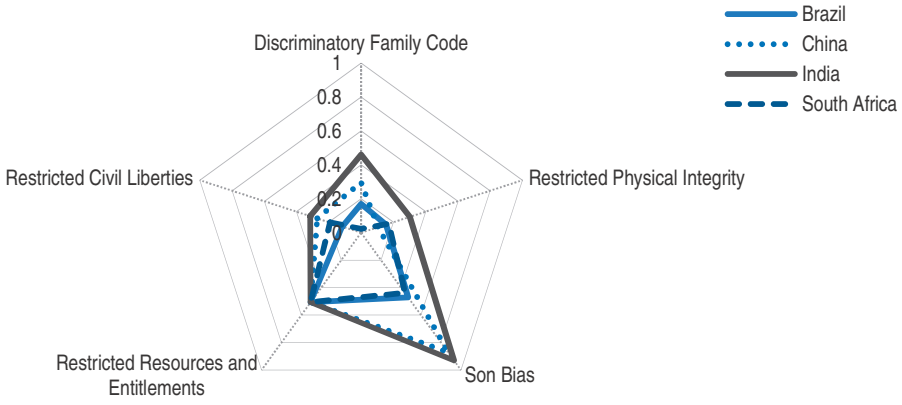
Table 3. **Distribution of employment by type**

In per cent

	2000		2005		2010		2012	
	Female	Male	Female	Male	Female	Male	Female	Male
Salaried	8	19	9	19	11	20	14	22
of which with social benefits	*n/a*	*n/a*	*4*	*9*	*5*	*9*	*6*	*9*
Casual	37	31	30	28	36	32	30	29
Paid self-employed	17	37	17	39	18	37	20	33
Unpaid self-employed	38	13	43	14	35	11	35	18
Total	100	100	100	100	100	100	100	100

Source: NSSO.

Figure 18. **Social institutions and gender index (SIGI)**[1]



1. Each of the SIGI variables is coded between 0, meaning no or very low discrimination, and 1, indicating very high discrimination.

Source: OECD, Gender, Institutions and Development Database 2012.

StatLink http://dx.doi.org/10.1787/888933163273

Table 4. **Female entrepreneurship in India in the unorganised sector**

% of all entrepreneurs

	2000	2010	Number
Entrepreneurs			
Manufacturing	6	5	142 416
Trade	4	3	81 149
Services	6	6	188 339
Self-employed			
Manufacturing	29	46	6 542 649
Trade	6	10	1 770 225
Services	6	8	1 282 522

Source: NSSO.

the fact that most jobs were created in construction that tends to employ men. OECD estimates that annual growth of the economy could be up to 2.4 percentage points higher following the implementation of a package of pro-growth and pro-gender policies (see *Technical Background Paper* No. 1).

India has pioneered many creative programmes to raise female status and participation in the economy, including training, gender budgeting, quotas for women in local councils,

requiring women on boards in the 2013 Companies Bill and a Women's Bank. India has also pledged to raise female economic participation in its G20 commitments. However, to realise the potential of higher female labour market participation, stronger gender specific measures are needed (World Bank, 2012; Duflo, 2012). It is important to reinforce the implementation of the many existing laws that provide for gender equality and women's rights, and to remove discriminatory legal measures. Specific issues that need to be addressed are:

- Expand the Aadhar programme to enlarge women's opportunities by providing bank accounts for more women.
- Raise social protection, maternity benefits, as well as child and elderly care to free more women to enter the formal labour force.
- Reinforce policies by the Ministry of Women and Child Development to promote training and access to credit to further increase entrepreneurship, including from home.
- Revive a proposal from 2002 to extend gender quotas to national and state parliamentary level. The female quotas in local councils (from 30 to 50% of seats and rotating chair) have raised women's status by showing that women can do the job, and has improved decision making (Beaman et al., 2012).
- Extend compulsory education for girls and change inheritance and dowry laws to raise marriage age and thereby permit women to invest more in skills (World Bank 2012; Duflo 2010; *Technical Background Papers*).
- Expand training programmes in various skills by the government and NGOs that have been helpful in matching skills and job requirements.

Recommendations to improve labour market performance

Key recommendations for reforming labour regulations while improving the education and training systems

- Reduce barriers to formal employment by introducing a simpler and more flexible labour law which does not discriminate by size of enterprise.
- Continue improving access to education, especially at the secondary level, and better focus on the quality of education at all levels. Provide better and earlier vocational training.

Key recommendations to enhance economic opportunities for women

- Extend female quotas to state and national parliaments.
- Further modernise labour laws to ensure equal work opportunities for women.
- Enhance the implementation of gender-related laws.
- Expand secondary and higher education for women and skills training for female entrepreneurs.

Further recommendation

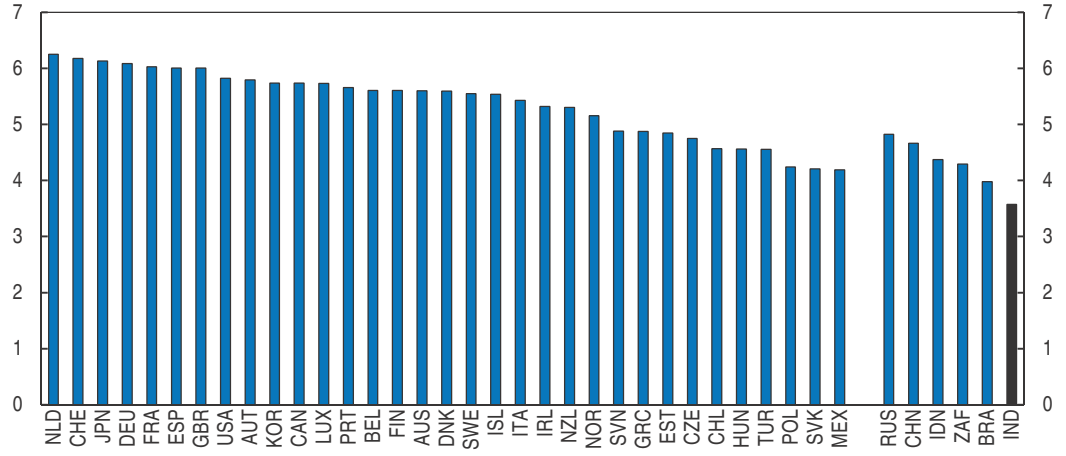
- Take account of industry skill requirements in vocational education; curricula should be reviewed and updated more frequently, with inputs from academic and industry experts.

Improving infrastructure

India's infrastructure, especially electricity supply, is poor (Figure 19). As a result, those activities that are heavily dependent on infrastructure, notably manufacturing, have grown more slowly Gupta et al. (2008). Infrastructure is high on the government's agenda, and the Twelfth Plan (2012-17) foresees an increase in infrastructure investment to 8.2% of GDP in the 5-year period (from 7.2% during the 11th plan). Around half of the total is to come from the private sector (Planning Commission, 2011). However, past plans have suffered huge delays and cost overruns (Ernst & Young and FICCI, 2012). The Cabinet Committee on Investment (CCI) established in December 2012 should help fast track large infrastructure projects, but it will be more important to simplify the myriad bureaucratic hurdles that projects face. The "minimum government, maximum governance" approach put forward by the new government and the consolidation of several ministries into large ones (e.g. for energy and for transport) should promote faster and more efficient decision-making.

Land acquisition has been the main cause of delay for around 70% of delayed infrastructure projects (IDFC and 3i Network, 2009; Ernst & Young and FICCI, 2012). Acquiring land can take up to three years even in the absence of resistance from local communities (Mahalingam and Vyas, 2011). The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Law, adopted in September 2013, increased the compensation paid to those displaced or otherwise affected by land acquisition, and should thereby reduce disputes and litigation. In addition, the required social and environmental assessment studies need to be done efficiently and with as little delay as possible. The required prior consent of at least 80%, and 70% of the affected families in the case of acquisition for private companies and for public private partnership, respectively, may also be a constraint. As pointed out in the *2011 OECD Economic Survey*, clarifying land title is also needed, as land records tend to be outdated, inaccurate and incomplete.

Figure 19. **India's infrastructure quality is poor**



Note: World competitiveness indicator – Infrastructure score.
The Global Competitiveness Indicator on infrastructure covers in equal weights the quality of transport, electricity and telephony infrastructure. Most of the information is based on surveys that ask business leaders what they think about the quality of each subcomponent in infrastructure.
Source: World Economic Forum 2014-15.

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In the last five years India has had the highest amount of infrastructure investment co-financed with the private sector among the low and middle income countries (World Bank, 2014). To promote the flow of long-term funds into infrastructure, the government has recently set up Infrastructure Debt Funds, raised limits on foreign institutional investment for infrastructure projects and liberalised external borrowing limits. Banks still contribute the bulk of infrastructure financing (City of London, 2012), but their ability to extend further long-term loans for infrastructure is limited by asset-liability mismatch. Many banks are also close to their prudential ceilings for exposure to the infrastructure sector. Deregulating the financial sector and deepening bond markets as suggested below would allow more capital to be raised and bring in new investors.

Recommendations to improve the quality of infrastructure

Key recommendation

- In the infrastructure sector, impose clear timelines, rationalise documentation, and implement single-window clearance.

Further recommendation

- Improve the land registry. Assess and amend as needed the new land acquisition law. The government should review the timelines within the Bill and aim to make land acquisition faster.

Reforming the financial sector

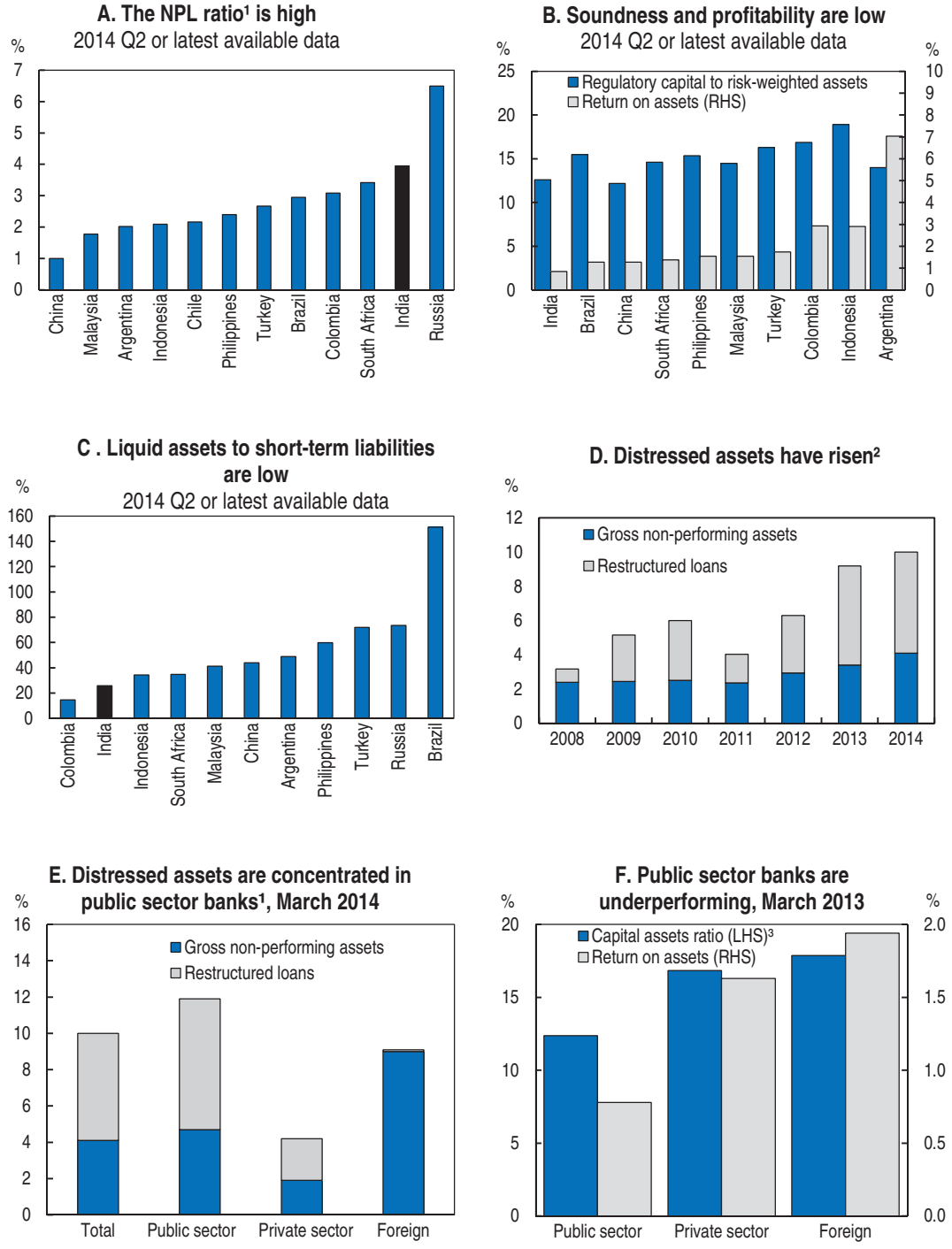
The government has long had a large presence in the financial sector, with a view to supporting priority sectors and promoting access to financial services for the poor. Public banks hold more than 70% of total commercial banking sector assets (RBI, 2013c), but public banks are the least profitable, have the weakest capital positions (Figure 20, Panels E and D), and hold an outsized share of non-performing loans (NPLs).

The limits of this strategy have become clear as households have diverted their savings away from the financial sector, non-performing loans have soared and public money has had to be used to bail out banks. Reform holds the promise of providing higher financial returns to savers (including poor households) and steering funds to their most productive use (including infrastructure). In 2013 the Financial Sector Legislative Reform Commission (FSLRC) recommended a single, unified legislative framework based on the principles of independence, accountability and transparency.

India imposes strict capital requirements on banks and was one of the first countries to move towards implementation of Basel III rules (expected to be fully implemented by March 2018). According to RBI stress tests, the capital position of banks is strong and a further deterioration in bank assets or adverse macroeconomic shocks would not push the capital ratio of the banking sector below the regulatory threshold (RBI, 2013a and 2013b). However, while the capital ratio – total capital to risk-weighted assets – generally remains above the national regulatory minimum of 9%, it has declined (RBI, 2013c). Moreover, Indian banks do not perform well on a number of measures (Figure 20, Panels A, B and C).

The steady rise in the share of non-performing loans (NPLs) and restructured corporate debt in total loans is of concern (Figure 20, Panels D and E). Banks have been allowed to reclassify certain loans as restructured rather than non-performing (lowering

Figure 20. **The performance of banks has deteriorated and compares poorly with other EMEs**



1. In percentage of gross advances. The NPL ratio is the ratio between the value of non-performing loans (NPL) and the total value of the loan portfolio.
2. In percentage of gross advances. Non-performing loans are loans which ceased to generate income for the bank. A restructured asset is an asset whose terms have been modified. The data shown refer to the value in March of each year.
3. The Capital to risk-weighted assets ratio (CRAR) is equal to the capital of the bank divided by aggregated assets weighted for credit risk, market risk and operational risk.

Source: IMF Financial Soundness Indicators Database and Reserve Bank of India.

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provisioning requirements), and many banks have turned to "extend and pretend" practices (Rajan, 2013). Overall, stressed assets – i.e. NPLs and restructured loans – accounted for over 10% of total loans outstanding in September 2013 (RBI, 2013b) and they were concentrated in the state banks. The provisioning requirement for all fresh restructured loans was recently increased from 2% to 5%, and the RBI released a framework, effective from April 2014, to encourage early identification of problem assets and swift restructuring of those that are considered viable. The RBI will also establish a central large-borrowers' database, thus facilitating the supervision of large exposures (RBI, 2014b). Early recognition of impaired assets and stricter asset classification need to continue (IMF, 2013 and 2014). Commercial banks should ensure independence of credit appraisal bodies and exert more control over the end-use of funds (RBI, 2013b).

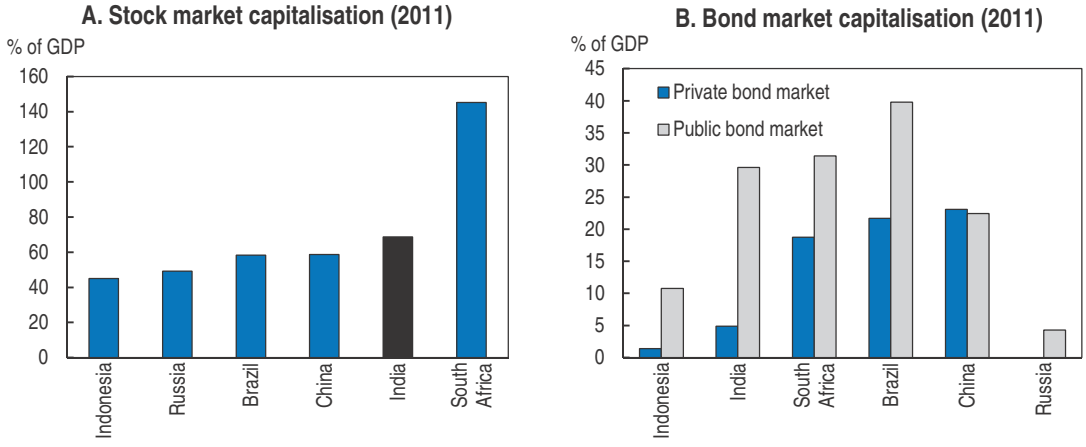
Regulations on the allocation of bank resources are strict

Two restrictions on banks increase financing costs for the private sector and lower the apparent (although not the true social) cost of debt-financed public spending. Banks are required to allocate at least 40% of their net credit to "priority sectors" determined by the government – agriculture, small-scale industry and a number of other "weaker" socio-economic categories. Furthermore, the Statutory Liquidity Ratio (SLR) requires banks to hold 22% of their deposits in government securities. Recent reduction of the SLR is a welcome step, although in general, banks' holdings of government paper exceed the SLR, because only government securities in excess of SLR can be used in repo transactions for liquidity management.

The RBI has recently taken steps to increase competition and efficiency in the banking sector. As argued in the *2011 OECD Economic Survey*, the entry of new private banks has raised the efficiency of India's banks in the past. Efficiency will rise further as, from 2014, more banking licences will be granted, banks will be able to open branches without prior RBI permission, and foreign banks will be allowed to open branches and subsidiaries.

Another potential source of competition is the corporate bond market. However, it has a capitalisation of only 5% of GDP (Figure 21), and there is a limited CDS market. It is therefore ill-equipped to meet long-term financing needs, notably of infrastructure

Figure 21. **The equity market is well developed while the private bond market is below par**



Source: World Bank Financial Development and Structure Dataset.

StatLink http://dx.doi.org/10.1787/888933163307

projects. Domestic institutional bond investors, such as pension funds and insurance companies, have to hold a large share of their assets in government bonds, and foreign institutional investors face a cap on corporate bond holdings. This contrasts with the equity market, which has become world-class thanks to liberalisation and sound regulation. As with the equity market, the authorities should liberalise the bond market by gradually relaxing the restrictions on domestic and foreign investors. Strong supervision will be required to ensure confidence in the liberalised market.

Financial inclusion is a priority

Access to financial services through bank accounts helps protect assets, and people with access to savings accounts, or even informal savings technologies, have higher income, consumption and productivity (OECD 2012, World Bank 2012). They invest in preventive health and have reduced vulnerability to illness and other unexpected events (Dupas and Robinson 2013, 2011; Ashraf et al., 2010). Bank accounts also enhance women's ability to make independent decisions on resource use in households (Duflo, 2012) and as entrepreneurs (OECD, 2012).

Despite a high density of bank branches – almost all villages with a population of more than 2000 have a branch (RBI, 2013c) – financial inclusion remains low in India. The use of basic bank products – deposits and credit – has risen, but only 35% of adults have an account at a formal financial institution, compared to 56% in Brazil or 64% in China (Demirguc-Kunt et al., 2013; Demirguc-Kunt and Klapper, 2013). In August 2014, the incoming government introduced the Jan Dhan Yojana scheme that aims at opening 75 million bank accounts by end-January 2015. Holding an account through the scheme will entitle a holder to an accidental insurance cover and, after 6 months of operations, to an overdraft facility. Under certain conditions life insurance cover is included.

Opening branches seems to be an expensive and inefficient way to reach the poor. 20% of respondents report cost as a reason for not having a bank account, and those in the bottom fifth of the income distribution are particularly likely (34%) to report cost as a major factor. To enhance financial inclusion, more attention could be given to less costly service provisions such as mobile phone banking as mobile penetration in India is high. This has been a success in countries like Kenya and the Philippines (World Bank, 2012). Financial services could also be offered through local gas stations or shops, as in Mexico or Brazil.

The most frequently reported source of new loans is friends or family, and people rely heavily on informal lenders. On the other hand, self-help groups (SHGs) and micro-finance institutions (MFIs) have been expanding rapidly over the past few years. In part this is because lending by banks to these two groups of institutions counts towards banks' priority loan targets, but they still represent only a minor share of total loans by commercial banks (OECD, 2011). MFIs are not allowed to offer saving accounts, which blocks one possible source of funding and denies the poor an alternative way of saving.

Recommendations to raise the effectiveness of the financial sector

Key recommendation

- Strengthen bank supervision by early recognition of asset deterioration and stricter provisioning standards.

Recommendations to raise the effectiveness of the financial sector *(cont.)*

Further recommendations

- Wind down bank lending obligations to priority sectors and gradually reduce the proportion of government bonds required to be held by banks and institutional investors (statutory liquidity ratio). Further ease restrictions on bond market investments by foreign institutional investors.
- In promoting financial inclusion, rely further on mobile banking and branching through local businesses, allow MFIs to take deposits.

Improving the business environment

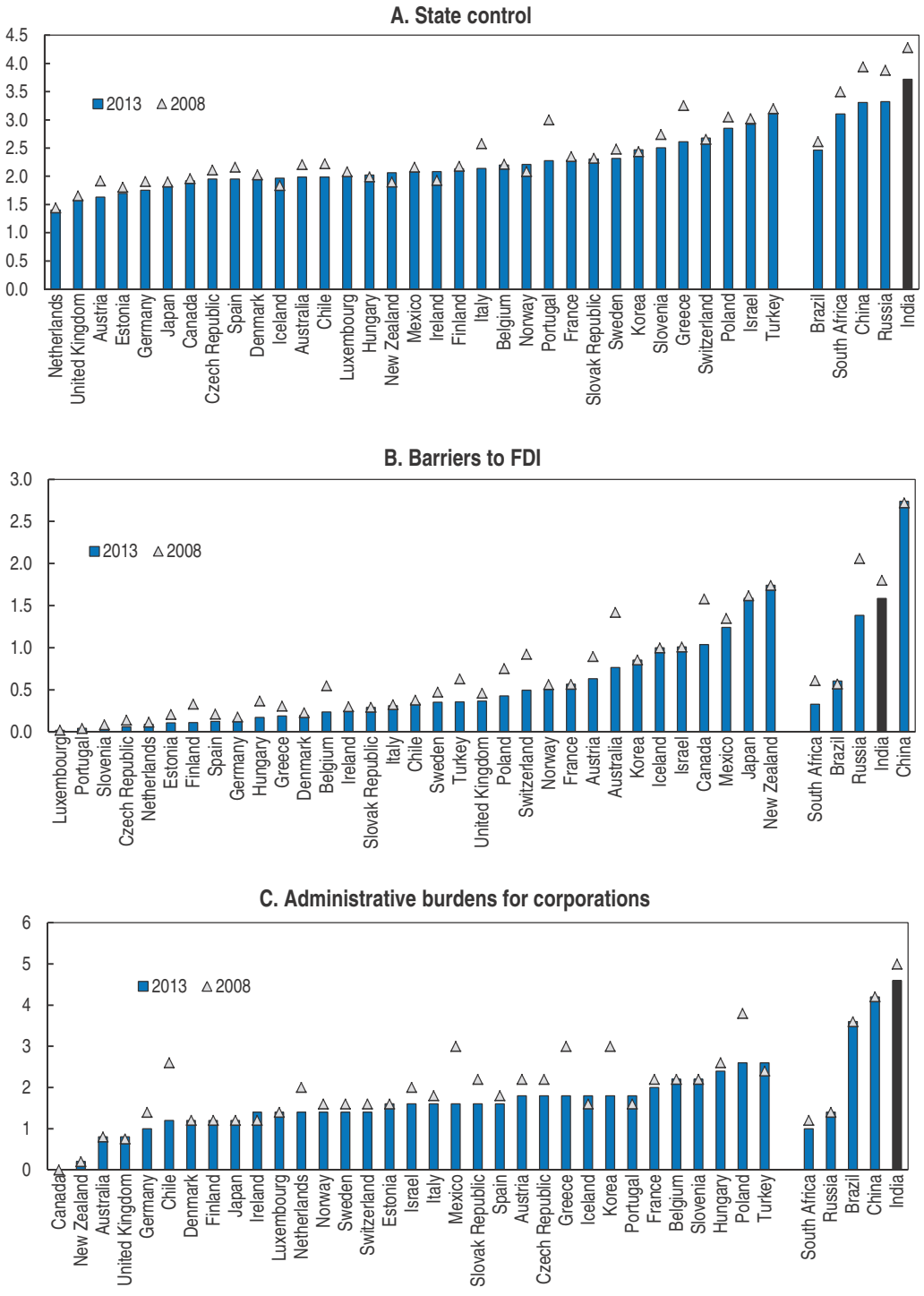
In 2013, India had the highest level of state control of the economy among 36 countries covered by the OECD product market regulation indicator, although the level has fallen since 2008 (Figure 22). While public ownership does not necessarily imply lower competition, in practice publicly owned enterprises enjoy a degree of commercial power and they face softer budget constraints, if only because they are backed by the state. For example, accumulated financial losses in the power sector, largely controlled by governments, amounted to 2.4% of GDP in FY 2011-12 (PFC, 2013).

India also has complex regulatory procedures and high administrative burdens for firms, which impede growth, keep prices high and create opportunities for corruption. As discussed also in the *2007 Economic Survey,* overly complex administrative procedures increase discretion within government bureaucracy, thereby enabling corruption. Bellver and Kaufmann (2005) find that institutional and political transparency is strongly negatively correlated with corruption. In Transparency International's Corruption Perceptions Index, India ranks 94 out of 177 countries in 2013, and its relative rank in control of corruption has declined over time (Worldwide Governance Indicators). Due to poor administration and corruption, a large part of subsidies (electricity, food and fuel) does not reach the poorest groups; lack of proper monitoring and lax accountability mechanisms result in waste, leakages and corruption (Rangarajan, 2005). Recent efforts to simplify administrative procedures – e.g. the online single window for providing clearance and filing compliance – and to repeal archaic rules are welcome and should contribute to reduce corruption.

There have been initiatives to simplify and improve government administration, including through ICT, to increase transparency. However, such efforts need to filter down to departmental hierarchies and to be implemented at the lower levels. More attention needs to be devoted also to implementation challenges. Many good initiatives at the top level never reach the ground due to lack of political will and capability in the administration. States in India have direct responsibility for a number of areas, but their attitudes and efficiency with which they administer basic laws can differ considerably. The Central Vigilance Commission, the key anti-corruption authority, needs to be strengthened, including by making the process for appointment of its head more independent.

Exit barriers are also high. Insolvency procedures average 4.3 years, compared to 1.7 years in OECD countries, and the recovery rate of assets from bankrupt firms is low (Figure 23). As a result, resources get locked up for prolonged periods in economically

Figure 22. **Product market regulation is restrictive**[1]

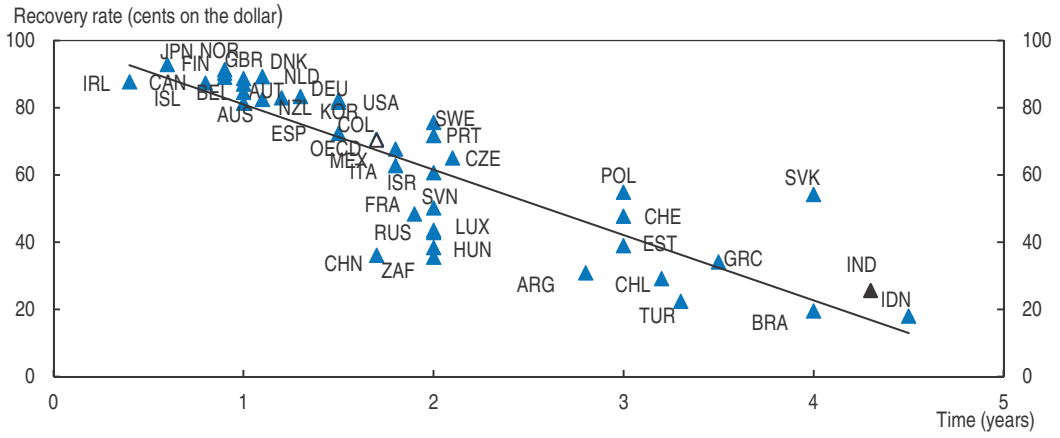


1. The OECD Indicators of Product Market Regulation (PMR) are a comprehensive and internationally-comparable set of indicators that measure the degree to which policies promote or inhibit competition in specific areas. The indicator runs from 0 to 6, representing the least to most restrictive. Shown is a subset of the PMR indicators for relevant areas.

Source: OECD Product Market Regulation Database 2013.

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Figure 23. **There is scope to improve the insolvency legislation and debt-recovery rates**



Source: World Bank Doing Business Database.

StatLink http://dx.doi.org/10.1787/888933163324

unviable companies, causing difficulties for creditors, including the banks. Together with stringent employment protection legislation, these factors explain the extremely large share of the informal sector. The new Companies Bill will speed up company registration and, for companies in distress, give greater powers to creditors to supervise a rescue plan and restrict the powers of the incumbent management. More needs to be done, however. Reducing red tape and barriers to exit, notably by reforming bankruptcy legislation, would increase economic dynamism and growth.

While India is considerably more open to FDI than China, the barriers to FDI are much higher than in most OECD economies. FDI inflows remain low as a share of investment (OECD, 2011), stripping India of a valuable source of stable financing, technology transfer and growth. Recent measures – increased openness in the retail sector from 2013 and further deregulation in defence and insurance in 2014 – are steps in the right direction.

Recommendations to improve the business environment

Key recommendation

- Continue improving the business environment and opening up the economy.

Further recommendations

- Strengthen governance of state-owned enterprises, and reduce public ownership over time.
- Further simplify regulations and reduce administrative burdens on firms. Introduce a modern bankruptcy law.

Achieving better health outcomes in a cost-effective way

India has a national health care system which in principle provides a comprehensive array of services to all and at no cost, but in practice it struggles to do so consistently. The strength of public health care services is their comprehensive geographical footprint,

especially in rural communities where the poor are located. Considerable progress has been achieved – infant mortality has almost halved since 1990, life expectancy has increased and in early 2014 India celebrated its victory over polio. However, health outcomes remain poor, even compared with countries at a similar level of economic development. High mortality rates from avoidable diseases, particularly among infants, are illustrative. This undermines well-being, suppresses labour force participation, diminishes returns to education and limits the ability and incentives to save. Paying for health care pushed 60 million Indians below the poverty line in 2010 (Marten et al., 2014).

India's low life expectancy reflects a high number of deaths among the youth from communicable diseases that are inextricably linked to poverty, and in this sense the most significant gains in improving health will come from population-wide measures outside of hospitals (Chow et al., 2007). Improving sanitation and access to clean water, as well as better sex-education and child immunisation are examples of needed measures. Increasing taxes on tobacco; reducing the use of solid fuels in cooking; reducing salt intake and improving road safety can all play a major role in increasing the life expectancy of the poor.

Meeting India's enormous health care needs will require more public resources, greater public sector efficiency and more private sector involvement. The system today suffers from small budgets; shortages of trained personnel and poor management. While public health spending has increased slightly in recent years, at 1.2 % of GDP it remains very low compared to other BRIICS. As a result, public facilities are not available where needed; are overcrowded and lack basic supplies. Private health care providers have grown, but they range from unqualified persons offering services in poor areas to high-end services equal to the best of the OECD. At the same time, private health insurance is underdeveloped and primarily targeted at the rich, and as a result health care costs account for a large share of poor households' budgets (Ladusingh and Pandey, 2013).

To attain universal health coverage, India will need more than was foreseen in the previous government plan to raise spending from 1.9% to 2.5% of GDP. Much of the anticipated spending towards this target is directed at improving water and sanitation. The National Rural Health Mission, launched in 2005, complemented in 2013 by a National Urban Health Mission, already increased health care funding to the states and brought significant improvement of public health care services. More is needed, however. The cost of delivering a benefit package of key services across the population is estimated to range between 0.4% to 1% of GDP by 2017, over and above the government target (World Bank, 2013). The central government will need to take the lead in providing additional funding, as states have limited and uneven revenue-raising capacity.

Government sponsored health insurance schemes targeted at the poor have grown quickly to promote equity in access. The Rashtriya Swasthya Bima Yojana (RSBY, literally "National Health Insurance Programme"), the largest of such insurance schemes, was launched in 2008 for the below-poverty-line population and informal sector workers. It now covers 38 million out of an estimated 60 million below-poverty-line families. It reimburses private hospital care for the poor and introduces incentives to raise public hospital activity and efficiency by allowing performance-based payments in public hospitals. Still, poor families rarely use health care services financed by the RSBY, partly because they lack information on their coverage. Efforts should thus be made to raise awareness among the targeted population. The government's plans to expand the RSBY to

primary health care services. Public clinics in deprived areas (rural communities and urban slums in particular) should be given priority since improving primary care will have a greater impact on the poor.

India has too few qualified health personnel despite increases in the number medical students since 2009. The most pressing concern is the low number of nurses, as they lead the delivery of basic health care services to the poor. As a result, doctors are doing too many basic tasks. The government's policy of doubling the number of training colleges for health workers is welcome but needs to be coupled with other reforms. The deregulation of medical education and a growing number of private colleges have increased capacity but establishing a quality framework and ensuring that education costs remain reasonable will be critical to securing a pipeline of well-trained doctors and nurses. Central government should also be more aggressive in prioritising the Northern states with more severe shortages of professionals when it decides the location of medical colleges.

There is also scope to improve the education of existing medical workers. The proposal to establish a shorter rural medical degree to meet the basic needs of under-served communities deserves support. Similarly, as was done in Korea and pioneered in the states of Tamil Nadu and Maharashtra, traditional medical workers should have the opportunity to undertake a "bridging" medical or advanced nursing degree. The new "Continuing Nursing Education Programme" is a positive development to help nurses upgrade their skills. The government should go further and encourage the development of nurses with expert medical skills in specific fields (known as advanced professional nurses), as in the United States, Canada and Ireland (OECD, 2010).

Governments and universities should also encourage professionals to work in rural areas. Australia and Canada have established a compulsory training rotation in rural and primary care facilities. Likewise, Tamil Nadu reserves a share of postgraduate education posts for those who have worked in government facilities. A similar practice should be adopted by other states.

The quality of care varies widely in private medical facilities, as certification is weak. Enforcing quality regulation would help to ensure that private health care services meet minimum standards of care and medical professionals hold the minimum qualifications. The recent Clinical Establishments Act provides a basis for regulating private facilities but it should be implemented more quickly; be better enforced and adopted by all states. An up-to-date register of qualified medical professionals is a key to verifying expertise and identifying instances of malpractice. While in most OECD countries medical associations maintain registries and oblige doctors to keep their medical knowledge current, this has not been adequately undertaken by the Medical Council of India. As has occurred in Israel and Turkey, the government should step in if the medical profession cannot do so.

To better monitor the use of funding and performance, the quality and timeliness of data on services actually provided needs to be improved. This would require reforming the Health Management Information System (HMIS) by training and motivating grass-root functionaries (Husain et al., 2012). States' ability to deliver health care also needs to be strengthened. For example, states with better trained managers perform better (Muralidharan et al., 2013), suggesting that management training should be expanded. The Indian Public Service practice of frequent rotation should be modified so managers can be held responsible for policies that take some time to come to fruition. Increasing the

reliance on performance-based payments for hospitals (such as Diagnosis Related Groups), primary health care centres and health professionals should also be considered to improve efficiency of existing resources.

Recommendations to improve health outcomes for all

Key recommendations

- Increase public spending on health care with particular focus on preventive and primary care, especially in rural areas and urban slums.
- Expand the number of health professionals and up-skill professionals located in rural areas.
- Strengthen the management of public health care facilities and ensure that private facilities and their employees meet minimum quality standards.

Bibliography

Anand, R., S. Mishra and S. Peiris (2013), "Inclusive Growth: Measurement and Determinants", *IMF Working Paper,* No. 13/135, *www.imf.org/external/pubs/cat/longres.aspx?sk=40613.0*.

Ashraf, N., E. Field, and J. Lee (2010), *Household bargaining and excess fertility: An experimental study in Zambia*, Mimeo, Harvard University.

Balarajan, Y., S. Selvaraj and S.V. Subramanian, "Health care and equity in India", *The Lancet*, Vol. 377, Issue 9764, pp. 505-515, February, *http://dx.doi.org/10.1016/S0140-6736(10)61894-6*.

Beaman, L., R. Chattopadhyay, E. Duflo, R. Pande and P. Topalova (2012), "Powerful Women: Does Exposure Reduce Bias?", *The Quarterly Journal of Economics* No. 124 (4), Oxford University Press, Oxford.

Bellver, A. and D. Kaufmann (2005), "Transparenting Transparency: Initial Empirics and Policy Applications", *World Bank Policy Research Working Paper*, September.

Blanchard, O. (2013), "Monetary policy will never be the same", *www.voxeu.org/article/monetary-policy-will-never-be-same*.

Blanchard, O. and F. Giavazzi (2004), "Improving the SGP through a Proper Accounting of Public Investment", *CEPR Discussion Paper* No. 4220.

Blundell-Wignall, A. and C. Roulet (2013a), "Macro-prudential policy, Bank systemic risk and capital controls", DAF/CMF(2013)11/rev1.

Blundell-Wignall, A. and C. Roulet (2013b), "Capital Controls On Inflows, The Global Financial Crisis And Economic Growth: Evidence For Emerging Economies", *DAF/CMF(2013)12*.

Bose, A. and N.R. Bhanumurthy (2013), "Fiscal Multiplier for India", *NIPFP Working Paper* No. 125, *www.nipfp.org.in/media/medialibrary/2013/09/WP_2013_125.pdf*.

Burniaux, J. and J. Chateau (2011), "Mitigation Potential of Removing Fossil Fuel Subsidies: A General Equilibrium Assessment", *OECD Economics Department Working Papers*, No. 853, OECD Publishing. *http://dx.doi.org/10.1787/5kgdx1jr2plp-en*.

CGAP (2013), "Direct Benefit Transfer and Financial Inclusion, Learning from Andhra Pradesh", *www.cgap.org/sites/default/files/andhra_pradesh_summary_final.pdf*.

Chow, J., S. Darley, and R. Laxminarayan (2007), "Cost-effectiveness of Disease Interventions in India", *Resources for the Future Discussion Paper,* Washington.

City of London (2012), *Indian Infrastructure 2010-2012: Review*, September, *www.cityoflondon.gov.uk/business/support-promotion-and-advice/promoting-the-city-internationally/india/Documents/Indian%20Infrastructure%20review%20paperSept2012.pdf*.

Crisil (2014), "Hire & Lower – Slowdown compounds India's job-creation challenge", January, *www.crisil.com/pdf/research/CRISIL_Research_Insight_Employment_Jan2014.pdf*.

Demirguc-Kunt, A. and L. Klapper (2013), "Measuring Financial Inclusion – Explaining variation across and within countries", *www.brookings.edu/~/media/Projects/BPEA/Spring%202013/2013a_klapper.pdf*.

Demirguc-Kunt, A., L. Klapper and D. Randall (2013), "The Global Findex Database: Financial Inclusion in India", Findex notes: February.

Dougherty, S. (2009), "Labour regulation and employment dynamics at the state level in India", *Review of Market Integration*, 1: 295 March 2013, *http://rmi.sagepub.com/content/1/3/295*.

Dougherty, S., V. Frisancho Robles and K. Krishna (2011), "Employment Protection Legislation and Plant-Level Productivity in India", *www.oecd-ilibrary.org/economics/employment-protection-legislation-and-plant-level-productivity-in-india_5kg0ndktrx46-en*.

Drèze, J. and A. Sen (2013), *An Uncertain Glory – India and its Contradictions*, Princeton Press.

Duflo, E. (2012), "Women's empowerment and economic development", *CEPR Discussion Paper* No. 8734, January, London.

Dupas, P. and J. Robinson (2013) "Savings Constraint and Microenterprise Development: Evidence from a Field Experiment in Kenya", *American Economic Journal: Applied Economics* No. 1: 163-92.

Ernst & Young (2012), "Higher Education in India: Twelfth Five Year Plan (2012-2017) and beyond", FICCI Higher Education Summit, *www.ey.com/Publication/vwLUAssets/Higher_Education_in_India/$File/EY-FICC_Higher_Education_Report_Nov12.pdf*.

FICCI (2012), "Lack of affordable & quality power: Shackling India's growth story", *www.irgamag.com/images/pdf/Power%20Report.pdf*.

Forbes, K. and M.W. Klein (2013), "Policymaking in crises: Pick your poison", Vox *www.voxeu.org/article/policymaking-crises-pick-your-poison*.

