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Basic statistics of India, 2018*
(Numbers in parentheses refer to the OECD average)**

LAND, PEOPLE AND ELECTORAL CYCLE					
Population (million, 2017)	1 339.2		Population density per km² (2017)	450.4	(37.7)
Under 15 (%, 2017)	27.8	(17.9)	Life expectancy (years, 2017)	68.8	(80.3)
Over 65 (%, 2017)	6.0	(16.8)	Men (2017)	67.3	(77.7)
International migrant stock (% of population, 2015)	0.4	(10.0)	Women (2017)	70.4	(83.0)
Latest 5-year average growth (%)	1.2	(0.6)	Latest general election		May-2019
ECONOMY					
Gross domestic product (GDP)			Value added shares (%, 2017)		
In current prices (billion USD)	2 719.5		Primary sector	17.2	(2.4)
In current prices (billion INR)	185 689.6		Industry including construction	29.3	(27.3)
Latest 5-year average real growth (%)	7.5	(2.3)	Services	53.5	(70.3)
Per capita (000 USD PPP, 2017)	7.0	(44.8)			
GENERAL GOVERNMENT					
	Per cent of GDP				
Expenditure	27.7	(41.2)	Gross financial debt (OECD: 2017)	67.2	(109.6)
Revenue	21.8	(38.2)			
EXTERNAL ACCOUNTS					
Exchange rate (INR per USD)	68.28		Main exports (% of total merchandise exports)		
PPP exchange rate (USA = 1)	18.18		Manufactured goods	25.3	
In per cent of GDP			Machinery and transport equipment	17.7	
Exports of goods and services	19.6	(56.1)	Chemicals and related products, n.e.s.	15.6	
Imports of goods and services	23.3	(52.0)	Main imports (% of total merchandise imports)		
Current account balance	-2.4	(0.3)	Mineral fuels, lubricants and related materials	32.5	
Net international investment position	-15.5		Machinery and transport equipment	21.4	
			Manufactured goods	13.9	
LABOUR MARKET, SKILLS AND INNOVATION					
Employment rate (aged 15 and over, %)	46.8	(68.4)	Unemployment rate, Labour Force Survey (aged 15 and over, %)	6.0	(5.3)
Men	71.2	(76.0)	Youth (aged 15-24, %)	10.4	(11.1)
Women	22.0	(60.9)	Tertiary educational attainment (aged 25-64, %, 2011, OECD: 2017)	10.6	(36.9)
Participation rate (aged 15 and over, %)	49.8	(59.9)	Gross domestic expenditure on R&D (% of GDP, 2015, OECD: 2016)	0.6	(2.5)
ENVIRONMENT					
Total primary energy supply per capita (toe, 2016, OECD: 2017)	0.7	(4.1)	CO2 emissions from fuel combustion per capita (tonnes, 2016)	1.6	(9.0)
Renewables (%, 2016, OECD: 2017)	24.2	(10.2)	Renewable internal freshwater resources per capita (1 000 m³, 2014)	1.1	
Exposure to air pollution (more than 10 µg/m³ of PM2.5, % of population, 2017)	99.9	(58.7)			
SOCIETY					
Income inequality (Gini coefficient, 2011, OECD: 2015)	0.495	(0.315)	Public and private spending (% of GDP)		
Relative poverty rate (%, 2011, OECD: 2015)	19.7	(11.8)	Health care (2015, OECD: 2017)	3.9	(8.8)
Median disposable household income (000 USD PPP, 2011, OECD: 2015)	2.5	(23.3)	Pensions (OECD: 2015)	0.9	(8.5)
Share of women in parliament (%)	11.8	(29.7)	Education (public, 2017)	3.1	(4.5)
Net official development assistance (% of GNI, 2017)	0.1	(0.4)			

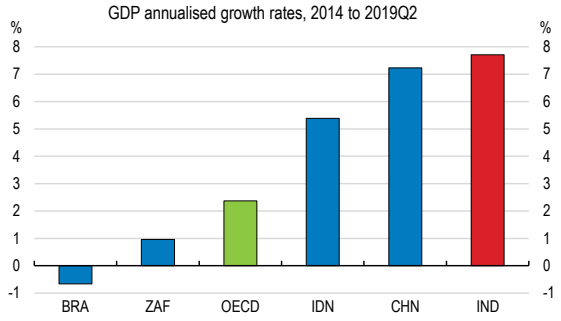
* The year is indicated in parenthesis if it deviates from the year in the main title of this table.
** Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 80% of member countries.
Source: Calculations based on data extracted from databases of the following organisations: OECD, CEIC, International Energy Agency, International Labour Organisation, International Monetary Fund, World Bank.

Executive summary

Promoting solid and sustainable growth

Income has increased fast in recent years but private investment has lagged behind and, recently, activity has slowed. Growth has been driven mainly by consumption. Industrial production and corporate investment have yet to adjust fully to measures to improve the ease of doing business and banks' ability to lend.

Figure A. Income is growing steadily



Source: OECD, Analytical database.

StatLink http://dx.doi.org/10.1787/888934046988

Inflation has declined, but lending rates have not adjusted fully. The inflation-targeting regime adopted in 2016, combined with lower oil prices and improved functioning of agricultural markets, has brought down inflation from close to 10% in 2013 to below the 4% target since August 2018. Interest rates adjusted for inflation suggest still slow transmission and some room for accommodation in monetary policy.

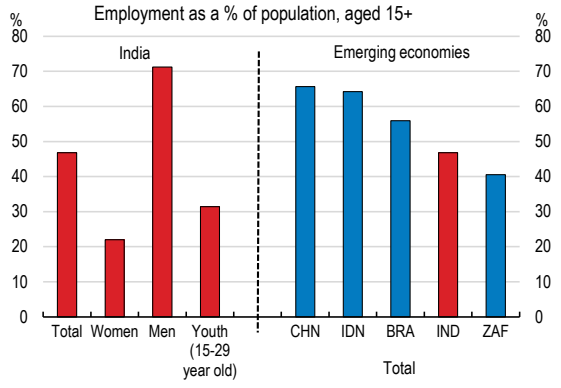
The public debt-to-GDP ratio remains relatively high. The central government deficit and, more recently, state deficits have declined. However, off-budget financing has increased. Public sector borrowing needs have risen, at close to 8% of GDP according to OECD estimates (which exclude surplus from public financial corporations), potentially putting pressure on smaller companies' borrowing costs.

Ambitious reforms have been passed; implementing them fully would boost incomes and wellbeing. The Goods and Services Tax (GST) has replaced a pile of indirect taxes, reducing domestic trade barriers and input costs. Together with cuts in corporate taxes, it should spur investment and productivity. Measures to simplify tax forms and processes are reducing compliance costs. Further streamlining GST exemptions and reducing the number of rates would promote tax compliance. Reforms in the real estate sector have increased transparency and governance to protect homebuyers. The Insolvency and Bankruptcy Code has reduced non-performing loans and should speed up the reallocation of resources from low productivity firms and sectors to more promising ones. Complying fully with the Code timelines would require increasing further the number of judicial professionals and benches.

Addressing social challenges

The creation of quality jobs, under-employment and income inequality remain challenges. The employment rate has declined and is low, especially for women. When women have a job, they are often paid less. Labour laws are complex; some are particularly stringent for industrial firms, and most of them kick in when firms grow, deterring formal job creation. In practice, most workers are not covered by core labour laws and social security. Recent efforts to streamline labour regulations into four codes are welcome. To boost job creation and thus improve equity, efforts to modernise labour regulations should continue.

Figure B. The employment rate is low



Source: National Statistical Office; World Bank.

StatLink http://dx.doi.org/10.1787/888934047007

The government has launched various social welfare policy initiatives and envisages others.