Gandullia, L., N. Iacobone, A. Thomas (2012), "Modelling the Tax Burden on Labour Income in Brazil, China, India, Indonesia and South Africa", *OECD Taxation Working Papers*, No. 14, OECD Publishing, *www.oecd-ilibrary.org/taxation/modelling-the-tax-burden-on-labour-income-in-brazil-china-india-indonesia-and-south-africa_5k8x9b1sw437-en*.

Ghani, E., W. Kerr, S. D O'Connell (2013), "What explains Big Gender Disparities in India- Local Industrial Structures and Female Entrepreneurship", *World Bank Policy Research Working Paper* No. 6228.

Ghose, A.K. (2011), "Addressing the employment challenge: India's MGNREGA", *Employment Working Paper,* No. 105, *www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_elm/---analysis/documents/publication/wcms_175197.pdf*.

Government of India (2014), *Economic Survey 2013-14*, Indian Ministry of Finance, *http://indiabudget.nic.in/survey.asp*.

Government of India (2013), *Economic Survey of India 2012-13,* Indian Ministry of Finance, *http://indiabudget.nic.in*.

Goyal, R. (2013), "Sustainable Level of India's Current Account Deficit", *RBI Working Paper* No. 16/2012 *http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/WPSSLI070812.pdf*.

Gulati, A., J. Gujral and T. Nandakumar (2012), "National Food Security Bill – Challenges and Options", Commission for Agriculture Costs and Prices, *Discussion Paper* No. 2, *http://cacp.dacnet.nic.in/NFSB.pdf*.

Gupta, P., R. Hasan and U. Kumar (2008), "What constraints Indian manufacturing?", *ERD Working Paper* No. 119, Asian Development Bank.

Hagemann, R. (2010), "Improving fiscal performance through fiscal councils", *OECD Economics Department Working Papers*, No. 829, *www.oecd.org/eco/surveys/46673013.pdf*.

Husain, Z., N. Saikia and R.S. Bora (2012), "Opportunities and challenges of health management information system in India: A case study of Uttarakhand", *MPRA Paper, http://mpra.ub.uni-muenchen.de/40014/*.

IEA (2013), "Emissions of CO_2, CH_4, N_2O, HFCs, PFCs and SF_6", IEA CO_2 Emissions from Fuel Combustion (database).

Imbert, C. and J. Papp (2013), "Labor Market Effects of Social Programs: Evidence from India's Employment Guarantee", *http://d.repec.org/n?u=RePEc:oxf:wpaper:wps/2013-03&r=dev*.

Imbert, C. and J. Papp (2012), "Equilibrium Distributional Impacts of Government. Employment Programs: Evidence from India's Employment Guarantee", *PSE Working Paper,* No. 2012-14, *http://halshs.archives-ouvertes.fr/docs/00/68/04/51/PDF/wp201214.pdf*.

IMF (2013), Article IV, *www.imf.org/external/pubs/cat/longres.aspx?sk=40299.0*.

Infrastructure Development Finance Company (IDFC), 3i Network (2009) "India Infrastructure Report 2009: Land – A Critical Resource for Infrastructure", Oxford University Press, *www.idfc.com/pdf/report/IIR-2009.pdf*.

Infrastructure Development Finance Company (IDFC) Foundation (2013), "India Infrastructure Report 2012: Private Sector in Education", Routledge. *www.idfc.com/pdf/report/IIR-2012.pdf*.

Jahan, S. (2012), "*Inflation Targeting: Holding the Line*", Finance & Development, *www.imf.org/external/pubs/ft/fandd/basics/target.htm*.

Jha, S. and B. Ramaswami (2011), "The Percolation of Public Expenditure: Food Subsidies and the Poor in India and the Philippines", *Indian Statistical Institute Discussion Paper* No. 11-14, *www.isid.ac.in/~pu/dispapers/dp11-14.pdf*.

Joumard, I. and J. Londoño Vélez (2013), "Income Inequality and Poverty in Colombia – Part 2. The Redistributive Impact of Taxes and Transfers", *OECD Economics Department Working Papers*, No. 1037, OECD Publishing, *http://dx.doi.org/10.1787/5k487n4r0t8s-en*.

Khera, R. and N. Nayak (2009), "Women Workers and Perceptions of the National Rural Employment Guarantee Act", *Economic & Political Weekly* 24 October, 2009, Vol. XLIV, No. 43, *http://knowledge.nrega.net/818/1/REGS.pdf*.

Klasen, S. and J. Pieters (2013), "What Explains the Stagnation of Female Labor Force Participation in Urban India?", *IZA DP* No. 7597, *http://ftp.iza.org/dp7597.pdf*.

Ladusingh L. and A. Pandey (2013), "High inpatient care cost of dying in India", *Journal of Public Health*, Vol. 21, Issue 5, October, *http://link.springer.com/article/10.1007/s10389-013-0572-9/fulltext.html*.

Lim, C., F. Columba, A. Costa, P. Kongsamut, A. Otani, M. Saiyid, T. Wezel and X. Wu (2011), "Macroprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences", *IMF Working Paper*, October.

Mahalingam, A. and A. Vyas (2011), "Comparative Evaluation of Land Acquisition and Compensation Processes", *Economic and Political Weekly* August, Vol. XLVI, No. 32.

Mehrotra, S., S. Sinha, J.K. Parida and A. Gandhi (2014), "Why a jobs turnaround despite slowing growth?", *IAMR Occasional Paper* No. 1/2014, *Literature\Mehrotra 2014 on employment trends.pdf*.

Ministry of Rural Development, Government of India (2012), *An Anthology of Research Studies on the Mahatma Gandhi National Rural Employment Guarantee Act, 2006-2012*.

Mohanty, D., A.B. Chakraborty, A. Das and J. John (2011), "Inflation Threshold in India: An Empirical Investigation", *RBI Working Paper* No. 18, *http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/18WPS071011F.pdf*.

Mohanty, D. (2011), "How does the Reserve Bank of India conduct its Monetary Policy?", *Reserve Bank of India Bulletin*, September.

Morgan Stanley (2014), "India Economics – Macro Indicators Chartbook: Still Stuck in a Low Growth Trend", Morgan Stanley Research, January.

NCAER (2009), "Moving to Goods and Services Tax in India: Impact on India's Growth and International Trade", Prepared for the Thirteenth Finance Commission Government of India. *www.ncaer.org/Downloads/WorkingPapers/wp103.pdf*.

OECD (2010), "Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries", *Health Working Paper* No. 54.

OECD (2011), *OECD Economic Survey on India*, pp. 36-37.

OECD (2012), "Mapping Global Value Chains", *OECD Working Paper*, TAD/TC/WP/RD9, *www.oecd.org/dac/aft/MappingGlobalValueChains_web_usb.pdf*.

PFC (2013), "Report on the performance of state power utilities for the years 2009-10 to 2011-12", Power Finance Corporation Ltd.

Planning Commission (2011), *Faster, Sustainable and More Inclusive Growth – An Approach to the 12th Five Year Plan*.

Planning Commission (2013),Twelfth Five Year Plan (2012-2017), Social Sector, Volume III.

Rajan, R. (2013), "The five Pillars of Reserve Bank of India's financial sector policies", Speech by Dr Raghuram Rajan, Governor of the Reserve Bank of India, at Bancon 2013, Mumbai, November.

Rangarajan, C. (2005), "Strengthening Financial Management for Rural Employment Guarantee Scheme", paper presented to a workshop held at the National Institute of Public Finance and Policy, New Delhi.

Rani, U. and P. Belser (2012), "The effectiveness of minimum wages in developing countries: The case of India", *International Journal of Labour Research* Vol. 4, Issue 1, *www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_183568.pdf*.

RBI (2013a), *Financial Stability Report*, Issue 7, June, *http://rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=712*.

RBI (2013b), *Financial Stability Report*, Issue 7, December, *http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FSRDEC301213_FL.pdf*.

RBI (2013c), *Report on Trend and Progress of Banking in India*, June, *http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/0RTP21112013_F.pdf*.

RBI (2014a), Expert Committee, "Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework", January, *http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/ECOMRF210114_F.pdf*.

RBI (2014b), "Early Recognition of Financial Distress, Prompt Steps for Resolution and Fair Recovery for Lenders: Framework for Revitalising Distressed Assets in the Economy", 30 January 2014, *http://rbidocs.rbi.org.in/rdocs/content/pdfs/NPA300114RFF.pdf*.

Saborowski, C., S. Sanya, H. Weisfeld and J. Yepez (2014), "Effectiveness of Capital Outflow Restrictions", *IMF Working Paper,* No. 14/8, *www.imf.org/external/pubs/cat/longres.aspx?sk=41269.0*.

UNFCCC (2014), Clean Development Mechanism portal, website accessed on 28/07/2014, *http://cdm.unfccc.int/*.

Vaidya, D.S. and K. Kanagasabapathy (2013), "Reform of Indirect Taxes – Hurdles before the GST", *Economic and Political Weekly*, June, Vol. 48, Nos. 26 and 27, *Literature\Vaidya 2013 Reform of Indirect Taxes.pdf*.

Van Klaveren et al. (2010), "An Overview of Women's Work and Employment in India", Decisions for life MDG3 Project, *Country Report*, No. 13, Amsterdam.

World Bank (2008), *Skill Development in India, the Vocational Education and Training System*, World Bank, Washington.

World Bank (2012), *India Economic Update*, September, *www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/10/10/000356161_20121010010015/Rendered/PDF/730930REVISION0pdata0September02012.pdf*.

World Bank (2013), "Doing Business 2013: Smarter Regulations for Small And Medium-Size Enterprises", *www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB13-full-report.pdf*.

World Bank (2013), *Paying Taxes*, *www.doingbusiness.org/~/media/GIAWB/Doing%20Business/Documents/Special-Reports/Paying-Taxes-2013.pdf*.

World Bank (2014), *Private Participation in Infrastructure Database*, *http://ppi.worldbank.org/explore/Report.aspx?mode=1*.

Zimmermann, L. (2012) , "Labor Market Impacts of a Large-Scale Public Works Program: Evidence from the Indian Employment Guarantee Scheme", *IZA DP,* No. 6858, *http://ftp.iza.org/dp6858.pdf*.

Technical background papers:

Technical Background Paper No. 1 – Agenor, P. (forthcoming), *Gender Equality and Economic Growth: An overlapping generations model for India*.

Technical Background Paper No. 2 – Didier, M., C. Guimaraes, J. Mares, M. Rabate, P. Sorsa, D. Tang, A. Tuske (forthcoming), *Determinants of Female Labour Force Participation in India*.

Technical Background Paper No. 3 – Daymard, A. and P. Sorsa (forthcoming), *Determinants of Female Entrepreneurship in India*.

ANNEX

Follow-up to previous OECD policy recommendations

This annex reviews policy recommendations from previous Surveys. *They cover the following areas: public finance, subsidies, tax system, education, labour market, product and service markets (including public enterprises), financial reform, and infrastructure. Each recommendation is followed by a note of actions taken since the* 2011 Survey. *Recommendations that are new in this* Survey *are listed in the relevant chapter.*

Public finance

Fiscal framework

Recommendations from previous Surveys	Actions taken
Revise government accounting principles to recognise depreciation. Introduce three-year detailed rolling budgets that fit with the medium-term deficit strategy.	No action taken
Introduce new legislation to create a permanent Finance Commission to oversee implementation of fiscal rules.	No action taken

Public spending

Recommendations from previous Surveys	Actions taken
Further experiment with cash transfers, including conditional cash transfers, to provide direct assistance to the neediest. Improve the efficiency of the Public Distribution System by introducing food tokens which could be redeemed at fair price or commercial shops, or instead by providing cash transfers.	The Direct Benefit Transfer (DBT) programme was launched in 2013. For various welfare schemes, beneficiaries receive money directly on bank accounts flanked with a unique identification system, thus eliminating middle men and corruption. The DBT however has not been extended to key subsidy programmes, in particular the food subsidy and the rural employment programmes, while the experiment to extend the DBT to gas cylinders has been put on hold. A pilot project for the kerosene subsidy was launched in 2011 in Rajasthan. The Food subsidy was made more generous in 2013 but no significant reform has been introduced yet to make the Public Distribution System more efficient.
Fully liberalise diesel prices. Establish a timetable for the removal of kerosene and LPG subsidies. Stick to the pledge made in the 2010-11 Budget not to issue any more oil bonds.	In 2013, the government set up a path of gradual hikes in diesel prices so as to eliminate the diesel subsidies. Diesel prices were deregulated in October 2014. Caps on subsidised LPG cylinders were lowered in 2013 but raised again. The natural gas price was hiked in October 2014. No oil bonds have been issued since the 2010-11 budget.
Liberalise fertiliser prices.	No action taken
Ensure that future adjustments to the wage offered under the National Rural Employment Guarantee Scheme are not excessive relative to the market wage.	No action taken

Tax reform

Recommendations from previous Surveys	Actions taken
Reduce the extent of exemptions for corporate taxation, agricultural incomes, excise taxes and tariffs, and lower standard rates of taxation.	No action taken
While moving to a General Sales Tax, introduce a two-tier state and central VAT, abolish service tax and central excise taxes, and countervailing duty.	No action taken
Ensure that tax incentives in new SEZs are neutral between labour and capital-intensive projects which produce the same pre-tax return.	No action taken

Fiscal federalism

Recommendations from previous Surveys	Actions taken
Unify formulae used for transfers to states by the Finance Commission and the Planning Commission.	No action taken
Improve the administration of central government schemes for transfers to states.	No action taken

Education

School education

Recommendations from previous Surveys	Actions taken
Participate in additional international surveys of learning achievement in order to facilitate international benchmarking of Indian school students in a larger number of states.	No action taken
Consider linking levels of reimbursement for private schools to student performance.	No action taken
Improve performance incentives for public school teachers by strengthening dismissal mechanisms for repeated absenteeism or unsatisfactory performance. Improve access to in-service teacher training for all teachers.	No action taken
Explore options for introducing conditional cash transfers to help further boost enrolment and completion rates. Ensure an adequate increase in government funding to expand secondary schools in particular.	Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is a major initiative for the development of *secondary education* in public schools, launched in 2009. 75% of the funding is provided by the central government. The budgetary allocation by the central government rose significantly.

Vocational and tertiary education

Recommendations from previous Surveys	Actions taken
Devolve more managerial responsibility to vocational training institutions and further strengthen industry linkages.	No action taken
Improve incentives for stronger performance by making funding less input-based. Tie funding to accreditation and assessment outcomes and increase share of project-based funding for research.	No action taken
Encourage the entry of quality foreign higher education providers by minimising the regulatory burden. Reform promotion arrangements for academics by focusing more on performance.	No action taken

Reforming product and service markets

Regulation of internal markets

Recommendations from previous Surveys	Actions taken
Undertake a comprehensive review of regulations at all levels of government to re-engineer processes, eliminate unnecessary steps, and optimise the process at the back-end before a service is delivered. Carry out Regulatory Impact Analysis to assess significant new regulatory proposals.	No action taken
Use ICT to increase transparency and reduce opportunities for corruption and introduce severe penalties.	No action taken
Amend the Companies Act 1956 to facilitate liquidation procedures for firms when necessary.	The Companies Bill was passed in 2013. For companies in distress, it gives greater powers to creditors to supervise a rescue plan and restricts the powers of the incumbent management.

Foreign Direct Investment and trade

Recommendations from previous Surveys	Actions taken
Continue to reduce trade and FDI barriers, especially in services and network industries.	There has been FDI deregulation for selected sectors. 100% FDI is allowed in the telecom sector and single-brand retail. FDI in commodity exchanges, stock exchanges and depositories, power exchanges, petroleum refining by public sector undertakings and courier services are now allowed under automatic route (without prior approval by the authorities). Under the new government, FDI limits were raised in defence sector. Construction, operation and maintenance of specific activities of the railway sector are now opened to 100% foreign direct investment under automatic route. The cabinet eased foreign direct investment limit in the insurance sector to 49%.
Complete the move to a 5% import tariff for all manufactured products, including textiles, cars, tobacco and alcohol.	No action taken.

Reforming the labour market

Labour regulations

Recommendations from previous Surveys	Actions taken
Redesign and moderate the framework for employment protection, making it neutral across different types of firms and employees. This would at least include substantial revisions to the Industrial Disputes Act, removing the most restrictive provisions that require prior government permission for employment termination and exit decisions.	No action taken.
Reduce the number of labour laws to just a few simplified laws that provide basic legal coverage and protections for all employees, increasing fairness.	The government is considering introducing a single window – a website – to help business meet compliance requirements for various labour laws
Move toward a quarterly small-sample labour force survey so that employment outcomes can be better assessed between large-scale National Sample Survey rounds.	A quarterly employment survey was started in 2008 by the Labour Bureau but covers only eight sectors which were likely to be affected by the global crisis.

State-level reforms

Recommendations from previous Surveys	Actions taken
States should accelerate their own labour reforms in all areas, including offering special treatment for Special Economic Zones. Broadening the allowances for the use of contract labour and fixed-term contracts could also effectively reduce the overall level of employment protection legislation.	Some states have adapted labour regulations, e.g. Rajasthan has raised the thresholds above which the Contract labour Act and Factories Act apply.

Reforming financial markets

The banking sector

Recommendations from previous Surveys	Actions taken
Give greater freedom to banking operations by introducing a plan for a gradual reduction of the proportion of government bonds to be held by banks, setting out a plan for ending priority lending.	The Statutory Liquidity Ratio has been reduced from 24% in 2011 to 22% in August 2014. Priority lending requirements have not been reduced, however.
Improve competition in the banking system by establishing a meaningful deposit insurance corporation, recapitalising public-sector banks through equity issues, and lowering entry barriers for banks and banking.	The RBI has announced that from 2014 more banking licences will be granted, banks will be able to open branches without prior RBI permission and foreign banks will be allowed to open branches and subsidiaries.

Capital markets

Recommendations from previous Surveys	Actions taken
Reduce the extent to which the bond market is dominated by constrained investors. Allow greater direct participation in the government bond market.	No action taken

Regulation of financial markets

Recommendations from previous Surveys	Actions taken
Ensure that plans to implement a transparent market in corporate debt are implemented. Widen the scope of trading of corporate default swaps.	No action taken
Modify capital controls to allow more foreign investment in the government and corporate bond market.	Limits on investment by foreigners have been gradually relaxed over time. Since 2013, foreign investment limits in rupee-denominated bonds no longer distinguish between asset classes or investor classes. There is now a single limit of investing up to USD 25 billion in government securities and USD 51 billion for corporate bonds.
Ensure that all financial intermediaries undertaking a given activity are supervised by the same regulator. Improve the functioning of regulatory bodies.	The government set up the Financial Sector Legislative Reforms Commission (FSLRC) in March 2011. The Commission submitted its Report in March 2013. The legislative aspects of the recommendations aim at reforming the legislative framework of the financial-sector regulatory architecture through a non-sectoral, principle-based approach and by restructuring existing regulatory agencies.

Improving infrastructure

Regulation in general

Recommendations from previous Surveys	Actions taken
Enact a competition policy that sets out the overarching framework for the regulation of infrastructure sectors.	No action taken
Separate the regulatory, policy-making, and ownership functions. Ensure strong governance and independence for regulators.	In telecommunication, the government converted the historic provider of land lines from a government department into a public corporation. It also created an independent regulator – the Telecom Regulatory Authority of India (TRAI) to fix and regulate tariffs and interconnections – and auctioned frequency for private-sector providers of mobile telephony services. A new airport economic regulatory authority to control the pricing of aeronautical services in the major airports was created in 2009.

Land acquisition

Recommendations from previous Surveys	Actions taken
Streamline land titling to reduce uncertainties with land acquisition. Strengthen efforts to improve land record management by clarifying land boundaries.	In 2008, the government launched the National Land Records Modernisation Programme aimed to modernise management of land records. The major components of the programme are computerisation of all land records, digitalisation of maps and integration of textual and spatial data. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act came into force in 2014.

Electricity

Recommendations from previous Surveys	Actions taken
Reduce transport and distribution losses through metering, feeder separation, introduction of high-voltage distribution systems and strict anti-theft measures. Eliminate cross-subsidies.	A scheme for financial restructuring of state-owned distribution companies was approved in 2012 whereby 50% of the outstanding short-term liabilities of distribution companies is to be taken over by state governments and the remaining 50% is to be restructured. This restructuring has to be accompanied by concrete and measurable action by the states and distribution companies to improve their operational performance. The central government will provide incentives proportional to the reduction in Transmission & Distribution as well as commercial losses (aggregate technical and commercial losses) and partial support with the repayment of the principal on the liabilities taken over by the state governments.
Improve the functioning of electricity distribution through privatisation or franchising to private operators.	No action taken

Transport

Recommendations from previous Surveys	Actions taken
Reconsider the role of the Tariff Authority for Major Ports. Convert the port authorities into corporations. Grant multiple concessions at a single port.	A number of ports have awarded concessions to private operators for developing infrastructure and rendering services.
Eliminate cross-subsidies between freight and passenger transport in rail. Corporatise India Rail and unbundle regulatory, policy-making, and ownership functions.	A Railway Tariff Authority has been set up tobetter assess costs and subsidies. Railway fares were automatically linked to fuel costs (diesel and electricity), and there have been hikes in rail fares, disproportionally higher in the passenger segment.

Coal

Recommendations from previous Surveys	Actions taken
Remove impediments to full competition with imported coal. Accelerate pricing reforms in the coal sector with the objective of fully liberalising coal pricing.	In June 2013, the government approved a coal regulatory authority to specify the methodology for setting the coal price. It also allowed energy producers to pass on to consumers the higher price of imported coal that they buy to make up for domestic shortfalls.
Open the coal sector to the private sector. Allow free bidding for new coal concessions.	The government has proposed the use of public-private partnerships (PPP) to finance coal mining. The current proposal stipulates that the mine and the coal will remain in public ownership while the private partner will receive a fee for the coal mined.

Thematic chapters

Chapter 1

Challenges and opportunities of the manufacturing sector

The manufacturing sector has contributed little to income and its share in total merchandise exports has been declining, as economic growth has been primarily led by services. Manufacturing has not brought much new employment, and most of the recent rise in employment has been in informal labour, where workers are not covered by social security arrangements.

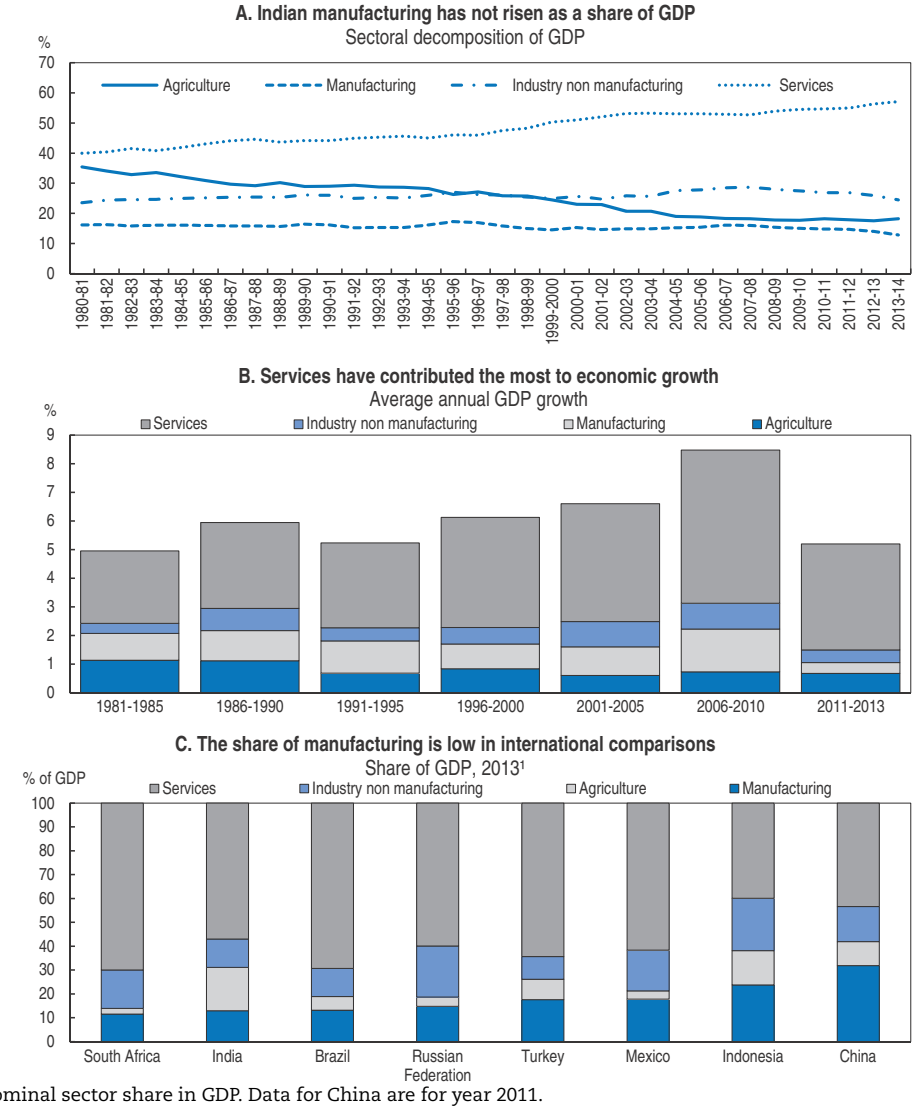
Productivity of the manufacturing sector is low, partly because the relatively small size of manufacturing firms makes it difficult to exploit economies of scale. Despite abundant, low-skilled and relatively cheap labour, Indian manufacturing is surprisingly capital and skill intensive. Furthermore, firms have little incentive to employ and grow, since by staying small they can avoid taxes and complex labour regulations. Land acquisition is slow, companies face frequent power outages and transport infrastructure is below par. This is especially harmful as manufacturing is highly reliant on well-functioning infrastructure.

Stronger manufacturing would increase productivity and make growth more inclusive, while contributing to improved current account balance. In particular, India should aim for more formal jobs, as these tend to be the most secure and of highest productivity.

The manufacturing sector has contributed little to income, export and employment growth

Production has been shifting away from agriculture, but mostly into services rather than manufacturing. Despite important product market reforms in the early 1990s, such as trade liberalisation and abolition of industrial licensing, the share of manufacturing in GDP has remained stagnant over the past decades (Figure 1.1, Panel A). Economic growth in the

Figure 1.1. **The manufacturing sector has contributed little to income growth**



1. Nominal sector share in GDP. Data for China are for year 2011.
2. For India, data are for fiscal year 2013-14.

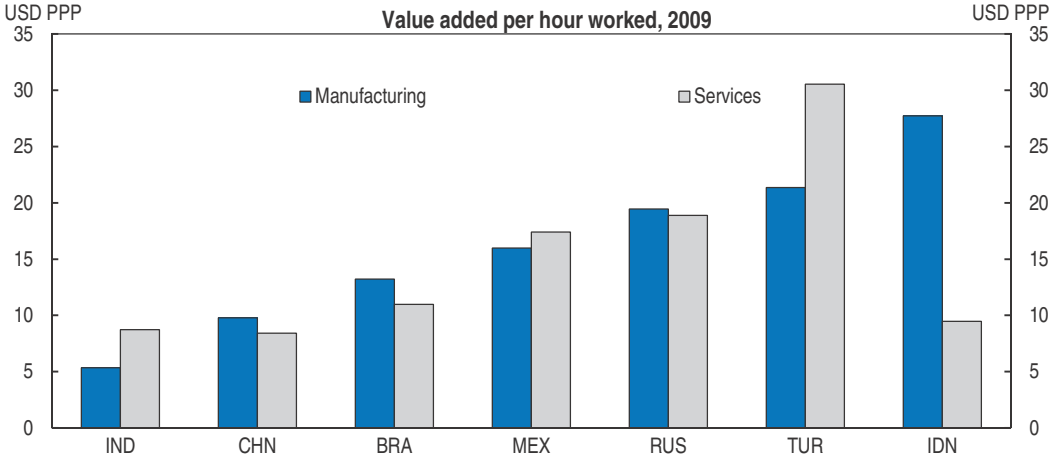
Source: Indian Central Statistics Office, OECD calculation, and *World Development Indicators Database*.

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last 15 years was led by services (Figure 1.1, Panel B), leaving manufacturing at 13% of GDP in FY 2013-14 which is low compared to peers (Figure 1.1, Panel C).

Productivity of the manufacturing sector is low. Measured in value added in PPP per hour worked, productivity of manufacturing in China and Brazil is 1.6 and 2.9 times higher, respectively, than in India (Figure 1.2); the gap in services is significantly smaller. The productivity problem in manufacturing partly stems from the preponderance of small firms with low productivity, which cannot exploit economies of scale (Figure 1.3). Employment in manufacturing firms with less than 10 employees – the so-called unorganised sector (Box 1.1) – accounted for about 65% of employment in the sector in 2011-12 (Mehrotra et al., 2014), compared to 14% on average in the OECD and 9% in Brazil (OECD, *Structural Business Statistics Database*). Even in the organised sector (Box 1.1), firms have little incentive to grow since by staying small they can avoid regulations and taxes. Growth in total factor productivity in the manufacturing sectors has been lower than in the service sector (RBI, 2014). In addition, growth of value added in the manufacturing sector largely stems from factor accumulation, in particular increases in capital intensity, rather than total factor productivity gains. In fact, the growth in manufacturing TFP has been negative in many subsectors over the past three decades (Figure 1.3) (Das et al., 2014).

Figure 1.2. **Manufacturing productivity is low in international comparisons**



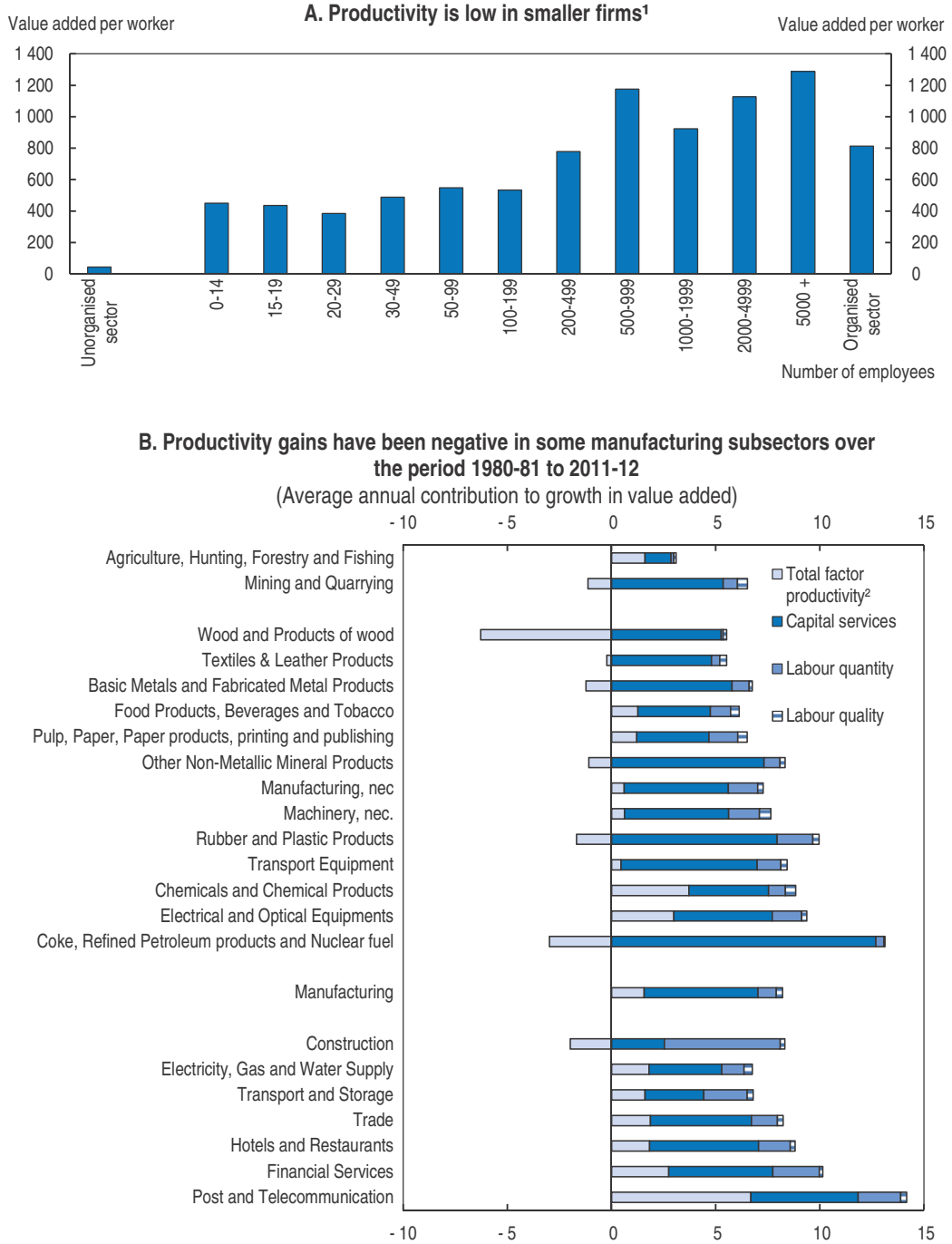
Note: The productivity is measured by gross value added at basic prices divided by the number of hours worked. This measure is then converted in current USD using the PPP conversion factor for GDP.
Source: *World Input Output Database* and *Worldbank WDI Database*.

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Total employment outside of agriculture rose by about 51 million between 2004-05 and 2011-12, but only 6 million jobs were created in the manufacturing sector (Figure 1.4). Moreover, most of them were informal labour (i.e. not covered by social security arrangements).

The share of manufactured goods in total merchandise exports fell from 77% in 2003 to 65% in 2013 (Figure 1.5). India's share in world manufacturing export stood at 1.7% in 2010 compared to 14% for China (UNIDO, 2013). The latest competitive industrial performance index ranks India 43nd out of 133 countries, far behind China, but also behind Thailand, Brazil and Indonesia. Nevertheless, the share of medium and high-tech

Figure 1.3. **Manufacturing firms are small and productivity growth has been low**



1. The productivity of labour is measured in terms of value added per worker. Value added is measured in rupees.
2. The total factor productivity growth represents the technical change. It is estimated as a residual of the value-added growth not explained by the changes in the quantity and quality of both labour and capital.

Source: ASI 2010-2011 Summary results for the Organised sector, Key Results of Survey on Unincorporated Non-agricultural Enterprises (excluding construction) in India (2010-2011), and Das et al. (2014).

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manufactured exports in total manufactured exports increased from 19% to 28% between 2000 and 2010, levels similar to Indonesia, but behind Brazil, South Africa and the Philippines (UNIDO, 2013).

Box 1.1. **Defining the organised/unorganised and formal/informal sectors in India**

The *unorganised sector* consists of all incorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten workers (or twenty if not using electricity).

The *organised sector* consists of all public sector enterprises and all private sector enterprises with more than 10 workers (more than 20 if not using electricity).

Informal workers consist of those working in the unorganised sector or households, excluding regular workers with social security benefits, and the workers in the organised sector without social security benefits. *Contract workers* in the organised sector are not covered by social insurance systems and thus count as informal workers.

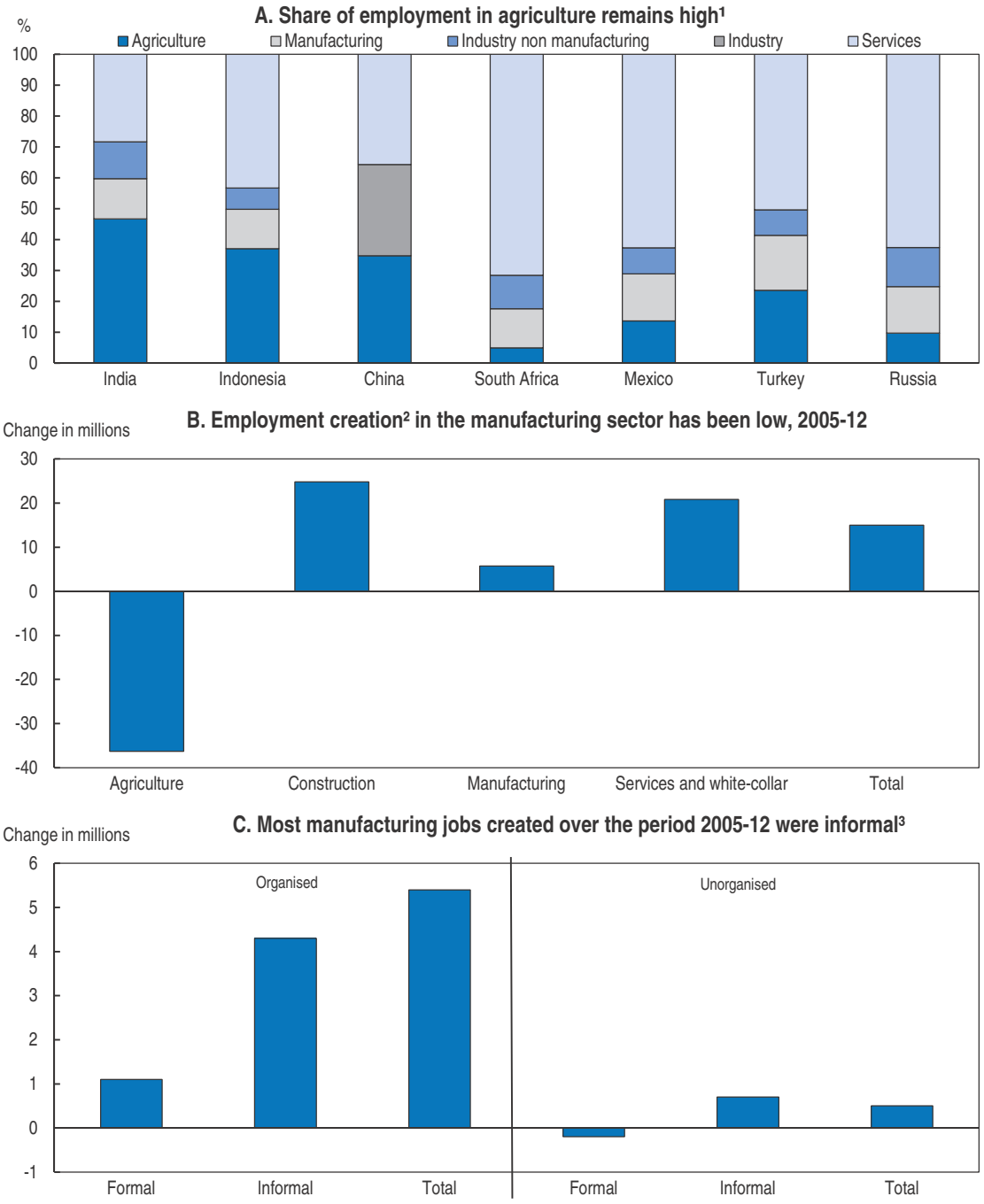
Formal workers are workers working in the organised or unorganised sector entitled to social security benefits.

The OECD data on trade in value-added show that India has fewer manufacturing sub-sectors with a revealed comparative advantage (RCA) than other emerging economies (Table 1.1). This confirms India's lack of specialisation in this sector. In addition, when a manufacturing sub-sector displays an RCA, it tends to be relatively small, as for example in the case of the production of textiles, textile products, leather and footwear. The main exception is the "manufacturing not elsewhere classified (n.e.c.)", which consists mainly of jewellery, where India has a significant RCA. On the other hand, India displays stronger and more RCAs in several service sectors.

The cost of labour in India has remained relatively low. Focusing on the organised manufacturing sector, the US Labour Bureau data show that average hourly compensation costs in India in 2009 were about 25% lower than in China. Nevertheless, Indian manufacturing is surprisingly capital intensive compared to China and Indonesia (Figure 1.6, Panel A). In 11 out of 14 manufacturing sub-sectors, India has the highest capital-labour ratio. India has also specialised in more skill-intensive production compared to its peers (Figure 1.6, Panel B). Hasan et al. (2012) show that India's organised manufacturing has higher capital-intensities than countries at the same level of development and with similar factor endowments. Kochhar et al. (2006) argue that India has emphasized skill-intensive rather than labour-intensive manufacturing, and in terms of productivity skill-intensive sectors stand out. Kapoor (2014) further argues that recent economic growth has benefitted industries which rely more on capital and skilled workers as opposed to low-skilled workers.

India should better channel employment from low productivity agriculture to higher productivity manufacturing and services, which would raise wages and living standards for a larger share of the population. Furthermore, India should aim for more *formal* jobs in the *organised* manufacturing sector, as these tend to be the most secure and of highest productivity. Indeed, household surveys show that male urban manufacturing workers with regular jobs on average get a salary 2.5 times the level of casual contract workers in the same sector (NSSO, 2011-12). Informality is typically associated with lower productivity and many workers remain outside the reach of labour market regulations and social protection schemes, resulting in higher inequality (OECD, 2011b).