To eliminate open defecation, almost 100 million toilets have been built since October 2014, improving health outcomes. To empower women, a programme to reduce female infanticides and educate girls was introduced. Electricity reached all villages in 2018, though not all houses, and electricity outages remain frequent in some areas. The government has promised to bring piped drinking water to every home by 2024 and will accelerate the rural roads programme to better connect the poor in remote areas. The government has announced more generous hospital and retirement insurance schemes for informal workers and the creation of primary health care centres. The new income-support scheme for farmers, which comes over and above subsidies on fertilisers and other inputs, will reduce poverty in rural areas but may leave behind tenant farmers and labourers.

Access to public services is getting better but there is scope to improve their quality. The reform of price subsidies has made household support fairer. However, public resources invested in health and education are low. Training more doctors, nurses and teachers is urgent to raise wellbeing and productivity. The costs could be financed by increasing revenue from income and property taxes. There is also scope to continue to target subsidies better through direct cash transfers.

Seizing opportunities from enhanced participation in the global economy

India's participation in the global economy is high and rising, with outstanding performances in some services. Exposure to trade has surged after the reduction in tariff barriers in the early 1990s. In the information and technology sector, India's export market share has boomed, creating many skilled employment opportunities and attracting foreign investment. India is also performing well for some complex, skill- and capital-intensive, goods such as pharmaceuticals and transport vehicles. The diaspora – the largest in the world – is an asset in developing new markets.

Labour-intensive exports are lagging behind. In the garment sector, India's market share in world exports has stalled, despite clear comparative advantages and know-how.

Figure C. India's export market share in textile could rise further

Note: Low-technology exports of textile, garment and footwear.
Source: OECD calculations based on UNCTAD data.
StatLink http://dx.doi.org/10.1787/888934047026

Addressing domestic structural bottlenecks is key to supporting India's competitiveness. Efforts to improve the quality and reliability of electricity provision, roads and ports should continue. Further modernising labour regulations will allow firms to grow and exploit economies of scale. India has improved the ease of doing business and is loosening restrictions on foreign investment. Extending success stories from states and special economic zones to the rest of the country would promote further India's competitiveness and attract investors.

Further reduction in trade barriers would boost manufacturing exports and jobs and improve living standards. Import duties disproportionately affect low-income households' purchasing power and weigh on firms' competitiveness. Although India has preferential trade agreements, their depth is limited.

Restrictions to services trade imposed both by trading partners on India's exports and by India on its imports are high. Because services are key inputs for other sectors, restrictions have a negative impact, in particular on manufacturing and more widely on income. OECD estimates suggest that India would be the single largest beneficiary of a multilateral cut in services trade restrictions. In the absence of a multilateral

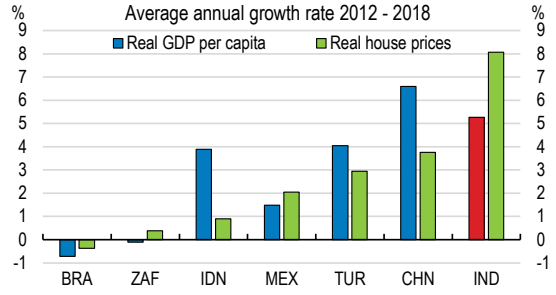
move, OECD simulations suggest that modernisation of India's regulations affecting services trade would contribute to the success of the *Make in India* initiative despite restrictions in its exports in partner markets. However, political economy considerations are a constraint.

Providing better housing for all

Despite the implementation of many housing programmes, the housing shortage remains and ongoing urbanisation will add new pressures. Many households still live in precarious conditions. In 2015, about 40 million households faced housing shortages according to government estimates. Population growth will add pressure on the housing market, in particular in urban areas. At the same time, many dwellings are vacant.

Affordability is a key concern. Housing prices are relatively high, pushed up by high construction and transaction costs and stringent zoning regulations in the context of a high population density. Under the *Housing for All* programme, the government aims to provide housing for all people by 2022. Access to finance is difficult, especially for low-income earners. A key concern is how to provide housing to the extreme poor.

Figure D. Affordability is more an issue in India than in other countries



Note: Data for India relate to fiscal years.
Source: OECD.

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The housing market has excess demand for low-end dwellings and an oversupply of high-end housing, especially in urban areas. Despite progress in simplifying regulations, land acquisition remains complicated, partly reflecting inefficiencies in land titling. This often adds to delays and costs for housing projects. Rigid building codes also constrain supply, especially in city centres. The floor space index imposes tight limits on the height of buildings, resulting in mass-produced homes on peri-urban land far from jobs, and thus more traffic congestion and pollution. Integrating housing policies with other urban policies is key.

Developing the rental market would improve mobility. Most government initiatives have favoured ownership. Rental housing is key to spatial mobility as it helps people move closer to the places where they can find a job. The rental market is small because of rent controls and renter protection laws that, while making housing more affordable, limit returns to investment and incentives for maintenance. The government has released the draft Model Tenancy Act 2019. States are strongly encouraged to implement it. Developing social rental housing would help expand the rental market and address the needs of migrants, youth and low-income people.

Greening growth to improve wellbeing and limit climate change

Air pollution is high and will increase in the absence of bold action. India is vulnerable to climate change. Most Indians are exposed to high air pollution. Out of the ten cities most affected by air pollution in the world, as measured by the concentration of fine particulates, nine are Indian. The poor often burn wood, dung and crop residues to cook, contributing to indoor and outdoor air pollution – a major cause of premature deaths, also harming child development. Power plants, industry, transport and agriculture also contribute.

Energy consumption may more than double by 2040 and the government has committed to reach 40% of renewables by then. Investment in renewable electricity generation, mostly from solar and wind, has topped investment in fossil fuel-fired generation and the government has committed to expand it further. The government has introduced a bio-fuel programme and revised technical standards for thermal power plants and vehicles. It also subsidises clean gas connections for the poor.