Figure 1.4. **The manufacturing sector has created few and low quality jobs**

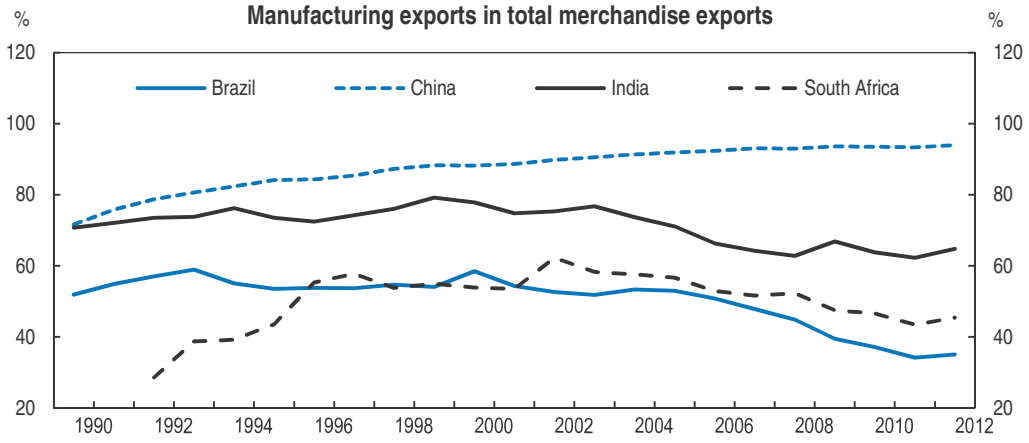


1. Data refer to 2012. For China, data refers to year 2011, for India, to fiscal year 2011-12. Data on the manufacturing sector are not available for China.
2. Employment is based on usual principal and subsidiary status. The principal activity status is the activity (not necessarily an economic one) on which a person spends a relatively longer time during the 365 days preceding the date of survey. The subsidiary economic activity status corresponds to the situation where the person is engaged in an additional economic activity for at least 30 days. Note, that a person who does not work in the principal status could be considered as working according to the usual principal and subsidiary status.
3. Informal workers are those with no social security benefits (Mehrotra et al., 2014).

Source: OECD, *Labour Market Statistics*, NSSO, Employment and Unemployment Survey, Rounds No. 61 and 68, National Bureau of statistics of China, and Mehrotra et al. (2014).

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Figure 1.5. **The share of manufactured goods in exports has declined**



Source: World Bank, *World Development Indicators Database*.

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Table 1.1. **India has a comparative advantage only in a small number of manufacturing sectors**

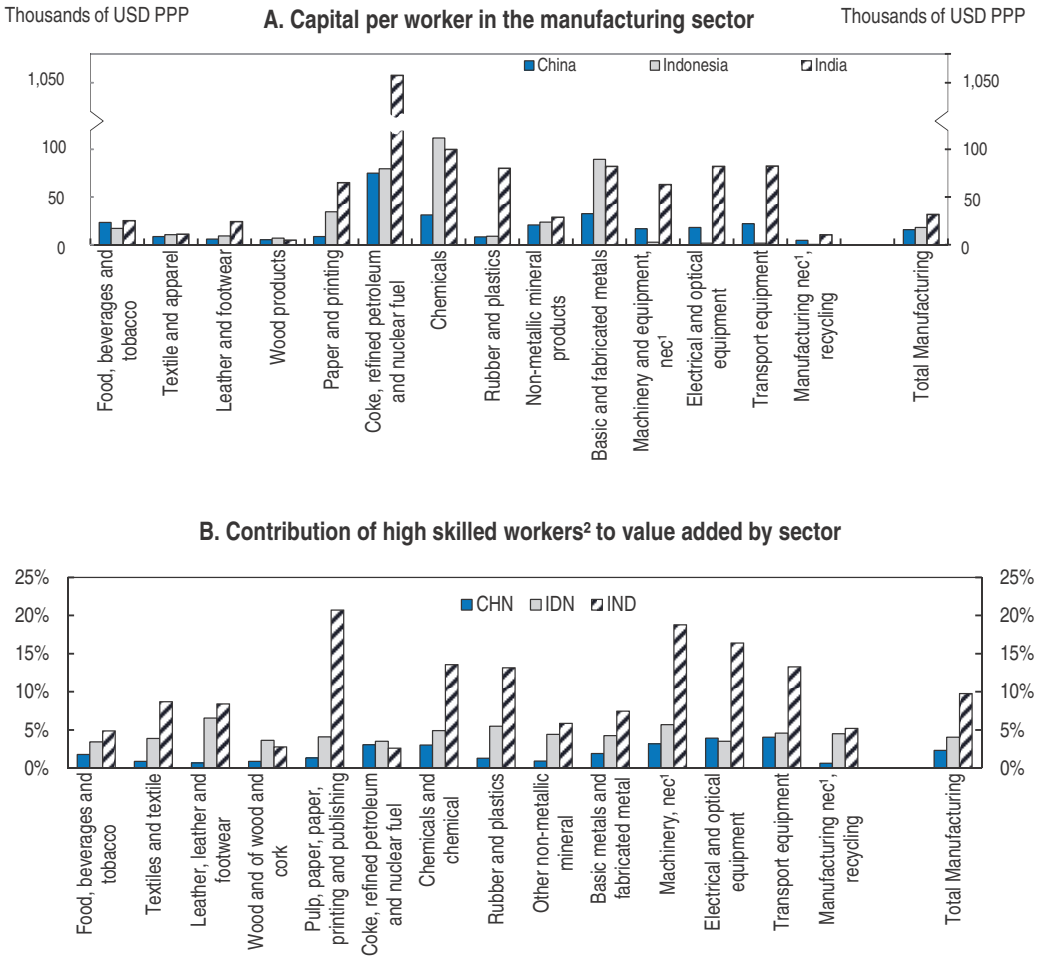
	India	Brazil	China	Indonesia	South Africa	Thailand	Vietnam
Industry							
Food products, beverages and tobacco	0.35	**2.51**	0.94	**3.03**	0.82	**3.10**	**3.40**
Textiles, textile products, leather and footwear	**1.39**	0.63	**3.77**	**1.93**	0.25	**3.04**	**3.19**
Wood, paper, paper products, printing and publishing	0.39	**1.27**	**1.07**	**1.35**	0.84	0.71	0.75
Chemicals and non-metallic mineral products	0.71	0.86	**1.13**	**1.39**	0.73	**1.31**	0.35
Basic metals and fabricated metal products	0.72	**1.61**	**1.45**	0.36	**1.34**	0.75	0.16
Machinery and equipment, n.e.c.[1]	0.37	0.50	**1.08**	0.44	0.00	0.31	0.16
Electrical and optical equipment	0.63	0.32	**2.08**	0.64	0.12	**2.40**	0.18
Transport equipment	0.42	0.93	0.56	0.61	0.69	0.77	0.22
Manufacturing n.e.c.; recycling	**3.33**	0.26	**2.53**	0.78	**1.03**	**2.25**	0.58
Memorandum items:							
Number of manufacturing sectors in which the country has comparative advantages:	2	3	7	4	2	5	2
Number of service sectors in which the country has comparative advantages:	4	2	0	0	3	1	1

1. n.e.c. stands for not elsewhere classified.

Note: The revealed comparative advantage (RCA) is an index measuring a country's specialisation in a given industry by comparing the share it represents in the country's exports to the world share of the industry in world exports. There is comparative advantage when the RCA is greater than 1. Here, the RCA is calculated in value added terms, indicating which sectors contribute more to the domestic value added embodied in the gross exports of the country.

Source: *OECD-WTO Trade in Value Added* (TiVA) – May 2013.

Figure 1.6. **Manufacturing is highly capital and skill intensive**



Note: Data refer to the average values over the period 2005-09.
1. nec stands for "not elsewhere classified".
2. Following the 1997 International Standard Classification of Education (ISCED), high skilled workers are defined as workers with first or second stage of tertiary education.

Source: *WIOD Database*, February 2012 release.

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Lifting barriers to manufacturing

The government has initiated a number of measures to boost manufacturing. The 2011 *National Manufacturing Policy* (NMP) is meant to increase the share of manufacturing to 25% of GDP and to create 100 million additional jobs by 2022. The 2014 *Make in India* initiative goes in the same direction (Box 1.2). The Delhi-Mumbai Industrial Corridor (DMIC) project, in co-operation with Japan, aims to develop an industrial zone spanning six states by expanding infrastructure and industry. Relatively restrictive FDI policy has gradually been relaxed and a not-for-profit single window facilitator for prospective overseas investors, "Invest India", has been set up. The government which came to power in May 2014 has also stated that promoting labour-intensive manufacturing is one of its top priorities.

While these plans are welcome, India could do more to address fundamental problems with the overall business environment. Currently, policies rely heavily on the economic zones (see Box 1.3) that provide exemptions from many existing policies such as labour

Box 1.2. **National Manufacturing Policy (NMP) and the "Make in India" initiative**

National Manufacturing Policy

The NMP has six objectives: i) Increase manufacturing sector growth to 12-14% over the medium term, to contribute at least 25% of the National GDP by 2022; ii) Promote job creation in manufacturing with a target of 100 million additional jobs by 2022; iii) Create appropriate skills among the rural migrants and urban poor to make growth inclusive; iv) Increase domestic value addition and technological depth in manufacturing; v) Enhance global competitiveness of Indian manufacturing; vi) Ensure sustainability of growth, particularly with regard to the environment.

The NMP provides special focus to industries that are employment intensive, those producing capital goods, those having strategic significance and where India enjoys a competitive advantage (automobile, pharmaceuticals and medical equipment), small and medium enterprises, and public sector enterprises – the so-called Special Focus Sectors.

The NMP stipulates creation of national investment and manufacturing zones (NIMZs), which will be newly set up cities to ensure agglomeration economies, superior infrastructure, lower red tape, flexible labour market regulation and skilled labour.

The broad policy instruments are: i) Rationalisation and simplification of business regulations; ii) Simple and expeditious exit mechanism to close-down sick units while protecting labour interests; iii) Financial and institutional mechanisms for technology development, including green technologies; iv) Industrial training and skill up-gradation measures; v) Incentives for SMEs; vi) Special Focus Sectors; vii) Leveraging infrastructure deficit and government procurement – including defence; viii) Clustering and aggregation through National Investment and Manufacturing Zones (NIMZs); ix) Trade Policy that doesn't adversely impact domestic manufacturing.

While the NMP has clear outcome targets, progress up to 2014 has been limited. The implementation of policy reforms to reach these targets has remained a challenge.

"Make in India"

On September 2014, Prime Minister Modi announced the "Make in India" campaign to promote the manufacturing sector and spur job creation. The Prime Minister invites foreign companies to invest in India and promises that his government will provide effective and easy governance that will help India become a global manufacturing hub. The key objective is to simplify regulations and reporting requirements and ensure more stable policies, including tax policies.

Major highlights of *Make in India*:

- Easing policies and laws: A comprehensive approach is envisaged, including amending labour laws, developing skills, easing FDI policies and up-scaling infrastructure.
- An Invest India team and a dedicated portal for business queries: An investor facilitation team set up by the government will act as the first reference point for guiding foreign investors on all aspects of regulatory and policy issues and to assist them in obtaining regulatory clearances. The information and facts that potential investors need for each sector have been compiled in brochures. A dedicated team has been created to answer queries from companies through a newly created web portal, pledging to answer queries within 72 hours.
- Consolidated services and faster security clearances: All central government services are being integrated into an e-Biz single window online portal. The ministry of Home Affairs will give all security clearances to investment proposals within 3 months and government departments are asked to streamline approval processes.
- 25 sectors in which India can be a world leader have been identified: *Make in India* will focus on creating jobs and enhance skills in these sectors, which include capital goods and engineering, defence equipment, pharmaceuticals, food processing, auto and auto components, textiles, and electronics.

Make in India builds on the NMP and is in most respects consistent with it, while it more openly extends a hand to foreign investors.

Box 1.3. **Special Economic Zones (SEZs) and National Investment and Manufacturing Zones (NIMZs)**

Special Economic Zones (SEZs)

The government created Special Economic Zones (SEZs) more than 50 years ago with the objective of generating additional economic activity, exports, investment and employment. Since 2006, the policy relies on private developers to create the zone and provide all infrastructure. Imports into the SEZ are tax and tariff free, but sales to the domestic market are regarded as imports into India. In the SEZ, a single window clearance for development is in place and there are simplified administrative procedures and exemptions from many restrictive policies, including labour laws, allowing to contract labour more freely (OECD, 2007, 2011a).

Significant tax concessions have also been granted. Total corporate tax exemption for five years, 50% for a further five years and a further exemption for re-invested earnings derived from exports, with developers allowed a ten-year window of tax exemption. Zone developers are exempt from the minimum alternate corporate tax and the dividend distribution tax. However, from FY 2011 the government imposed a Minimum Alternate Tax (MAT) and it also introduced a Dividend Distribution Tax. Furthermore, for SEZs established from 2014 onwards tax holidays are replaced by complete first-year depreciation providing a further bias towards capital-intensive projects.

SEZs provide an important platform for development in India. Since 2006, formal approvals have been granted for 579 SEZs, of which 160 are exporting goods and services, and total employment in SEZs is estimated to approach 1 million. From 2005-6 to 2010-11, exports from these areas have risen 16-fold in current rupees and in 2010-11 they accounted for about one-fifth of total exports of goods and services (OECD, 2011a, CEIC and Ministry of Finance, 2013a).

However, a common grievance is that the SEZs failed to achieve the objective of encouraging manufacturing exports and instead became attractive centres for information technology firms to benefit from tax incentives. Indeed, some interest for investing in the SEZs was lost when the government imposed a minimum alternate tax in 2012. In addition, the Indian Council for Research on International Economic Relations (ICRIER) reports that giving additional export incentives to exporters outside SEZs in 2009 acted as a disincentive to invest in SEZs. Furthermore, by signing free-trade agreements with countries where duties on many products have been eliminated or reduced the advantages accruing to SEZs have been reduced further (Mishra, 2013).

National Investment and Manufacturing Zones (NIMZs)

National Investment and Manufacturing Zones (NIMZs), are a core element of the National Manufacturing Policy (NMP). They were announced in 2011. In contrast to the SEZ framework, NMIZs would not involve tax concessions or have export requirements, but would rather focus on providing supportive policy environment for business (OECD, 2011a). These zones will be greenfield industrial townships with a minimum area of 5,000 hectares. Each zone will be managed by a special purpose vehicle, headed by a government official. The NMIZs will focus on providing a more supportive policy environment for business than presently available. The NIMZs would be a combination of production units, public utilities, logistics solutions, environmental protection mechanisms, residential areas and administrative services. They would have a processing area, where the manufacturing facilities will be located, and a non-processing area, to include residential, commercial and other social and institutional infrastructure. The processing area may include one or more Special Economic Zones, Industrial Parks & Warehousing Zones, and Export Oriented Units. So far seventeen NIMZs have been given in-principle approval by the Government, of which eight are along the DMIC.

Some of the key elements of the NMIZs include: more flexible labour practices; easier exit strategy for ailing companies; special incentives for green technologies; simplified clearance and approval; single window clearance for central and state level approvals; and skill development programs for employees (OECD, 2011a, Ministry of Finance, 2014 and 2013b, Planning Commission, 2011).

regulations, taxation or business creation. When zones are set up to boost employment and growth, they are successful mostly if they can have a wider impact on the economy and do not operate as enclaves with few linkages to the domestic economy. Still, such zones may act as catalyst for reforms, facilitating progress towards more country-wide reforms. But, they usually work best in countries with good infrastructure and financial markets, where forward and backward linkages can be successfully developed to domestic economic activity (OECD, 2014; Farole, 2011).

Manufacturing growth is constrained by a complex business environment. India ranks 134th out of 189 countries in the World Bank *Doing Business 2014* data. However, variations between regions are large. The World Bank (2009) showed that if one creates a hypothetical city with best practices found across India (e.g. lowering number of procedures to start a business to Patna levels, days to start a business to Mumbai levels, procedures around construction permits to Ahmedabad levels, days to enforce a contract to Guwahati levels, and recovery rate for closing a business to Hyderabad levels), it would rank a much improved 67 out of the 181 economies measured by *Doing Business 2009*. Apart from regulations governing doing business, manufacturing is affected by stringent labour regulations, infrastructure bottlenecks, and the tax system. Policies are needed to address all these issues.

Reforming labour regulations to support enterprise growth

Complex and strict labour regulations imply large compliance costs and discourage formal job creation

The multitude of labour laws, not all of them being consistent, create confusion and uncertainty and raise labour costs (Bhagwati and Panagariya, 2013; Kumar, 2012; 2007 OECD Survey; Papola, 2013). Labour is a "concurrent" (joint) responsibility, as both central and state governments can enact laws. As an example, the minimum wage system is one of the most complicated in the world. State governments fix different rates payable to different employees in a limited number of sectors and occupations, resulting in 1 171 different minimum wage rates (Belser, 2013). Adding to the complexity, some laws enacted by one government level are enforced by another, or by both. Key labour laws may not use the same definitions, e.g. for employees/workers, requiring firms to maintain various registers. In addition, most labour regulations were designed several decades ago and some may have lost relevance – e.g. the 1948 Factories Act regulates hygienic conditions in an outdated manner (Kumar, 2012). Compliance costs are thus high. Since some companies may not be aware of their precise obligations, non-compliance in some areas becomes inevitable, opening the door to corruption by labour department inspectors (Bhagwati and Panagariya, 2013; Papola, 2013).

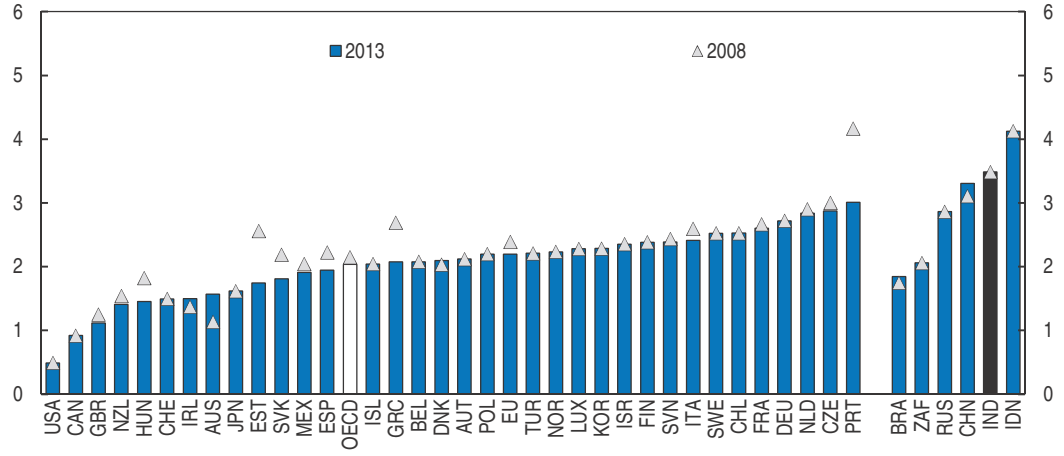
Stringent labour laws are often blamed for the poor performance of labour intensive manufacturing industries and sluggish job creation, despite relatively low wages (Ministry of Finance, 2013d), Economic Survey 2012-13; Dougherty et al., 2013). Labour regulations are more stringent for large companies, with varying thresholds above which regulations become applicable (Table 1.2). Employment protection legislation (EPL) for regular employment is particularly high in industrial establishments with more than 100 workers (Figure 1.7), largely because industrial firms are required to obtain prior government permission to dismiss one or more workers. In addition, the frequency of reinstatement orders in the case of unfair dismissal is high while delays in resolving labour disputes may be long (Bhattacharjea, 2009), adding to uncertainty and indirect costs of labour.

Table 1.2. **Many labour regulations become binding as companies grow**

Thresholds[1]	Introduced in	Main features
		Trade Union Act
7	1926	It requires firms with 7 or more workers to allow them to form a trade union. It empowers trade unions to strike and represent workers in disputes with employers in labour courts.
		Factories Act
10 if using power and 20 otherwise	1948	It provides rules on working time for all workers (e.g. max. 48 hours per week, max. 10 working days without rest, paid holiday for each 20 days of work), for women (max. 9 hours of work per day and between 6 AM and 7 PM) and prohibits the employment of children below 15. The Act also specifies health and hygiene conditions at work (e.g. separate restroom for men and women; availability of day care facility if the firm employs 30 women).
		Employees' State Insurance Act
10	1948	It requires factories engaged in manufacturing to provide benefits for health, maternity, employment-related injuries, dependents, funeral, etc.
		Contract Labour Act
20	1970	It attempts to limit the use of contract labour by prohibiting its use for work of perennial nature, work that is central to the manufacturing process or for a task if similar establishment use regular workers for the same task.
		Employees' Provident Fund and Miscellaneous Provisions Act
20	1952	It provides with a contributory provident fund, pension benefits, a health and disability insurance.
		Industrial Dispute Act, Section 9A
50	1947	It requires workers' consent to modify job description or move workers from one plant to another. It also requires at least 21 days of notice before modifying wages, hours of work, rest intervals, and leave.
		Industrial Dispute Act, Chapter V-B
100	1947	It requires industrial firms to obtain prior government permission to lay-off or retrench one or more workers. States can change the threshold above which the Act becomes applicable.

1. Number of employees when the law becomes binding.
Source: OECD Secretariat.

Figure 1.7. **Employment protection legislation is highly restrictive**[1]

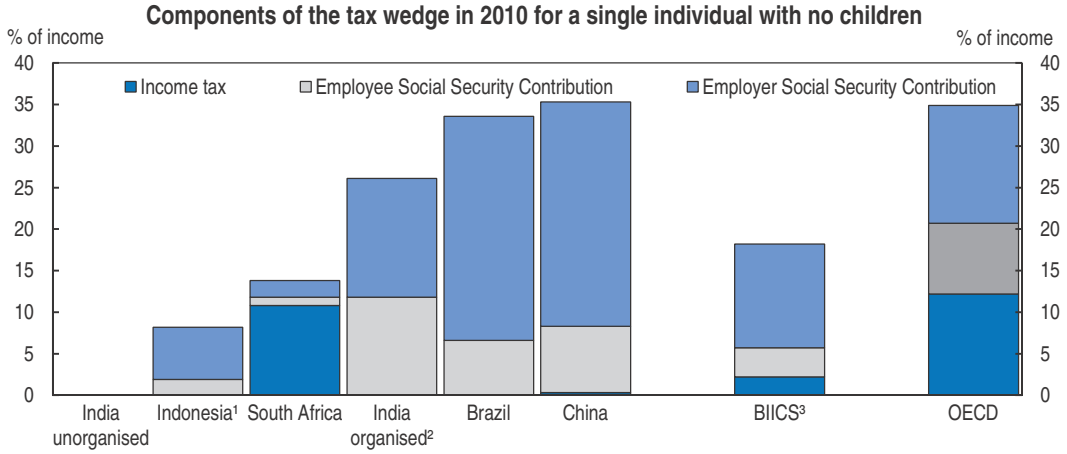


1. The OECD indicator of employment protection legislation (EPL) for regular employment measures the procedures and costs involved in dismissing individual regular employees.The indicator runs from 0 to 6, representing the least to most restrictive. The last available data refer to 2012 for BRIICS countries.
Source: *OECD Employment Protection Database*, 2013 update.

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Although labour taxes are relatively low in India, they increase steeply with firm size. Firms with less than 20 employees are not required to comply with the Employees' Provident Fund Act and do not have to pay pension, health and disability contributions. Firms with more than 20 employees do have to contribute and, although the tax wedge remains relatively modest even for them (Figure 1.8), the steep increase acts as a disincentive to grow.

Figure 1.8. **The average tax wedge on labour is relatively low, especially in small firms**



Note: The tax wedge is given by the average percentage of income paid in income taxes and social security contributions by a single individual with no children, earning the average wage.

1. Results for Indonesia are for 2009.
2. Results for the case where the employee works in a firm with more than 20 employees. In India, firms with more than 20 employees have to comply with the Employees' Provident Fund and Miscellaneous Provisions Act and thus pay social security contributions (see Table 1.2).
3. The BIICS average is calculated using the standard "India unorganised" results, not "India organised".

Source: Gandullia et al. (2012).

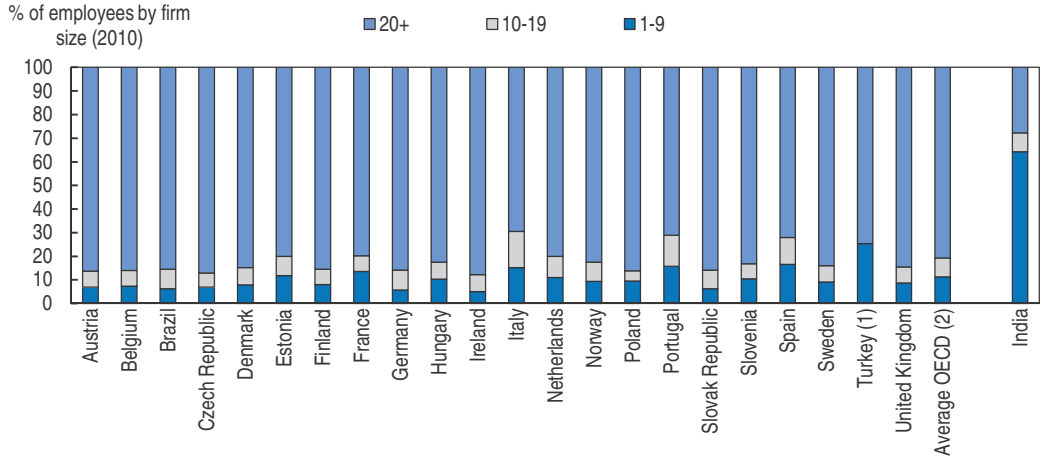
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Firms have substituted labour for capital, at least in part to escape labour regulations. As noted above, capital investment has been the main factor behind the growth in value added in most manufacturing industries over the past decades. The capital intensity of Indian firms is also higher than in similar countries (see above and Kochhar et al., 2006). Bhagwati and Panagariya (2013) further note that the fastest growing industries over the past two decades have been either capital-intensive or skilled-labour intensive (vehicles, petroleum refining, engineering goods, telecommunications, pharmaceuticals, finance and software).

Labour regulations have also created an incentive for firms to stay small and to rely on "informal" labour. Employment in firms with less than 10 employees accounted for 65% of total manufacturing employment in 2011-12, a very large share by OECD standards and other emerging economies (Figure 1.9). By staying small, manufacturing firms do not have to comply with key labour regulations as these become applicable above various employment thresholds. Hasan and Jandoc (2012) find that firms in labour-intensive industries tend to be larger in states with flexible labour regulations; this difference is higher among firms created after 1982 when the EPL was tightened. By staying small, however, firms cannot exploit economies of scale, lowering productivity.

Another strategy for firms to escape stringent labour regulation, in particular EPL, has been to rely on "contract labour", i.e. workers hired on a temporary basis or through a contractor. The Labour Bureau data reveal that contract labour accounted for 33% of the workers in the organised manufacturing sector in 2010. The share is very high compared to the OECD average, where temporary employment stood at 12% of total employment. Hasan and Jandoc (2012) further note that the increase in the use of contract labour has been steeper in labour-intensive manufacturing enterprises with 50 to 99 workers, suggesting

Figure 1.9. **Employment in the manufacturing sector is concentrated in very small firms**



Note: For reasons of comparison, the aggregate "Total employment – number of persons engaged in the production" was chosen. This includes: i) paid employees; ii) employers and self-employed; iii) unpaid family workers.
1. For Turkey, data are for 2009.
2. Simple average.
Source: OECD database for OECD countries and Brazil, NSSO for India.

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that the 100 workers threshold of the Industrial Dispute Act (IDA) is binding. The share of employees not covered by core labour regulations and social insurance is much higher. According to Mehrotra et al. (2014), and on the basis of NSSO data, almost 70% of employment in the organised manufacturing sector was informal (i.e. with no social security benefits) in 2011-12.

Labour reforms have been initiated but bolder steps are needed

Initiatives have been taken at the central and state government levels to reduce the detrimental impacts of labour regulations. The central government issued guidelines in the early 1980s to reduce the frequency of inspection by labour officials, with a view to preventing unnecessary harassment of, and cost to, employers (Papola, 2013). It has also allowed states to exempt enterprises in various economic zones (e.g. NMIZs, SEZs or Export Processing Zones) from several labour laws. In 2014, the incoming government introduced Bills for amendment in the Factories Act and Apprenticeship Act. It is also considering introducing a single window – a website – to help businesses meet compliance requirements for various labour laws. The new system would also make labour inspections more transparent by using a random computerised method and the redressal of grievances more effective.

At the state level, there is considerable variation in the implementation of the provision of the Industrial Dispute Act (IDA) which requires government permission for layoff and retrenchment of workers and closures of industrial establishments (Besley and Burgess, 2004; Bhattacharjea, 2009; Dougherty et al., 2013, Papola, 2013). Some states (e.g. Maharashtra and Gujarat) do not apply the EPL as contained in the Industrial Dispute Act (IDA) and several states have exempted selected industries and sectors from its application. In contrast, others (e.g. West Bengal) have made the IDA more restrictive. Significant changes in the rules and practices under the Contract Labour Act (CLA) have been made so as to make it easier for firms to use temporary employment. In particular,

several states have exempted a number of industries from the application of the prohibitive clauses of the CLA. Most recently, Rajasthan made amendments to key labour laws. In particular, the Contract Labour Act will now apply to companies with more than 50 workers, instead of 20, and the Factories Act will apply to premises with more than 20 workers with power and 40 without power, up from the 10 and 20, respectively. Various empirical surveys (most recently Kapoor [2014]) suggest that states with inflexible labour regulations have witnessed slower growth in manufacturing output and employment than states with more flexible labour regulations.

Bolder reforms would further promote quality employment and reduce income inequality. Work on OECD countries suggests that reducing labour market dualism by narrowing the gap between the protection of permanent and temporary jobs lowers income inequality by reducing both wage dispersion and unemployment (Koske et al., 2011). In India, the large unorganised and informal sectors, which leave many workers with low income and virtually no social protection, contribute to labour market segmentation. Reforming labour regulations should aim at providing a minimum floor of pay and social and labour protection conditions for all workers irrespective of the status, size and activity of the firm. This would require introducing a comprehensive labour law which would consolidate and simplify existing regulations. In turn, this would reduce uncertainty surrounding regulations as well as compliance costs for manufacturing companies. Barriers to formal employment should also be reduced, in particular by abolishing the most restrictive provisions of the Industrial Dispute Act that require prior government permission for employment termination and exit decisions. At the same time, the new law should consider providing better training and assistance in job search.

Finally, the lack of consistent time series and timely data makes it difficult to assess labour market outcomes and design appropriate policies. Households surveys (NSSO) are extremely detailed but are carried out only once every five years and results are published with a considerable lag. The Labour Bureau is now publishing annual Employment Surveys but these do not allow to correctly identify under-employment and seasonal employment, which are fairly common, and their sampling criteria do not match those of the NSSO. The large size of the informal economy is a difficulty but has not prevented other countries with a large informal sector and populations settled in remote areas to publish frequent, reliable and timely data on the labour market – Brazil and Colombia are examples. Quarterly employment surveys conducted by the Labour Bureau since 2008 cover only a few manufacturing and service sectors and the government is considering widening its scope. Improving the consistency and timeliness of labour market data should indeed be a priority.

Improving education and training

The general education level is low

Employers complain of major skills gaps, and fewer than a quarter of graduates are estimated to be employable in manufacturing (Planning Commission, 2011). Workers trained in the vocational education and training (VET) system often require significant on-the-job training (World Bank, 2009). On the other hand, India has a small number of elite higher education institutions that have produced highly-skilled graduates for the successful service sector. This points to the benefits of greater investment in quality education, which is essential to enhance skills, and would also reduce inequality and social exclusion (Kumar and Liu, 2008).

Improving access to education and raising literacy are crucial. The 2009 Right of Children to Free and Compulsory Education Act (RTE) has substantially improved access to primary education approaching a near-universal enrolment. The RTE Act aims at education for all children between 6 to 14 years by providing for the establishment of neighbourhood schools and school infrastructure, and an adequate number of trained teachers (65% of the funds provided by the central government). However, despite progress the literacy level for the population aged 7 years and above remains low at 73% (2011 Census India) (Figure 1.10). Furthermore, enrolment rates at secondary and tertiary levels are also low. The secondary school is the most neglected part of the education sector, despite being critical in moving educated youth into higher education or onto the labour market (IDFC Foundation, 2013). With the 2009 Secondary Education for All Action Plan the government aims at providing universal access to secondary education by 2017.

A key issue is the quality of education. Two states participated in the 2009 pilot survey round of the OECD's Programme for International Student Assessment (PISA), which assesses the performance of 15-year-old students in reading, mathematics and science. The top 5% of students in India performed close to the OECD average, illustrating what is achievable in India. However, the results showed that the average performance of 15-year-old students was far below the OECD average and well behind other emerging economies (Figure 1.11). Moreover, according to the *Annual Status of Education Report* (ASER) 2012 (Ministry of Finance, 2013c), basic reading and arithmetic level and attendance of school children across rural India have even declined in recent years. The quality is also low in higher education; the National Accreditation and Assessment Council reports that 90% of universities and 70% of colleges are of mediocre or poor quality (IDFC Foundation, 2013).

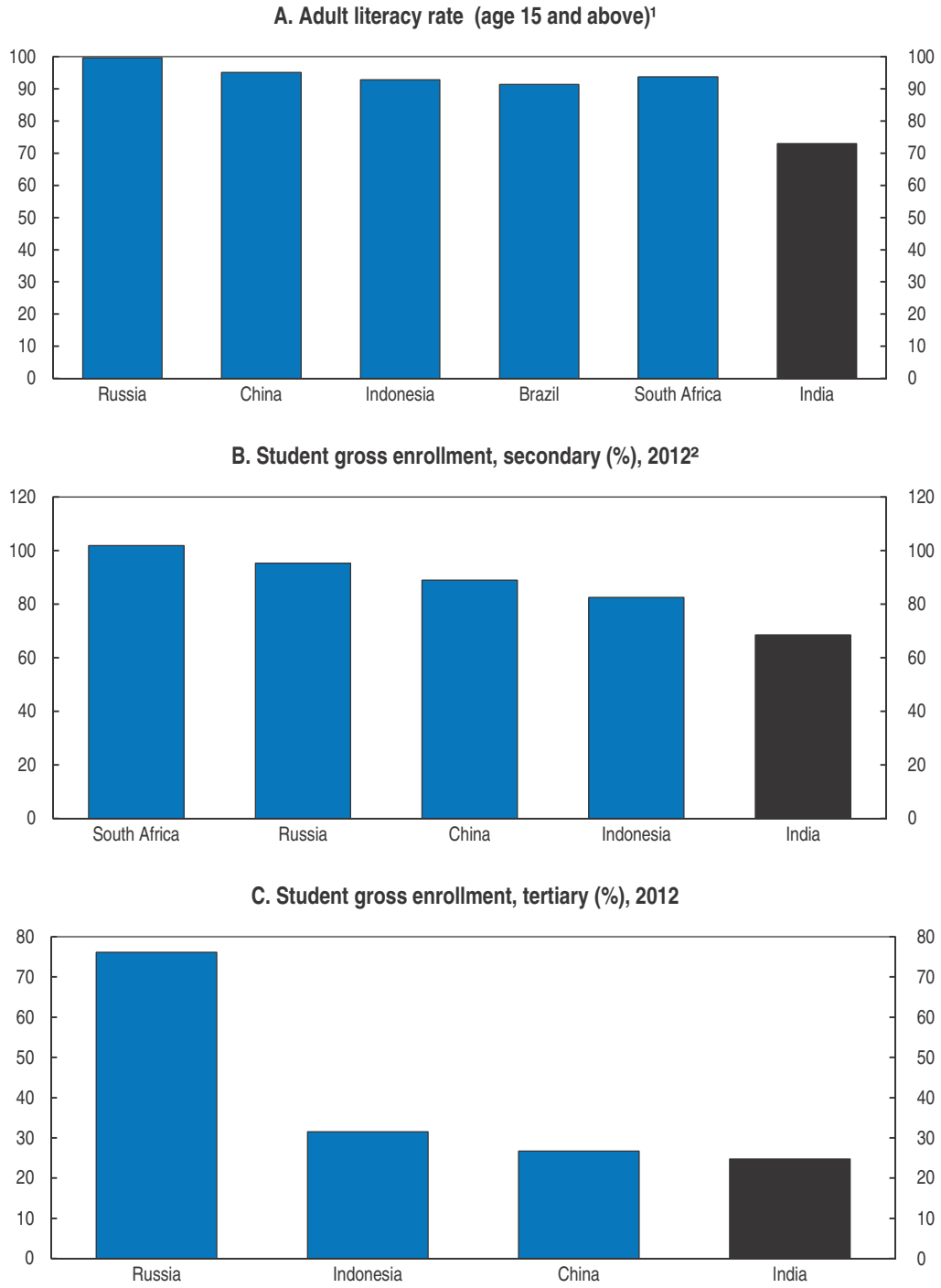
As a step to raising quality, monitoring learning outcomes and tracking implementation and progress of reforms is essential. Better motivated and higher-quality teachers are needed at all levels of education, and teacher absence, which has been a problem, must be reduced. Employment arrangements for public school teachers need to be reformed by strengthening dismissal provisions for teachers who are repeatedly absent or not performing satisfactorily. At the same time, teachers should be given better training and the framework for teacher development should be strengthened (OECD, 2011a). The education sector operates in a restrictive regulatory environment. Although there has been a notable rise in private participation in the education sector, private institutions are restricted to function on a non-profit basis, possibly preventing serious players from stepping in (IDFC Foundation, 2013; OECD, 2011a).

Strengthening vocational education

Only 10% of the labour force aged 15-59 is vocationally trained. In manufacturing, only 10% of those trained received formal vocational education, while in services this share is 40% (Planning Commission, 2013). The rest receive non-formal on the job training. The skill deficit reflects the large size of the unorganised sector, which tends to have low-paid, low-productivity jobs with limited access to training. It is therefore important to target formal training also for the workers in the unorganised sector.

The National Policy on Skill Development, adopted in 2009, sets out ambitious objectives to improve the quality and relevance of skills training - 500 million people are to be trained by 2022. The National Skill Development Corporation (NSDC) facilitates private-public partnerships for skill development by providing funding to enterprises and organisations that offer training. The NSDC has the objective to deliver training to about

Figure 1.10. **Literacy and enrolment rates are low**

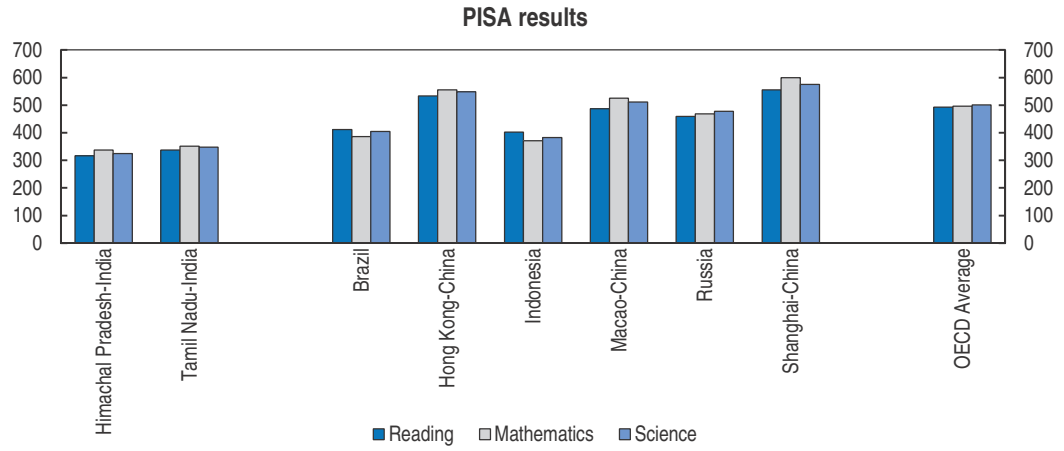


1. For India the data concern population aged 7 and above, thus the figure slightly overestimates the literacy rate in comparison to other countries. For India and Indonesia, data are for 2011, for China and Russian Federation for 2010, and for Brazil and South Africa for 2012.
2. Data for India are for 2011.

Source: World Bank WDI databank and Census 2011 for India.

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Figure 1.11. **Learning outcomes are low**



Note: The Programme for International Student Assessment (PISA) is a triennial international survey which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students.
Source: PISA 2009 Plus Results.

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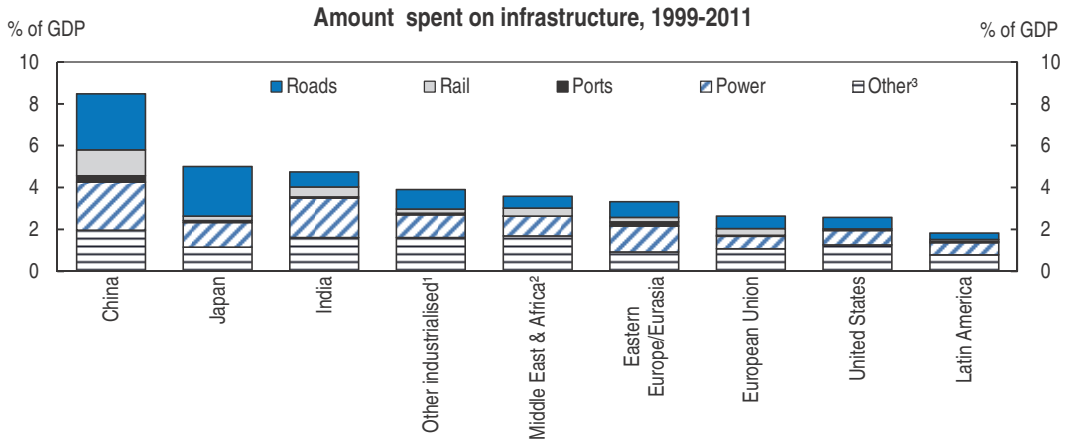
150 million people by 2022, mainly in the unorganised sector. However, the industry skill requirements could be better taken into account and on-the-job training should form an important part of any formal training (OECD, 2010). For this it is essential that the authorities and the private sector work in partnership, especially in developing the curriculum. Furthermore, the curriculum should be reviewed every two to three years, with inputs from academic and industry experts (IDFC Foundation, 2013). The government has recently announced initiatives to revamp curricula by bringing industry on board, also through sector mentor councils, which is a positive step. The government should also develop schemes to finance training, as many job-seekers are unable to pay for it, possibly through voucher schemes and loan guarantees.

Addressing infrastructure bottlenecks

In the last 20 years, India has invested substantially in infrastructure, although not as much as China (Figure 1.12). In many areas investment targets have not been met, leaving infrastructure in poor condition. Firms in India face frequent power outages and transport infrastructure is below par. This has an especially harmful effect on manufacturing, which is a sector highly reliant on well-functioning infrastructure. Senior managers of top manufacturing firms identify the state of infrastructure as one of the biggest challenges for manufacturing growth and they cite that improving infrastructure should be the top priority for the government (CII-BCG, 2012; FICCI, 2011). Using difference in difference estimates on a sample of firms from the Annual Survey of Industries, Gupta et al. (2008) find evidence that the industries more dependent on infrastructure (measured by the firms' share of expenses on distribution, i.e. storage and transportation, and power and fuel in gross value-added) exhibited slower growth since the early 1990s compared to less infrastructure-dependent industries.

There is ample evidence that the quality of infrastructure has an important effect on growth of the Indian manufacturing sector (Hulten et al., 2006; Sharma and Sehgal, 2010; Mitra et al., 2012; Sahoo and Dash, 2009, 2012). Better infrastructure improves connectivity, lowers transport costs and facilitates access to basic education and health services. The

Figure 1.12. **Investment in infrastructure across countries**



1. Other industrialised: Australia, Canada, Croatia, Iceland, Lichtenstein, New Zealand, Norway, Singapore, South Korea, Switzerland, Taiwan (Chinese Taipei), and the United Arab Emirates.
2. Middle East and Africa: Excludes unusually high port and rail data for Nigeria; including these data brings the total weighted average to 5.7 per cent.
3. Other includes Airport, Water and Telecommunications.

Source: McKinsey & Company (2013).

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unequal distribution of infrastructure is an important explanation of diverging economic performance across states (Majumder, 2005; Purfield, 2006 and Agarwalla, 2011). Infrastructure development is also associated with reduced income inequality and can be a powerful tool for poverty reduction (López, 2004).

In the Twelfth Five Year Plan, 2012-2017, the government foresees an increase in infrastructure investment to 8.2% of GDP (Table 1.3) and expects about half of investment to come from the private sector. However, despite increasing investment, progress has been disappointing. About 40% of the infrastructure projects commissioned during the last two five-year plans experienced huge delays (Ernst & Young and FICCI, 2012), and resulted in cost overruns of more than 100% (Table 1.4). Major causes of delays are related to the

Table 1.3. **Investment in infrastructure in India**

% of GDP

Sectors	Tenth Plan (2002-07)	Eleventh Plan (2007-12)	Twelfth Plan – planned (2012-17)
Electricity	1.5	2.4	2.7
Roads and bridges	0.8	1.3	1.3
Telecommunications	0.8	1.1	1.4
Railways	0.6	0.7	0.9
Ports	0.1	0.1	0.3
Airports	0.0	0.1	0.1
Other[1]	1.1	1.3	1.3
Total	**5.0**	**7.2**	**8.2**
Public	3.9	4.6	4.2
Private	1.1	2.6	3.9

1. Other includes Oil and Gas Pipelines, Irrigation, Storage and Water Supply

Source: The Planning Commission.

Table 1.4. **Project status of 564 infrastructure projects as of May 2012**

	Number of projects delayed	Delay period (in months)	Cost escalation (in percentage)
Roads and Transport	78	2-101	8
Power	47	1-83	12
Oil and Gas	31	4-120	10
Railways	27	2-204	137
Urban	1	24	82
Coal	17	9-48	27
Shipping and Ports	10	2-93	10

Source: Ernst & Young and FICCI (2012).

protracted process of land acquisition and securing environmental or various other clearances. Another cause of delays is frequent changes in the scope of projects by the authorities, which often lead to protracted disputes between government agencies and contractors.

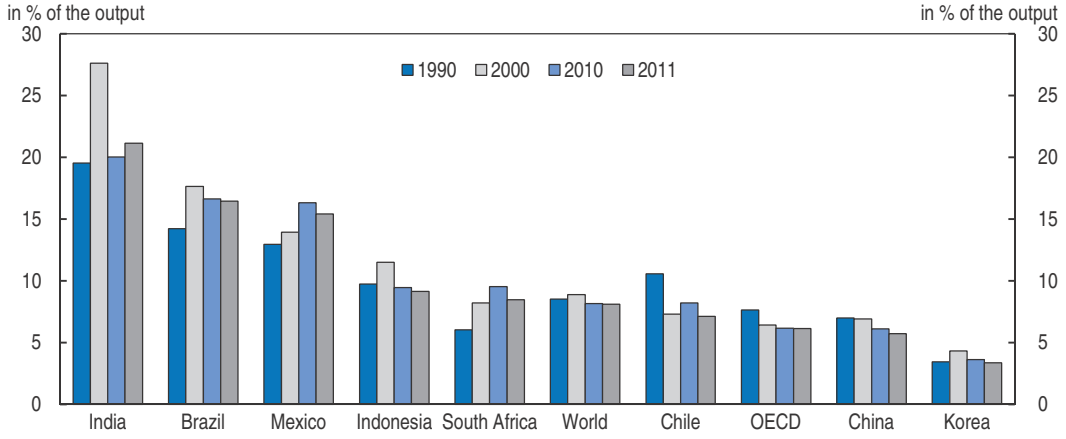
In recognition of the problems, the government in December 2012 set up the Cabinet Committee on Investment (CCI) to fast track large infrastructure projects involving investment worth INR 10 billion (EUR 120 million) or more. The objective of the CCI is to facilitate land acquisition and approvals and clearances (e.g. for the environment) by involving all ministries in the decision making process. The committee has already had some effect, and several projects received relatively quick approval in 2013. The new government is showing the same resolve and claims that it will closely track the progress of all projects to ensure that approvals translate into actual production activity on the ground.While the committee may facilitate granting of clearances, it is equally important that the bureaucratic process of securing various regulatory approvals and environmental clearances is simplified and that clearly defined timelines are imposed.

Unreliable power supply is a big constraint

While energy demand has increased rapidly with economic growth, energy supply has been hampered by transmission and distribution (T&D) losses; failure to increase coal extraction, and pricing policies resulting in financial problems and underinvestment. The International Energy Agency (IEA) Energy Development Index 2011 ranked India 34th out of 64 lower-income countries in terms of energy development, behind countries such as China, Brazil and Indonesia. At the national level, the average power supply deficit from FY 2009-10 to 2012-13 was 8.9% and peak shortage stood at 10.5% (Central Electricity Authority). India compares very poorly to other countries on T&D losses: they stand at over 20% compared to 6% in China (Figure 1.13). The large power supply deficits experienced throughout the country are a key factor in electricity outages. In July 2012, the national transmission grid experienced two major blackouts that caused the northern half of the country to go without power for several hours. This imposes high costs on the economy through the need for high-cost backup generators and investment in self-generation facilities.

Frequent power cuts are especially costly for manufacturing firms. A business survey finds that 48% of firms experience power cuts for more than 5 hours a week. About 60% of firms feel that erratic power supply affects their competitiveness and they would be willing to pay more for a more reliable supply (FICCI, 2012).

Figure 1.13. **Electric power transmission and distribution (T&D) losses**



Source: World Bank Online Database.

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About two thirds of power generation comes from coal in domestic supply. In spite of large domestic coal reserves, the growing share of coal is imported underlining deficiencies. State-controlled Coal India Limited contributes around 80% of coal production. Coal supply is allocated through a cabinet committee, on a state-by-state basis. Private companies are restricted in their ability to obtain sites for coal mines and are allowed to mine coal only for captive use. Obtaining the required clearances for coal exploitation has been difficult recently, leaving many power plants short of coal. The situation was made worse in 2012 with a fraudulent scheme surrounding coal allocation that implicated many companies and top government officials. Imported coal increases costs for energy producers, as the regulated price of domestic coal is kept low (even after adjustment for its low calorific value).

The government has proposed use of public-private partnerships (PPP) to finance coal mining. The current proposal stipulates that the mine and the coal will remain in public ownership while the private partner will receive a fee for the coal mined. In June 2013 the government approved a coal regulatory authority to specify the methodology for setting the coal price. It also allowed energy producers to pass on to consumers the higher price of imported coal that they buy to make up for domestic shortfalls.

The precarious financial position of the state electricity boards (SEBs) and distribution companies has resulted in severe underinvestment, and is a factor discouraging new entry. Accumulated financial losses in the power sector amounted to 2.4% of GDP in FY 2011-12 (PFC, 2013), accrued mostly by the distribution companies (World Bank, 2012). The losses arise primarily because state regulators hold tariffs below the cost of supply. There is also extensive cross-subsidisation in favour of agricultural and household users, and 24% of power is unmetered or stolen (McKinsey & Company, 2013).

The central government approved a scheme in 2012 whereby 50% of the outstanding short-term liabilities of distribution companies is to be taken over by state governments and the remaining 50% is to be restructured. This restructuring has to be accompanied by concrete and measurable action by the states and distribution companies to improve their operational performance. The central government will provide incentives proportional to the reduction in T&D as well as commercial losses (aggregate technical and commercial

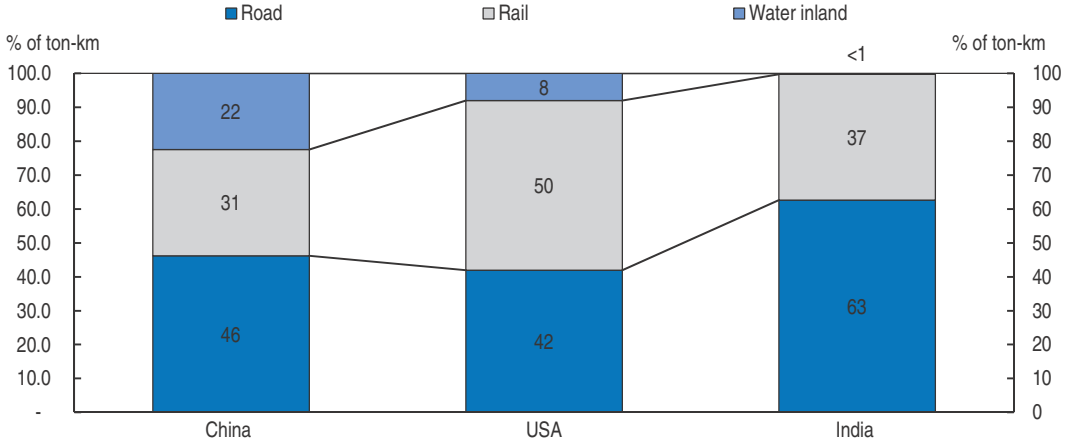
losses) and partial support with the repayment of the principal on the liabilities taken over by the state governments. The authorities should strictly monitor the implementation of the scheme, to ensure that aggregate technical and commercial losses are effectively reduced and tariffs are set adequately.

Transport infrastructure sector suffers from long delays

India's transport relies heavily on roads, whereas railway and waterways are underutilised. Roads infrastructure is poor and investments face huge delays. Railway projects face even longer delays and with the Indian Rail organised as a ministry, the sector should be reformed. Ports are congested and are not adequately linked to their hinterlands.

Compared to China and the United States, India's freight transport relies heavily on roads (Figure 1.14). This is costly as 80% of freight (in ton-km) is transported over distances of more than 400km, and could be more economically served by rail and waterways. Purchasing power parity adjusted costs show that rail is 70% more expensive and roads are 30% more expensive in India as compared to the United States, pointing to much inefficiency (McKinsey & Company, 2010). India should therefore shift to a more balanced modal network, with better developed rail network and waterways for long-distance transportation. As argued in McKinsey & Company (2010), more funds should also be devoted to improve connectivity with ports, mines and industrial clusters and to facilitate better integration across different transport modes.

Figure 1.14. **Inland freight transport is overly dominated by roads (2009)**



Note: The total freight transport by the three modes in 2009 was equal to 8 046 billion ton-km in China, 4 470 billion ton-km in the USA and 1 617 billion ton-km in India.
Source: OECD, *ITF Transport Statistics*.

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Roads carry 60% of freight and 85% of passenger traffic in India. National Highways carry 40% of the total road traffic, despite accounting for only 1.6% of the road network (Ernst & Young and FICCI, 2012). Yet, the Global Competitiveness Report 2013-14 ranks India 84th out of 148 countries by its quality of roads, worse than China and Indonesia. Only half of the roads are paved (World Road Statistics, 2012). The target was to build an average of 20 kilometres of highways per day, but in 2011-12 the actual progress dropped to

10.4 km a day (Ernst & Young and FICCI, 2012). Investment in the sector faces huge delays, even in flagship projects such as the Golden Quadrilateral and the North-South-East-West Corridor.

Despite the limitations of the road sector, railways have been losing passenger and freight traffic to roads. Their share of freight has dropped from 86% in the 1950s to 39% at present (Government of India, 2012). Railway projects face even longer delays and cost overruns than road projects (Table 1.4); overruns are often more than 100%. Between 2006 and 2011 only 1 750 km of new lines were added, versus 14 000 km in China (Ernst & Young and FICCI, 2012). Passenger rail fares have long been kept artificially low, resulting in cross-subsidisation from freight transport, raising the cost of rail transport for businesses, including manufacturing. In January 2013 an increase in passenger fares was announced in the face of fierce public opposition, and railway fares were linked to fuel costs in 2014. Nevertheless, revenues of railways remain low, weighing on investment and maintenance. Finally, Indian Rail is organised as a Government Ministry and functions as a customer and regulator at the same time. Corporatising its operations would reduce the scope for political interference and conflicts of interest and would sharpen its commercial focus.

India has 13 major ports and 60 operational non-major ports. India's ports are congested, with average capacity utilisation at major ports of around 90% as compared to an international average of 70%. Furthermore, major ports lag behind their international counterparts on key operating indicators (Ernst & Young and FICCI, 2012). After a very disappointing performance in meeting the investment targets during the 11th Plan, the government aims to raise investment in ports from 0.1 to 0.3% of GDP during the 12th Five Year Plan (Table 1.3). It expects 87% of the total investment to come from the private sector. Yet, ports suffer from many of the same problems of the other infrastructure sectors regarding long delays in land acquisition and clearances. All but one major port are administered by the government. Furthermore, tariffs at major ports are set on a cost-plus basis that does not promote efficiency. Intra-port competition could be encouraged by granting multiple concessions to private operators at a single port. At the same time, the limitations of road and rail transport mean connectivity to ports' hinterlands is inadequate, pointing to the advantages of a comprehensive transportation infrastructure policy.

Financing is difficult

Infrastructure projects typically have a long gestation period and are highly capital intensive. A large part of infrastructure financing is now sourced through banks (City of London, 2012). However, banks' ability to extend long term loans for infrastructure is limited as they run the risk of serious asset-liability mismatches, and many are close to their prudential ceilings for exposure to the infrastructure sector and to a single borrower. Infrastructure is one of the sectors that account for highest share of stressed assets in banks (RBI, 2013). Similarly, most existing domestic developers are over-leveraged and their current cash flow does not permit raising any fresh debt for new projects.

The government has taken several steps to promote the flow of long-term funds into the infrastructure sector: setting up Infrastructure Debt Funds, raising foreign institutional investor (FII) limits for infrastructure and liberalising external borrowing limits. India has also attracted private capital in recent years. In the last five years, among the low and middle income countries, India has had the highest level of total investment in infrastructure projects with private participation; about 50% more than Brazil, the second

ranked country (World Bank, 2014b). The central government has taken several policy and institutional initiatives to promote public private partnerships (PPP), but again structural and regulatory barriers – delays with land acquisition and various clearances as well as low commercial viability of infrastructure projects due to misaligned pricing – hinder the expansion of private financing.

Deregulating the financial sector and deepening bond markets would expand financing and bring in new investors. Equity markets in India are relatively well developed, but they are not favourable to the infrastructure sector due to long delays and current uncertainties in the global economy. The corporate debt market, on the other hand, is shallow and cannot provide enough long-term financing. Insurance companies and pension funds are required to invest substantial shares of their investible funds in government securities, and relaxing these restrictions would potentially free up funds for infrastructure. Similarly, foreign institutional investors face a cap on corporate bond holdings. Authorities should further deepen the corporate debt market by gradually relaxing the restrictions on domestic and foreign investors.

Making land acquisition more efficient

Lengthy and complex land acquisition processes are a major barrier for infrastructure development, and poor land title records make buying land difficult even for private purposes. Senior managers of manufacturing companies consistently rank difficulties in acquiring land as one of the top priority areas to be tackled by the government (CII-BCG, 2012; FICCI, 2011). Acquiring land can take up to three years even in the absence of resistance from local communities (Mahalingam and Vyas, 2011). For about 70% of the delayed infrastructure projects, land acquisition is the main cause of delay (IDFC and 3i Network, 2009; Ernst & Young and FICCI, 2012). Government agencies responsible for PPP infrastructure projects often rush to offer projects for bidding, without first acquiring all of the required land, causing delays at later stages.

Difficulties in acquiring land partly reflect poor land-title records, and a reliable land registry system is urgently needed to ensure clear title to property. As pointed out in the previous *Economic Survey* (OECD, 2011), land records tend to be outdated, inaccurate and incomplete, and land title can be difficult to establish. Currently, details of property transactions are recorded but generally there is no guarantee as to whether the title is legitimate, causing excessive litigation. Moreover, there is no unified map of parcel boundaries. In 2008, the government launched the National Land Records Modernisation Programme, where each state government was expected to cover the entire state within the next eight years, but in many states progress should be faster. The government has proposed a Land Titling Bill that will eventually result in a guaranteed title for all land parcels. The proposed bill follows best practice by separating policy, operations and regulation: each state will have to create a Title Authority, separate from the Land Ministry, and a Land Tribunal will be established to control decisions of the Authority with appeals possible to the High Court (Sinha, 2010). The Bill has not been passed yet.

Inadequate compensation and poorly planned rehabilitation packages in acquiring land for public purpose have often created delays. Up to 2014, landowners were often compensated based on the registered value of their land, which is often much below market value, leading to resistance, disputes and litigation. This contrasts with the approach in the Philippines and Singapore where government agencies and developers

first negotiate with stakeholders to arrive at a mutually acceptable compensation package and thereby gain trust of the local communities. If such negotiations fail, the agencies then resort to acquisition based on pre-determined legal formulae (Mahalingam and Vyas, 2011).

To address the land acquisition issue, in September 2013 the parliament passed the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Bill, effective from 2014 (Box 1.4). In rural areas, landowners are to receive compensation of up to four times the market value of the land. While the Bill will increase the direct cost of land acquisition, it is expected to reduce indirect costs as the incidence of disputes and litigation should decline. However, the process of acquiring land can still be very protracted; even excluding possible delays due to disputes, it can take 50 months under the new Bill. The implementation of the law in practice should be closely monitored and where there are weaknesses, the law should be amended as needed. The government should review the timelines established by the Bill and aim to make land acquisition faster. The institutional set-up should allow for swift resolution of disputes.

Box 1.4. **The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Bill**

The Act establishes the law on land acquisition, as well as the rehabilitation and resettlement (R&R) of those directly affected by land acquisition in India. This act was passed by both houses of the parliament and signed by the President of India in September 2013 and came into force on 1 January 2014. It replaces the *Land Acquisition Act, 1894*, a more than 100 year-old law from the British era.

The Act is applicable when land is acquired for public purpose. The government can acquire land for its own use, or for public private partnership projects, where the ownership of the land stays with the government, or when it acquires land for use of private companies. The public purpose includes defence and national security, infrastructure projects including for mining, industrial zones, roads, railways, highways, ports, and projects for sports, health care, etc.

In the case of acquisition for private companies and for public private partnership, the prior consent of at least 80% and 70% of the affected families, respectively, must be obtained. When government acquires land directly for its own use, consent of the land owner is not required. Importantly, purchase of land by private companies of sizes beyond a certain threshold will also require provision of R&R as stipulated by the law. The threshold is left to the discretion of state governments.

The process of land acquisition shall involve a Social Impact Assessment (SIA) survey, conducted in consultation with local authorities. The SIA survey shall include an assessment whether the proposed acquisition serves public purpose, estimation of affected families and extent of lands, houses and settlements likely to be affected by the proposed acquisition, and a study of social impact of the project.

Box 1.4. **The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Bill** *(cont.)*

The Act proposes the total minimum compensation to the land owners to be at least two times the market value for land acquired in urban areas and up to four times in rural areas, the multiplier having been left to the discretion of state governments and is expected to rise with the distance from urban areas. In addition to the compensation, the Act proposes a wide range of R&R entitlements to land owners and other livelihood losers. Furthermore, land owners and livelihood losers are entitled to subsistence allowance for one year; a new house if a house is lost and a choice of either money reward, annuity for 20 years or employment for each affected family. Every resettled area is to be provided with certain infrastructural facilities, such as roads, drainage, drinking water etc. Finally, the land can be taken into possession only after ensuring that the compensation and R&R responsibilities have been discharged.

In each state, a Land Acquisition and Rehabilitation and Resettlement Authority shall be established for settling any disputes relating to the process of acquisition, compensation, and R&R. Moreover, monitoring committees will be established to ensure that R&R obligations are met.

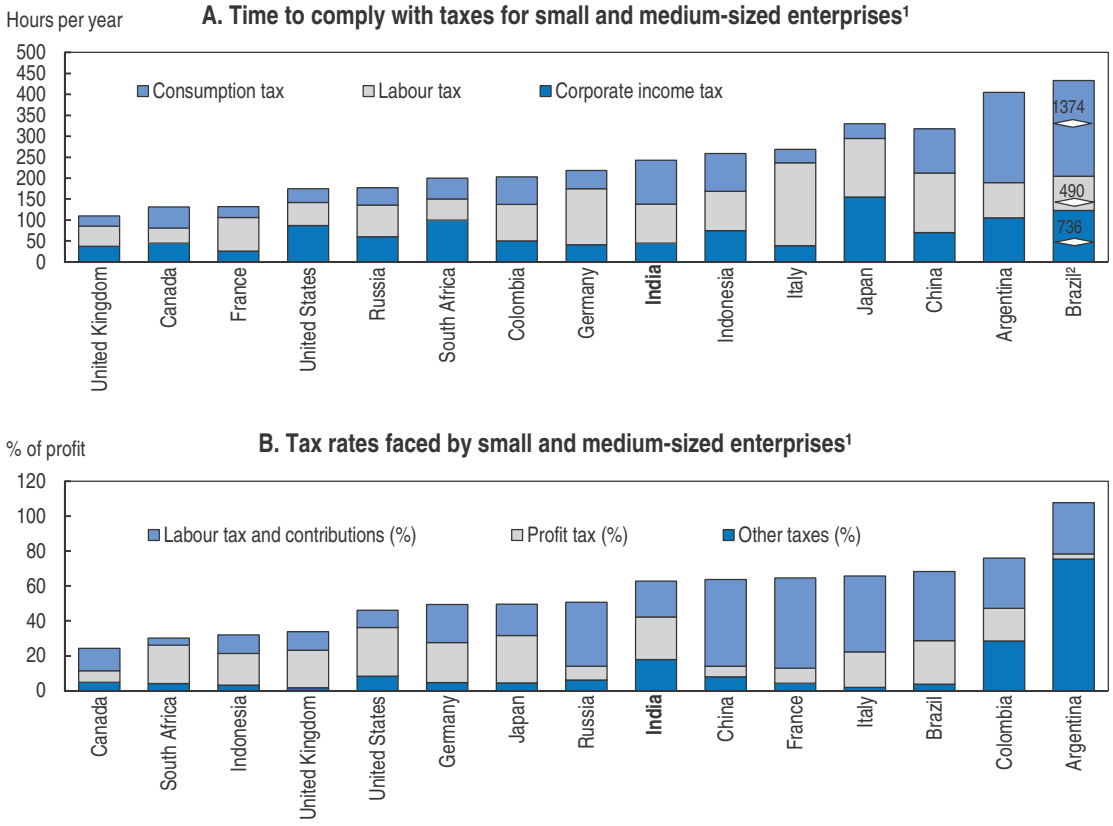
Reforming taxation

The complexity and uncertainty surrounding the tax system discourage investment

The complexity of the tax system and frequent changes in tax laws have undermined activity. The World Bank ranks India 152 out of 185 countries in the 2012 "Ease of Paying Taxes". The overall effective tax rate for small to medium sized companies is relatively high, in particular the corporate income tax, and so are compliance costs and time (Figure 1.15). Tax disputes have been frequent, involving for example the definition of what constitutes a service and should thus be subject to the Service Tax rather than the VAT. Uncertainty over tax reliefs for Special Economic Zones (SEZs) has also led to a declining interest in those enclaves; a recent business survey revealed that 62% of the respondents had suspended plans to invest further in SEZs as a result of the 2011 introduction of a Minimum Alternate Tax and Dividend Distribution Tax for firms settled in SEZs (Ipsos, 2013).[1] The Direct Tax Code Bill, pending since 2010, envisages replacing income tax holidays by complete first-year depreciation for investment in SEZs' companies established from 2014 onwards. This proposal, if adopted, will bias the tax towards capital-intensive investment projects. The multiplication of special tax regimes and frequent changes in tax laws should be avoided to support business investment. Tax cascading and high tariffs inflate costs and hamper participation in global value chains.

The indirect tax system is complex, costly to comply with and puts India's manufacturing sector at a competitive disadvantage on international markets. Tax cascading – not all indirect taxes on inputs can be deducted from indirect taxes on outputs and taxes-on-taxes are due – has been reduced since the mid-2000s with the replacement of state-level sales taxes by state-level value added taxes (Box 1.5). However, cascading remains sizeable and inflates production costs by 10% to 15% for manufacturing companies according to the Indian Institute of Corporate Affairs (2011). Inter-state trade is discouraged by taxes on inter-state movement of goods (central sales tax (CST), entry tax, etc.), combined with excessive queues and multiple inspections associated with cross-state trade in goods. The manufacturing sector suffers most since the production process

Figure 1.15. **Complying with the tax system is relatively costly**



1. The Paying Taxes study refers to a standardized small and medium-sized enterprise, with 60 employees. Taxes and contributions include the profit or corporate income tax, social contributions and labour taxes paid by the employer, property taxes, dividend tax, capital gains tax, financial transaction tax and any other small taxes and fees. Value added taxes are generally excluded when calculating the tax rate. The data shown here should be treated with caution as the use of a single hypothetical entity as the basis for computing the costs of compliance may be flawed.
2. Brazil's values regarding time to comply with taxes for small and medium-sized enterprises are not shown on scale, however, the corresponding values are indicated.

Source: PWC Paying Taxes, 2014 Report; and IFC and *WB Doing Business Database*, Paying Taxes section.

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tends to involve more inputs and transactions than services (OECD, 2012) and the taxation of services is thus much less fragmented in practice (Keen, 2013).[2] Tax cascading encourages manufacturers to integrate vertically, thus partly explaining why some firms in India are very large. Tax cascading also encourages manufacturers to source inputs from the same state or to import from abroad since imports do not bear the hidden burden of taxes on inputs. Imports are however subject to tariffs and non-tariff barriers (see below).

Competitiveness and growth of the manufacturing sector would be raised by introducing the GST and reducing tariffs and non-tariff barriers. The GST is expected to lift GDP by 0.9 to 1.7% according to the NCAER (2009) and CII (2012). The NCAER study further suggests that it would benefit most the manufacturing sector, in particular textile industries, and make exports more competitive. To get the most out of the GST, it would be important to avoid the use of exemptions, reduced rates and other preferential regimes. To address social concerns and alleviate poverty (e.g. to compensate for the cost of more expensive food products for the poor), relying on direct and targeted cash transfers should be given priority in the short run but in the long run a social safety net should be put in

Box 1.5. **The system of indirect taxes**

Main features of existing indirect taxes

Various indirect taxes are levied by both the central government and sub-national governments, with taxing rights enshrined in the Constitution:

- The **central government** has the right to tax the production of goods through the so-called *Central Value Added Tax* (CENVAT) (standard rate of 12%, with two reduced rates: 6 and 0%, on presumptive retail values with a credit for taxes paid on inputs), but not the sale of goods. Interstate sales are the exception: they are subject to the 2% *central sales tax* (CST) with the proceeds accruing to the state where the good originates. The central government also levies a 12% *Service tax,* which cannot be deducted from indirect taxes levied by state governments. *Custom duties* and other taxes on imports/exports are set and collected by the central government. A 3% surcharge – earmarked for specific spending – is imposed on all central taxes (e.g. the 12% Service tax rate becomes 12.36%).
- The **states** can tax goods within their boundaries at all stages but cannot tax services (except a limited number of specified services, such as entertainment and gambling). The main indirect tax they imposed is a *VAT* on goods, introduced in 2005 to replace the states' sales tax. Some VAT rates vary across states, though within a small range. A tax credit is available for prior-stage state VAT, but not for the CENVAT and the CST. States also levy various other taxes, including: stamp duties on the purchase of immovable property and various other transactions; profession taxes; a luxury tax; and duties on electricity.
- Local bodies and municipalities levy a tax on the entry of goods within their jurisdiction at a rate of 1 to 13% on the value of goods.
- Beyond these general taxes, the central and state governments collect a vast array of revenue and stamp duties which resemble cascading turnover taxes (Cnossen, 2012).

Tax cascading has been reduced since the mid-2000s with the replacement of states' sales taxes by VAT on goods. Some cascading remains however since not all indirect taxes paid on inputs can be deducted from taxes on outputs. In particular, once goods leave the factory, the central VAT on manufacturing becomes an excise tax and so is not subject to rebate at the state level. The tax on inter-state trade (CST) has been reduced from 4 to 2% but no credit for this tax is allowed by any level of government. Exempt sectors also contribute to the cascading effect since these sectors cannot claim for a tax credit for the tax paid on inputs. In particular, all services, real property, agriculture, oil and gas production, and mining are exempt from state VAT. The Service tax falls predominantly on business to business (B2B) services and is thus highly cascading in nature (Poddar and Ahmad, 2009).

place to protect the poor from tax changes and other economic shocks. Reducing both the average level and the dispersion in tariff rates and streamlining trade procedures would also help to promote robust supply chains and competitiveness of the manufacturing sector.

Replacing the complex system of indirect taxes with a comprehensive value added tax has been considered for more than 20 years (Chelliah Report, 1992) to reduce administrative costs, improve tax compliance, make India a single market and promote competitiveness. A Constitution Amendment Bill introduced in Parliament in 2011 seeks to replace the CENVAT and the Service tax (both levied by the central government) and the

VAT levied by the States by a Goods and Services Tax (GST). The Bill would introduce a dual GST, with both a central government component (CGST) and a state component (SGST) to be administered separately, with a proposed standard rate of 8% each. Inter-state and cross-border transactions would be subject to the Integrated GST (IGST). IGST would apply in the state of the supplier but the central government would operate a clearinghouse and compensate the consuming state according to the destination principle (OECD, 2012).

In designing the GST, a trade-off between simplicity and fiscal autonomy for the states has to be recognised (Rao, 2011). While implementing identical SGST rates and bases (in particular exemptions) would contribute to keeping administrative and compliance costs low, this would reduce states' autonomy. One option considered would be to give states the right to set the rates within a band on the SGST.

The draft Bill explicitly excludes some goods from the GST, in particular petroleum products, despite the recommendations of the 13th Finance Commission (chaired by Dr Kelkar). Some tax cascading will thus remain since petroleum products are inputs for many goods and services. It is also quite likely that some discretion in defining exemptions will be allowed to individual states.

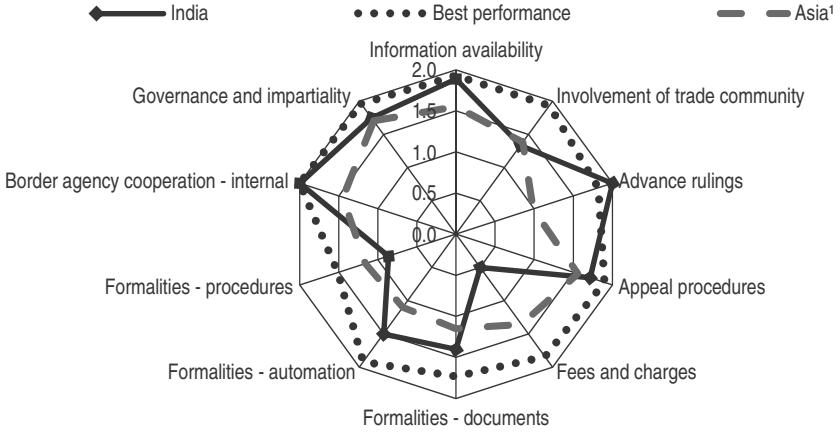
Implementing the GST requires amending the Constitution, which could be done only if each House of Parliament approves it by 2/3 majority and if it is ratified by at least 14 (out of 28) state legislative assemblies. Reaching a consensus may be difficult as many state governments have expressed concerns about revenue loss, fiscal autonomy and lack of GST infrastructure (Vaidya and Kanagasabapathy, 2013). Meanwhile, the central government has implemented a number of reforms to improve the design and operation of its existing indirect taxes, with a view to facilitating the introduction of the dual GST. These reforms notably involve some tax rate simplification and broadening tax bases, the harmonisation and simplification of specific design features of these taxes (e.g. alignment of exemptions and place of taxation provisions) and some simplification of compliance requirements (e.g. harmonised tax returns).

High import tariffs and non-tariff barriers also hinder the productivity and competitiveness of the manufacturing sector. Recent OECD work reveals how global value chains magnify the costs of tariff protection since tariffs are cumulative when intermediate inputs are traded across borders multiple times. Tariffs have been cut significantly in India since the early 1990s, relaxing technological constraints through firms' access to new imported inputs (Goldberg et al., 2008). More recently, India has given priority to signing Free Trade Agreements. Since the early 2000s, 8 FTAs have been signed with South Korea, Sri Lanka, Singapore, Japan, Malaysia, Thailand, South Asia and ASEAN countries. FTA negotiations have been launched with Australia, Canada the EU, Israel, New Zealand and MERCOSUR countries.

However, tariffs remain high compared to other BRICs and OECD countries which, given the growing importance of imports for exports in global value chains, hampers the productivity and competitiveness of the manufacturing sector. An OECD study suggests that a 10 percentage point increase in the share of imported intermediate inputs is associated with about 0.5% increase in labour productivity in emerging economies (OECD, 2013). The very high bound rates could further create uncertainty for manufacturers and discourage investment as tariffs can be raised without contravening WTO conventions. In practice, however, India's indirect taxes operate effectively through a system of notifications and peak rates for non-agriculture products have been brought down since 1991.

India also imposes non-tariff barriers in the form of quantitative restrictions, import licensing, burdensome mandatory testing and certification for a large number of products, as well as complicated and lengthy customs procedures (European Commission, 2011). India ranks 132nd out of 189 countries in the *Ease of Trading across Borders* (World Bank, 2014a), partly reflecting the number of documents required to import and export and the related time to get them. The OECD Trade Facilitation Indicators (Figure 1.16) suggest that India performs better than the averages of Asian and lower-middle income countries in a number of areas (including information availability and border agency co-operation). However, India could draw considerable benefits in terms of trade volumes and trade costs from reducing fees and charges and streamlining procedures (OECD, 2013).

Figure 1.16. **OECD indicators on trade facilitation performance show mixed results for India**



Note: For India insufficient reliable information is available at this stage for indicator "Border agency co-operation – external". The analysis is based on the latest available data as of January 2013 and the set of TFIs as constructed in "Trade Facilitation Indicators: The Potential Impact of Trade Facilitation on Developing Countries' Trade" (*OECD Trade Policy Paper* No. 144, 2013). "Best performance" denotes the average of the top quartile for each of the trade facilitation areas covered, across all countries within the database.

1. Average for: Bangladesh, Fiji, Mongolia, Singapore, Brunei Darussalam, Hong Kong, Nepal, Sri Lanka, Cambodia, India, Pakistan, Thailand, China, Indonesia, Papua New Guinea, Vietnam, Chinese Taipei, Malaysia, Philippines.

Source: *OECD Trade Facilitation Indicators Database.*

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Recommendations to raise employment creation and value added from the manufacturing sector

Key recommendations

- Reduce barriers to formal employment by introducing a simpler and more flexible labour law which does not discriminate by size of enterprise.
- Continue improving access to education, especially at the secondary level, and improve the quality of education. Provide better and earlier vocational training.
- In the infrastructure sector, impose clear timelines, rationalise documentation, and implement single-window clearance.
- Continue improving the business environment and opening up the economy.

Recommendations to raise employment creation and value added from the manufacturing sector *(cont.)*

Further recommendations

Labour market

- Improve the timeliness, quality and consistency of labour market data.

Education and training

- Better monitor learning outcomes and track implementation of reforms. Strengthen dismissal provisions for teachers who are repeatedly absent or are not performing satisfactorily. Improve training of teachers.
- Include industry demand and skill requirements in designing vocational education and on-the-job training, and update curricula every two to three years. Consider government sponsored voucher schemes and government loan guarantees to increase access to vocational education.

Infrastructure

- Simplify the bureaucratic process of securing regulatory approvals and environmental clearances. Define timelines for all stages of granting approvals and rely more on single window clearance mechanisms.
- Monitor and implement the financial restructuring of the state electricity distribution companies. Make the provision of electricity economically viable by raising tariffs. Make sure that consumers are billed for electricity based on the usage by widening the use of metering.
- Improve competition and efficiency in the coal sector. Market-based pricing and allocation should play a larger role and could attract more private investors.
- Allocate a higher proportion of funds to rail, as opposed to roads.
- Set up the Railways Tariff Regulatory Authority. Corporatise India Rail and unbundle regulatory, policymaking, and ownership functions. Increase tariffs for passengers further to be more in line with costs.
- Tariff-setting process at ports should move away from a cost-plus basis to encourage productivity improvements. Grant multiple concessions to private operators at a single port to increase competition.
- Ease investment allocation restrictions imposed to pension and insurance funds to enable more investments in the infrastructure sector.

Land acquisition

- Establish a reliable land registry to ensure clear title to property.
- Monitor and, as needed, amend the land acquisition law. Review the timelines within the Bill to make land acquisition faster.

Taxes and tariffs

- The Goods and Services Tax should be implemented swiftly to promote solid value chains in the manufacturing sector and competitiveness of the Indian economy.
- Frequent changes and retrospective amendment in tax laws should be avoided to support business investment. Special tax regimes should be streamlined to simplify the tax system, reduce compliance and collection costs and reduce tax avoidance. Tax breaks in special economic zones should not create a bias towards capital intensive projects.
- Gradually move towards a uniform tariff rate for all non-agricultural products and streamline border procedures to reduce trade costs, boost trade flows and reap greater benefits from international trade.

Notes

1. From FY 2011, the government imposed a 18.5% Minimum Alternate Tax (MAT) on firms settled in SEZs with no taxable income but showing book profits while the SEZ Act promised 100% tax exemption for 5 years and 50% exemption for the next 5 years.
2. OECD (2012), Mapping Global Value Chains, *TAD/TC/WP/RD(2012)9*, Figure 4.

Bibliography

Agarwalla, A. (2011), "Estimating the Contribution of Infrastructure in Regional Productivity Growth in India", Indian Institute of Managament, Ahmedabad, *Working Paper* No. 2011-05-01, May 2011.

Belser, P. (2013), "Wages in developing countries", in *Perspectives on Labour Economics for Development*, (Cazes and Verick ed.), ILO.

Besley, T and R. Burgess (2004), "Can Labor Regulation Hinder Economic Performance? Evidence from India", *The Quarterly Journal of Economics*, MIT Press, Vol. 119(1), pages 91-134, February.

Bhagwati, J. and A. Panagariya (2013), *Why Growth Matters*, Public Affairs Book.

Bhattacharjea, A. (2009), "The Effects of Employment Protection Legislation on Indian Manufacturing", *CDDRL Working Papers*, No. 96, January, *http://cddrl.stanford.edu/publications/the_effects_of_employment_protection_legislation_on_indian_manufacturing*.

Chelliah, R.J. et al. (1992), *Final Report of the Tax Reforms Committee*, Indian Ministry of Development.

CII & BCG (2012), "Re-igniting India's quest for manufacturing leadership", CII 11th Manufacturing Summit.

City of London (2012), "Indian Infrastructure 2010-2012: Review", September, *www.cityoflondon.gov.uk/business/support-promotion-and-advice/promoting-the-city-internationally/india/Documents/Indian%20Infrastructure%20review%20paperSept2012.pdf*.

Cnossen, S., 2012, "Introducing a Modern GST in India: Need for Further Debate", *Tax Notes International*, June.

Das, D.K., A.A. Erumban, S. Aggarwal and S. Sengupta (2014), "Productivity Growth in India under Different Policy Regimes: 1980-2012", Presentation made at the 3rd World KLEMS conference 2014, Tokyo, 2014.