MAIN FINDINGS	KEY RECOMMENDATIONS
Further improving macroeconomic policies and governance	
There is scope to raise more personal income tax revenue to finance much needed investment in infrastructure and higher public spending on health and education and to adhere to the set target on public debt to GDP.	Raise more tax revenue by removing the tax expenditures that most benefit the rich, freezing nominal personal income tax brackets and improving compliance.
Government deficit to GDP has declined but various public spending programmes are partly financed off-budget. Contingent liabilities are looming.	Improve transparency on off-budget transactions and contingent liabilities, e.g. by creating an independent fiscal council.
Inflation targeting, combined with lower oil prices and partial deregulation on the food market, have brought down inflation, which is now below target. Monetary policy transmission remains incomplete.	Monetary policy should remain accommodative as long as inflation is set to remain comfortably close to the target. Reduce the spread between administered rates on small savings and market rates to improve monetary policy transmission.
Corruption has declined but remains high. The lack of a comprehensive legislation for public procurement, consistent across levels of government, is an issue.	Harmonise legislation on public procurement across the government.
Boosting investment, productivity and growth	
Resolution delays under the Insolvency and Bankruptcy Code are frequent.	Continue to open more benches and employ more and better trained professionals in commercial courts.
Financial risks, in particular non-performing loans in public banks, have declined but remain high. Some non-banking financial companies, partly financed by banks, suffer from an asset-liability mismatch.	Closely monitor asset quality of non-banking financial companies.
Addressing social challenges	
Labour regulations are complex and discourage firms to grow and create quality jobs. Job creation has been slow and most jobs are in the unorganised/informal sector without formal contract and social security coverage. Labour-intensive exports are lagging behind.	Introduce a simpler and more flexible labour law which removes disincentives for firms to create jobs.
The population health status lags behind the average increase in income. Public spending on health care stands below 1½ per cent of GDP. The number of doctors and nurses is low by international standards, in particular in rural areas.	Train more general practitioners and nurses.
The new income-support scheme for land-owning farmers will help reduce poverty but leaves behind tenant farmers and labourers. It comes over and above fertiliser subsidies which affect soil and water quality and health.	Extend the new income-support for farmers to tenant farmers and labourers and reduce input subsidies to the agricultural sector, in particular fertilisers.
Improving participation in the global economy	
Tariffs harm more low-income households and weigh on export competitiveness. Even in the absence of a multilateral trade agreement, India would benefit from a reduction in trade tariffs.	Strive for a multilateral trade agreement or, as a second best, further reduce tariffs.
Manufacturing exports embody a high share of services. Reducing restrictions to services trade would promote manufacturing exports and job creation.	Further reduce restrictions to services trade.
The quality and reliability of transport and electricity networks have improved but transport times are still long and electricity outages are an issue in some regions, weighing on the competitiveness of the manufacturing sector.	Invest further to improve electricity provision, roads and ports.
Enhancing housing conditions	
Property rights are weak as land records do not guarantee ownership, constraining housing supply.	Continue to improve clarity on property ownership by extending the use of a unique property ID and geo-tagging, and by shifting to a system of registered property titles (as opposed to sale deeds) as the primary evidence of ownership.
Rent controls are still in place in many states. They prevent the development of the rental market as they lower return to investment and incentives for maintenance for owners.	Ease rent controls by aligning states' rent regulation to the 2019 central government's Model Tenancy Act.
Land use regulation is stringent, limiting affordable housing supply.	Relax the Floor Space Index to allow the construction of higher buildings.
Housing shortage is high and the urbanisation will put increasing pressure	Accelerate the completion of the Housing for All scheme in urban areas
Promoting green growth	
Most of the Indian population is exposed to high outdoor and indoor pollution. Household energy use is the biggest contributor.	Deploy efficient stoves to those households that will not have access to electricity or gas within the next 10 to 20 years.
Energy consumption per capita is low and will increase steadily.	Further increase the share of renewable energy in meeting energy needs.
Coal-fired power contributes to air and water pollution and water scarcity. Building new coal-fired power plants risks locking in emissions over the long term.	Gradually raise the tax on coal and use the additional revenue to compensate low-income households.

Key policy insights

Economic growth has been strong, but social and governance challenges remain

Income is converging fast towards levels in other emerging market economies

India has been the fastest growing G20 economy since 2014 (Figure 1). Although GDP per capita in PPP terms still stood at 56% of the average for Brazil, India, Indonesia, China and South Africa (and 17% of the OECD average) in 2018, the pace of convergence has accelerated. India has become a key player in the global economy, with outstanding export performance in some sectors, including information and technology services and pharmaceuticals (Chapter 1).

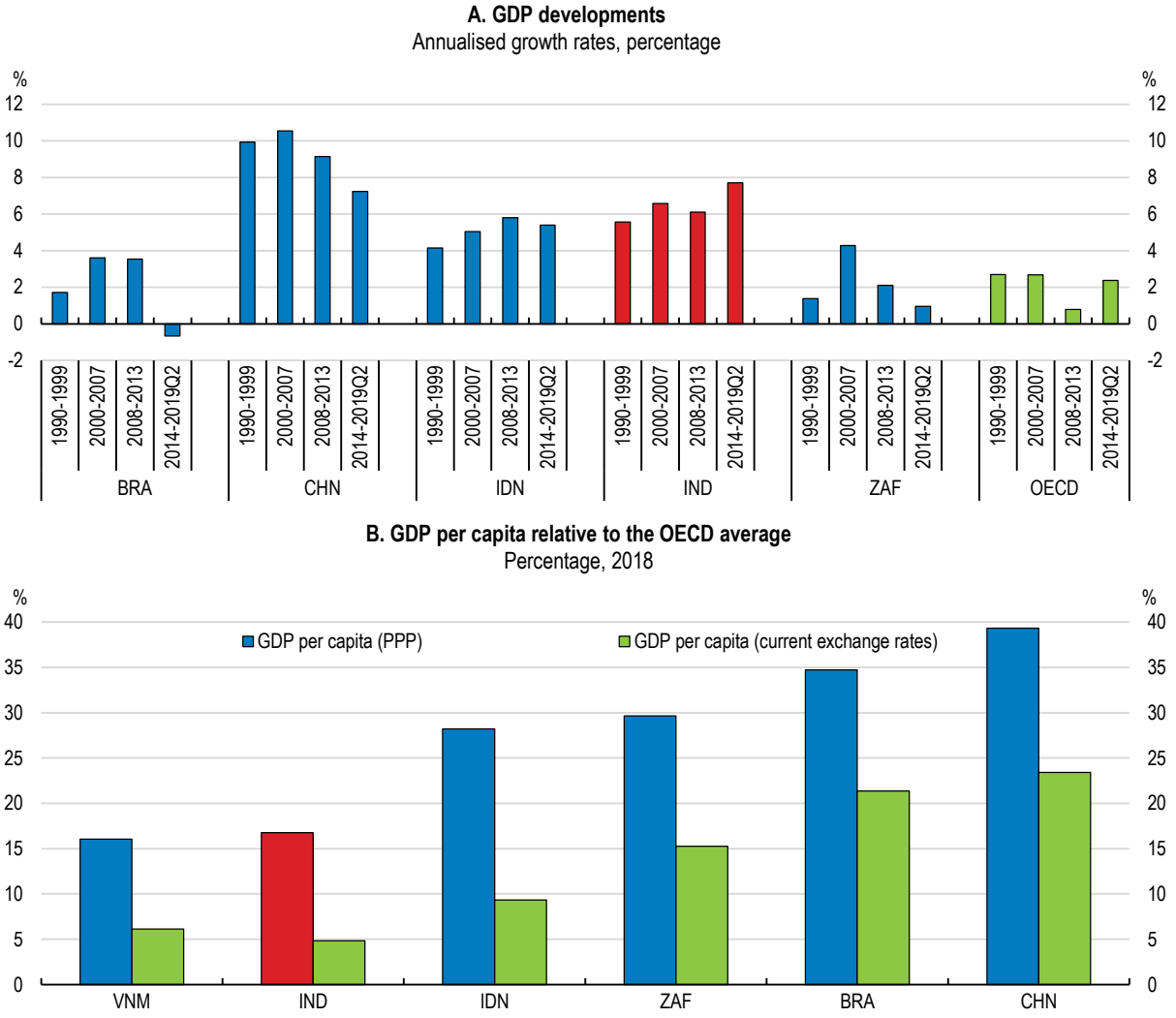
Significant reforms have been undertaken since 2014 to boost economic activity. Combined with subdued oil prices, they have supported output growth, put a break on inflation and reduced the fiscal and current account deficits. Key reforms since the last *OECD Economic Survey of India* (OECD, 2017[1]) include:

- The Goods and Services Tax (GST), introduced in 2017, has replaced myriad indirect taxes that created internal barriers to trade and weighed on productivity. Even though GST implementation has had some short-term disruptive effects, it is expected to bring significant benefits over the longer term.
- A new corporate income tax structure has been introduced with reduced rates and no exemption; for new manufacturing companies, a low income tax regime will be in place up to 2023.
- The Insolvency and Bankruptcy Code, implemented in 2016, imposes a faster recognition and resolution of bankruptcies and speeds up the reallocation of resources from declining firms and industries to more promising ones.
- Non-performing loans as a share of total assets have started to decline. To restore the health of the banking system, the Reserve Bank has taken measures to force banks to swiftly recognise and resolve non-performing loans, while the government has recapitalised public banks.
- Reforms in the real estate sector have increased transparency and governance to protect homebuyers.
- Infrastructure is improving as the building of railways, highways, rural roads and electricity generation capacities gathers steam and ports are modernised.
- The ongoing subsidy reform – replacing price subsidies by direct cash transfers to households via their bank account and using a unique identification number – makes household support more equitable and efficient. It also promotes financial inclusion, reduces market distortions and generates public savings.
- To promote reform and the sharing of best practices across states, policies and outcomes at the state level are assessed more systematically, in particular those related to the business environment, labour regulations, health care, water

management and education. This competitive federalism has helped promote structural reforms in many states.

- The government is encouraging digitalisation to support the formalisation of the economy and reduce the scope for corruption. To promote the move from cash to digital payments, the government has introduced incentives and supported the underlying infrastructure. Government formalities can increasingly be completed online.

Figure 1. GDP has grown steadily but income per capita remains low



Note: In Panel B, the relative difference is measured to the unweighted OECD average.
Source: OECD, Analytical database.

StatLink http://dx.doi.org/10.1787/888934047064

Structural reforms raise productivity, investment and incomes although in the short-term they may have economic and political costs. Total investment has grown fast since late 2017 and the investment-to-GDP ratio is recovering. Large public sector projects and housing investment under the Housing for All initiative (Chapter 2) have been key drivers.

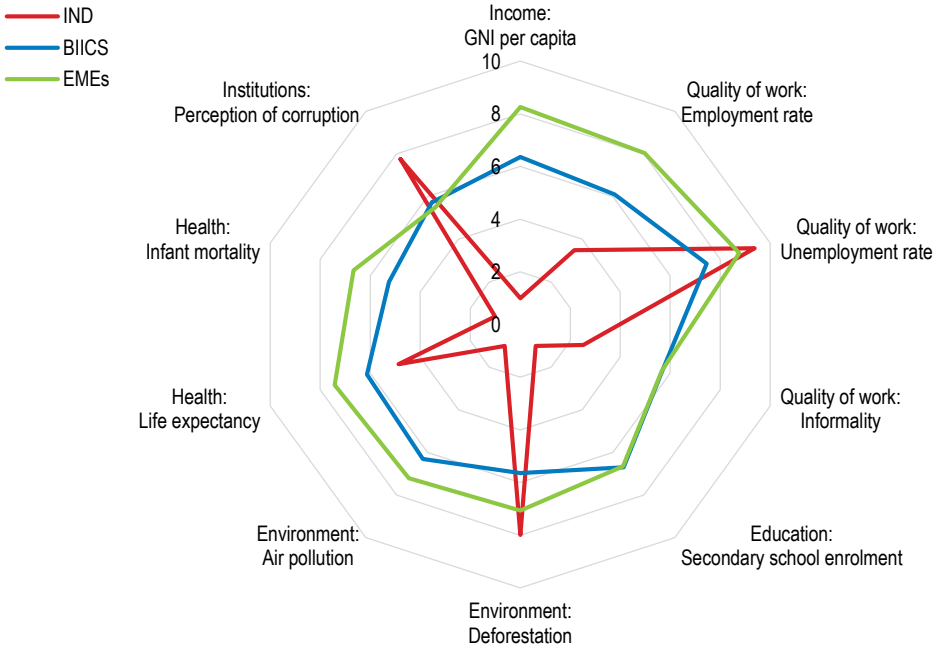
Corporate private investment has grown slower, due to balance sheet stress, coupled with difficulties to acquire land and still relatively complex administrative processes and regulations. However, the full impact of past structural reforms is yet to deliver.

Addressing social challenges and improving wellbeing

Although income is a key component of the population wellbeing, other dimensions matter (Figure 2). Meeting the aspirations of the rapidly growing population on the labour market is challenging. The employment rate has declined and, among those working, there are persistent gaps in working conditions and wages between the organised/formal and unorganised/informal sectors. The gender gap is also large, with a low female labour market participation rate and, for those women who participate, a high unemployment rate (OECD, 2014[2]).

Figure 2. Challenges remain to improving wellbeing

Normalised from 1 to 10 (best)



Note: BIICS refers to the simple average across Brazil, India, Indonesia, China, and South Africa. Indicators are scaled from 1 to 10, with 1 representing the worst performance across all BIICS, and 10 representing the best. EMEs refers to a simple average of BIICS countries, plus Malaysia, Thailand and Viet Nam.
Source: OECD, Analytical database; International Labour Organisation; Transparency International Corruption Perception Index; UNESCO Institute of Statistics; World Bank, World Development Indicators database; and World Health Organisation. Employment data for India are from the MOSPI Periodic Labour Force Survey.

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Although many millions of people have been taken out of poverty in past decades, inequality and poverty remain a challenge and alter wellbeing. The latest official data on poverty date back to the 2011-12 household survey. Alternative, albeit partial, sources suggest that income and wealth inequality has shown no clear sign of decline from its relatively high level (Figure 3). According to OECD estimates, it took, on average, about

seven generations for the offspring of a low-income family to reach the average income in the late 2000s (OECD, 2018[3]) – social mobility in India is higher than in many emerging economies but still lower than in most OECD countries (Figure 3, Panel E). Wealth is heavily concentrated, and the richest 1% of Indians hold over half of India's wealth. Although the rise in inequality may be part of the development process itself (Kuznets, 1955[4]; Bourguignon, 2015[5]), the absence of an inheritance tax and low recurrent taxes on immovable property and personal income taxes tend to perpetuate inequality (OECD, 2017[1]).

Despite important reforms in social programmes and transfers from the central government to the states, spatial disparities in income and access to public services are large. Dispersion in output per capita across states is growing (OECD, 2017[1]), with states along the coast better positioned to attract investment and participate in global value chains. For instance, the average income per capita in Bihar, one of the poorest states, is almost nine times lower than for Delhi residents (Figure 4). The large rural/urban income divide further adds to spatial inequality, with difficult access to public services such as health in rural areas.

To address these pressing social challenges, the central government and several states have announced reforms, in particular:

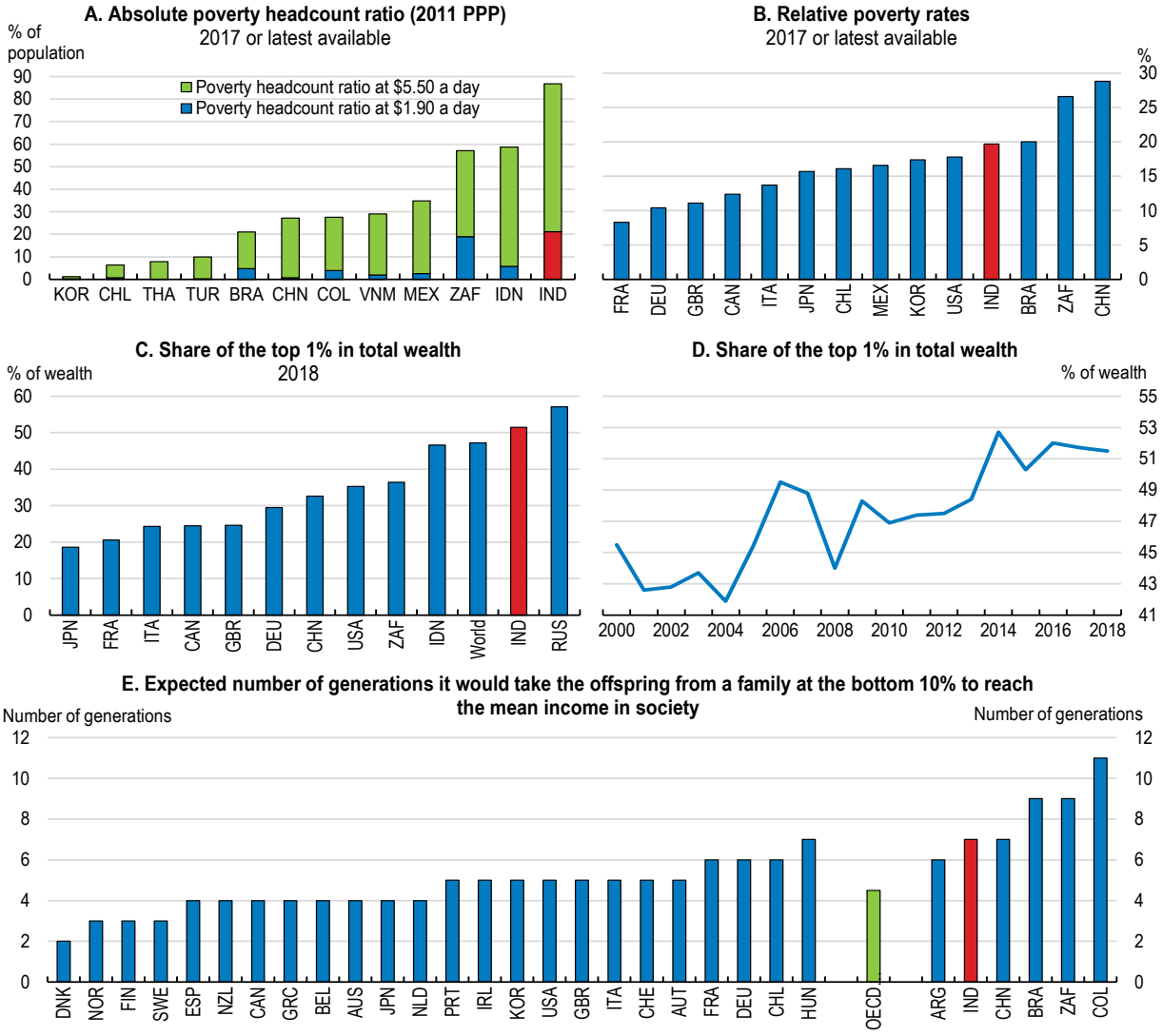
- The Housing for All initiative, launched in 2015, subsidises low-income households' access to a brick and cement house with gas, water, electricity and a toilet (Chapter 2).
- Electricity reached every village in 2018, and half a billion people have gained access to electricity since 2000 (International Energy Agency, 2017[6]). Improved access to electricity reduces time spent collecting fuel (wood or cow dung), mostly by women. Clean cooking facilities reduce the burning of solid fuels, a major risk for chronic obstructive pulmonary diseases.
- Under the Clean India initiative, more than 100 million toilets have been built since October 2014 to reduce open defecation and the prevalence of enteric diseases, which are particularly pernicious for young children.
- An income-support scheme for small farmers was introduced in February 2019 and extended to all farmers in May 2019. A pension scheme for farmers has been launched in August 2019. Several states are also experimenting basic income schemes for farmers, and several states have written off farmers' debt.
- The National Health Policy, announced in 2017, aims at doubling public spending on health to 2.5% of GDP. In April 2018, the government launched a hospital insurance scheme to cover 100 million poor and vulnerable families (i.e. about 500 million individuals) and announced the creation of 150 000 wellness and primary health care centres over a 5 years period.
- A new pension insurance is being introduced for workers from the unorganised/informal sector.

Against this backdrop, the main messages of the Survey are:

- Reviving private investment and upscaling infrastructure investment are key to sustaining strong growth. Achieving this will require modernising administrative processes and product market regulations and improving access to finance by adhering to the public debt target and by reducing non-performing loans.

- Reducing inequality will depend upon promoting quality job creation by modernising labour regulations. It will also require implementing the social welfare agenda. This should be financed by raising additional tax revenue and reviewing existing support programmes.
- Enabling exports to become a new growth engine would require further improving infrastructure and liberalising foreign trade and investment.

Figure 3. Inequality is high



Note: In Panels A and B, data for India refer to 2011. Panel B displays relative poverty rates (i.e. income below 50% of the medium income) after taxes and transfers. In Panels C and D, wealth consists of individuals' financial assets at marketable value plus non-financial assets (principally housing and land) less debts. For Panel E, see OECD (2018) *A Broken Social Elevator? How to Promote Social Mobility*.
Source: OECD, Income Distribution and Poverty database; OECD (2018) *A Broken Social Elevator? How to Promote Social Mobility,* World Bank, World Development Indicators database; Credit Suisse.

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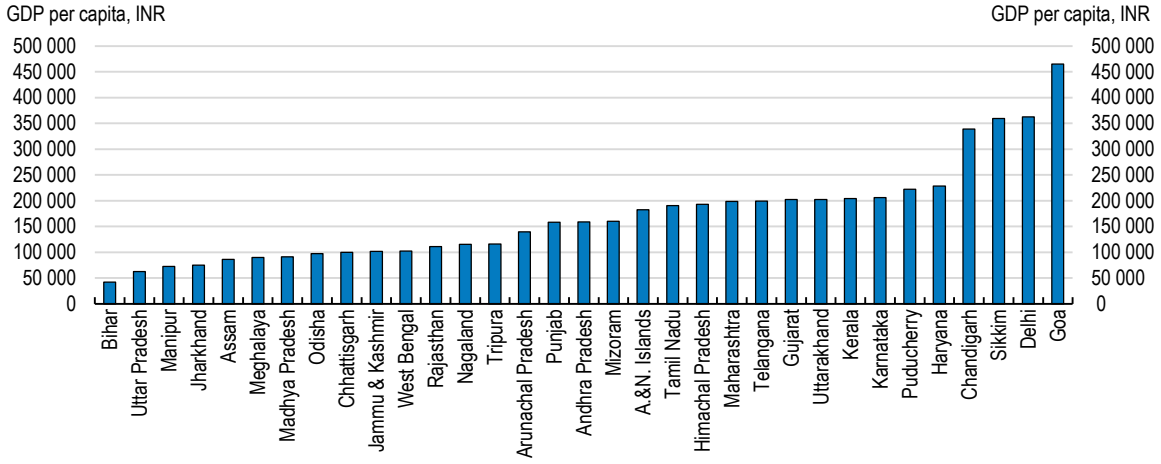
Figure 4. Income per capita varies considerably across states

GDP per capita, 2017-18



Note: For the states and union territories of Andaman & Nicobar Islands, Assam, Chandigarh, Goa, Gujarat, Haryana, Jammu & Kashmir, Kerala and Nagaland, population numbers from 2017 were used.
Source: OECD calculations based on data from CEIC.