Dougherty, S., V. Frisancho Robles and K. Krishna (2011), "Employment Protection Legislation and Plant-Level Productivity in India", *OECD Economics Department Working Papers*, No. 917, OECD Publishing, doi: *10.1787/5kg0ndktrx46-en*.

Ernst & Young and FICCI (2012), "India Infrastructure Summit 2012: Accelerating implementation of infrastructure projects".

European Commission (2011), "Report from the Commission to the European Council – Trade and Investment Barriers Report 2011, *http://trade.ec.europa.eu/doclib/docs/2011/march/tradoc_147629.pdf*.

Farole, Thomas (2011), "Special Economic Zones: What Have We Learned?," *World Bank – Economic Premise*, The World Bank, Issue 64, pages 1-5, September.

FICCI (2011), FICCI's Business Confidence Survey, August 2011, FICCI (Federation of Indian Chambers of Commerce and Industry).

FICCI (2012), "Lack of affordable & quality power: Shackling India's growth story", FICCI (Federation of Indian Chambers of Commerce and Industry).

Gandullia, L., N. Iacobone, A. Thomas (2012), "Modelling the Tax Burden on Labour Income in Brazil, China, India, Indonesia and South Africa", *OECD Taxation Working Papers*, No. 14, OECD Publishing.

Goldberg, P.K., A. Khandelwal, N. Pavcnik and P. Topalova (2008), "Imported Intermediate Inputs and Domestic Product Growth: Evidence from India", *NBER Working Paper* No. 14416, *www.nber.org/papers/w14416*.

Government of India (2012), The Working Group Report on Road Transport for the Eleventh Five Year Plan, Government of India, Planning Commission.

Gupta, P., R. Hasan and U. Kumar (2008), "What constraints Indian manufacturing?", *ERD Working Paper* No. 119, Asian Development Bank.

Hasan, R. and Jandoc, K.R.L. (2012), "Labor Regulations and the Firm Size Distribution in Indian Manufacturing". *Columbia Program on Indian Economic Policies, Working Paper* No. 2012-3, *http://indianeconomy.columbia.edu/sites/default/files/working_papers/wp_2012-3.pdf*.

Hasan R., D. Mitra and A. Sundaram (2012), "What explains the high capital intensity of Indian manufacturing?", *Indian Growth and Development Review*, Vol. 6, Issue 2.

Hulten, C., E. Bennathan and S. Srinivasan (2006), "Infrastructure, Externalities, and Economic Development: A Study of the Indian Manufacturing Industry", *The World Bank Economic Review*, Vol. 20, No. 2, 291-308.

IDFC (Infrastructure Development Finance Company) Foundation (2013), *India Infrastructure Report 2012: Private Sector in Education*, Routledge.

IDFC (Infrastructure Development Finance Company), 3i Network (2009) *India Infrastructure Report 2009: Land – A Critical Resource for Infrastructure*, Oxford University Press, *www.idfc.com/pdf/report/IIR-2009.pdf*.

Indian Institute of Corporate Affairs (2011), "GST and development of single national market", *www.iica.in/images/GST%20Single%20National%20Market.pdf*.

Ipsos (2013), "Minimum Alternate Tax on SEZs Has De-Rated India as an Investment Destination", *Ipsos Survey*, February.

Kapoor, R. (2014), "Creating Jobs in India's Organised Manufacturing Sector", *ICRIER Working Paper*, No. 286, *http://icrier.org/pdf/Working_Paper_286.pdf*.

Keen, M. (2013), "Targeting, Cascading, and Indirect Tax Design", *IMF Working Paper* No. 13/57, February.

Kochhar, K., U. Kumar, R. Rajan, A. Subramanian and I. Tokatlidis (2006), "India's pattern of development: What happened, what follows?", *Journal of Monetary Economics*, Vol. 53, Issue 5, July 2006, pp. 981-1019.

Koske, I., J. Fournier and I. Wanner (2012), "Less Income Inequality and More Growth – Are They Compatible? Part 2. The Distribution of Labour Income", *OECD Economics Department Working Papers*, No. 925, OECD Publishing, Paris, doi: *10.1787/5k9h2975rhhf-en*.

Kumar, K.B. and Y. Liu (2008), "China and India, different educational paths toward prosperity", *Policy Insight*, RAND, Pardee Rand Graduate School, Volume 2, Issue 1.

Kumar, V. (2012). "Labour Laws: Are they holding back manufacturing sector growth and employment in India?". In Malhotra, R. (eds.), *A critical decade: Policies for India's Development*, Oxford University Press, pages 376-403.

López, H. (2004), "Macroeconomics and Inequality", *The World Bank Research Workshop, Macroeconomic Challenges in Low Income Countries*, October, Washington, DC.

Mahalingam, A. and A. Vyas (2011), "Comparative Evaluation of Land Acquisition and Compensation Processes", *Economic and Political Weekly*, Vol. XLVI, No. 32.

Majumder, R. (2005), "Infrastructure and Regional Development: Interlinkages in India", *Indian Economic Review*, Vol. 40, No. 2, pp. 167-184.

McKinsey & Company (2010), "Building India: Transforming the nation's logistics infrastructure", *Infrastructure Practice,* McKinsey & Company.

McKinsey & Company (2013), "Infrastructure productivity: How to save $1 trillion a year", *McKinsey Global Institute*, McKinsey Infrastructure Practice.

Mehrotra S., S. Sinha, J.K. Parida and A. Gandhi (2014), "Why a jobs turnaround despite slowing growth?", *IAMR Occasional Paper* No. 1/2014.

Ministry of Finance (2014), "Industrial Performance", Chapter 9 in the *Economic Survey 2013-14*, Government of India, New Delhi.

Ministry of Finance (2013a), "International Trade", Chapter 7 in the *Economic Survey 2012-13*, Government of India, New Delhi.

Ministry of Finance (2013b), "Industrial Performance", Chapter 9 in the *Economic Survey 2012-13*, Government of India, New Delhi.

Ministry of Finance (2013c), "Human Development" Chapter 13 in the *Economic Survey 2012-13*, Government of India, New Delhi.

Ministry of Finance (2013d), "Seizing the demographic dividend", Chapter 2 in the *Economic Survey 2012-13*, Government of India, New Delhi.

Mishra, P. (2013), *Has India's Growth Story Withered?,* Ministry of Finance, Government of India. *www.prachimishra.net/potential_india_draft_revised_feb2013_sub.pdf*.

Mitra, A., C. Sharma and M. Véganzonés-Varoudakis (2012), "Estimating impact of infrastructure on productivity and efficiency of Indian manufacturing", *Applied Economics Letters*, 19, 779-83.

NCAER (2009), "Moving to Goods and Services Tax in India: Impact on India's Growth and International Trade", *Prepared for the Thirteenth Finance Commission Government of India, www.ncaer.org/Downloads/WorkingPapers/wp103.pdf*.

OECD (2014), *OECD Territorial Reviews: Ukraine 2013*, OECD Publishing, Paris, doi: *10.1787/9789264204836-en*.

OECD (2013), "OECD Trade Facilitation Indicators – India", OECD Publishing, Paris, *www.oecd.org/tad/facilitation/india-oecd-trade-facilitation-indicators-april-2014.pdf*.

OECD (2012), "VAT and GST systems in federal countries", Chapter 7 in *Consumption Tax Trends* 2012, *http://pac-files.oecd.org/acrobatebook/2312291e.pdf*.

OECD (2011a), *OECD Economic Surveys: India 2011*, OECD Publishing, Paris, doi: *10.1787/eco_surveys-ind-2011-en*.

OECD (2011b), *Divided We Stand: Why Inequality Keeps Rising*, OECD Publishing, Paris, doi: *10.1787/9789264119536-en*.

OECD (2010), *Learning for Jobs, OECD Reviews of Vocational Education and Training*, OECD Publishing, Paris, doi: *10.1787/9789264087460-en*.

OECD (2007), *OECD Economic Surveys: India 2007*, OECD Publishing, Paris, doi: *10.1787/eco_surveys-ind-2007-en*.

Papola (2013), "Labour Market Segmentation in India: Role of Regulation and Reforms", mimeo, presented workshop at ILO Geneva, 10-11 December 2012, *www.ilo.org/ifpdial/events/conferences/WCMS_195933/lang--en/index.htm*.

PFC (2013), "Report on the performance of state power utilities for the years 2009-10 to 2011-12", Power Finance Corporation Ltd.

Planning Commission (2013), Twelfth Five Year Plan (2012-2017), Social Sector, Volume III.

Planning Commission (2011), "The Manufacturing Plan: Strategies for Accelerating Growth of Manufacturing in India in the 12th Five Year Plan and Beyond", *Report of the Industry Steering Committee for the Twelfth Five Year Plan* (2012-2017).

Poddar, S. and E. Ahmad (2009), "GST Reforms and Intergovernmental Considerations in India", Government of India, Ministry of Finance, Department of Economic Affairs, *Working Paper* 1/2009. *www.lse.ac.uk/asiaResearchCentre/_files/ARCWP26-AhmadPoddar.pdf*.

Purfield, C. (2006), "Is Economic Growth Leaving Some States Behind?", *India goes global: Its expanding role in the world economy*, IMF, Washington, DC.

Rao, G. (2011), "Goods and Services Tax: A Gorilla, Chimpanzee or a Genus like Primates ?", *Economic and Political Weekly*, 12 February 2011.

RBI (2014), *Annual Report 2013-2014*, Reserve Bank of India, August 2014, *http://rbidocs.rbi.org.in/rdocs/AnnualReport/PDFs/RBIARE210814_FULL.pdf*.

RBI (2013), *Financial Stability Report*, Reserve Bank of India, Issue 7, December, *http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FSRDEC301213_FL.pdf*.

Sahoo, P. and R.K. Dash (2009), "Infrastructure development and economic growth in India", *Journal of the Asia Pacific Economy*, Vol. 14, No. 4, 351-65.

Sahoo, P. and R.K. Dash (2012), "Economic growth in South Asia: Role of infrastructure", *The Journal of International Trade & Economic Development*, Vol. 21, No. 2, 217-52.

Sharma, C. and S. Sehgal (2010), "Impact of Infrastructure on Output, Productivity and Efficiency: Evidence from the Indian Manufacturing Industry", *Indian Growth and Development Review*, Vol. 3, No. 2.

Sinha, R. (2010), "Draft Land Titling Bill, 2010 – India", Presentation to a workshop on "The Fundamental Principles of Property Titling", July, New Delhi.

UNIDO (2013), *Competitive Industrial Performance Report 2012/2013. The Industrial Competitiveness of Nations: Looking back, forging ahead*, United Nations Industrial Development Organization.

Vaidya D.S. and K. Kanagasabapathy (2013), "Reform of Indirect Taxes -Hurdles before the GST", *Economic and Political Weekly*, June, Vol. 48, Nos. 26 and 27.

WIOD (2012), "*World Input-Output Database* (WIOD): Contents, Sources and Methods", edited by Marcel Timmer (University of Groningen), Version 0.9, April.

World Bank (2014a), *Doing Business 2014*, World Bank, Washington, DC.

World Bank (2014b). *Private Participation in Infrastructure Database*.

World Bank (2012), Indian Economic Update September 2012, Washington, DC.

World Bank (2009), *Doing Business 2009*, World Bank, Washington, DC.

Chapter 2

Raising the economic participation of women in India – A new growth engine?

India has narrowed gender differences in health and education, but gaps in economic participation remain large despite high economic growth over the past decade. The reasons are complex: family status increases if women stay home, housework has become more attractive than poorly paid market work as husband's incomes have risen; and safety concerns and poor infrastructure keep women from market work. Nevertheless, high unemployment among educated women and revealed preference for work in surveys indicate that many women would work if conditions improved.

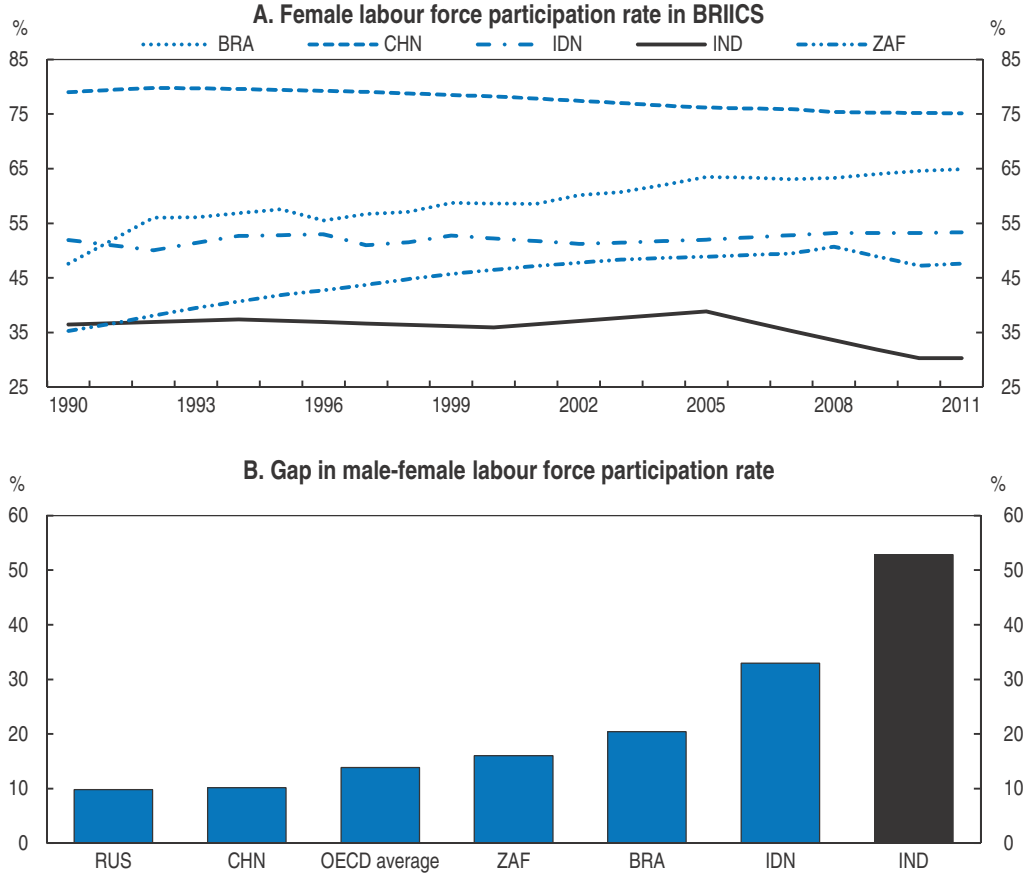
Specific gender policies will be needed to enlarge economic opportunities for women (World Bank, 2012, Duflo 2012). This chapter analyses the determinants of low female economic participation and recommends policies for raising it. The chapter also estimates long-term growth effects of raising participation with selected policies.

Who works and where?

Female labour force participation in India is low and declining

Only a third of working age women in India have jobs, whereas in Brazil, for example, the figure stands at two-thirds (Figure 2.1). Participation in the labour force is higher in rural than in urban areas, and in the Southern than the Northern states (Figure 2.2). The latter differences may reflect religious customs as Muslims, who are more numerous in the Northern states, tend to have lower female participation rates (Eswaran et al., 2013). In India social norms have a strong impact on participation, as staying home is often considered to increase a family's social status (Klasen and Peters, 2013). Participation is also higher among the poor and declines with family income and education, although it is higher among the highest educated (Figure 2.3). A similar U-shaped participation curve has been found in past

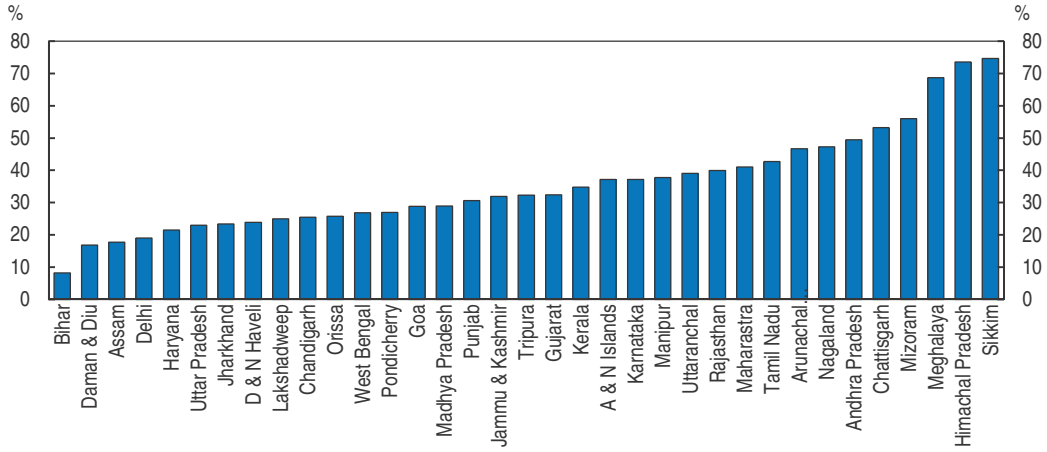
Figure 2.1. **Female labour force participation indicators**



1. Data refer to working age population (15 to 64 years). The gap is male minus female participation rate.
Source: ILO, *Economically Active Population, Estimates and Projections* (6th edition, October 2011).

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Figure 2.2. **Female labour force participation[1] by state in 2012**



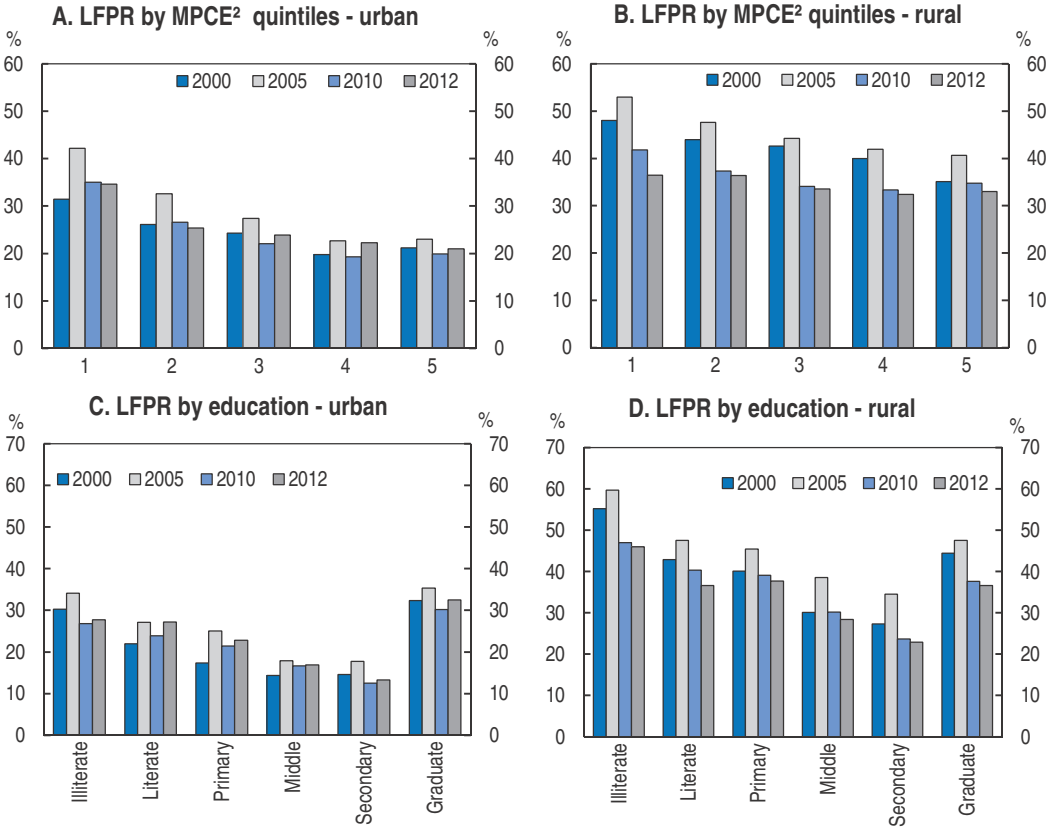
1. Labour force participation is based on current weekly activity status, excluding those currently attending school. Data refer to working age population (15 to 64 years) and were collected between July 2011 and June 2012.

Source: NSSO, Employment and Unemployment Survey, 68th Round.

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Figure 2.3. **Female labour force participation by income and education[1]**

Working age population (15-64 years)



1. Working age population (15-64 years).
2. MPCE denotes the monthly per capita consumption expenditure of households.

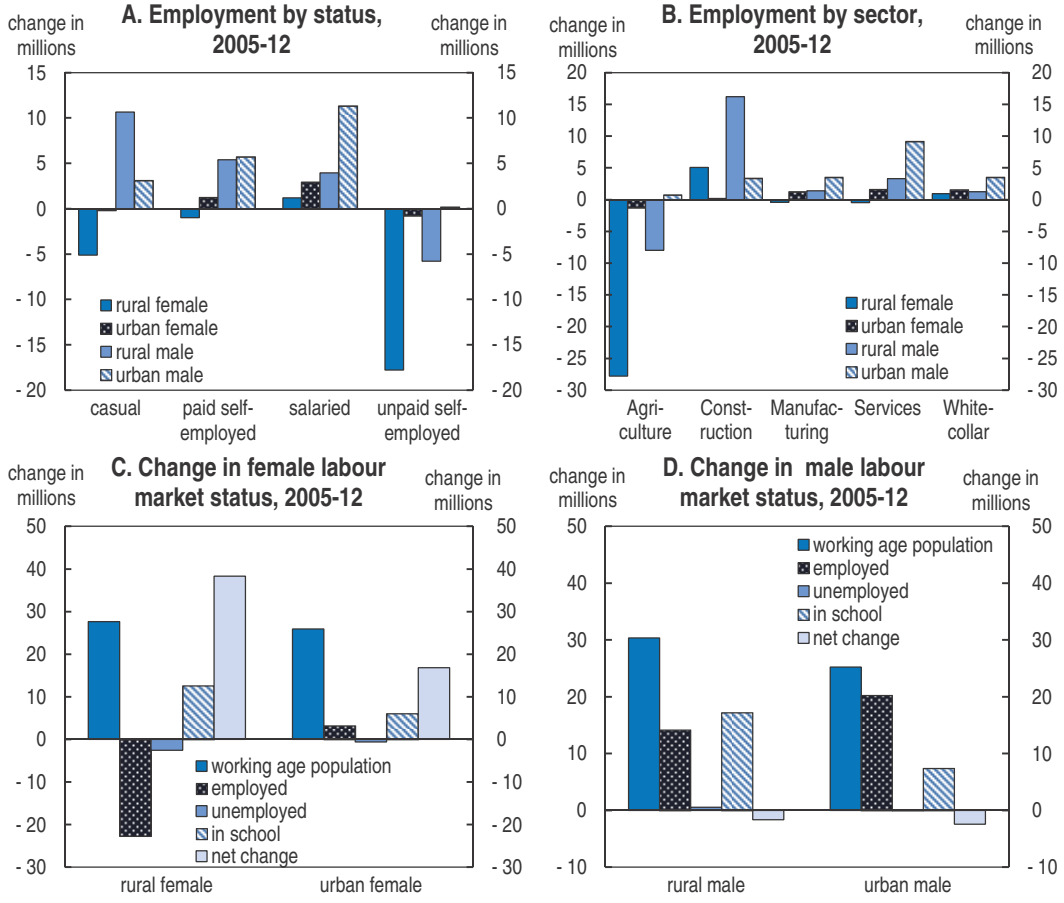
Source: NSSO, Employment and Unemployment Survey, Rounds No. 43, 50, 55, 61, 66 and 68.

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studies at certain levels of development (Goldin 1994). In a study of over 100 countries, female labour force participation was found to first decline with per capita incomes, and rise only when women became more educated and had access to white-collar jobs.

Female participation has dropped over the past decade, in contrast to other emerging market economies, while that of men has remained stable. Most of the decline in female labour force since 2005 is due to a drop in unpaid female self-employment in agriculture (Figure 2.4). Participation is also influenced by "jobless growth". While female working age population rose by about 99 million, female jobs grew only by 6 million between 2000 and 2012. As a result the amount of working age women outside the labour force grew by 70 million, after accounting for a rise in school attendance (Table 2.1). Over the same period, the number of jobs filled by men grew by 69 million, and the labour markets and school attendance absorbed the entire rise in male working age population.

Figure 2.4. **Changes in employment and participation**



Source: NSSO, Employment and Unemployment Survey, Rounds No. 61 and 68.

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Some of the decline in female participation probably reflects the rapid rise in agricultural wages since 2005 (Figure 2.5). Rising incomes have reduced the need for marginal labour from poor women, allowing them either to stay at home or participate in paid NREG programmes. Real incomes have been increased by the roll-out of the rural employment programme (NREG) since 2006 that provides on average 46 days of work

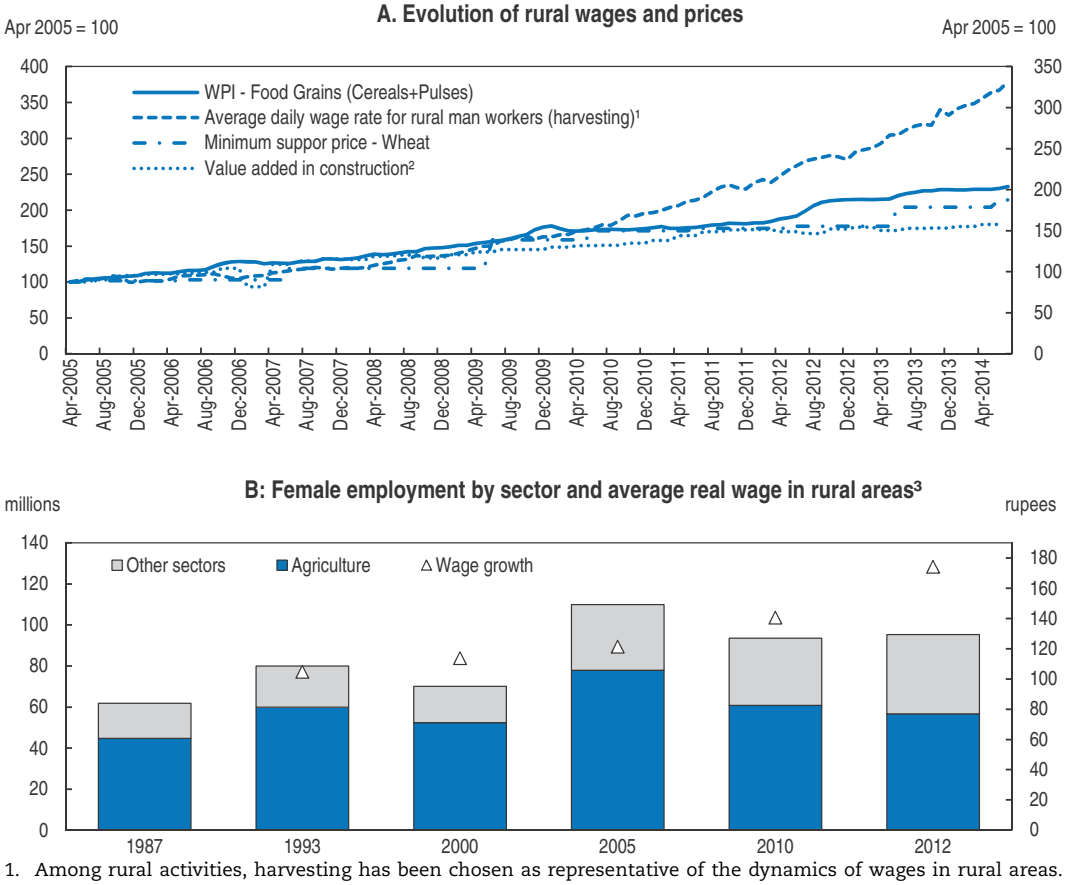
Table 2.1. **Employment trends**

Millions, 15-64 years of age

Net increase in...	2000	2012	Change 2000-12
	Female		
Working age population	**304**	**403**	**99**
Labour force			
Employment	123	129	6
Unemployment	2	3	1
Remaining outside labour force			
In education	18	42	24
Not in education	161	229	68
	Male		
Working age population	**326**	**427**	**101**
Labour force			
Employment	274	343	69
Unemployment	7	8	1
Remaining outside labour force			
In education	32	61	29
Not in education	13	15	2

Source: Working age population 15-64 years, estimates based on NSSO Rounds No. 61 and 68.

Figure 2.5. **Participation and agricultural wages**



1. Among rural activities, harvesting has been chosen as representative of the dynamics of wages in rural areas. There is a break in the series in October 2013. Starting from this date the series on wage for harvesting, winnowing and threshing was used.
2. At constant prices.
3. Data refer to working age population (15 to 64 years) and are based on current weekly activity status. Rural wage refers to the daily wage in rupees (2012 prices).

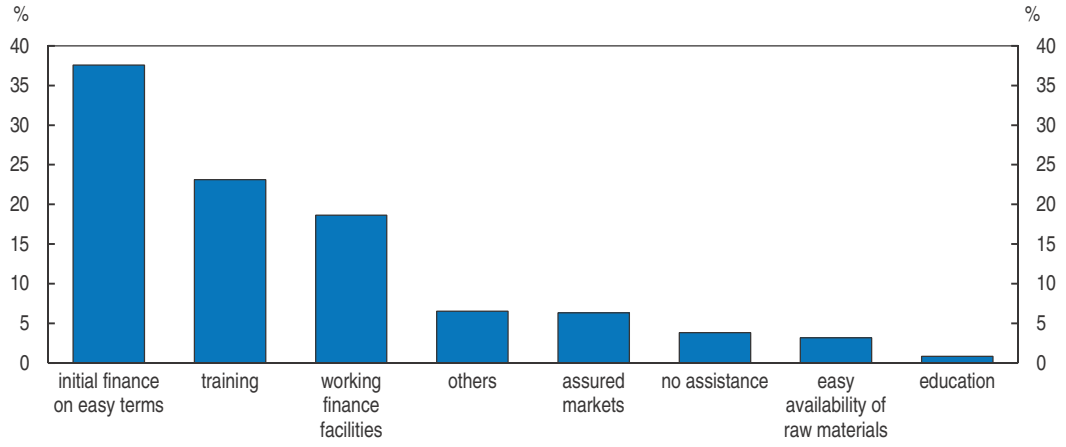
Source: Central statistics organisation; RBI; and NSSO, Employment and Unemployment Survey, Rounds No. 43, 50, 55, 61, 66 and 68.

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off-season at equal pay (the minimum wage) and allocation for men and women (Berg et al, 2014). Rural incomes were also boosted by substantial hikes in agricultural support prices since 2005 to align them with world prices. For example, wheat prices rose by over 200% between 2005 and 2013. Another source for income growth has been a rise in construction activity due to higher (public) infrastructure and housing spending. This is confirmed by large new job creation in casual labour for men, mainly in construction (Figure 2.4, Panel A and B). The closure of many traditional manufacturing industries after the 2008 financial crisis may also have contributed to the reduction of the number of unpaid female "helpers" or workers from the family (Neetha, 2013).

Most women who were out of the labour force in 2010 performed domestic duties in all educational categories and in both urban and rural areas. The reasons stated were that there was no-one else to carry out domestic duties (over 60%); social reasons (15-17%) or they could not afford domestic help (10%) (*NSSO Report* No. 550). The "stay-home" phenomenon does not mean, however, that women would not like to work more. In the NSSO surveys many women who stayed at home stated that they like to work on a regular basis either part time or full time, especially if they could work from home. Access to finance, training, and having an assured market were factors that would facilitate taking up a job (Figure 2.6).

Figure 2.6. **Type of assistance cited by women in order to start working**



Source: NSSO Report No. 550, 2010.

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Female entrepreneurs remain rare

Women also participate economically as entrepreneurs and self-employed. The share of female entrepreneurs, defined as employing at least one worker, remains small and stagnant at about 3-6% of total depending on sectors (Table 2.2). Female entrepreneurs are most active in services in terms of overall numbers. Female self-employment, which often cover own-account workers without employees, has risen substantially over the past decade. Their numbers doubled to 10 million between 2000 and 2010, and they now account for nearly half of informal enterprises in manufacturing (Ghani et al., 2012, NSSO). Many of these women work from home (Ghani et al., 2012) in traditional areas such as textiles, apparel, and tobacco, and are motivated by the flexibility of entrepreneurial activity. Many also work in marginal activities as street vendors. Some of the rise in

Table 2.2. **Characteristics of female entrepreneurship in India**

	2000	2010	2000	2010
	Per cent		Thousands	
Entrepreneurs				
Manufacturing	6	5	113	142
Trade	4	3	76	81
Services	6	6	95	188
Self-employed				
Manufacturing	29	46	3,448	6,542
Trade	6	10	945	1,770
Services	6	8	598	1,282

Source: Source; NSSO.

self-employment may reflect lack of wage employment obliging poor women to work in marginal activities. The stagnant share of entrepreneurs with often higher education and skills can reflect many remaining barriers for female economic activities such as social norms, or access to credit, etc. (see *Technical Background Paper* No. 3). As India's total and female rate of entrepreneurship is lower in relations to its stage of economic development (Ghani et al., 2012), the low share of entrepreneurs may reflect issues with the overall business environment in India.

Women work in low productivity jobs

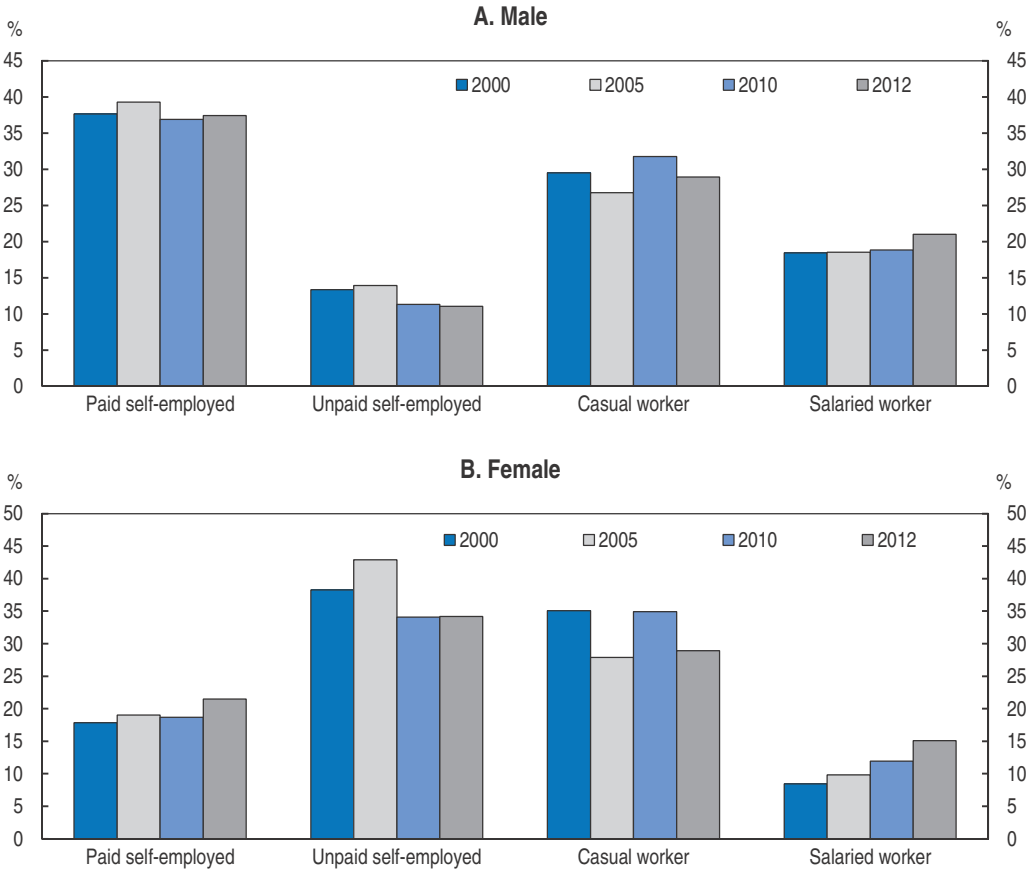
Women tend to work in less productive jobs than men, as in other countries (World Bank, 2012). More than a third are unpaid helpers (as opposed to 11% of working men) (Figure 2.7). Women are overrepresented in low-productivity agriculture, traditional small-scale manufacturing and in services such as education and household employment. Only 6% of employed women have social benefits such as pensions or maternity leave (see Table 2.3). This is not necessarily gender-specific, as most jobs in India are in the informal sector (Government of India, 2013).

The quality of female jobs has improved somewhat over the past seven years as the share of female unpaid work declined in rural areas (Figure 2.7), and organised employment rose slightly in services and manufacturing in the urban areas. However, most of the rise in these jobs was still in the informal sector without social benefits (Mehrotra et al., 2014). The World Economic Forum (WEF) data also show that women have a relatively high share in professional and technical occupations – India ranked 68th among 135 countries in 2013 in the WEF Index. At the same time, high unemployment among highly educated women points to a potential glass ceiling. The high unemployment rate among educated women in both urban and rural areas, coupled with the overall low job creation, also points to a demand problem (Figure 2.8). Over 3 million women would be willing to work if suitable jobs were available.

High wage differentials with men influence incentives to work

As in many other BRIICs, participation may also be influenced by the large wage differential that women face in India, especially among unskilled workers; among the barely literate, men earn nearly twice as much as women. The difference narrows somewhat with education, especially in services (Figure 2.9). Differences are lowest in the public sector, and the rural employment programme provides equal pay for both genders.

Figure 2.7. **Worker status by gender**[1]

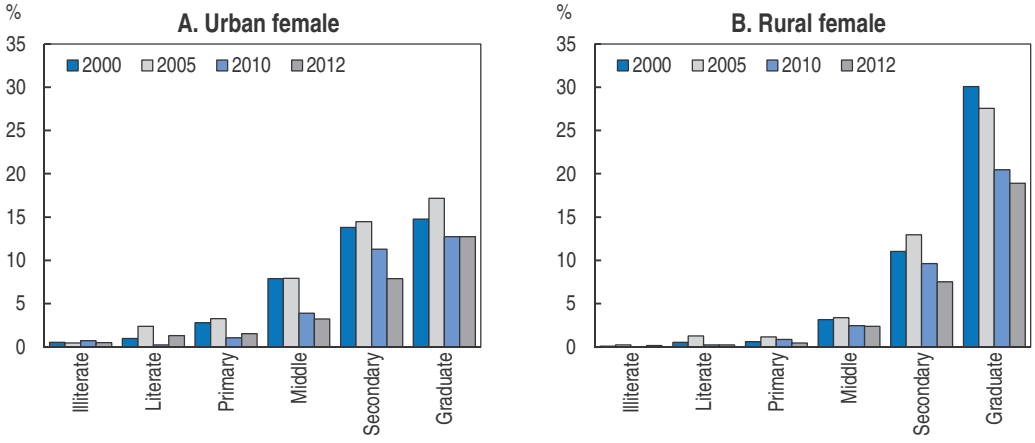


1. Worker status is based on current weekly activity status.

Source: NSSO, Employment and unemployment survey, rounds no. 43, 50, 55, 61, 66 and 68.

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Figure 2.8. **Unemployment rate by education**[1]

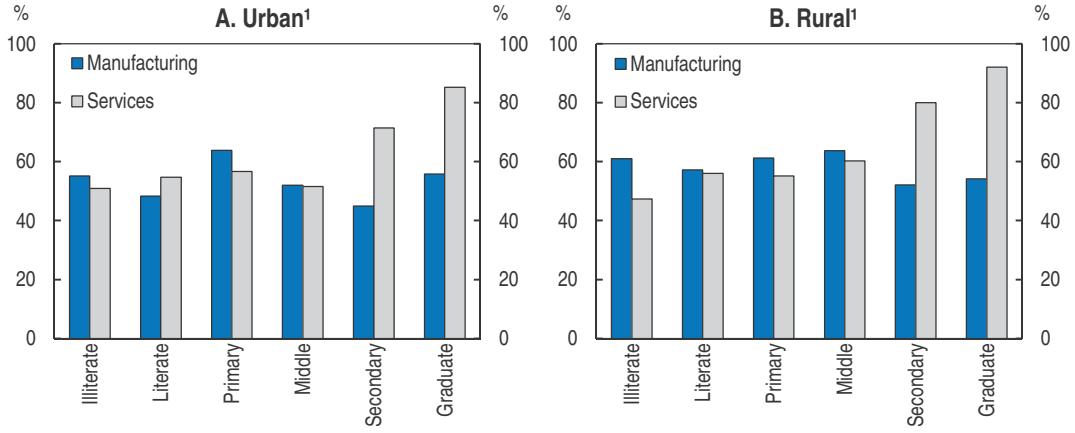


1. Data refer to working age population (15 to 64 years).

Source: NSSO, Employment and Unemployment Survey, Rounds No. 55, 61, 66 and 68.

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Figure 2.9. **Female wages as share of male wages by education and sector (2012)**



1. Unpaid family workers do not report wages therefore they are not included.
Source: NSSO, Employment and Unemployment Survey, Round No. 68.

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The differences in wages can partly reflect overall education levels and the types of sectors where women work (World Bank, 2012) but discrimination by gender is also likely to contribute. The legal framework for equal pay is not always enforced (Equal Remuneration Act of 1976), partly reflecting the large share of the informal sector (about 95% of employment).