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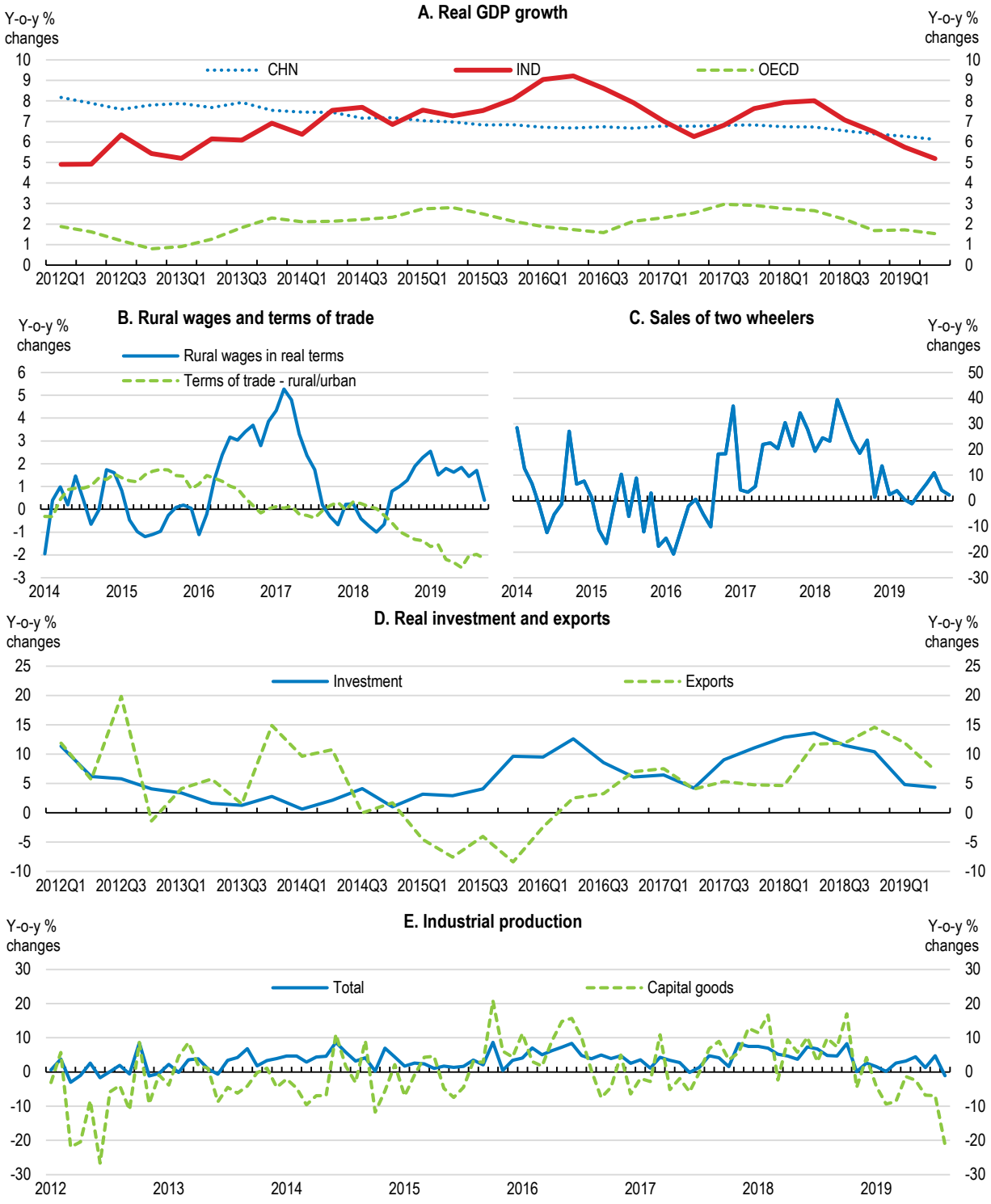
India remains a growth champion despite recent slowdown

Growth has slowed since mid-2018, from a hefty pace, reflecting the sharp deceleration in private consumption. Changes in insurance regulations and liquidity stress in the non-banking financial companies (NBFCs) have affected car sales while the shutdown of one major airline and volatility in fuel prices have weighed on consumer confidence. Rural consumption has further suffered from subdued wages in the rural areas and from a deterioration in rural/urban terms of trade as agricultural prices adjusted down with good harvests (Figure 5). Uncertainty ahead of the 2019 parliamentary elections and liquidity tensions for NBFCs since late 2018 have dragged down corporate investment especially in the construction sector. Industrial production, in particular of capital goods, and related imports have slowed. Meanwhile, exports have proved relatively resistant to the slowdown in global growth, with export orders holding steady. The Goods and Services Tax (GST) administration has continued to improve, enabling exporters to get faster tax refunds, while ongoing efforts to improve trade infrastructure, logistics and processes are starting to pay off.

Inflation has dropped since 2014, aided by lower oil prices, moderation in food inflation and the flexible inflation targeting framework adopted in 2016. The decline in food price inflation – food accounts for about half of the consumption basket – has been steep (Figure 6). It reflects increasing supply thanks to good monsoons, new irrigation programmes and a moderate increase in minimum support prices. Structural factors have also played a role, farmers have been given better access to markets for fresh produce with enhanced reliance on digital markets. For other products too, competition has intensified thanks to the implementation of the GST, which has made India a more unified market, and to measures to improve the ease of doing business and reduce barriers to entry.

Figure 5. Growth has slowed from a hefty pace



Note: The rural/urban terms of trade measure the change in rural relative to urban consumer prices.
Source: Labour Bureau Government of India; Indian Automobile Manufacturers; National Statistical Office; OECD, Analytical database.

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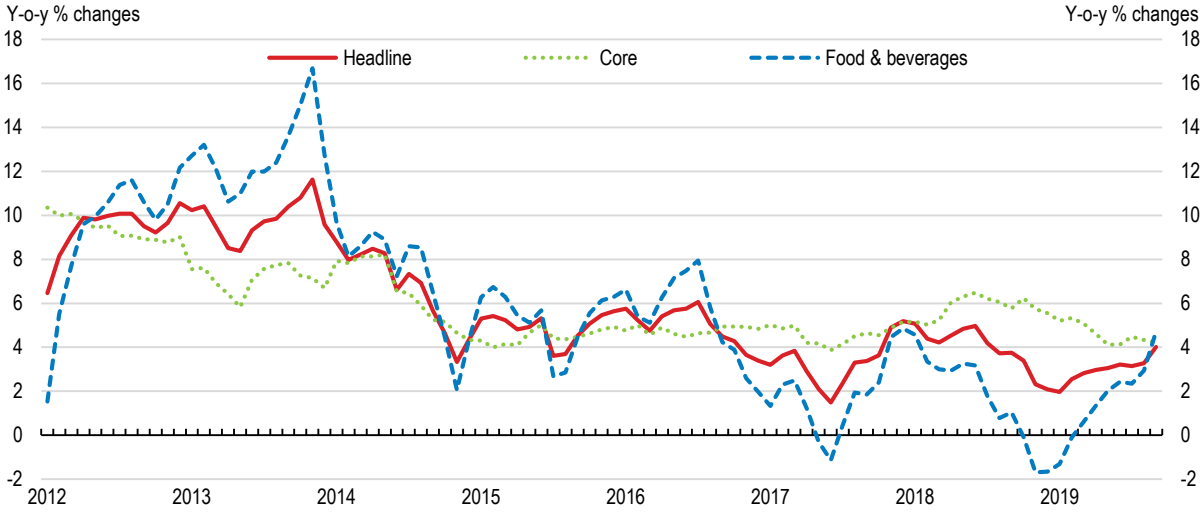
Figure 6. Headline inflation remains below the 4% target



Note: Headline inflation is measured by the change in the consumer price index. Core inflation excludes food, beverages and fuel.
Source: National Statistical Office.