The gender wage gap often leads women to stay at home (OECD, 2012). Khera and Nayak (2009) in a survey in rural areas find that many women do not engage in paid work because of the low wage. With large wage differentials the value of non-market goods production at home can be higher than the market production wage. This may have been reflected in the drop of rural women from unpaid or low paid self-employment as discussed above as more men found wage jobs.

Raising participation can have substantial growth effects

Measuring growth effects of higher female economic participation is complex. Per capita GDP is determined by the interaction of labour productivity, which is in turn influenced by availability of capital, hours worked per employed, the employment rate, and working age population. A number of studies have simply assumed that the change in GDP is directly related to a change in the labour force participation rate for women, holding other factors like capital constant (Matsui, 2005). DeAnne et al. (2012) refined this methodology by assuming that over the medium term one needs also to account for a temporary drop in productivity as new women with limited work experience would enter the labour force, and a potential drop in hours worked as some of the women may want to work part-time. OECD estimated that by closing the gender gap by 2030 would raise GDP by 12% from a steady rise in the female labour input (OECD, 2012).

A more rigorous assessment of potential growth gains of higher participation and the interaction of various determinants can be made with overlapping generation models. The time use of women can be modelled over three periods (childhood, adulthood and retirement) in an economy that produces home and market goods. Critical choices are made in adulthood, where women must allocate their time between household chores, child rearing, human capital accumulation, and market work. Time use is influenced by

variables relating to human capital formation, health status and productivity, government policies, and female bargaining power. The structure of the model enables a rich set of interactions and policy simulations on the growth impact of higher female economic participation and empowerment (*Technical Background Paper* No. 1). The model is calibrated for India based on existing studies on the various variables. It follows a similar model developed for Brazil (Agénor and Canuto, 2013).

The model was used to simulate public policies that affect female time use, and thereby economic participation and potential growth. The policies include changes in public investment in infrastructure, such as safer and better transport, sanitation and water; the efficiency of government spending in health, education and infrastructure to the extent they impact women's time allocation. The model is also used to simulate the impact of child- and gender related policies such as increasing family benefits per child, reducing gender bias in the market place (as a result of affirmative action policies, of the type discussed earlier in this chapter) and mother's time allotted to daughters on participation. These policies raise growth by improving human and other capital, productivity and labour input lifting the economy to a new steady state with a permanently higher growth rate (for more details see *Technical Paper* No. 1).

The results show substantial growth effects from a combination of pro-growth and pro-gender policies (Table 2.3). Depending on the policies, growth could rise by about 1.5 to 2.4% per annum. The impact of comprehensive policies is larger than in a similar experiment done for Brazil (1.5-1.7%), which starts from a much higher female economic participation rate than India (Agenor and Canuto, 2013). The analysis also finds a positive but weak impact of raising female education on women's bargaining power, and confirms that other measure influencing social and cultural values may be needed to speed up the process. Higher education for women generates health externalities, not only for themselves but also for their families, and additional cash benefits can have important impacts on health and growth. Improved access to infrastructure has only modest benefits through women's time allocated to market work, as in the participation regressions discussed below.

The impact on wellbeing is difficult to assess. Wellbeing of many poor women may be higher by staying home compared to performing marginal poorly paid or unpaid jobs. At the same time, the unemployment of the educated and willingness to work from home point to gains to wellbeing from working. Other factors also bear on wellbeing. Participation can raise financial independence which has been shown to improve women's decision making in the household. Participation can also reduce domestic violence, which is part of wellbeing and relatively frequent in India (Mathur and Slavov, 2013). The 2006 National Family Health Survey (NFHS) reported that one third of women aged 15 and 49 had experienced physical violence and one in ten had been victims of sexual violence in their lifetime (van Klaveren et al., 2010).

Table 2.3. **Impact of policy simulations on growth**

% of GDP

	Baseline[1]	Absolute deviations from baseline	
		Composite programme 1	Composite programme 2
A. Channel of impact on time use of policy reforms			
Time allocated by mothers to :			
Household chores	31	-1.04	-1.61
Child rearing	4.9	0.09	0.16
Child rearing (Total)	12.4	0.09	0.18
Human capital accumulation	14	0.15	0.28
Market work	32.5	0.8	1.14
Women's bargaining power	33	0.02	0.45
Share if family income, child rearing	5.8	0	0.02
Fertility rate	253	-2,62	-4.67
Average survival rate, adulthood to old age	79.5	4.1	5.89
Family's savings rate	23.3	0.92	1.38
Public = private capital ratio	6.44	2.6	4.2
Female health status	100	48.34	74.81
Impact on growth rate of final output (%)	**7.7**	**1.54**	**2.4**

B. Other policy simulations	
Impact on GDP growth of changes in time use of women from:	% added to GDP growth
Increase in infrastructure spending financed by cuts in:	
Unproductive spending	1.7
Education spending	-0.8
Increase in efficiency of public spending:	
Infrastructure	0.8
Education	0.5
Health	0.1
All three	1.4
Increase in targeted cash benefit rate:	0.1-0.3
Rate	0.2-0.5
Reduction in gender bias in the marketplace	0.14
Increase in mother's time allocated to their daughters	0.13 (0.3-0.5)

Source: Technical Background Paper No. 1. In baseline scale changed compared to Table 7 in Technical Paper No. 1. Policy changes are e.g.an increase in targeted cash benefit from 0.01% to 0.04% of family income, etc. See footnotes to tables in the technical paper.

What is behind low participation and how to raise it?

India is not alone with gender inequalities in economic participation. Despite higher incomes and stronger growth, gender inequalities in economic opportunities remain in much of the OECD and the rest of the world influenced by various market and institutional failures. However, in India these failures are likely to be even stronger given low incomes and diverse cultural settings. Inequalities in opportunities can arise from differences in time use at home between men and women that keep women out of the labour market. Domestic duties such as child and parental care often fall on women. Unequal access to productive inputs such as credit and labour, and market and institutional failures in terms of laws and delivery of economic services that discriminate against women also affect participation (OECD SIGI Index, World Bank, 2012). In addition, social norms in India tend to favour men over women. For example, as heads of households, men affect women's ability to make independent decisions about their economic participation in terms of careers, family or finances (Eswaran et al., 2013). Gender-differentiated market failures,

institutional constraints, and persistent social norms often combine to reinforce gender inequalities and make improving gender equality much more complex. When there are multiple constraints they all need to be addressed (World Bank, 2012).

As the past decade has shown, economic growth alone is not enough to reduce gender inequalities; policy commitment is also needed (Duflo, 2012, World Bank, 2012). Policies to raise female economic participation should focus on the factors that segregate economic opportunities and lead to low productivity traps for women. Improvement in infrastructure services and policies reducing transaction costs to markets can influence time-use at home. Measures may also be needed to expand women's legal rights, improve social norms and collective action (OECD SIGI Index, World Bank, 2012). Progress in fertility, gains in education and women's ability to take decisions in using economic opportunities, and shifts of women to market work are related but also mutually reinforcing. Raising women's income in turn tends to increase their bargaining power in the family with positive feedback loops on equality in decision making. When market signals, formal institutions and income growth all come together to support investments in women gender equality improves quickly (World Bank, 2012).

The remainder of the chapter will test more formally the causes of low economic participation of women in India and policies to improve it (*Technical Background Paper* No. 2). Using household survey data from NSSO, separate cross sections regressions were used for the available surveys of 2000, 2005, 2010 and 2012 as they are not continuous samples. The estimations use a probit model to test for probability of participation of women with various characteristics. Given the large diversity of India's regions separate regressions were run for urban, rural, regions and types of workers. The analysis also tests for changes in coefficients over time.

Socioeconomic factors

Wage differentials, education and income

In all OECD countries (except Japan, Korea and Turkey) employment rates increase and gender employment gaps decrease as educational attainment rises (OECD, 2012). In India the U-shaped relationship of female participation with both household income and education suggests that non-wage factors are important in reducing female participation. Some of the decline in participation with education may reflect increasing supply of education and rising marriage market returns to education, especially in the urban areas (Klasen and Peters 2013). Education and family income tend to be highly correlated. Own-wage income for the more educated groups is thus less important than household income for participation decisions. The low substitution effect in terms of home goods production and market work, and a high income elasticity for "non-market goods, status or leisure" is attributed by some authors to the importance of status production or religion (Eswaran et al., 2013, Klasen and Peters, 2013).

The regression results point to a strong negative effect on participation from education and family (husband's) income. These factors are strongest in the South and West parts of India, which have more educated populations and higher female participation in general (45%). In the largely rural East and North of the country, where female participation is low overall (20%), other factor matter more such as cultural traditions and religion (Eswaran et al., 2013).

Despite a potential negative short-term reduction of female participation, education will over time counter socio-economic factors that work against women's ability to take advantage of economic opportunities. The regressions show a large impact of household income or socioeconomic status on participation in the low educated sub-group but a negligible impact in the highly educated sub-group. Thus education matters in mitigating socio economic attitudes. Also the religious influence on participation is smaller for the highly educated group (in line with Klasen and Peters findings for urban areas). Education was also one of the strongest determinants of real female entrepreneurship in India (*Technical Background Paper* No. 3). Building human capital with education or participation in the labour force gave women the skills and experience to run small companies.

At lower income levels participation is often dictated by necessity, and thus own income, in addition to household income, can be more important. In the mid-2000s female unpaid self-employment, or the so-called "distress work" first rose and then declined in line with the evolution of agricultural incomes (Mehrotra et al., 2014). Women's work may also be an insurance for households and thus move counter-cyclically, especially in poorer households (Bhalotra and Umana-Aponte, 2010). This potential effect was proxied by the share of unearned income from regular employment and underemployment of male household members. The coefficient was large for the underemployment variable among the non-self-employed. Thus improving overall job creation is likely to reduce marginal employment among poor women.

Large wage differentials with men can reduce participation by increasing the relative value of women's home good production increases. The fact that female participation rose substantially in the NREG programme, which provides equal pay with men, suggest that this is the case. However, wage information is not available for the self-employed, which counts for about half of the female labour force, making testing this hypothesis more difficult.

Wealth

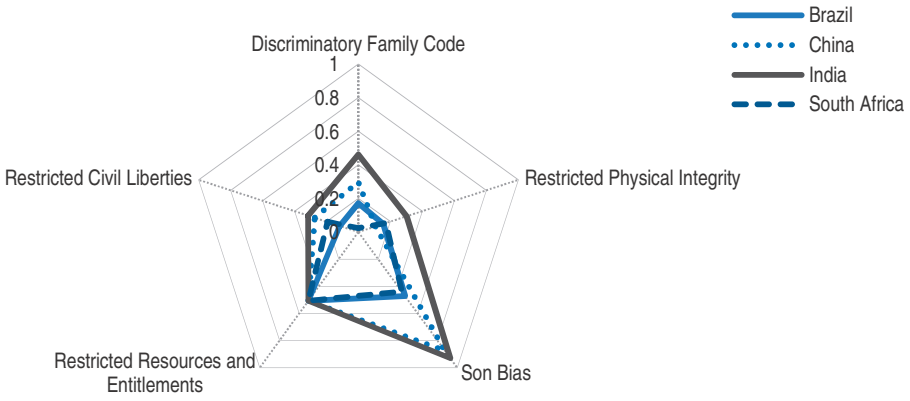
Wealth can affect participation through permanent income, beyond total earnings and socio-economic status. Wealth can reduce the need to work, apart from perhaps at the highest levels of education. In the absence of data on wealth, the education level of the head of household was used as proxy. The results confirm that an increase in unearned income of the household reduces the marginal utility of the woman's earnings and thereby participation. The regressions show a strong and negative effect, except for urban seasonal work.

Another proxy for wealth, land owned and cultivated was also tested, and can have unclear impact a priori. It can be negative via income or status effect, but positive when household work is often used before hiring workers. Female participation increases when families have land cultivated, but owning land was not significant for participation. Potentially this reflects lower incomes/asset value from landownership in rural areas.

Social institutions and inequality

Social institutions in India tend to reinforce some of the education and income effects on low female labour force participation. India ranks low on the OECD SIGI index measuring social obstacles to gender equality (Figure 2.10), and a World Bank index on governance. Cultural obstacles for participation can be created by the patriarchy in being

Figure 2.10. **Social institutions and gender index (SIGI)**[1]



1. Each of the SIGI variables is coded between 0, meaning no or very low discrimination, and 1, indicating very high discrimination (this does not apply for the Political Participation indicator).

Source: OECD, *Gender, Institutions and Development Database 2012*.

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against women's economic emancipation. A number of studies have shown religious attitudes to influence women's economic participation (Seguino, 2011; Das and Desai, 2003). Participation is also influenced by social class, which is often correlated with income (Klasen and Peters, 2013). In traditional societies risks of exposure to other males outside the home has reduced female participation. Thus self-employment within the home may be a way to reduce these social risks while raising participation in the labour force. The regression results show that social class or religion has a large impact on participation and explain regional differences.

Infrastructure as economic barrier to participation

Female time use between home and market work can be influenced by infrastructure and technology (Klasen and Pieters, 2013). Access to water or electricity in the household can raise women's time available for outside work. In South Africa electrification lead to a large jump in female participation (Dinkelman, 2010). Safety and availability of transport also impacts ability to go to work, or access markets. A World Bank-supported program in Cambodia reduced women's time devoted to collecting firewood and increased their jobs and incomes by selling low-cost, fuel-efficient cook stoves through local female vendors. In recent years India has made large investments in infrastructure on roads, as indicated by the large increase in construction activity. Also electricity is now reaching more households and businesses. However, the infrastructure gap remains large as discussed in the manufacturing chapter.

Infrastructure, measured by the share of paved roads or access to water, was significant in the regressions on participation in both urban and rural areas. This may be capturing the fact that improved access to both types of infrastructure generates time savings that may be reallocated to other productive tasks, including market work but also child rearing and learning. Entrepreneurship also was influenced positively by access to urban infrastructure. Safety concerns have risen for women and more safe public transport can improve opportunities to work. In India improving infrastructure has many win-win benefits not just for female participation but removing overall growth bottlenecks.

Education reduces socioeconomic barriers to participation

Education can have many indirect effects on women's ability to make independent decisions and raise their ability to take advantage of economic opportunities overtime. Education has also more complex socioeconomic links related to female wellbeing. Girls' access to education is influenced by marriage age, which in some parts of India is low. A late marriage age has been shown to have a strong correlation with education (World Bank, 2012), which apart from raising women's ability to take independent decisions affects investment in children's health and education with many benefits. Early marriage also has social costs in terms its link to high rates of fertility among young women, which is often linked to infant mortality or staying outside the labour force. Although fertility has declined substantially in India overall, it can be high among certain vulnerable social groups.

Much progress has been made in the last decade to increase school enrolment of girls in India especially at the primary level. However, more is needed to expand further secondary and higher education, and in improving quality of education, including the skill content. The high unemployment rate among the higher educated women points to skill-mismatch problems. Having a technical education, or having received vocational training, also strongly and positively affect the probability of participation in the regressions.

Many innovative policies and programmes have been implemented by the central government and the states to reduce early marriage, but progress is slow as traditional customs often prevail. As an example, 24 January has been declared as National Girl Child Day and is often accompanied by awareness campaigns. The legal marriage age was raised to 18 in 1976 but in 2006 still 45% of women aged between 20-24 had been married when they were less than 18 years old (van Klaveren et al., 2010). Some states (e.g. Haryana) have introduced cash incentives for families (conditional cash transfers) to help girls remain unmarried until 18 and finish school. Initial evaluation suggests that these programmes have increased educational attainment (Sinha and Young, 2009). Extending the age of compulsory education laws can also reduce early marriage. A number of government initiatives have also been introduced in recent years to enhance skill training to women such as vocational training programmes to teach skills like sewing, computer literacy and spoken English. These efforts have been supplemented by the work of hundreds of NGOs, such as the Mann Deshi Foundation and the Sambhali Trust, working at the rural level, encouraging women's co-operatives in agriculture, livestock rearing and handicrafts. These policies should be expanded.

Dealing with gender biases across the lifecycle can also have broader, sustainable impacts for equity and remove social barriers. As biases can begin very early in life, sometimes in subtle ways, it is important to influence early trajectories of inequality that are more difficult and costly to resolve over time (World Bank, 2012). Strategies in other countries that have shown positive results by addressing gender-specific constraints include increasing the proximity of schools to homes and building "girl-friendly" schools. Education systems can also challenge stereotypes through curricula. Tanzania's national curriculum includes substantial gender-related material in its secondary school civics syllabus and examinations (World Bank, 2012). For older women it is important to develop elderly care systems.

Many laws in India protect women's rights and guarantee equal treatment by gender. However, they are not fully applied as traditional and religious customs often take

precedence (van Klaveren et al., 2010, CEDAW, 2007). For example, the son bias, which seems important in India (see Figure 2.10), can be influenced by the tradition of Dowry payments for girls, which continues despite the *Dowry Prohibition* Act of 1961 abolishing it. Another area of weak implementation is inheritance laws (World Bank, 2012), while the equal pay laws were already mentioned above. The monitoring of the implementation of many existing laws on gender equality should be reinforced.

Institutions and access to resources

Labour regulations discriminate against women

There are at least 45 different state or national labour laws that apply to large manufacturing enterprises and the public sector (Panagariya, 2008, van Klaveren et al., 2010, Chapter 1). For example, hiring and firing are subject to strict criteria and permissions, and changes in job descriptions require lengthy approvals. The larger the company the more it becomes regulated – companies with 10 or more employees are subject to different rules than those with over 100. India has one of the most regulated labour markets in emerging countries in the OECD Employment Protection index, e.g. women cannot work at night or in certain occupations.

The laws seem to have a number of unintended negative economic effects, which also affect women's economic opportunities. Some regulations, such as those forbidding women from working at night or in certain occupations, directly limit job opportunities. More generally, women are more likely to be marginal workers and thus bear disproportionately the costs of regulation in unemployment. Montag (2013) finds that India's stringent labour laws reduce female participation in urban areas, but have no impact on men, or on wages of either gender. Furthermore, regulations may also have led to more women working in agriculture, and in informal sector as self-employed (Montag, 2013). The regression analysis shows that labour regulations have reduced female labour force participation and that recent reforms to liberalise them have mostly benefitted male employment (*Technical Background Paper* No. 3). This can reflect the fact that the regulations remain rigid and affect negatively formal job creation (Dougherty, 2008). With sufficient reforms more flexible labour markets are likely to benefit job creation for women as well. In this context the proposed amendment to the Factories Bill in 2014 to relax female night work are welcome.

Lack of social protection can influence participation

Formal sector workers in India benefit from three social protection schemes. The Payment of Gratuity Act of 1972 provides for severance pay after more than five years of service for departing employees. The Employee' pension scheme provides a pension including for widows after 58 years of age with over 20 years of service. The Employee Provident Funds are forms of compulsory saving for post-retirement years (van Klaveren et al., 2010), but cover only a small fraction of workers.

A number of measures have increased social protection for women in the informal sector that can facilitate labour force participation. SEWA was established in the 1970s to improve the work and income position and social security for its self-employed members. It also provides microfinance and insurance through SEWA bank, training and maternity benefits and pensions. Its greatest impact has been raising self-esteem and bargaining power inside and outside home (Khera and Nayak, 2009). It currently has 1.3 million

women members, mostly from rural areas (out of a total female labour force of about 100 million). Other measures have been a national law to protect street vendors in 2004; a social security law for informal workers in 2008; rights of home-based workers and the Beedi and Cigar workers act, to protect about 4 million home-based workers. Some maternity benefits are provided by a conditional cash transfer scheme – Indira Gandhi Matritva Sahyog Yojana (IGMSY) – for pregnant and lactating women as a pilot in 52 districts since 2010. Cash is conditional on health checks for mothers over 19 years of age and first two births via bank transfers.

While these initiatives to provide social protection for informal workers are welcome, reforming and modernising the overly stringent labour laws would help expand formal job opportunities in general, and thereby social protection for workers. Any national policy for social security, healthcare, childcare, and housing should be linked to efforts to modernise the stringent labour laws to avoid the duality problem in working conditions.

Availability of care

Many women in India stay home to take care of the extended family – children and elderly relations. Affordable child care is often not available and parental leave policies exist only in the small organised sector. Lack of affordable care facilities may also explain the large prevalence of unpaid work either at home or in the family enterprise, or as subsistence informal self-employed. The regressions show women with small children, especially in urban households, have lower participation. Having girls between 6 and 14 raises participation in rural areas, because older children are likely to take over mothers' home tasks. However, having more females in a household also raises participation, suggesting that female relatives may also care for children.

Companies with 30 or more female employees are by law required to provide a child care facility for female employees, but this is seldom the case in practice and in fact arrangements are quite ad hoc. The formal requirement may also work against hiring women. The government through Rajiv Gandhi National Creche programme provides care for young children of low income families. NGOs (World Bank, 2012) and trade associations like SEWA provide mobile crèches for working women. Some construction sites provide child care paid jointly together with employers. In Gujarat a self-employed women's association is running day care centres for 0-6 year olds (World Bank, 2012). The MREG rural sector public works programme is mandated to provide child care (nutrition and health checks) for women when there are more than 5 children under 6 years of age at the work site. As in other cases, however, in practice implementation has been patchy. A survey by Khera and Nayak (2009) found that none of the sites in their sample had child care as required. A more consistent child care policy could help more mothers to get to work (World Bank, 2012). Another option could be to extend the school day so women have more time for market work. Another is to begin education earlier. For example, the World Bank (2012) estimates that adding one year of preschool education in Turkey could increase female labour force participation by nine percentage points. There is also considerable evidence that early childhood education raises educational attainment (OECD, 2006).

Active labour market policies

Active labour market policies can also help create female job opportunities. To be effective they should aim at reducing market and institutional failures affecting female employment. The rural public employment programmes (NREG) recommends that 33% of

jobs be reserved for women. To facilitate female participation the jobs should be no more than 8km from home, and women are also involved in monitoring progress with the projects (Holmes and Jones, 2011). A similar programme has been implemented in South Africa, where 63% of beneficiaries were women (the quota was 40%). In Turkey an "employment subsidy" programme (social security payments are eliminated for the first few years for newly hired women) has also helped create jobs for women and raise female labour force participation from 30% to over 40%.

The NREG programme has helped raise female participation in India (Ghani et al., 2013), as have quotas for female political representation (Khera and Nayak, 2009), by providing work experience for women and potentially breaking the social norms that push women to stay at home. In 2012 more than half of the 50 million beneficiaries were female with broadly equal wages with men, but much higher than in private rural employment. To test the impact of the NREG "affirmative action" on women's labour force participation a probit regression and matching regressions were run (*Technical Background Paper* No. 2). Both regressions show that participation in the NREG programme raised the likelihood of women's labour force participation outside the programme significantly.

However, recent evaluations of the efficiency of the programme have found high costs and low efficiency (Niehaus and Sukhtankat, 2009), elite capture due to high relative wages (Scandizzo et al., 2009), mismanagement and corruption (Camfield and Vennam, 2012). Therefore, it is important to continue to review and improve the programme.

Skills-development programs can also make a difference. A World Bank-funded youth employment program in Liberia that included vocational and life skills training, along with job placement help, increased young women's employment by 50% and weekly earnings by 115%. In India these types of policies could help find jobs for the often highly skilled unemployed women in urban areas, along with other enabling policies discussed above. The training programme (STEP) initiated by Ministry of Women and Child Development for marginalised and asset-less rural and urban women across the country is welcome. The private sector could also be given more incentives to hire women at senior as well as junior levels. The government has recently proposed that all large companies should have at least one woman on their boards.

Entrepreneurship policies

The increase in female entrepreneurship in manufacturing and services may have been influenced by active training policies – over 1 million women have benefitted from entrepreneurship training over the past 30 years in programmes run by the government and NGOs (Ministry of Women and Child Development (MWCD) website). The programmes deal with motivation and quality development, and have involved 5 000 NGOs, VOs and several government agencies. Bringing women closer to work or markets with transport, internet, phones can help participation. In India a Foundation for Occupational Development has been successful in providing access to jobs for women (MWCD website). Also the SEWA trade facilitation centre has an online outlet for textiles for its female self-employed members. Other measures, such as subsidies, awards, facilities, may also have helped to motivate women as entrepreneurs, although there is no hard evidence of this.

The government also has various specific programmes for women operated by ministries and agencies. For example, the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA), provides training and nutrition and job integration for girls of

11-18 years of age not in school in 200 districts. Other programmes covering training, coops, access to credit, health checks, legal and literacy development, and mobile crèches; hostels for working women, organising widows as successful entrepreneurs, and so forth (MWCD website).

An important impediment to higher and more formal female entrepreneurship has been unequal access to wealth. Removing the biases over time is important, in particular in laws affecting inheritance and equality in marriage (OECD, 2012).The husband often controls women's wealth and finances, a situation which partly stems from inheritance laws that still favour sons (Akhouri, 2012). The Hindu Succession (Amendment) Act was modified in 2005 to give daughters the same rights as sons. However, women in Northern India are still often deprived of their inheritance (*OECD SIGI Database*). Furthermore, the Act does not apply to Muslims, Christians or Parsis, each of which are subject to different inheritance laws that can continue to discriminate against women. States can also enforce their own succession laws (CEDAW, 2007). Tribal lands are also governed by different laws. This has contributed to low landownership among women – only about 11% of land is owned by women –, which affects women's financial independence and for example access to collateral to get loans for starting a business.

Promoting role models and networks also facilitates female entrepreneurship in India (Ghani et al., 2012). Networks and agglomeration bring positive location externalities as a dense network of production and market opportunities can boost productivity and lower unit costs (Fujita et al., 1999; Ghani et al., 2012) unless overtaken by congestion costs.

Access to finance

Financial development is an important way to empower the poor and women, and to improve their ability to take advantage of economic opportunities. The development of pensions and savings in bank accounts enhance women's ability to make independent decisions on resource use. People with access to savings accounts or simple informal savings technologies are more likely to increase consumption, productivity and income, and investment in preventive health, and to have reduced vulnerability to illness and other unexpected events (Dupas and Robinson, 2013; Ashraf et al., 2010). Increasing women's control of resources, even small and temporary increases, in turn can increase bargaining power in households (Duflo, 2012). Access to financial services through bank accounts (OECD, 2012; World Bank, 2012) also helps protect assets. There is also a strong link between women's financial inclusion and their performance as entrepreneurs in developing countries (OECD, 2012).

Financial inclusion is low in India. Only about 25% of females above the age of 15 have an account in a formal financial institution compared to 42% of Indian men and 60% in the BRIICs on average (World Bank, 2013, Demirguc-Kunt et al., 2013). Even those who have an account do not use it frequently; 70% use it perhaps once a month. People don't have accounts mostly for lack of money, but nearly half of women surveyed noted that someone already has an account in the family. The regressions show that access to finance is not an important deterrent of entrepreneurship, perhaps because many entrepreneurs may have own wealth to back up their finances. Having a bank account raised female labour for participation (*Technical Background Papers* Nos. 2 and 3).

India has promoted financial inclusion. Until recently the opening of a bank branch in urban areas had to be matched with several branches in rural, unbanked areas.

Burgess and Pande (2005) find that the social banking policy on branching helped reduce poverty across states in the 1990s'. However, bank branches are costly, which may explain why fewer people are opening formal accounts. The regressions did not reveal a strong relationship between participation and bank branches. The more recent Aadhar ID card initiative is likely to expand financial inclusion, including for women, as it provides for a bank account to receive government pensions and scholarship payments.

Inclusion can also be expanded by "mobile branches" or mobile banking (Beck et al., 2007; van Klaveren et al., 2010). In Brazil for example, banks are expanding the use of agents in shops, gas stations and post offices; the agents can also be mobile. The existing infrastructure and client relationship provide for cost efficient banking. In India only 4% of adults (compared to 68% in Kenya) used this form of financial service in 2010, but it is rapidly expanding with the support of RBI. Widespread telephone use in India is also opening opportunities for mobile banking. There is suggestive evidence that these types of reforms and new ways of reaching people may have the potential to dramatically improve financial inclusion. For example, recent randomized trials suggest that at best a quarter of households take up available loans from microfinance institutions in India, Mexico, and Morocco (Banerjee et al., 2013; Crépon et al., 2011; Angelucci et al., 2014).

Access to credit can raise entrepreneurship, and incomes more broadly by enabling investment in human capital as well (Beck et al., 2007). Access to credit also facilitates job creation in general and for women, and if it results in a more efficient resource allocation it contributes indirectly to inclusive growth (Ayyagari et al., 2013). In India one study found that financial deepening has been more important than financial inclusion in reducing poverty via promoting entrepreneurship overall, and job creation in services in urban areas. Access to credit was found to help specifically the rural self-employed (Beck, 2013). The regressions show that access to credit is not an important constraint for female (or male) participation in India.

Financial deepening is relatively advanced in India in terms of overall credit/GDP, which at 80% of GDP is high among the BRIICS. Borrowing at the household level is, however, still mostly from informal sources such as family members (20%), as in other developing economies, or from money lenders. Only 8% of adults have borrowed formally. A relatively large number of females (6%, compared to 9% of males) had received a loan from a financial institution, which is high compared to BRIICS. This may reflect the active microcredit penetration in India. For example, in Andar Pradesh, which has the most active microcredit industry, 20% of adults had borrowed formally (World Bank, 2012). Access to finance was high among the constraints from working from home, but less important for female real entrepreneurs in the regressions.

Numerous schemes exist to enhance access to finance for women. The current policy of preferential interest rates and quotas to female clients in banks may not as such lead to efficient investments. The agricultural bank, NABARD, offers refinancing at 4% for poor women with credit guarantees up to INR 2.5 million and a capital subsidy scheme for technological upgrading in female-owned firms. MFIs, including the Rashtriya Mahila Kosh (National Credit Fund for Women), offer collateral free funding to Self-help-groups (microcredit) with 31 million members, of which 80-90% are women. The Bharatiya Mahila Bank (BMB) for women was opened on November 2013 with a vision of economic empowerment especially for economically neglected, deprived, discriminated, underbanked, unbanked, rural and urban women. This is an innovative step forward.

Guarantee schemes like TRADE in the Ministry for Small and Medium Enterprises give 30% financing of the cost of approved female projects to NGO lending agencies and grants for training. For example, grants for up to INR 500 000 are given to national level entities for research, evaluation, designing training modules for women. It would be important to evaluate more the efficiency of these programmes in promoting investment and female economic opportunities.

The impact of credit on growth and women's economic opportunities depends on how it is used. In India reasons for household borrowing have been home purchase, weddings, health, funerals and school fees (NSSO). This suggests that much of the microcredit is used for consumption and not for productive investment. Field experiments also show that increased access to microcredit has promoted more consumption than productive investment, and favoured entrepreneurship mostly for households with existing businesses (Banerjee et al., 2010, Karlan and Zinman, 2012). Another study showed that while microcredit had little impact on women's time use in rural India, it helped their husbands move away from wage work to better paid self-employment by using women's loans to enhance male ownership of the household's productive assets. Only women who used loans in self-managed enterprises were able to allocate more time to self-employment. If credit is intended to increase the value of women's work time, it seems it is not access to loans but use of loans matters.

Appropriate incentives for good projects in terms of a transparent business environment and good regulation can be more important than subsidised loans for promoting job creation and female entrepreneurship. Ensuring women's control over loan-created assets by law can also be a critical policy objective (Garikipati, 2011). Access to credit for women for productive projects can also be improved by measures enabling collateralisation of loans with cash flow or equipment. Discriminatory loan practices whereby men sign women's documents in banks should be eliminated by law. Other options are to strengthen credit bureaus and other institutions that collect information on borrowers (World Bank, 2012).

Equality of laws and economic opportunities

The Constitution provides equality for women, and the government has enacted various laws to protect women's rights, women empowerment and penalize violence against women. However, compliance is limited, as indicated by the poor rank of India in discriminatory family code, restricted physical integrity and civil liberties and entitlements in the OECD SIGI index (Figure 2.10). While women have equal rights within marriage, men are considered heads of household (World Bank, 2012). Divorce by mutual consent is the legal practice, but women who initiate divorce are condemned by public opinion; as a result, divorce remains very rare. Fathers alone have parental authority in both Hindu and Muslim families. If divorce does occur, the law assures some equality with regard to child custody, but any advantages granted to the mother are often disregarded (van Klaveren et al., 2010; OECD-SIGI data). Also 80% Hindus in the 2001 census said to follow religious customs in family matters and not statutory law.

Major efforts should be made to improve the implementation of the laws affecting gender equality potentially by highlighting the discrepancies. Currently, more gender-related laws are under consultation. These include strengthening of the Dowry Prohibition Act of 1961, and protection of women from domestic violence act 2005. A Bill on

protection of women against sexual harassment in the work place was passed in 2013. But progress on implementation and compliance with the laws has been slow.

If laws are not applied the credibility of women's rights is compromised (OECD, 2012). In many countries there is limited government accountability on gender, and public services often lack awareness and capacity to assess impact of policy on men and women. Public agencies supporting gender tend to have a low profile, and gender disaggregated data availability can be an issue. There is no one model across OECD countries. Some have ministries, agencies or shared ministries, and special parliamentary committees. However, often incentives for managerial performance are weak, or there are no sanctions for not meeting targets (OECD, 2012). In some countries GIAs – gender impact assessments of policies-can help. Another tool can be Gender responsive budgeting – about half of OECD governments require always or in some cases it at all levels of government – central, local or regional.

In India a national policy for the empowerment of women has existed since 2001 and the Ministry of Women and Child Development was created in 2006. The national policy aims to advance, develop and empower women in all spheres of life through creation of a more responsive judicial and legal system sensitive to women, and mainstreaming a gender perspective in the development process. A high level committee on the status of women has undertaken comprehensive studies and made policy recommendations since 1989 to understand and improve the status of women. National Mission for Empowerment of Women (NMEW) provides technical support on the issues of inter-sectorial convergence relating to women. India has also pioneered in introducing a Gender Budget statement as part of the Union Budget, which can be an important tool for reporting allocations for women. It is to be supported by Gender Budgeting Cells (GBCs) in all Ministries/ Departments, which serve as focal points for coordinating Gender Budgeting initiatives, both intra and inter-ministerial.

Experience shows that affirmative action and quotas can increase women's voice (World Bank 2012). India has pioneered affirmative action and quotas in political representation. Amendments (1992) to the Constitution provided for reservation of one-third seats in the local bodies of Panchayats and Municipalities for women laying a strong foundation for their participation in decision making at the local levels. As women and men care about different things it can make a difference to give women more political power in areas that affect public spending (Chattopadhyay and Duflo, 2004). Duflo (2012) found that in Rajastan women in village councils made better spending decisions because they pay more attention to projects with high social return. Women leaders also affect ability to take advantage of opportunities by changing perceptions of gender roles and attitudes towards participation in activities outside home (Beaman et al., 2012). These policies led to rising girl school attendance and changed underlying beliefs among voters of women's ability.

Ghani et al. (2013) also found that women's political representation promotes economic participation. This took place directly via rural works programmes discussed above, and indirectly by the level of access to public goods over time. Exposure to women political leaders overtime increased the likelihood of women being engaged in the labour force. The regression results and the literature on networking and role models point to a potential importance for economic participation from measures to enhance women's

political representation. Other examples of female quotas in politics are Mexico, Morocco and South Africa.

India has had plans to expand quotas in women's political participation. A constitutional amendment was proposed in 1996 to give women 33% of parliament seats, but it has still not passed. The OECD countries refrained from endorsing female quotas in in labour markets or political representations in their Gender Policy Recommendations of 2013 (OECD. 2013, *www.oecd.org/gender*). However, given the substantially lower economic participation of women in India, and the strong biases and market and institutional failures and the success of the quotas at local levels in India, extending the quota policy to state and national assemblies could have a substantial impact in raising the economic opportunities for women. Thus they are worth considering.

Recommendations to enhance women's economic participation

Key recommendations

- Extend female quotas to state and national parliaments.
- Further modernise labour laws to ensure equal work opportunities for women.
- Enhance the implementation of gender-related laws.
- Expand secondary and higher education for women and skills training for female entrepreneurs.

Further recommendations

Dealing with social and economic barriers to participation

- Extend maternity leave and child care for all workers.Raise gradually the compulsory school age to 18. Remove gender biases from school materials to reduce early cultural gender biases.
- Invest in public transport in urban areas, electricity and water.
- Reinforce the application of the early marriage prevention law, and expand conditional cash incentive programmes to keep girls in school until 18.
- Expand vocational and skill training for entrepreneurs.
- Focus more of these efforts in Northern states with lowest participation.

Enhancing access to resources

- Remove gender biases from inheritance laws.
- Improve efficiency of NREGA implementation and enhance active job search for women.
- Enhance mobile banking and mobile bank branches for female financial inclusion.
- Ensure that (micro) credit benefits more productive, efficient activities by women by diversifying collateral policies.

Enhancing equality of laws and social status

- Expand the role of the Ministry of Women and Child Development in promoting cross-cutting aspects of gender equality, including in employment and entrepreneurship.
- Expand public awareness campaigns on gender equality especially in states with low participation.

Note on the data

Employment and entrepreneurship data in India is difficult to interpret calling for some caution with the results. This is partly due to the very large share of the informal sector in the economy at over 90% of employment, a lack of timely data on employment trends, and several sources with at times varying estimates. For example, formal sector employment is estimated annually for only manufacturing by ASI (11 million in 2010). Another source for all formal sector employment data is annual estimates by the Central Statistical Organisation (28 million in 2010, of which 6.5 million in manufacturing). Informal and formal sector employment data with gender breakdown is collected in NSSO household surveys every 5 years with some intermittent annual surveys (430 million employed in 2010, of which 50 000 in manufacturing and of which 18 000 were salaried employees). Informal entrepreneurship data is also collected in five year intervals for manufacturing and services (108 million employed in 2010, of which 35 million in manufacturing). Another source for employment data is the IHDS five yearly household survey, but it is not public. The *unorganised sector* consists of all incorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than ten workers (or twenty if not using electricity).

The *organised sector* consists of all public sector enterprises and all private sector enterprises with more than 10 workers (more than 20 if not using electricity).

Informal workers consist of those working in the unorganised sector or households, excluding regular workers with social security benefits, and the workers in the organised sector without social security benefits. *Contract workers* in the organised sectors are not covered by social insurance systems and thus count as informal workers.

Formal workers are workers working in the organised or unorganised sector entitled to social security benefits.

Bibliography

Agenor, P. and O. Canuto (2013), "Gender Equality and Economic Growth in Brazil: A Long-Run Analysis", *Policy Research Working Paper* No. 6348, World Bank, January.

Akhouri, M. (2012), *Gender Equality an Imperative for Entrepreneurship Development in India – strategy and Policy*, mimeo, Delhi university.

Angelucci, M., D. Karlan and J. Zinman (2014), Microcredit impacts: Evidence from a randomised microcredit program placement experiment by compartamos banco, *Working Paper* 19827 NBER, *www.nber.org/papers/w19827*.

Ashraf, N., E. Field, and J. Lee (2010), *Household bargaining and excess fertility: An experimental study in Zambia*, Mimeo, Harvard University.

Ayyagari, M., T. Beck, M. Hoseini (2013), "Finance and Poverty: Evidence from India", *Centre for Economic Policy Research Discussion Paper* No. 9497, *www.voxeu.org/sites/default/files/file/DP9497.pdf*.

Banerjee, A., E. Duflo, R. Glennerster, and C. Kinnan (2010), "The Miracle of Microfinance? Evidence from a Randomized Evaluation", *Bureau for Research and Economic Analysis of Development Working Paper* No. 278. Massachusetts Institute of Technology.

Banerjee, A., E. Duflo, R. Glennerster, and C. Kinnan (2013), "The Miracle of Microfinance? Evidence from a Randomized Evaluation", *Working Paper,* Massachusetts Institute of Technology and Northwestern University.

Beaman, L., R. Chattopadhyay, E. Duflo, R. Pande and P. Topalova (2012), "Powerful Women: Does Exposure Reduce Bias?", *The Quarterly Journal of Economics* No. 124 (4), Oxford University Press, Oxford.

Beck, T. (2013), "Finance, Growth and Fragility: The Role of Government", *CEPR Discussion Papers* No. 9597.

Beck, T., A. Demirgüç-Kunt and R. Levine (2007), "Finance, Inequality, and the Poor", *Journal of Economic Growth 12*, No. 1: 27-49.

Burgess, R., and R.Pande (2005), "Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment", *American Economic Review*, 95(3): 780-795.

Berg, E., S. Bhattacharyya, D. Rajasekhar and R. Manjula (2014), "Can Public Employment Schemes Increase Equilibrium Wages? Evidence from a Natural Experiment in India", *http://d.repec.org/n?u=RePEc:bri:cmpowp:13/317&r=dev*.

Bhalotra, S. and M. Umana-Aponte (2010), "The Dynamics of Women's Labour Supply in Developing Countries", *IZA Discussion Papers* No. 4879, Institute for the Study of Labor (IZA).

DeAnne, A., L. Hoteit, C. Rupp and K. Sabbagh (2012), "Empowering the Third Billion: Women and the world of work in 2012", *Booz&Co. Research Paper, www.strategyand.pwc.com/media/file/Strategyand_Empowering-the-Third-Billion_Full-Report.pdf*.

Camfield, L. and U. Vennam (2012), "From Policy to Implementation: An In-depth Exploration of the Mahatma Gandhi National Rural Employment Guarantee Scheme in Andhra Pradesh", *Working Paper 82*, Young Lives, Oxford.