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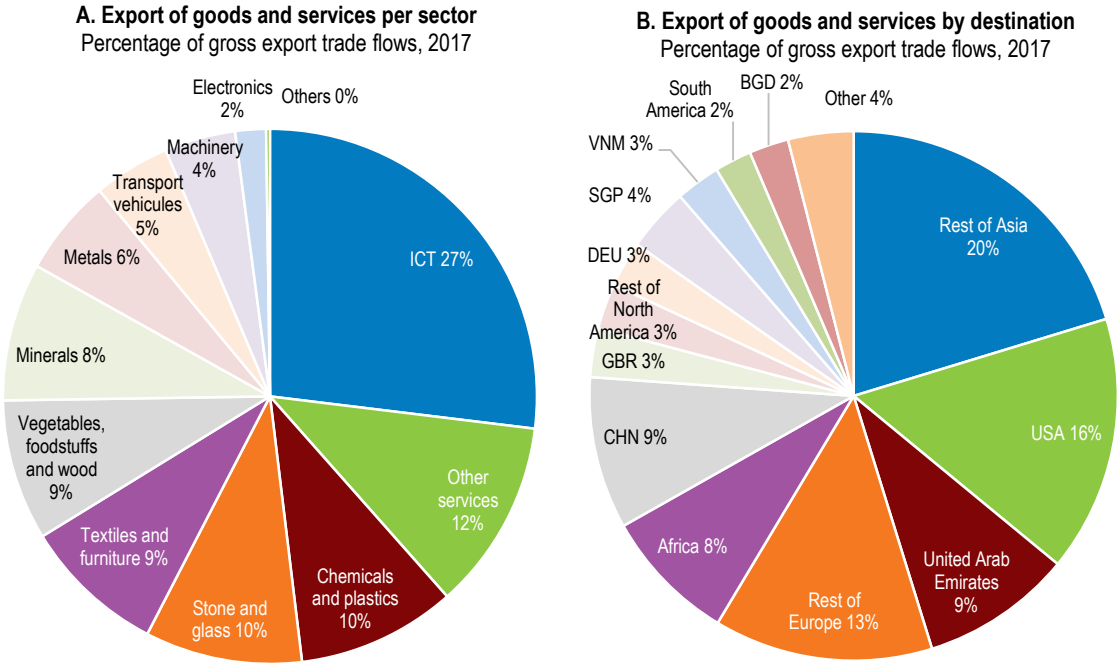
The current account deficit has fluctuated below 2½ per cent of GDP, well below the level in 2012-13, despite the growth differential between India and other large economies. Export buoyancy partly reflects the specialisation of India in fast growing sectors (especially services) and destinations (Figure 7). Moderate oil prices – India is a net importer – have also helped, together with hefty remittances from abroad – India is the largest recipient in the world. Foreign exchange reserves stand at a healthy level, at over 8 months of imports of goods and services and almost four times short-term external debt. Overall, India's external vulnerability remains limited, with a low level of external debt compared to many EMEs and predominantly long-term maturities.

Figure 7. India has specialised in fast growing markets



Source: Atlas of Economic Complexity, Centre for International Development, Harvard University.

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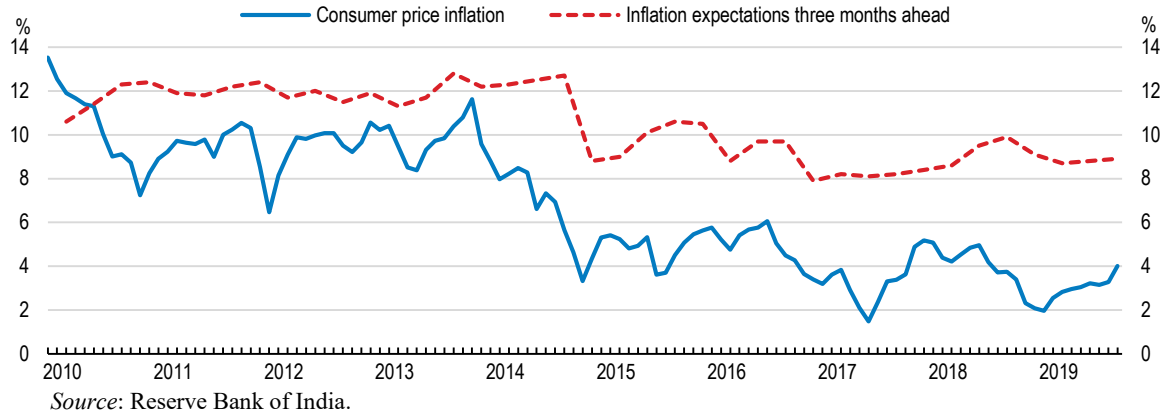
Some room to adjust the policy stance and mix

Monetary policy: some room for further easing

With inflation below the 4% target since August 2018, the Reserve Bank of India (RBI) has cut repo rates and eased bank liquidity (Figure 8). The Monetary Policy Committee sees further room for monetary policy to remain accommodative. Given uncertainty around food price developments and sticky inflation expectations, these cuts should remain prudent.

Figure 8. There is some room for further cuts in repo rates



Source: Reserve Bank of India.

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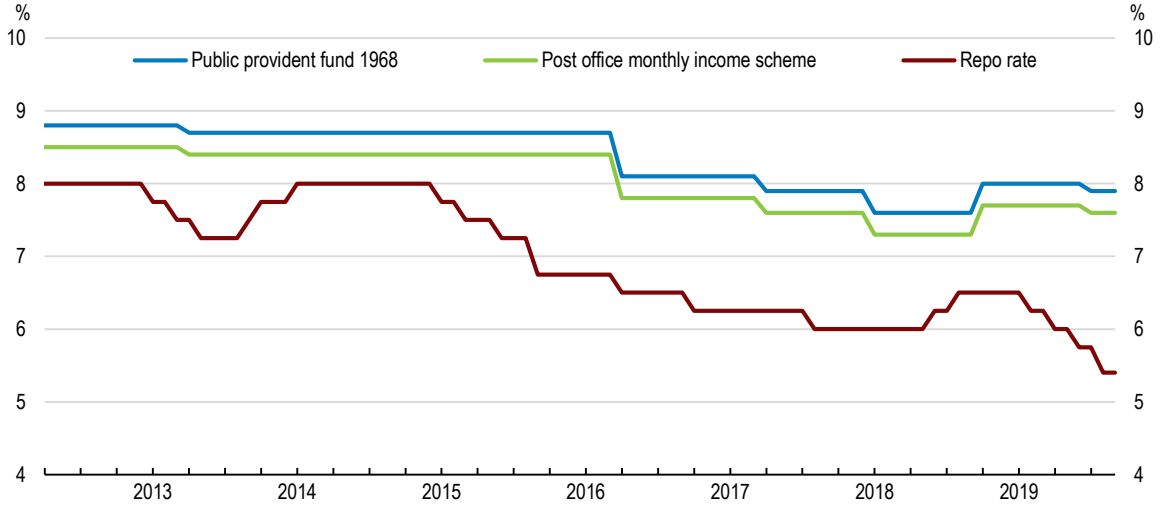
Lending rates have tended to adjust only partially, and with a lag, to the decline in policy rates despite recent measures to speed up transmission. Since 2016, banks were required to set their benchmark lending rates based on the marginal cost of funds but transmission has remained slow. The large share of non-performing loans (see below), which weigh on banks' profitability, and high public sector borrowing have put pressures on lending rates, hampering the full transmission of cuts in policy rates. Spreads on interest rates on small savings schemes have also increased (Figure 9).

To hasten transmission to loans for personal, retail and small and medium enterprises, the RBI decided in August 2019 to implement the 2017 recommendation of an internal study group which has made it mandatory for banks to link all new floating rate loans to an external benchmark from October 2019 (RBI, 2017[7]). Three external benchmarks are proposed: the policy repo rate and the government three-month and six-month Treasury bill rates. To help improve monetary transmission further and limit off balance sheet financing, the spread between administered rates on small savings and market rates should be reduced.

Figure 9. Recent cuts in repo rates have not been fully reflected in deposit rates for small savings schemes



Note: Small savings schemes are government-operated deposits in post office and provident funds which are used exclusively to finance central and state government debt. Interest rates on deposits from small savings schemes are set by the government.
Source: Reserve Bank of India.