CEDAW (Committee on the Elimination of Discrimination against Women) (2007), "Concluding Comments on the Committee on the Elimination of all Forms of Discrimination against Women: India", CEDAW/C/IND/CO/3, CEDAW: New York, NY.

Chattopadhyay, R. and E. Duflo (2004), "Women as Policy Makers: Evidence from a Randomised Policy Experiment in India", *Econometrica* No. 72(5), 1409-1443.

Crépon, B., F. Devoto, E. Duflo, and W. Parient (2011), "Impact of microcredit in rural areas of Morocco: Evidence from a randomized evaluation", *NBER Working Paper* No. 20144, May, *www.nber.org/papers/w20144*.

Crisil (2014), "Hire & Lower – Slowdown compounds India's job-creation challenge", January 2014, *www.crisil.com/pdf/research/CRISIL_Research_Insight_Employment_Jan2014.pdf*.

Das, M. and S. Desai (2003), "Why Are Educated Women Less Likely to be Employed in India?", *Social Protection Unit Discussion Paper* No. 313, The World Bank, Washington, DC, *www.sonaldedesai.org/das_and_desai_2003_on_women.pdf*.

Demirguc-Kunt, A. and L. Klapper (2013), "Measuring Financial Inclusion – Explaining variation across and within countries", *www.brookings.edu/~/media/Projects/BPEA/Spring%202013/2013a_klapper.pdf*.

Demirguc-Kunt, A., L. Klapper and D. Randall (2013), "The Global Findex Database: Financial Inclusion in India", *Findex notes,* February.

Dreze, J. and A. Sen (2013), *An Uncertain Glory. India and Its Contradictions*, Princeton University Press.

Dinkelman, T. (2010), "The effects of rural electrification on employment: new evidence from south Africa", *Working Paper* No. 1255, Princeton University, Woodrow Wilson School of Public and International affairs Research Programme in development Studies.

Dougherty, S. (2008), "Labour Regulation and Employment Dynamics at the State Level in India", *OECD Economics Department Working Papers*, No. 624, OECD Publishing, Paris, doi: *10.1787/241014565862*.

Duflo, E. (2012), "Women's empowerment and economic development", *CEPR Discussion Paper* No. 8734, January, London.

Dupas, P. and J. Robinson (2013), "Savings Constraint and Microenterprise Development: Evidence from a Field Experiment in Kenya", *American Economic Journal: Applied Economics*, No. 1: 163-92.

Eswaran, M., B. Ramaswami and W. Wadhwa (2013), "Status, Caste and the Time Allocation of Women in Rural India", *Economic Development and Cultural Change*, Vol. 61, No. 2, January, Chicago, *www.jstor.org/stable/10.1086/668282*.

Fujita, M., P. Krugman and A. Venables (1999), *The Spatial Economy: Cities, Regions, and International Trade*, MIT Press, Cambridge.

Garikipati, S. (2011) "Microcredit and Women's Empowerment: Through the Lens of Time Use Data from Rural India," *Working Papers CEB* 11-034, ULB – Université Libre de Bruxelles.

Ghani, E., W. Kerr and S. O'Connell (2012), "What explains big gender disparities in India: Local industrial structures and female entrepreneurship", *Policy Research Working Paper* Series 6228, World Bank.

Ghani, E., A. Mani and S.D. O'Connell (2013), "Can Political Empowerment Help Economic Empowerment- Women Leaders and Female Labor Force Participation in India", *World Bank Policy Research Working Paper* No. 6675.

Goldin, C. (1994), *Understanding the Gender Gap: And Economic History of American Women*, Oxford university Press, New York.

Government of India (2013), *Economic Survey of India,* Indian Ministry of Finance, *http://indiabudget.nic.in*.

Holmes, R. and N. Jones (2011), "Why is Social Protection Gender blind? The Politics of Gender and Social Protection", *IDS Bulletin* Vol. 42, No. 6, November, IDS Bulletin Institute of Development Studies.

Karlan, D. and J. Zinman (2012), "Microcredit in Theory and Practice: Using Randomised Credit Scoring for Impact Evaluation", *Science 332* (6035) 1278-1284.

Khera, R. and N. Nayak (2009), "Women Workers and Perceptions of the National Rural Employment Guarantee Act", *Economic & Political Weekly*, Vol. XLIV, No. 43, October, *http://knowledge.nrega.net/818/1/REGS.pdf*.

Klasen, S. and J. Peters (2013), "What Explains the Stagnation of Female Labor Force Participation in Urban India?", *IZA Discussion Paper* No. 7597, Bonn, August.

Mathur, A. and S. Slavov (2013), "Empowering women through employment, earnings and wealth in India", *American Enterprise Institute*, Policy Study 2013-03, *www.aei.org/paper/empowering-women-through-employment-earnings-and-wealth-in-india*.

Matsui, K. (2005), "Womenomics: Japan's hidden asset", *Goldman-Sachs Japanese portfolio Strategy*.

Mehrotra S., S. Sinha, J.K. Parida and A. Gandhi (2014), "Why a jobs turnaround despite slowing growth?", *IAMR Occasional Paper* No. 1/2014. *Literature\Mehrotra 2014 on employment trends.pdf*.

Montag, J. (2013), "Is Pro-Labor Law Pro-Women? Evidence from India", *http://d.repec.org/n?u=RePEc:men:wpaper:40_2013&r=dev*.

Neetha, N. (2013), "Gender Dimensions of employment in India", Centre for women's Development Studies, mimeo.

Niehaus, P. and S. Sukhtankar (2009), "Corruption Dynamics: The Golden Goose Effect", *American Economic Journal*: Economic Policy, 5(4): 230-69.

OECD (2006), *Starting Strong II: Early Childhood Education and Care*, OECD Publishing, Paris, doi: *10.1787/9789264035461-en*.

OECD (2012), *Closing the Gender Gap: Act Now*, OECD Publishing, Paris, doi: *10.1787/9789264179370-en*.

OECD (2013), "Executive summary", in OECD, *Women and Financial Education: Evidence, Policy Responses and Guidance*, OECD Publishing, Paris, doi: *10.1787/9789264202733-3-en*.

Panagariya, A. (2008), *India: The Emerging Giant,* Oxford University Press, New York.

Rani, U. and P. Belser (2012), "The effectiveness of minimum wages in developing countries: The case of India", *International Journal of Labour Research,* Vol. 4, Issue 1.

Scandizzo, P., R. Gaiha and K. Imai (2009), "Does the employment guarantee scheme stabilize household incomes in rural India?," *Applied Economics Letters, Taylor & Francis Journals*, Vol. 16(12), pages 1221-1225.

Seguino, S. (2011), "Help or Hindrance? Religion's Impact on Gender Inequality in Attitudes and Outcomes", *World Development, Elsevier*, Vol. 39(8), pages 1308-1321, August.

Sinha, N. and J.K. Yoong (2009), "Long-Term Financial Incentives and Investment in Daughters – Evidence From Conditional Cash Transfers In North India".

Van Klaveren, M., K. Tijdens, M. Hughie-Williams, N. Ramos Martin (2010), "An Overview of Women's Work and Employent in India", *Decisions for life MDG3 Project – Country Report*, No. 13, Amsterdam.

World Bank (2012), "Gender Equality and Development", *World Development Report*, Washington.

World Bank (2013), *Findex Database*.

Technical background papers:

Technical Background Paper No. 1 – Agenor, P. (forthcoming), *Gender Equality and Economic Growth: an overlapping generations model for India*

Technical Background Paper No. 2 – Didier, M., C. Guimaraes, J. Mares, M. Rabate, P. Sorsa, D. Tang, A. Tuske (forthcoming), *Determinants of Female Labour Force Participation in India*.

Technical Background Paper No. 3 – Daymard, A. and P. Sorsa (forthcoming), *Determinants of Female Entrepreneurship in India*.

Chapter 3

Improving health care in India

With India's low life expectancy largely reflecting deaths from preventable diseases, the most significant gains in health would come from population-wide preventive measures. Access to public health care services varies substantially, resulting in many people turning to private-sector providers who mainly serve those who can pay. While government has scaled up public health services, more health professionals and public health care spending will be needed to ensure broad and adequate health-care coverage. Priority should be given to high impact primary health care services. For more resources to translate into better services, the management of public health care services needs to improve. The private sector can be drawn upon more extensively, but should also be obliged to meet basic quality standards.

Despite large improvements in recent years, life expectancy in India remains below countries at a similar level of development. Health outcomes and service provision vary significantly across states, with only a few providing access to comprehensive basic health care services to everyone. Although public health care in principle offers free basic health care services to all, most states' health systems suffer from insufficient spending and shortfalls in management, leaving many with insufficient care. As a result, most people turn to private health care providers, which range dramatically in quality and of course charge for their services.

The largest gains in health status will come from preventive measures

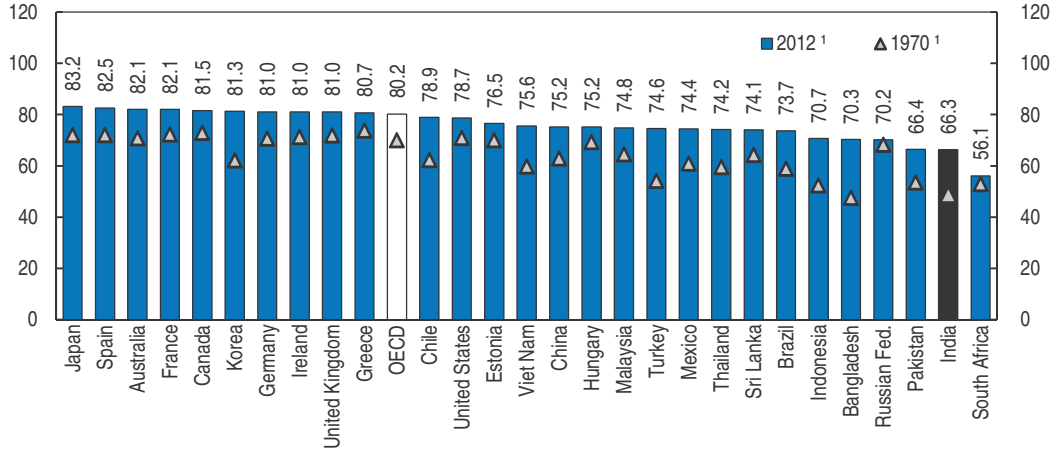
Adverse living conditions hold back health

Life expectancy at birth has increased from 49.1 years in 1970 to 66.3 years in 2012, a larger gain than in China and Brazil (Figure 3.1). Public health efforts over past decades have contributed to these improvements, as most recently demonstrated through the recent eradication of polio after an ambitious immunisation campaign. Nevertheless, life expectancy remains behind most large middle income countries and health outcomes are strongly influenced by socio-economic factors, gender, education and geography (Balarajan et al., 2011; Raj, 2011).

Life expectancy is reduced by a high proportion of deaths among the youth from communicable diseases. While infant mortality has halved since 1980, it is still high when compared to most other emerging economies (Figure 3.2). These young deaths largely

Figure 3.1. **Life expectancy has improved but remains behind most other emerging economies**

Life expectancy at birth

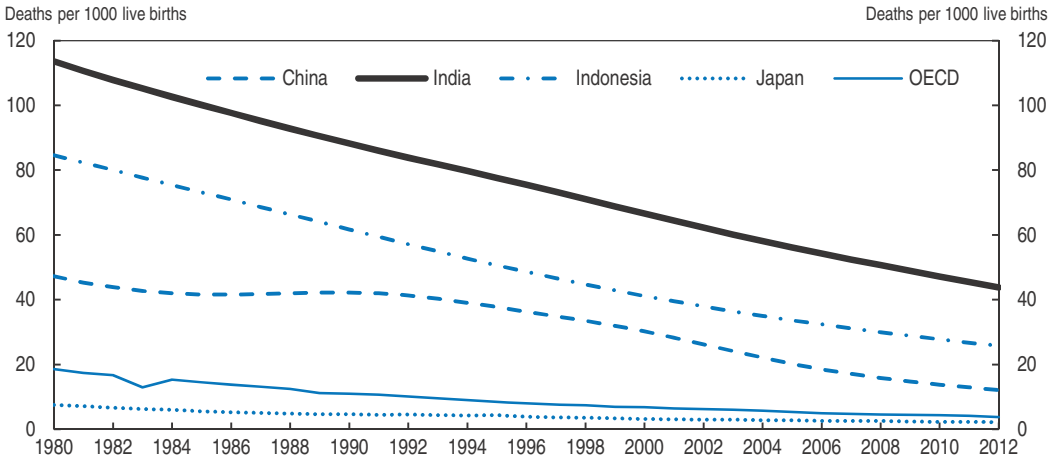


1. Nearest available year.

Source: OECD (2014), *Health Database*; World Bank (2014), *World Development Indicators Database*.

StatLink http://dx.doi.org/10.1787/888933163483

Figure 3.2. **Infant mortality has declined but remains relatively high**



Source: OECD (2014), *Health Database*.

StatLink http://dx.doi.org/10.1787/888933163494

reflect preventable situations such as pre-term birth complications, lower respiratory infections (such as pneumonia) and diarrheal diseases, which together accounted for 21% of potential years of life lost due to ill health (IHME, 2013).

Compounding the high number of young deaths is the lifetime consequences of poor nutrition among poor mothers and their children. By retarding physical and mental development, malnutrition reduces a potential health later in life, as stunted and anaemic children suffer from fewer years of schooling; reduced productivity and lower incomes as adults (Spence and Lewis, 2009). India has higher proportions of low birth weight children and nutrient deficiencies compared with other South Asian countries, China and even sub-Saharan Africa in some cases (Drèze and Sen, 2013).

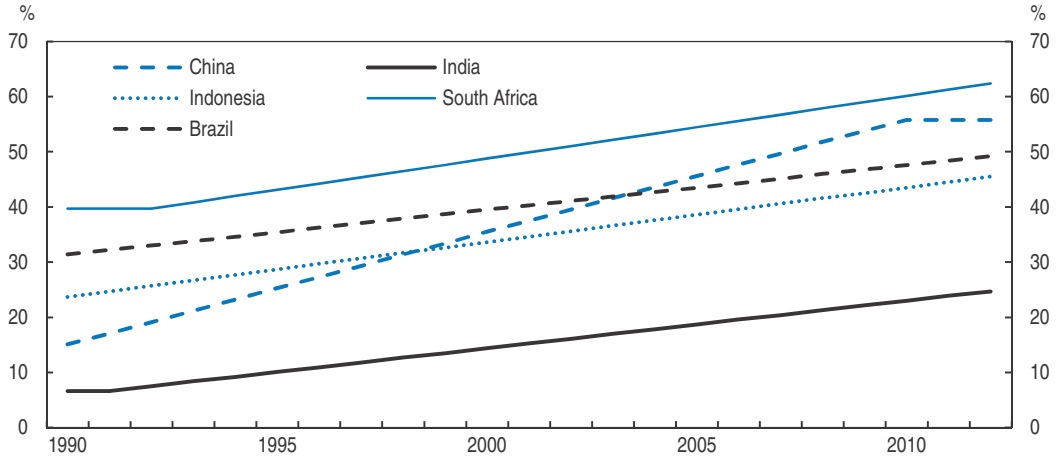
Chronic diseases are the biggest causes of death and disability, as in most OECD countries. They accounted for 50% of deaths, with cardiovascular diseases and diabetes; respiratory conditions and cancers figuring most prominently (Patel et al., 2011). India has low rates of daily smoking, though many of the poor smoke heavily. Obesity rates are relatively low, but 11% of the lowest income quintile did not undertake sufficient physical activity, compared with 16% in the highest income quintile (OECD, 2012a). Exposure to air pollution is a significant problem. The burning of solid fuels in particular (undertaken by more than 80% of the population in cooking) is a major risk factor behind ischemic heart disease; lower respiratory infections and chronic obstructive pulmonary diseases (IHME, 2013) and it could increase cataracts and stroke.

Improving living conditions and lifestyle habits would have the greatest impact

With poor health intertwined with poverty, the greatest gains lie with policies that address the social conditions which enable combating communicable diseases. Most households in rural areas do not defecate in a toilet or latrine (Figure 3.3), which leads to infant and child diseases (such as diarrhoea) and can account for much of the variation in average child height. The Total Sanitation Campaign, which constructs low cost pit latrines in rural areas, has been a highly effective way of reducing young deaths and reducing a range of developmental disorders later in life (Spears and Lamba, 2013). The *Swatchh Bharat Abhiyan* programme (Campaign Clean India) launched in October 2014 aims at providing

Figure 3.3. **Access to sanitation is rare in rural areas**

Rural population with access to improved sanitation



Source: WHO (2014), *Public Health and Environment Database.*

StatLink http://dx.doi.org/10.1787/888933163506

every household with access to sanitation by 2019 and is a welcome initiative. Similarly, preventive interventions such as improving access to a clean water supply; reducing the spread of HIV/AIDS through better sex education and vaccination campaigns for other diseases will each deliver more significant returns in life years saved across the population than many of the services delivered by hospitals today (Chow et al., 2007).

Policies targeted at chronic diseases are also highly cost-effective. Bringing the taxation of bidis (small hand rolled cigarettes which account for 70% of tobacco smoked in India) in line with that of cigarettes; reducing dietary salt intake; eyesight screening; improving road safety and enforcing taxation on illicit alcohol production should all be priority areas for action (Patel et al., 2011). While the focus of governments are often on health facilities, it is important not to lose sight that broad based efforts to tackle poor living and lifestyle habits are where the largest gains to health lie.

Access to health care services should be expanded and the quality of care improved

The health care system is a mix of public and private providers

India's national health care system aspires to provide a comprehensive array of services to all and at no cost, but struggles to do so in practice. Public health care services – clinics in the community which deliver basic front line health care services, regional hospitals and tertiary hospitals that can provide highly specialised procedures in cities – are funded by states and the federal government and run by state governments. Health care practitioners are employed as civil servants and assigned to facilities.

One study showed that only 16% of the population declares that their household has access to free or partially free public health care. Although this share is higher in the lowest income bracket, this share rises with income after the third income bracket (Table 3.1) suggesting that public spending on health care contributes less than it should to reduce inequality in living standards. Free care is more frequent for hospital visits than for vaccinations and prescriptions.

Table 3.1. **Few households declare having access to free or partially-free health care from the government**

% of surveyed people responding "yes" to the question "Does your household have access to free or partially free health care from the State" by income bracket[1]

	1	2	3	4	5	6	7	8	9	10	Total
India	29	13	10	14	13	18	23	23	20		16
Brazil	38	8	18	20	23	33	34	43	58		24
China	59	71	69	70	75	70	68	79	79	78	73
Indonesia	48	57	59	58	55	63	65	44	67		57
Mexico	66	68	70	71	78	77	43				68
Russia	100	97	97	98	95	99	98	98	100	100	96
South Africa	64	76	70	76	67	63	51	42	40	25	62

1. Approximately 1500 respondents were surveyed in each country, with India and China both having a larger sample size of 2500. The male-to-female split between respondents was roughly 50:50 in all cases with rural-to-urban split varying by country.

Source: Credit Suisse Research Institute, *Emerging Consumer Survey Databook 2014*.

Public health care services differ substantially between states

The quality of public health care providers varies significantly across states and between rural and urban areas. In a few states, such as Tamil Nadu and Kerala, public health facilities play their intended role of being the first point of care and proactively delivering essential services. They are reliably open (often 24 hours a day); well stocked with critical medicines and supplies and staffed by trained professionals. At the other end of the spectrum, a handful of world-class public sector tertiary hospitals (i.e. hospitals providing sophisticated *care* facilities), such as the All India Institute of Medical Sciences, are often a model for OECD countries on innovation in delivering health care at low costs.

Beyond a select few states and pockets of excellence, the public sector is falling short of its objective of meeting the basic health care needs of the population. Services are often too far away; lacking trained personnel and supplies and not reliably open. Surveys indicate that 41% of those in rural areas and 45% in urban areas were not satisfied with treatment by their doctor or facility. Distance was cited by 21% of people in rural areas and 14% in urban areas and the non-availability of services was cited by 30% of people in rural areas and 26% in urban areas (Kumar et al., 2011). Though national surveys are based on self-reporting and may be subject to biases, their results are reinforced by government estimates that 10% of primary health care centres are without a doctor; 37% are without a laboratory technician and 25% without a pharmacist (MoHFW, 2012). This picture is consistent with large scale trials in poor communities, which found that public health care centres were closed more than half the time and lack basic medical supplies, such as stethoscopes and blood pressure scales. In many instances, however, public facilities are the only source of qualified health professionals in rural areas where much of the poor live. At the same time, significant population growth is occurring in urban slums where people have poor health status. Urban public health care facilities are struggling to provide basic services and slum dwellers face economic and educational barriers to accessing private care (MoHFW, 2012).

Poor management is a particular challenge in public services. The public health care systems of Tamil Nadu and Kerala have demonstrated both consistently better public health outcomes and average (or lower than average) levels of per capita public health spending. What distinguishes these states is that they have maintained a political commitment to delivering primary care over several decades, in many cases prioritising

these services ahead of hospitals. Underpinning this has been dedicated training for the managers of primary health centres and district hospitals (Muraleedharan et al., 2013). Similarly, the higher performing states of Andhra Pradesh, Gujarat and Madhya Pradesh each require their public health sector managers to undertake specific training on communicable diseases and risk factors (HLEG, 2011). These best practice examples ought to be the norm, and more efforts are needed in state governments across the country. In addition, the frequent rotation of key civil servants should be reduced for the health sector, to allow for system managers to be held accountable for policies which often have long time lags.

A vast array of private health care services fills the void left by public services

With shortfalls in public services, private health care services have grown rapidly to meet rising expectations and incomes. Private health care providers dominate service provision today, although data are poor. Surveys indicate that public facilities provided only 20% of primary and community-based health care services and 40% of hospital visits in 2004-05, down from 25% and 60% respectively in 1986-87. Measured by the availability of resources, available estimates (albeit from 2002) indicate that 75% of human resources and advanced medical technology and 68% of hospitals are provided by the private sector (NCHM, 2005). Around 90% of dentists and 80% of practitioners of Ayurveda, yoga and naturopathy, unani, siddha and homeopathy are also in the private sector. Nurses are more evenly distributed, with half the number of nurses and midwives in the public sector. Unfortunately, alongside these qualified professions there are unskilled persons falsely practising as doctors (Rao et al., 2011).

At the high end of the market, the private sector has world class facilities. Taking advantage of comparatively low labour costs, "five-star" hospitals, which have facilities comparable to the most advanced hospitals in OECD countries, have grown substantially. As a result, hospital care has emerged as an export sector, with estimates suggesting that revenues for medical tourism were USD 2 billion in 2012 and that India cares for around 200 000 foreign patients a year (Lunt et al., 2010).

Until recently, neither state nor federal governments have played a major role in financing or regulating private health care services. For these services, access is rationed on the ability to pay and their quality has been uneven. With few barriers to entry and quality regulation that is barely enforced or is limited to a small number of high end hospitals, a large number of private facilities are delivering services without the equipment and expertise for their work. A survey of 24 private hospitals in Mumbai found half of them to be operating in lofts; congested spaces or have leaks in their operating theatres (Nandraj et al., 2001). Corruption and inappropriate clinical practices are also a concern, with doctors receiving payments from drug companies and medical supplies manufacturers (Sachan, 2013).

There are considerable problems with unqualified nurses and doctors working in private facilities. There have been few efforts to develop regulations to ensure that workers have the appropriate medical education or demonstrating that basic standards of cleanliness and safety are being adhered to. Where such regulation exists for health professionals, it is poorly enforced. All OECD countries have systems to help patients and employers verify a doctor's specialisation and expertise. Most of these are operated by medical associations, which undertake this role to safeguard the reputation of the

profession with employers and consumers. If the Medical Council of India cannot fulfil this role, the government should step in and do so, as has been the case in Israel.

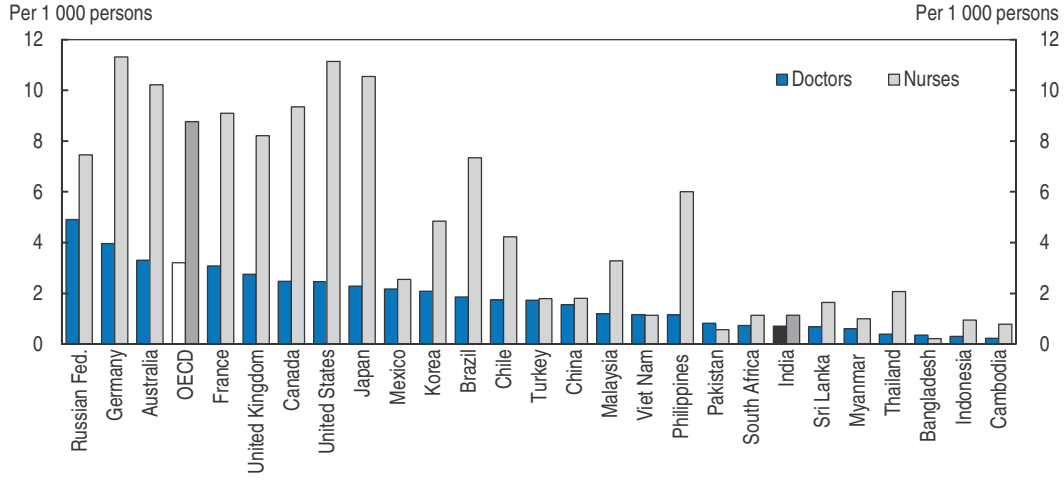
Where standards for private hospitals currently exist, they are currently poorly enforced. The 2010 Clinical Establishments Act is a long overdue response but the legislation is being implemented slowly and has not been adopted by all states. While India's most sophisticated private sector hospitals have sought to have themselves accredited against world's best standards, a basic model of accreditation suitable for all public and private hospitals should be developed.

More and better educated health professionals are required to improve access to health care

A major constraint on efforts to improve access to health care services is the low levels of qualified health personnel (Figure 3.4) and their uneven geographical distribution. Recent research suggests government figures may be over-estimated as they include people who identify themselves as a doctor or nurse but are not qualified (Box 3.1).

Figure 3.4. **India has low numbers of key health professionals**[1]

2012 or latest year available



1. The number of doctors and nurses is measured per 1000 persons. For Cambodia, data refer to 2008 and for the Philippines, they refer to 2004. Doctors include physicians qualified in either allopathic medicine or other forms of medicine such as Chinese traditional medicine, ayurveda or homeopathy. Nurses are defined as persons who have completed a programme of basic nursing education and are qualified to provide nursing care.

Source: OECD (2014), *Health Database*; WHO (2014), *Health Systems Database*.

StatLink http://dx.doi.org/10.1787/888933163511

A striking feature is the large number of people with training in traditional medicine working alongside doctors and nurses. Government figures suggest some 0.6 workers per 1 000 people are trained in one of Ayurveda, Yoga and naturopathy, Unani, Siddha or Homeopathy (known as "AYUSH" workers), and have benefited from formal education in these alternative therapies. Many public facilities rely on these workers to staff primary health care clinics, particularly in rural areas. Also a large number of informal workers are often the first point of contact for the poor in rural areas. These include traditional birth attendants, herbalists, snake-bite curers and bone setters. These workers have no professional qualification or licence to practice, but some have been reported to work with

Box 3.1. **India's data on health care professionals**

Data on health care professionals should be interpreted with caution. Both OECD and WHO data are based on government reports which draw information from the state-level registers of professional bodies (e.g. the medical council and nursing councils). These registers are not frequently updated. Furthermore, other types of health professionals often do not have a council (e.g. physiotherapists and lab technicians). Alternative estimates can be drawn from the Census and household surveys conducted by the National Sample Survey Organisation, however these rely on self-reporting of occupation, with no verification of actual credentials.

In most OECD countries, "physicians" are persons who have completed studies in medicine at a university level and who are licensed to practice (generally by a professional body). In India, many people identify themselves as physicians even though they do not have a medical degree. One study found that 37% of physicians (63% in rural areas and 20% in urban areas) had inadequate or no medical training (Rao, Bhatnagar, Berman, 2012). Another study found that 25% of those who called themselves doctors had no technical degree, diploma or certificate in medicine (Rao et al., 2012).

By drawing on multiple sources and adjusting health worker figures with educational qualification, it is estimated that:

- the number of doctors may be closer to 0.38 per 1 000 population rather than official estimates which range from 0.70 to 0.65 per 1 000 population;
- the total number of health workers is 0.8 per 1 000 population, rather than the 2.0 per 1000 population reported in the census – this broad measure counts nurses, midwives, ayurvedic health workers, dentists and pharmacists alongside doctors;
- there are 0.12 doctors in rural areas compared to 1.13 doctors per 1 000 population in urban areas, reflecting that rural areas have both a larger population and a higher proportion of health professionals reporting insufficient qualifications.

These revised estimates of health workers place India considerably lower than the average of 1.2 physicians per 1 000 people in developing countries in East Asia and the Pacific. For nurses and midwives, India places below the 0.8 per 1 000 population observed in Sub-Saharan Africa, though these countries are also likely to suffer from data issues (World Bank, 2013a). This situation highlights the need for functional and current medical registries, not only to guide public policy but also to help patients and employers distinguish between qualified and unqualified practitioners.

Source: Rao et al. (2012).

doctors, laboratories and hospitals to refer patients in exchange for commissions (Rao et al., 2011).

Shortages are most acute in the populous and rural states of the north

There is substantial variation in the numbers of health workers across states. Populous and rural states of the north suffer most from the lack of doctors and nurses (Table 3.2). There is a strong association between health workforce density and delivery of basic public health services such as measles immunisation, greater attended deliveries and lower infant mortality, with the effect of workforce density in improving these key outcomes appearing to peak at around 2 to 3 doctors, nurses and midwives per 1 000 people (Rao et al., 2012).

Table 3.2. **Key health workforce indicators for the 18 most populous states**

States[1]	Health workers (per 1 000)	Doctors (per 1 000)	Nurses (per 1 000)	Population (% of total population)	Rural population (%)	% births attended by skilled personnel
Andhra Pradesh	2.1	0.8	0.8	7	67	69
Assam	1.4	0.3	0.6	3	86	33
Bihar	1.0	0.4	0.3	9	89	30
Chhattisgarh	1.6	0.4	0.6	2	77	29
Delhi	4.5	1.5	1.5	1	0	60
Gujarat	1.7	0.4	0.6	5	57	62
Haryana	2.0	0.8	0.5	2	65	43
Jharkhand	1.4	0.4	0.6	3	76	28
Karnataka	2.1	0.7	0.8	5	61	67
Kerala	3.8	0.6	1.9	3	52	98
Madhya Pradesh	1.6	0.5	0.6	6	72	36
Maharashtra	2.9	0.8	1.1	9	55	63
Orissa	2.0	0.3	1.3	3	83	44
Punjab	2.7	1.1	0.8	2	63	64
Rajasthan	1.4	0.4	0.5	6	75	44
Tamil Nadu	2.3	0.6	1.0	6	52	89
Uttar Pradesh	1.3	0.6	0.3	16	78	29
West Bengal	2.4	0.7	1.0	8	68	54
India	**1.9**	**0.6**	**0.7**		**69**	**48**

1. States are ordered by alphabetic order.
Source: Rao et al. (2008), MOSPI (2013) and DLHS (2006).

Among health professionals, the shortage of nurses is the most critical as they often provide many basic health services to the poor (Box 3.2). With only one nurse per doctor, this shortage is particularly severe compared to OECD and middle income countries, where nurses generally outnumber physicians. India is a poor performer on health services which in other countries are provided by nurses – awareness of health or public health programmes, immunisation, safe deliveries, antenatal checks and basic data collection (BMJ, 2013). A review of Tamil Nadu's success in achieving improved health outcomes at lower costs highlights that it deployed "Village Health Nurses" in rural communities earlier than other parts of India (Muraleedharan et al., 2013). Data from rural primary health care facilities where these services are normally delivered indicate that there was a shortfall of

Box 3.2. **Why are there so few nurses in India?**

It has been estimated that some 40% of nurses registered in March 2003 were inactive because of recruitment issues, migration, attrition and drop-outs from poor working conditions (Malik, 2008). At the same time, successive reports monitoring the rollout of the National Rural Health Mission have identified shortages in nursing staff.

A particular social challenge is that frequent contact to polluting substances (blood, feces, vomit, etc.) and sensitivities about receiving care from those of different castes dissuade many but the poorest of the dominant Hindu population to consider a career in nursing. This is reflected in the traditional over-representation of nursing by Christians, who account for the majority of India's nurses, and explains the dominance of the states of Kerala and Goa in nursing education. These two states account for 40% of the country's nursing schools.

Box 3.2. **Why are there so few nurses in India?** *(cont.)*

At the same time, for women from lower income backgrounds, nursing provides opportunities to readily seek opportunities outside of India, where incomes earned by women may provide them with agency in addressing traditional expectations associated of marriage, dowry and motherhood. A study conducted in Gulf countries found that half of Indian migrants to these countries were from Kerala, among which nurses are roughly estimated to account for between 27-40% of all females. Among this subset, 90% were of Christian origin. With two generations of migration from Kerala to the Gulf, this has become a well-established path to migration to other OECD countries, with women often seeking to balance their individual motives to support their family back at home and gain further professional independence than may have been available to them in India.

Sources: Malik (2008) and Percot (2006).

55% on the required number of basic nurses. The shortage of nurses places considerable demands on doctors, when their higher unit cost of labour is better deployed in undertaking diagnosis and dealing with complex patients. It also results in AYUSH workers facing pressure to deliver medical care that may be beyond the scope of their training.

Given the critical role of women in specific health care services (e.g. sexual health; decisions about birth and the early years of a child's life), a particular challenge is that nearly two-thirds of health workers are men. This is particularly the case among doctors, where only 17% are women (6% in rural areas). However, 70% of nurses are women, in part reflecting the social perception that caring for others is a vocation for women from middle and lower socio-economic backgrounds.

Increasing the number of qualified health professionals, particularly in northern states

To address the shortfall of health care professionals, the incoming government plans to establish an All India Institute of Medical Sciences in every state. Expanding the number of graduates should also be a priority. The deregulation of medical education and the expansion in the number of private colleges over past years has greatly helped expand capacity. However, it has also raised considerable concerns about the quality of education (Rao et al., 2012). Establishing quality assurance for medical training and ensuring that education costs are not too high will be critical to securing a pipeline of well-trained doctors and nurses. In addition, a critical step to guide policy is to build a database of India's human resources for health, covering the types of health workers, where they are located and their employment conditions (Rao et al., 2011), as is the norm in the majority of OECD countries.

The central government should use its powers to determine where medical colleges are located to redress geographical shortages in northern and poorer states. Today, states in South India are home to 52% of the country's nursing schools, while the north, west, east, and north east have 31%, 8%, 7%, and 2% respectively (Bhaumik, 2013). Similarly, the south-western states of Andhra Pradesh, Maharashtra, Karnataka, Kerala and Tamil Nadu accounted for 58% of all medical colleges, while populous states with poor health have only 15% of all medical colleges. Making the most of their advantage, states with more colleges offer direct career pathways for doctors and nurses into their public health services. The establishment of six new All India Institutes of Medical Sciences in areas with low

numbers of health professionals is a positive step in this direction, though efforts will be needed to get students to stay in these areas after their education.

Medical training should require experience in rural communities and in primary care. Recent OECD research suggests that small financial incentives have not been effective in encouraging doctors and nurses to move to more deprived and rural areas. Regulatory policies, such as obliging rural service or developing rural medical schools, are more effective (Ono et al., 2014). Australia and Canada use medical education to give students greater experience of work in rural communities. Some Indian states oblige medical students to practice in a rural area as part of their clinical education – Tamil Nadu reserves a share of postgraduate education posts for those who have worked in government facilities. While these regulations have been unpopular with students, the high level of public subsidy, significant personal returns to medical education and the weak recruitment of graduates into public hospitals justify the adoption of such compulsive approaches. Similarly, governments and colleges should seek to incorporate a rotation in a primary health care facility into medical education. At a clinical level, this provides young doctors with generalist skills and greater exposure to the range of conditions afflicting the population.

Together with better local infrastructure, implementing a shorter "rural medical degree" could help bring new doctors into the system to address the needs of under-served communities. The establishment of the new three year Bachelor of Community Health by the central government is a welcome step in this direction. Similarly, government should consider offering AYUSH workers the opportunity to undertake a "bridging" rural medical or advanced nursing degree, as has been pioneered in Tamil Nadu and Maharashtra, to provide higher incomes and career development opportunities to those who have already demonstrated a commitment to health services. This would also recognise the reality that in rural and poor communities patients already turn to these workers for basic medical services (Chandra, 2012).

Greatest attention is needed to encourage more nurses to join and stay in the health workforce. Government "stipends" provide an income that help attract women from lower socio-economic backgrounds to study nursing, but many of the most qualified nursing graduates choose to emigrate after completing their studies. Better job contracts ought to be considered, as nurses generally face more short-term contracts. Similarly, those working as assistants to nurses (known as "auxiliary nurse midwifes" and "lady health visitors") with minimal levels of training, ought to be given the possibility of undertaking a nursing diploma (Raha et al, 2009). The new "Continuing Nursing Education Programme" is a positive development in this regard. Government should also seek to encourage the development of nurses with expert medical skills in a select area (known as advanced professional nurses), as in the United States, Canada and Ireland (OECD, 2010). This would provide opportunities for career advancement that might help dissuade nurses from leaving for overseas.

Efforts should also be made to improve working conditions and career prospects for health care professionals, especially those in rural communities. The central government should seek to understand wage differences across states and also between the public and private sectors, along with a means of estimating the migration of health workers. Research finds that concerns over personal security; poor community infrastructure; limited schooling options and less career progression count among the factors dissuading

doctors from practising in rural areas (Rao et al., 2012). In 2000, India was the single most important origin country for doctors migrating to OECD countries and ranked 6th for nurses (OECD, 2007). Although migration may deprive India from well-trained doctors and nurses, its impact should be evaluated by also taking into account the duration of stay. On the positive side, some of those who settle abroad may eventually come back and work in India, with more expertise and knowledge of different techniques.

Better use of drugs would improve the quality of health care and reduce out-of-pocket payments

India is able to procure medicines at lower unit prices than other low and middle income countries (WHO/HAI, 2006), which suggests drug affordability ought to be less of an issue. However, spending on drugs is the single largest component of household out-of-pocket (OOP) payments, and accounts for about three-fourths of all OOP spending for the poor (Selvaraj and Karan, 2012). OOP payments on drugs are high because essential medicines are often out of stock in public hospitals where they are supposed to be provided for free or at a very low price, and because of inappropriate drug prescriptions in the private sector. The median availability of a sample of key generic medicines in public sector facilities was 22% compared to 77% in the private sector facilities (WHO, 2012). This partly reflects the lack of efficient supply chain management and a weak drug procurement process. The Medical Store Depots, from which various public hospitals order drugs, are under no obligation to stock generic alternatives; they generally lack quality controls and corruption is often an issue (Shepherd-Smith, 2012). The introduction of a centralised procurement system in the state of Tamil Nadu has resulted in a drop in drug prices and increased drug availability in public health care facilities.

As a result of shortages in the public sector, patients turn to the private sector, where the distribution and sale of drugs is poorly regulated. A large number of studies have found inappropriately high levels of prescribing by doctors, nurses and pharmacists (especially in rural areas); high levels of self-medication and weak controls on the sale of prescription drugs (Das et al., 2006; Kotwani, 2010; Ray et al., 2003). Firms engage in aggressive marketing tactics, such as providing expensive gifts and targeting health workers in small towns in particular (Roy et al., 2007 and Kripalani, 2008). While government attempts to regulate the prices of a select group of medicines, as in other OECD countries, the margins between manufacturer sale prices and those paid by consumers can be as high as 300%, well above the legislated level of 20% (NPPA, 2002).

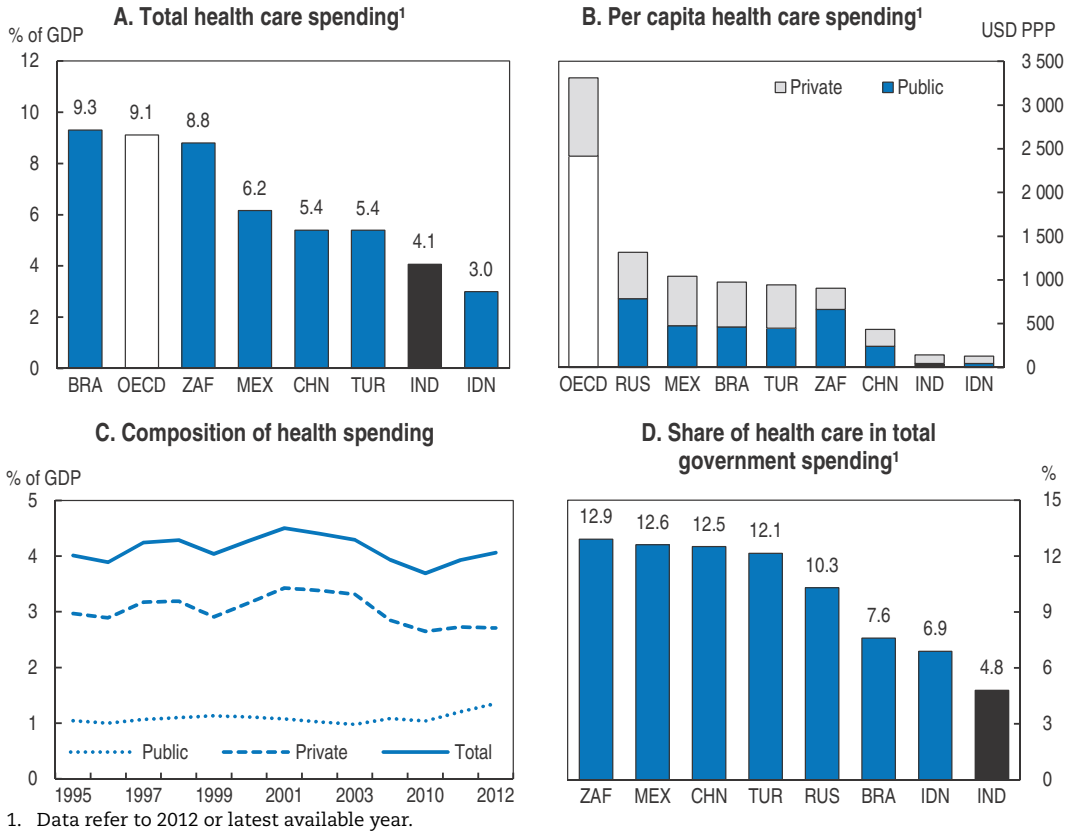
Spending on drugs can be reduced and the quality of care improved by better prescribing practices and enforcement of existing laws and regulations on drug sales. By actively training health workers on how to appropriately prescribe drugs, Delhi has achieved savings of around 35% on annual drug spending (Chaudhury et al., 2005). A best practice model in the OECD in this regard is Australia's National Prescribing Service, which provides health workers with information about the appropriate use of medicines.

Devoting more public funds to health care and improving the effectiveness of spending

India has low and uneven levels of public health spending

India spends less on health care than other middle income countries. At 4% of GDP in 2012, spending on health care was half that of Brazil and South Africa, and much lower than China (Figure 3.5, Panel A). When measured in per capita terms (Figure 3.5, Panel B),

Figure 3.5. **India spends less on health care than other middle-income countries**



1. Data refer to 2012 or latest available year.

Source: OECD (2014), *Health Database*; WHO (2014), *Health Systems Database*.

StatLink http://dx.doi.org/10.1787/888933163520

India is 184th out of 191 countries in public spending on health. Government (central, state and local) was the source of about one-third of spending while out-of-pocket payments represented about 58 % – one of the highest percentages in the world. As a share of total public spending, health is also low (Figure 3.5, Panel D). In addition, this money is not often spent well. A study by Transparency International in 2008 suggests that the health sector was the second most corrupt in India (Sudarshan and Prashanth, 2011).

The consequence of low levels of public spending and poor access to public facilities is that households bear the cost of services in the private sector. Some cannot access health care while or fall into poverty if they afford it. Among those people that did not access care for a short-term health condition in India, 28% of those in rural areas said it was due to financial problems, compared to 20% in urban areas (NSSO, 2006).

Out of pocket payments are an increasingly large share of household budgets, rising from 5% of household expenditure in 1999-2000 to 11% in 2004-05 (Ladusingh and Pandey, 2013). Drugs are the biggest component of OOPs, accounting for 72% of the total (Kumar et al., 2011).Though hospital care accounts for a smaller share of total OOPs, it is more likely to bankrupt the poor. More than one third of patients admitted to hospital are pushed into poverty (Marten et al., 2014). On average, low income households living in rural areas paid 140% of their annual income in OOPs for a hospital stay compared to 90% for those in urban areas (Balarajan et al, 2011), the difference being due in large part to lower rural incomes. As a consequence, some 47% of the cost of hospital admissions in

rural areas and 31% in urban areas were financed by borrowing and the sale of personal goods and assets (Kumar et al., 2011). This financial burden has been one of the key motivations for introducing health care insurance for hospital care for the poor, though private facilities that deliver services concentrate in urban areas. Although not captured by surveys, informal payments are significant: 20% of public sector hospital visits are reported to involve informal payments and 12% involve the use of influence to access health care (Rao et al., 2009).

Public health care spending has been increasing, although from low levels, and is anticipated to continue to do so. Under the previous five year plan, it is estimated to have increased from 0.9% of GDP in 2007 to 1% of GDP in 2012, with central government playing a greater role than states. With spending on drinking water, sanitation and meals taken into account, this estimate rises to 1.9% (Planning Commission, 2012). In the 12th five year plan (2012-17), the central government has indicated it shall seek to raise public spending on health to 2.5% of GDP.

The cost of achieving the central government's objective of universal coverage for a small number of health services has been estimated to vary between 0.5% of GDP per year (World Bank, 2013b) and 1% of GDP per year (Deolalikar, et al., 2008). Some states have increased spending on health, but many of the poorest states have struggled to do so (Box 3.3) Given the mismatch between states' revenues and their large spending responsibilities, the central government is best positioned to take the lead in funding health care, particularly for the poorest states.

Box 3.3. **The challenge of making health a priority in a decentralised setting**

The financing of health care occurs within the context of considerable federal-state fiscal imbalances. States are responsible for providing health care and sanitation. The central government is responsible for training medical professionals and research. Population control and family planning are a shared responsibility. State governments account for around 60% of public spending on health but the size of state budgets on health vary widely across states.

Beyond health, states are responsible for other major areas of spending – such as education, irrigation and public utilities – while having limited sources of revenue. On average, states raise about 38% of total revenues and account for 57% of total public spending. As a result, around 55% of states' total expenditure are financed from the central government and loans. States' ability to prioritise is further limited as around 15% of their spending requires matching funds in order to unlock central grants, a conditionality that exists for major central government health funding programmes.

A combination of accumulated fiscal constraints and differing political priorities between central and state governments has meant that it has been hard to get states to raise their own health spending in the past fifteen years. The World Bank estimated that the elasticity of state government health spending to GDP was 0.94 between 1990-2012. Over the same time, the elasticity of central government health spending to GDP was 1.15, together resulting in general government health spending elasticity of 0.99.

Source: Rao and Choudhury (2012), World Bank (2013b).

To finance higher public spending on health, India should rely on general taxes, as opposed to social security contributions. Labour based charges that are used to finance health insurance in many OECD and Latin American countries would increase incentives to rely on informal workers – informal employment is already very high in India, and women and ethnic minorities are overrepresented among these workers (OECD, 2010b).

The financial resources devoted to health are very uneven across states. The level of public health spending per capita in Bihar was a sixth of Himachal, the highest spending large state (Table 3.3). These differences have been increasing in recent years and spending correlates well with income level (Rao and Choudhury, 2012). In all but eight states health spending fell as share of state total spending between 2000-01 and 2012-13 (RBI, 2013).

Table 3.3. **Spending on health care, major states and territories**
2004-05[1]

	Per capita public (Rs.)	Per capita private (Rs.)	% of state government spending
Himachal Pradesh	630	881	5.0
Kerala	287	2 663	4.7
Punjab	247	1 112	3.0
Karnataka	233	597	3.8
Tamil Nadu	223	1 033	3.4
Maharashtra	204	1 008	2.9
Haryana	203	875	3.0
Gujarat	198	755	3.1
Andhra Pradesh	191	870	3.2
Rajasthan	186	575	3.9
Orissa	183	719	4.4
West Bengal	173	1 086	4.3
Assam	162	612	3.1
Madhya Pradesh	145	644	3.2
Uttar Pradesh	128	846	3.9
Bihar	93	420	4.1

1. States are ordered in terms of per capita public spending, in descending order.
Source: MoHFW (2009).

The central government provides financial grants to states to help them meet the cost of running public health services. The largest of these grants is the National Health Mission (NHM), which began in 2005 as the National Rural Health Mission (NRHM), and expanded to include urban areas in mid-2013 (Box 3.4). It accounts for 60% of total funding from central government to states for public health and 23% of total public spending on health at a state level in 2008-09 (MoHFW, 2009). A worthwhile feature of the NRHM is that states have the flexibility to spend funds on their self-identified needs, unlike past conditional grants. NRHM funds can be deployed to hire contractual staff and have focused on introducing new community health workers. The NRHM also includes a large conditional cash transfer programme (the *Janani Suraksha Yojana*) which provides funds to mothers and community health workers to encourage more institutional births. Alongside the NHM are a range of other conditional grants directed at specific diseases or objectives such as HIV/AIDS, tuberculosis, leprosy, immunisation programmes, child health facilities and the education and training of health professionals.

Box 3.4. **The National Rural Health Mission**

The National Rural Health Mission (NRHM) was established to improve the health of the rural poor. The NRHM sought to improve infrastructure and human resources for health, integrate many separate programmes for disease control (e.g. tuberculosis, HIV/AIDS) into the health system, provide more flexibility for states to meet community needs and increase funding for health care. In terms of outcomes, reducing maternal and infant mortality, reducing malnutrition, reducing anaemia among women and raising the share of women among births were identified as high level goals.

Official statistics show that reductions in maternal and infant mortality have exceeded those achieved prior to the programme introduction, but are still short of the 11th five year Plan targets. Progress towards reducing malnutrition and anaemia are difficult to assess due to shortfalls in data. In terms of infrastructure, there has been an increase in public health care facilities, with the number of sub-centres increasing by 2%, primary health care centres by 6%; community health care centres by 16% and district hospitals by 45%. Nonetheless, many of these facilities are yet to meet standards in terms of quality; drug supplies and the ability to deliver emergency obstetric care. It is estimated that the gap between staff in facilities and those required was 52% for midwives and nurses; 76% for doctors; 88% for specialists and 58% for pharmacists. Progress has been made in the important area of child immunisation, where coverage has improved to 61% by 2009 from 55% in 2005.

Source: Planning Commission (2012) and (2011).

The major injection of public funding provided by the NRHM has not consistently translated into higher levels of health spending. Funds from the NRHM are allocated on a per capita basis, with an additional 30% provided to 18 'focus states' selected on the basis of life expectancy, infant mortality and family incomes. To receive funding under the NRHM, states have to commit to making a matching contribution of at least 15% of the central government's allocation, and it is not specified that this needs to be additional funding (Rao and Chaudhary, 2012). Similarly, to receive funding under the new National Urban Health Mission, states have to contribute at least 25% of the central government's allocation. Studies have shown that many states are too poor to meet co-funding requirements or do not have institutional capacity to absorb additional spending (Berman et al., 2010 and Rao and Choudary, 2012). Shortfalls of up to 35% have been reported between the funds allocated and paid to states over the last five years, and while states are able to roll unspent funds into subsequent years, some states have been lagging persistently in spending their allocation (CBGA, 2012). Reforms to financing mechanisms are needed to ensure that additional funds from central government translate into measurable expansions in health care services.

Sharpening the states' incentives to deliver critical services

Allocating health budgets at both central and state levels has traditionally been a "facility planning" exercise which involves setting aspirational targets of physical buildings and staff based on a ratio of the population (i.e. one community facility per 200 000 people). Limited funds have often been spent on what can be procured and not what is most valuable.

Box 3.5. **Financing expansion in health in a federal context: Mexico's *Seguro Popular***

The Seguro Popular in Mexico provides one of the most successful examples of expanding health coverage in a federal context. Considerable concern about the impoverishing effects of health costs saw the government increase public funding for health by 1% of GDP over seven years to provide access to 45 million Mexicans who had not benefitted from the country's existing social health insurance programmes.

The *Seguro Popular* subsidises access to a package of essential services that grew to 284 in 2012 from 91 interventions in 2004, and covers treatment for more than 95% of causes in ambulatory units and general hospitals. Even though the *Seguro Popular* aimed to cover most of the services provided in hospitals, a benefit package was developed. This was critical to properly estimating the resources required in terms of infrastructure, equipment and personnel. It was used as a quality assurance mechanism so that facilities were being held to account for delivering services in line with standard protocols and would not be provided with funding if they could not show they could meet basic standards. Finally, it made people aware of their entitlements from the health care system.

At the time of its introduction, the *Seguro Popular* was targeted at the self-employed and those in the informal sector. Registering with the *Seguro Popular* was voluntary, but states had an incentive to register schemes as their budget was based on an annual per family fee and families were given a date to register to avoid co-payments in the future. The *Seguro Popular* is financed through federal and state governments. Families are also asked to make a modest contribution, with the poorest 20% of families excluded. Most of the funds (89%) are allocated to states to fund the essential package of services, but certain funds are retained centrally to support high cost services (8%); build health infrastructure and respond to temporary fluctuations in demand (3%).

Funding to states was largely determined by the number of families registered with the *Seguro Popular* and was demand driven, though federal-state negotiations helped target funding to specific state needs. States were provided with a financial transfer with two parts: a fixed component (for infrastructure and workforce) and a per person component for people receiving services within an acceptable radius of their home. This funding was often linked to the delivery of essential services such as compulsory vaccinations and basic pharmaceuticals or institutional reforms in states, such as the accreditation of health care facilities.

As a result of the *Seguro Popular*, Mexico has achieved universal coverage of health care. At the same time as an increase in spending, inequities in the distribution of funding across states have declined substantially. The difference in spending between the state with the largest per capita allocation and the lowest decreased from five to four times. National surveys indicate that the utilisation of 11 highly effective interventions (covering among them child and maternal health, childhood immunisation and the treatment of diarrhoea) has increased. By increasing investment levels to coincide with the registration of families with the *Seguro Popular*, 751 outpatient clinics and 104 hospitals were built between 2001 and 2006. Prescription drugs delivered in outpatient clinics have risen from 55% of those prescribed by health workers in 2002 to 89% in 2006 for clinics serving *Seguro Popular* enrolees. Care availability has also improved during weekends and evenings in clinics and in emergency services and there are lower waiting times.

Source: Frenk et al. (2009), OECD (2005).

As demonstrated in Chile, Mexico and Turkey, a hallmark of the most successful efforts to expand health care coverage across the population has been to specify a "minimum set" of basic health care services, informed by analysis of which services are the most cost effective relative to a country's health needs (Box 3.5). There is already considerable research indicating what the highly cost effective services are for India (Chow et al., 2007; Deolalikar et al., 2008). These include: fighting against communicable diseases such as malaria, diarrheal diseases and HIV/AIDS; immunising children; promoting institutional births; tuberculosis courses; encouraging condom use; emergency antibiotics; postnatal visit and a range of basic medical counselling and primary care services. In this regard, India's recent Mental Health Bill is a good example of setting high level objectives of expanding care and then allowing for a range of treatment options ranging from hospitals through to community services.

Defining a national "benefit package" would provide state governments with clear direction on what they ought to prioritise among the range of health services they can provide. As a condition of additional funding, the central government should seek data from states on how many services are delivered rather than how many facilities remain left to be constructed. This will require reforming the Health Management Information System and providing more resources to facilities so that they can better enumerate the diagnoses of patients and the services provided.

Central government grants should be designed to encourage states to expand access to services to all citizens. Rather than providing per capita payments, funding should be based on progress delivering a basic benefit package to everyone in the state. This would involve estimating a baseline level of people who might receive this now, and paying incentives to states that make progress towards this objective. Used successfully in Mexico and Brazil, the virtue of such approaches is that they establish a relationship between actual needs in a state and the level of funding. They would also offer higher prospective financial rewards for those states with poor health coverage and lower prospective rewards for the higher performing states – providing scope to achieve the same objective of fiscal equalisation between states. This would also be a better defence against substitution of state effort than simply surveillance of state budgets, which many OECD countries with significantly more sophisticated fiscal institutions struggle to do.

Extending the coverage of government-sponsored insurance schemes

A key policy response to difficulties in expanding services in public hospitals for the poor has been the rise of government sponsored health insurance schemes. They provide incentives to increase access to both public and private hospitals by paying on the basis of services delivered. Around 8% of government health spending is devoted to these schemes (the major schemes are detailed in Table 3.4). Although they are called 'insurance', these schemes are in essence a payment system, with contributions paid by governments to private insurance companies to reimburse patients care.

Government sponsored insurance schemes have come to cover a fifth of the population. Around 20% of the population was covered in 2010, reflecting enormous growth since 2003-04 when such schemes had only 3% of the population. Efforts have been made to provide wider access to Employees' State Insurance (ESI) beneficiaries – organised private sector employees, with earnings below a certain threshold, and their dependents – in the general system. In particular, the wage ceiling has been hiked. Also, some efforts have been made to provide access to non-ESI beneficiaries at the under-utilised ESI

Table 3.4. **Major government-sponsored health insurance schemes: eligibility and coverage**

Scheme	Coverage	Eligibility	Spending (INR millions) and source	Hospitalisation frequency	Limits in coverage (annual)
Central government schemes					
Employees State Insurance (ESI)Scheme	55 million	Workers from the private organised sector	19 900 (employer and employee wage contributions)	0.75% per member per year	None
Central Government Health Scheme	3 million	Employees and pensioners of central government	16 000 (central government budget and contributions)	n.a.	None
Rashtriya Swasthya Bima Yojana (RSBY)	37.5 million families	Below poverty line families	3 500 (75% central, 25% state)	2.5% per beneficiary	INR 30 000 per family
State government schemes					
Andhra Pradesh (Aarogyasri)	20.4 million families (70 million beneficiaries)	Below poverty line or annual income less than INR 75 000	12 000 (100% state)	0.6% per beneficiary	INR 150 000 per family
Tamil Nadu (Kalaignar)	13.4 million families (36 million beneficiaries)	Below poverty line or annual family income below INR 72 000	5 170 (100% state)	0.5% annualised	INR 100 000 over four years
Karnataka (Yeshasvini)	3 million	Members of rural cooperative societies	550 (100% state)	n.a.	INR 200 000 per person

Source: La Forgia and Nagpal, 2012 and RSBY website.

hospitals. Still, much of the growth in coverage has been driven by the *Rashtriya Swasthya Bima Yojana* (RSBY) targeted at those below poverty line.

The RSBY has many attractive features (Box 3.6). However, it could be improved. The number of claims remains low as awareness of its reimbursements for health costs is low. An evaluation recently carried out by the Ministry of Labour and Employment in three states revealed that only 32% of the enrolled households were given a list of hospitals and only 13% were given information as to how the card had to be used (Ministry of Labour and Employment, 2013). Because of poor awareness and low frequency of hospitalisations, the effect of these schemes in significantly reducing out-of-pocket or catastrophic health care spending remains to be seen (Selvaraj and Karan, 2012). Current pilot campaigns to improve patient awareness and educated people of the benefits available to them should be extended.

Districts with a higher share of socioeconomically disadvantaged groups are less likely to participate in the RSBY and their enrolment rate is lower (Nandi et al., 2013). Identifying families living below poverty line (BPL) families is also a crude process, an issue affecting a number of social schemes. The process of rolling out the RSBY has helped to remove those who are no longer poor from BPL rolls (Fan, 2013). One key challenge however for the RSBY is to cover poor households that have been overlooked in the BPL census. The recent decision to extend the RSBY to include non-BPL but socioeconomically disadvantaged groups, such as domestic workers, is a step in the right direction. Care should also be taken to contain administrative costs. Experience in OECD countries reveals that administrative costs tend to be higher in those countries relying most on multiple payers and private insurance companies (OECD, 2010c).

Health insurance schemes should ideally fund primary health care services irrespective of whether this is delivered by a qualified doctor working privately or in a

Box 3.6. **The RSBY facilitates access to hospital care for the poor**

The *Rashtriya Swasthya Bima Yojana* (RSBY) was created in 2008 to provide the poor and informal sector workers with better access to hospital care. It gives users a choice across private and public hospitals, creates incentives for public providers to increase volumes of care and for private insurers to extend coverage rapidly.

Coverage and funding

The RSBY targets Below Poverty Line (BPL) families. As of May 2014, the RSBY operated in 479 out of the 680 districts and covered 37 million families, out of the 68 million BPL families in India (RSBY website). It reimburses spending up to INR 30 000 (USD 485) for a family of five per year.

Insurance premiums are paid by governments to private insurance companies which reimburse hospital care. With the premium paid for each household enrolled, insurers have an incentive to enroll as many households as possible from the beneficiary list. Individuals pay only a nominal cost (INR 30 or USD 67 cents) associated with the receipt of a smart card. The central government funds 75% of premiums under the RSBY, and states contribute the balance. For North Eastern states which are poorer, the central government contribution can raised to 90%.

The technology reduces fraud and can be used for other social benefits

The biometric-enabled smart cards issued by the RSBY programme verify and authorise the identity of beneficiaries. RSBY smart cards provide a cash- and paper-less way of claiming benefits – all claims are processed and paid electronically. The RSBY information and technology infrastructure is thus less prone to abuse and corruption than other approaches to distribute social benefits. It is increasingly used as a platform for distributing other social benefits, with pilot schemes for some subsidies launched in some areas to minimise leakages (e.g. the National Social Assistance Programme in Jharkhand and the food and kerosene subsidy in Chhattisgarh).

Portability of benefits, user choice and provider efficiency

The RSBY smart cards can be used in any accredited hospital, public or private, across the country – 6 093 private hospitals and 4 218 public as of May 2014. The RSBY thus introduces some level of competition among providers. With hospitals paid on a per case basis, the RSBY also creates incentives to increase the volume of activity. The number of cases treated by public hospitals has increased steadily, from 5% of the total in 2008 to 40% in 2013.

Empowering women through the RSBY

The state of West Bengal has made it mandatory for the women to be head of families for the RSBY as a mean to empower women – in other states the practice is to issue the RSBY smart cards with men as heads of families.

Top-up schemes and other schemes provided by individual states

A few states have introduced top-up insurance schemes to complement the RSBY either by reimbursing more services or by covering more people. As an example, the states of Chhattisgarh, Kerala and Meghalaya have extended the coverage to all families with the extra premium fully born by them. Himachal Pradesh extended the package value to INR 175 000.

The states of Andhra Pradesh and Tamil Nadu have developed their own government-sponsored insurance scheme which are more generous in benefits and provide financial protection to nearly 80% and 50% of their populations respectively.

public clinic, because this is where the biggest health gains lie. The expansion of health insurance to cover primary health care services, as foreshadowed in the government's latest five-year plan (Planning Commission, 2012), can help direct funds in this direction. It has been argued that the current focus on hospital care may fuel higher salaries in the hospital sector and make it harder to attract doctors into community health facilities (HLEG, 2011). This could start by extending payments from insurance to supplementing the existing operational budgets of community primary health care facilities. Funding linked to the number of services delivered would provide an incentive to improve availability and support many under-funded clinics. In gradually rolling-out such an approach, priority should be given on areas of greatest need (rural communities and urban slums).

A focus on quality and incentives for employees in public clinics ought to accompany an extension of insurance payments. Just as the RSBY currently "empanels" private sector hospitals as meeting certain financial and quality safeguards, government run primary health care clinics should have to meet basic quality criteria (such as the cleanliness of facilities; appropriate qualifications of staff and the availability of essential supplies) to be "empanelled" to receive reimbursements on the basis of services they provide. To reward higher levels of service provision, states ought to allow for a share of case-based payments to flow through to employees, as a supplement to their current public sector wages.

Finally, getting the most out of the rapid growth of expanded health insurance requires better co-ordination between the ministries of Health and Labour. The Health Ministry has been investing and bolstering government run primary health care services, while the Labour Ministry is subsidising private and public hospital care. Coordination to ensure both of these efforts are mutually reinforcing is poor at central and state levels. Currently, state governments can negotiate their key policy objectives with central government for the National Health Mission. State governments ought to also have some flexibility to negotiate which services they choose to finance through the insurance schemes. This will allow states to customise how they can leverage the potential of schemes – using the private sector – to complement their efforts in improving public health care services. As long as states are held to account for the delivery of critical services to all patients, policy should support the mix of public and private that a state chooses to expand access to care.

Recommendations to improve health outcomes for all

Key recommendations

- Increase public spending on health care with particular focus on preventive and primary care, especially to rural areas and urban slums.
- Expand the number of health professionals and up-skill professionals located in rural areas.
- Strengthen the management of public health care facilities and ensure that private facilities and their employees meet minimum quality standards.

Further recommendations

- Improve the quality of care by strengthening the management of public health care facilities and ensuring that private facilities and their employees meet minimum quality standards.

Recommendations to improve health outcomes for all *(cont.)*

- Undertake further preventive measures to improve health, such as improving sanitation, access to clean water, and road safety; raising immunisation rates; increasing taxes on tobacco; reducing salt intake; and improving sexual education.
- Reduce geographical disparity in access to health care by locating more medical colleges in northern and poorer states.
- Improve the labour market conditions of nurses through fewer short term contracts and opportunities to undertake further education.
- Specify a package of critical services which should be available to all and reform both public grants and insurance support to states to incentivise the delivery of these services.
- Gradually extend government sponsored health insurance to primary care, beginning with deprived communities, in particular in rural areas and urban slums. Improve awareness of reimbursements for care available through insurance schemes.
- Improve the prescribing of pharmaceuticals by actively training health workers. Introduce a transparent drug procurement process to improve the availability of drugs in public facilities.

Bibliography

Banerjee, A. and E. Duflo (2009), "*Improving Health Care Delivery in India*", Paper prepared for the Deaton Festshrift Conference, September, *http://economics.mit.edu/files/5172*.

Banerjee, A., A. Deaton and E. Duflo (2004), "Wealth, Health and Health Services in Rural Rajasthan", *American Economic Review*, Vol., 94, No. 2, pp. 326-330.

Balarajan, Y., S. Selvaraj and S. Suramanian (2011), *Health care and equity in India*, *The Lancet*, 377; 505-15.

Berman, P., R. Ahuja, A. Tandon, S. Sparkes, and P. Gottret (2010), "Government Health Financing in India: Challenges in Achieving Ambitious Goals", *Health, Nutrition and Population Discussion Paper,* World Bank, Washington, DC, *https://openknowledge.worldbank.org/handle/10986/13597*.

Bhaumik, S. (2013), "Why Is India Short of Nurses and What Can We Do about It?", *Workforce Planning (Feature), BMJ* 3; 346: f4024 (June 2013).

CBGA (2012), "National Rural Health Mission", *Budgeting for Change Series 2011*, Centre for Budget Governance and Accountability and UNICEF, March.

Chaudhury, R., R. Parameswar, U. Gupta, S. Sharma, U. Tekur and J. Bapna (2005), "Quality medicines for the poor: Experience of the Delhi programme on rational use of drugs", *Health Policy Plan*. 20(2): 124-136.

Chandra, S. (2012), "Status of Indian Medicine and Folk Healing: With a Focus on Integration of AYUSH Medical Systems in Healthcare Delivery", *Ayu*. 33(4): 461-5, October.

Chow, J., S. Darley and R. Laxminarayan (2007), "Cost Effectiveness of Disease Interventions in India", *Resources for the Future Discussion Paper*, RFF DP 07-53, December.

Das, B., C. Sarkar and A. Majumder (2006), "Medication use for pediatric upper respiratory tract infections", *Fundam Clin Pharmacol* 20(4): 385-90, August.

Das, J., A. Holla, V. Das, M. Mohanan, D. Tabak and B. Chan (2012), "In Urban and Rural India, a Standardized Patient Study Showed Low Levels of Provider Training and Huge Quality Gaps", *Health Affairs* 31(12): 2774-84, December.

Deolalikar, A., D. Jamison, P. Jha, R. Laxminarayan, "Financing Health Improvements in India", *Health Affairs*. July-Aug.; 27(4): 978-90.

DLHS (2006), *Reproductive and Child Health, District Level Household Survey 2002-04*, International Institute for Population Sciences and Government of India, August.

Drèze, J. and A. Sen (2013), *An Uncertain Glory – India and its Contradictions*, Princeton Press.

Fan, V. (2013), "The Early Success of India's Health Insurance for the Poor", *Center for Global Development Essay*, RSBY, June, *www.cgdev.org/sites/default/files/archive/doc/full_text/CGDEssays/3120468/early-success-indias-health-insurance-rsby.html*.

Frenk, J., O. Gómez-Dantés and F. Knaul (2009), "The democratisation of health in Mexico: Financial innovations for universal coverage", *Bulletin of the World Health Organization*, 87(7): 542-548, July, doi: *10.2471/BLT.08.053199*.

Fujisawa, R. and G. Lafortune (2008), "The Remuneration of General Practitioners and Specialists in 14 OECD Countries: What are the Factors Influencing Variations across Countries?", *OECD Health Working Papers*, No. 41, OECD Publishing, Paris, doi: *10.1787/228632341330*.

HLEG (2011), *High Level Expert Group Report on Universal Health Coverage for India*, Instituted by the Planning Commission of India, New Delhi.

Institute for Health Metrics and Evaluation, IHME (2013), *Global Burden of Disease 2010*, Released March 2013, *www.healthmetricsandevaluation.org/gbd*.

Jack, W. and M. Lewis (2009), "Health Investments and Economic Growth: Macroeconomic Evidence and Microeconomic Foundations", in Spence, M. and Lewis, M. (2009), *Health and Growth*, Commission on Growth and Development, World Bank Publishing.

Kotwani, A. (2010), "Access to Essential Medicines and Standard Treatment for Chronic Diseases", *Editorial – Indian J Pharmacol* 42(3): 127-8.

Kripalani, M. (2008), *Indian Pharma: Hooked on the Hard Sell*, "BusinessWeek" webpage, March, *www.businessweek.com/stories/2008-03-25/indian-pharma-hooked-on-the-hard-sellbusinessweek-business-news-stock-market-and-financial-advice*.

Kumar, A., L. Chen, M. Choudhury, S. Ganju, V. Mahajan, A. Sinha and S. Abhijit (2011), "Financing Health Care for All: Challenges and Opportunities", *The Lancet*, 377: 668-79.

Ladusingh, L. and A. Pandey (2013), "The High Cost of Dying", *Economic and Political Weekly*, Vol. XLVIII No. 11, March.

La Forgia, G. and S. Nagpal (2012), *Government-Sponsored Health Insurance in India: Are You Covered?*, World Bank, August.

Lopez-Casanovas, G., B. Rivera and L. Currais (2005), *Health and Economic Growth: Findings and Policy Implications*, MIT Press.

Lunt, N., R. Smith, M. Exworthy, S. Green, D. Horsfall and R. Mannion (2010), "Medical Tourism: Treatments, Markets and Health System Implications: A Scoping Review", OECD Publishing, Paris *www.oecd.org/els/health-systems/48723982.pdf*.

Malik, G. (2008), "Nursing Crisis in India", *Journal of Health and Development*, Vol. 4, No. 1-4.

Marten, R., D. McIntyre, C. Travassos, S. Shishkin, W. Longde, S. Reddy, J. Vega (2014), "An assessment of progress towards universal health coverage in Brazil, Russia, India, China, and South Africa (BRICS)", *The Lancet*, 30 April 2014.

MoHFW (2009), *National Health Accounts India, 2004-05*, National Health Accounts Cell, Ministry of Health and Family Welfare, Government of India.

MoHFW (2012), *Rural Health Statistics in India 2012*, Statistics Division, Ministry of Health and Family Welfare, Government of India, March.

MOSPI (2013), *Statistical Year Book, India*, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Muraleedharan, V.R., U. Dash and L. Gilson (2013), "Tamil Nadu 1980s-2005: A Success Story in India", Chapter 6 in *Good Health at Low Cost, 25 years on*, London School of Hygiene and Tropical Medicine, *http://ghlc.lshtm.ac.uk/*.

Nandi, A., A. Ashok and R. Laxminarayan (2013), "The Socioeconomic and Institutional Determinants of Participation in India's Health Insurance Scheme for the Poor", *PLOS One*, June.

Nandraj, S., V. Muraleedharan, V. Baru, I. Qadeer and R. Priya (2001),"Private Health Sector in India: Review and Annotated Bibliography", *www.cehat.org/publications/PDf%20files/r20a.pdf*.

Narayan, S., P. Narayan, and S. Mishra (2010), "Investigating the Relationship between Health and Economic Growth: Empirical Evidence from a Panel of 5 Asian Countries", *Journal of Asian Economics*, Vol. 21(4), pages 404-411, August.

NCHM (2005), *Report of the National Commission on Macroeconomics and Health*, Ministry of Health and Family Welfare, Government of India.

National Sample Survey Organisation, NSSO (2006), "Morbidity and Health Care and Condition of the Aged 2004-05", New Delhi: National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India.

NPPA (2002), "Pharmaceutical Policy – 2002", Department of Chemicals and Fertilizers, Government of India.

OECD (2005), *OECD Reviews of Health Systems: Mexico* 2005, OECD Publishing, Paris, doi: *10.1787/9789264008939-en*.

OECD (2007), "Immigrant Health Workers in OECD Countries in the Broader Context of Highly Skilled Migration", in OECD, *International Migration Outlook 2007*, OECD Publishing, Paris, doi: *10.1787/migr_outlook-2007-5-en*.

OECD (2010a), *"Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries", OECD Health Working Papers*, No. 54, OECD Publishing, Paris, doi: *10.1787/5kmbrcfms5g7-en*.

OECD (2010b), *Economic Policy Reforms 2010: Going for Growth*, OECD Publishing, Paris, doi: *10.1787/growth-2010-en*.

OECD (2010c), *Health Care Systems: Efficiency and Policy Settings*, OECD Publishing, Paris, doi: *10.1787/9789264094901-en*.

OECD (2012a), *Health at a Glance: Asia/Pacific 2012*, OECD Publishing, Paris, doi: *10.1787/9789264183902-en*.

OECD (2013), *OECD Health Statistics 2013*, Online database, OECD Publishing, Paris, doi: *10.1787/health-data-en*.

Ono, T., M. Schoenstein and J. Buchan (2014), "Geographic Imbalances in Doctor Supply and Policy Responses", *OECD Health Working Papers*, No. 69, OECD Publishing, Paris, doi: *10.1787/5jz5sq5ls1wl-en*.

Patel, V., S. Chatterji, D. Chisholm, S. Ebrahim, G. Gopalakrishna, C. Mathers, V. Mohan, D. Prabhakaran, R. Ravindran and K. Reddy (2011), "Chronic diseases and injuries in India", *The Lancet*, 377(9763): 413-28, January, *www.ncbi.nlm.nih.gov/pubmed/21227486*.

Percot, M. (2006), "Indian Nurses in the Gulf: Two Generations of Future Migration", *South Asia Research*, Vol. 26, No. 1, 41-62, February.

Planning Commission (2012), *Twelevth Five Year Plan 2012-12*, Vol. III, Planning Commission, Government of India, New Delhi.

Raha, S., P. Berman and A. Bhatnagar (2009), "Career Preferences of Medical and Nursing Students in Uttar Pradesh", *India Health Beat*, World Bank and Public Health Foundation of India, Washington, DC.

Rao, K., A. Bhatnagar, P. Berman, I. Saran and S. Raha (2008), "India's Health Workforce, Size, Composition and Distribution", *Human Resources for Health Technical Report #1*, World Bank and Public Health Foundation of India, *www.hrhindia.org/assets/images/Paper-I.pdf*.

Rao, K., I. Saran and A. Srivastava (2009), "The Inequity of Informal Payments for Health Care in India", *India Health* Beat, Vol. 2, No. 1, World Bank/Public Health Foundation of India.

Rao, M., K. Rao, A. Kumar, M. Chatterjee and V. Sundararaman (2011), "Human Resources for Health in India", *The Lancet*, Vol. 377, Issue 9765, Pages 587-598, February.

Rao, K., A. Bhatnagar and P. Berman (2012), "So many, yet few: Human resources for health in India', *Human Resources for Health* 2012, 10: 19.

Rao, M. and M. Choudhury (2012), "Health Care Financing Reforms in India", *Working Papers* 12/100, National Institute of Public Finance and Policy.

Ray, K., S. Mukhopadhyay, D. Dutt, P. Chatterjee, P. Roychowdhury, K. Roy, and S. Banerjee (2003), "Cross-sectional study of consumption, compliance and awareness about antibiotic utilisation amongst the urban community in Kolkata", *J Indian Med Assoc* 101(1): 7, 9-10.

Roy, N., N. Madhiwalla and S. Pai (2007). "Drug promotional practices in Mumbai: A qualitative study." *Indian Journal of Medical Ethics* 4(2):57-61.

RBI (2013), *State Finances: A Study of Budgets of 2012-13*, Reserve Bank of India, January.

RSBY (2013), Scheme Status, available at: *www.rsby.gov.in/Overview.aspx*.

Sachan, D. (2013), "Tackling corruption in Indian Medicine", *The Lancet*, Vol. 382, Issue 9905, pages e23-e24, November.

Selvaraj, S. and A.K. Karan (2012), "Why publicly financed health insurance schemes are ineffective in providing financial risk protection", *Economic & Political Weekly*, Vol. 47, No. 11, pp. 60-68.

Shepherd-Smith, A. (2012), "Free drugs for India's poor", *The Lancet* Vol. 380, September, *http://ac.els-cdn.com/S0140673612614895/1-s2.0-S0140673612614895-main.pdf?_tid=b63a4904-b37e-11e3-b5ea-00000aab0f02&acdnat=1395684435_1725a97500277e12f593fe55ff263939*.

Spears, D. and S. Lamba (2013), "Effects of Early-Life Exposure to Sanitation on Childhood Cognitive Skills: Evidence from India's Total Sanitation Campaign", *Policy Research Working Paper 6659*, World Bank Sustainable Development Network, World Bank Publishing.

Spence, M. and M. Lewis (2009), *Health and Growth*, Commission on Growth and Development, World Bank Publishing.

Sudarshan, H. and N.S. Prashanth (2011), "Good Governance in Health Care: The Karnataka Experience", *The Lancet*, Vol. 377, pages 791 and 792, March.

World Bank (2013a), *World Development Indicators*, World Bank.

World Bank (2013b), "India Development Update, April 2013", Washington, DC, World Bank, *https://openknowledge.worldbank.org/handle/10986/16542*.

WHO (2012), *Global Health Observatory Data Repository*.

WHO/HAI (2006), "Price, availability and affordability: An international comparison of chronic disease medicines", Geneva, Health Action International, WHO/UNICEF (2012), *Progress on Sanitation and Drinking Water: Joint Monitoring Programme update* 2012.

Glossary

ASEAN	Association of Southeast Asian Nations
ASI	Annual Survey of Industries
AYUSH	Ayurveda, Yoga and Unani, Siddha, naturopathy and Homeopathy
B2B	Business to business
BPL	Below poverty line
BRIICS	Brazil, Russia, India, Indonesia, China, South Africa
CCI	Cabinet Committee on Investment
CDS	Credit default swap
CEA	Central Electricity Authority
CENVAT	Central Value Added Tax
CGST	Central government Services Tax
CLA	Contract Labour Act
CPI	Consumer price index
CRAR	Capital to risk-weighted assets ratio
CST	Central sales tax
DBT	Direct Benefit Transfer
DMIC	Delhi-Mumbai Industrial Corridor
EME	Emerging market economy
EPL	Employment protection legislation
FDI	foreign direct investment
ESI	Employees' State Insurance
FII	Foreign institutional investment
FRBMA	Fiscal Responsibility and Budget Management Act
FSDC	Financial Stability and Development Council
FSLRC	Financial Sector Legislative Reform Commission
FY	Fiscal year
GDP	Gross domestic product
GHG	Greenhouse gas
GIA	Gender impact assessments
GOI	Government of India
GST	Goods and Services Tax
HMIS	Health Management Information System
ICRIER	Indian Council for Research on International Economic Relations
IDA	Industrial Dispute Act
IEA	International Energy Agency
IEO	Independent Evaluation Office
IFC	Indian Financial Code
IGMSY	Indira Gandhi Matritva Sahyog Yoja- Conditional Maternity Benefit Scheme
IGST	Integrated government Services Tax

IMF	International monetary fund
INR	Indian Rupee
ISCED	International Standard Classification of Education
LFPR	Labour force participation rate
LPG	Aadhaar system for the subsidy on cooking gas
MAT	Minimum Alternate Tax
MAT	Minimum Alternate Tax
MERCOSUR	Argentina, Brazil, Uruguay and Venezuela
MFI	Micro-finance institution
MIBID	Mumbai Interbank Bid Rate
MPC	Monetary Policy Committee
MSP	Minimum Support Prices
MWCD	Ministry of Women and Child Development
NABARD	National Bank for Agriculture and Rural Development
NCAER	National council of applied economic research
NEC	Not elsewhere classified
NGO	Non-governmental organisation
NHM	National Health Mission
NRHM	National Rural Health Mission
NIMZ	National investment and manufacturing zone
NMP	National Manufacturing Policy
NPL	Non-performing loans
NREGS	National Rural Employment Guarantee Scheme
NSDC	The National Skill Development Corporation
NSSO	National Sample Survey Office
OMC	Oil Marketing Companies
OOP	Out-of-pocket
PISA	Programme for International Student Assessment
PMR	Product market regulation
PPI	Private Participation in Infrastructure
PPP	Public-Private Partnership
R&R	Rehabilitation and resettlement
RBI	Reserve Bank of India
RCA	Revealed comparative advantage
RSBY	Rashtriya Swasthya Bima Yojana, (the largest government sponsored health insurance scheme)
RTE	Right of Children to Free and Compulsory Education Act
SEB	State electricity board
SEZ	Special Economic Zones
SGST	State government Services Tax
SHG	Self-help group
SIA	Social Impact Assessment
SIGI	Social Institutions and Gender Index
SLR	Statutory Liquidity Ratio
T&D	Transmission and distribution
TARC	Tax Administration Reform Commission
TFP	Total factor productivity

UFA	Unified Financial Authority
USD	United States Dollars
VAT	Value-added tax
VET	vocational education and training
WEF	World Economic Forum
WHO	World Health organisation
WPI	Wholesale Price Inflation
WTO	World Trade Organisation

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