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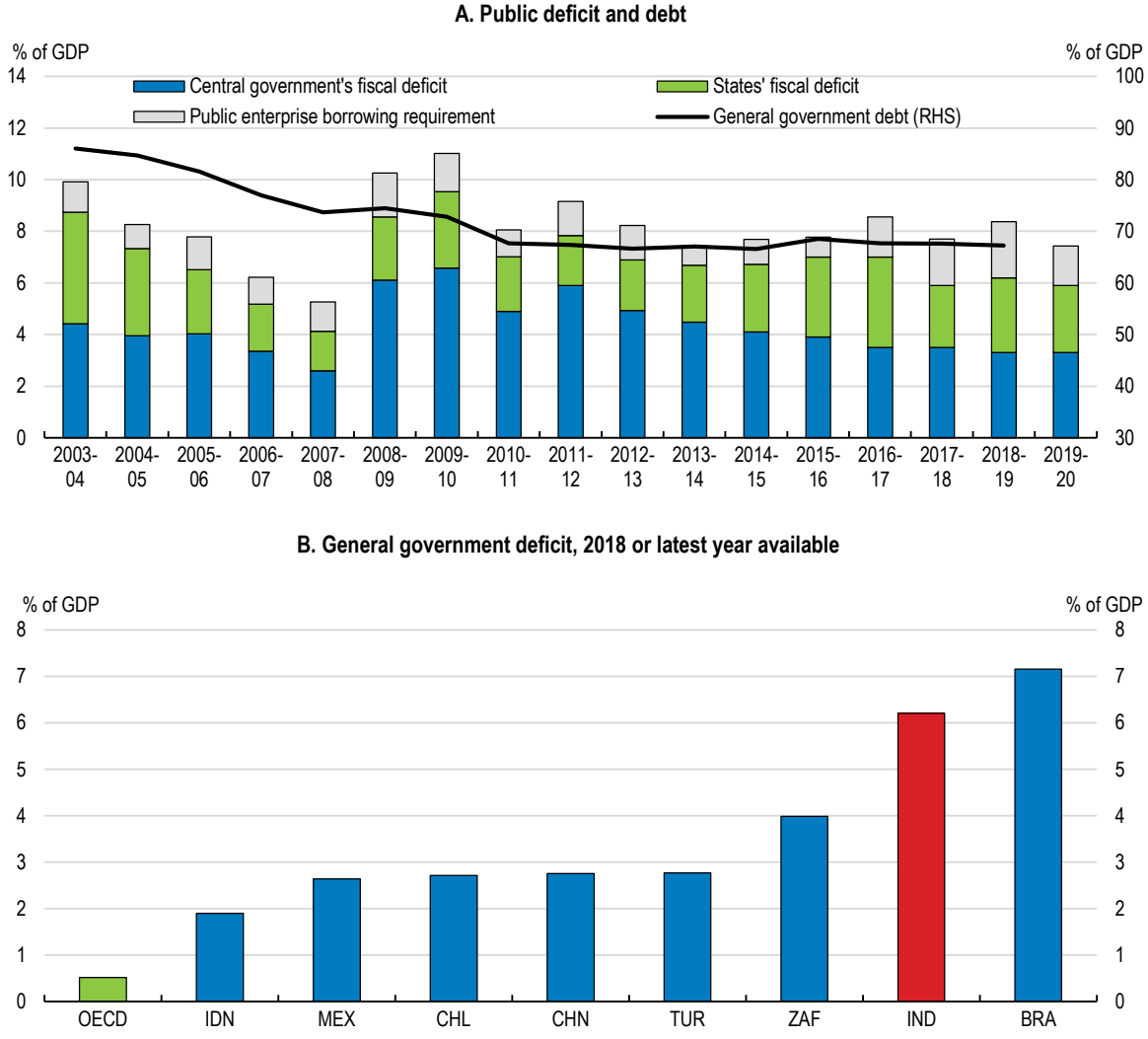
India has little fiscal space

The public sector deficit and debt-to-GDP ratio are high compared with most other emerging economies. Fiscal consolidation has taken place at the central government level and more recently in the states (Figure 10). The central budget for FY 2019-20 has also taken a welcome prudent stance, with a 3.3% of GDP deficit target despite the economic slowdown and a commitment to achieve a 3% deficit in FY 2020-21. The record dividend transfer from the Reserve Bank (about 0.9% of GDP) will help to compensate some of the lower-than-expected revenues from the GST and the corporate income tax cut announced

in September 2019. Still, some public infrastructure projects and subsidy schemes are partly financed off-budget and the borrowing requirement of public enterprises has risen.

Figure 10. Public sector borrowing needs are large



Note: In Panel A, the fiscal deficit incorporates privatisation receipts. Public enterprises' borrowing requirement refers to gross market borrowings (total resources less internal resources) of central government's public enterprises. This includes borrowing needs related to investment projects but excludes borrowing from enterprises owned by states or municipal governments. India's data are revised estimates by the Reserve Bank of India for the fiscal year 2018-19 and budget estimates for 2019-20.
Source: RBI; Union Budget Expenditure Profile (Resources of Public Enterprises); OECD, Government at a Glance database.

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Growth is projected to recover after a temporary slowdown

Going forward, growth is projected to recover (Table 1). Private investment will bounce back as capacity utilisation rises. The recent loosening in monetary policy, combined with fiscal rectitude, will lower the cost of borrowing for the corporate sector. The ongoing resolution of distressed assets of non-financial corporates under the Insolvency and Bankruptcy Code is expected to unlock resources for new investment projects. Reforms to improve the ease of doing business – including recent measures to liberalise FDI and efforts

to improve judicial services and contract enforcement – will also help. Exports will suffer only marginally from the withdrawal of the US preferential duties for low-income countries, as products concerned account for a small share of India's export basket. Rural consumption will revive, as the new income support scheme for farmers is being fully implemented.

Table 1. India's growth is projected to recover gradually

	2016	2017	2018	2019	2020	2021
	Current prices (INR trillion)	Percentage changes, volume (2011/2012 prices)				
GDP at market prices	153.6	7.2	6.8	5.8	6.2	6.4
Private consumption	91.2	7.4	8.1	5.9	6.0	6.5
Government consumption	15.8	15.0	9.2	7.1	6.0	6.5
Gross fixed capital formation	43.4	9.3	10.0	4.9	6.6	6.8
Final domestic demand	150.3	8.8	8.8	5.7	6.2	6.6
Stockbuilding[1,2]	6.0	0.2	0.1	0.0	0.0	0.0
Total domestic demand	156.3	9.9	7.7	5.0	6.1	6.5
Exports of goods and services	29.5	4.7	12.5	5.0	4.4	4.9
Imports of goods and services	32.2	17.6	15.4	2.2	4.4	5.6
Net exports [1]	-2.7	-2.8	-1.1	0.5	-0.2	-0.4
Memorandum items						
GDP deflator	_	3.8	4.1	3.1	3.7	3.8
Consumer price index	_	3.6	3.4	3.5	3.9	4.2
Wholesale price index[3]	_	2.9	4.3	1.5	3.0	3.7
General government financial balance[4] (% of GDP)	_	-5.8	-6.2	-6.2	-6.3	-6.1
Current account balance (% of GDP)	_	-1.9	-2.1	-1.7	-1.8	-2.0

Note: Data refer to fiscal years starting in April.
1. Contributions to changes in real GDP.
2. Data for 2016 correspond to the level of stockbuilding, statistical discrepancies and valuables. Contributions to changes in real GDP concern only stockbuilding.
3. WPI, all commodities index.
4. Gross fiscal balance for central and state governments.
Source: OECD Economic Outlook 106 database.

There are risks to the outlook (Table 2). Although international oil prices have come down, they remain volatile and pose risks for inflation, the current account and public finances – India imports the bulk of its oil. Higher inflation would reduce households' purchasing power. A large deterioration in the current account and fiscal deficits could trigger an adverse confidence effect which would manifest itself in large capital outflows and pressures on the rupee, with additional pressures on inflation. Higher oil prices would also squeeze profit margins and weigh on investment. Trade tensions are affecting business sentiment although India has specialised more in services than in merchandise trade and, so far, India has seized some merchandise markets lost by China after the hike in US import duties (Chapter 1). The ruling party's large majority in the recent parliamentary elections makes it easier to pass and implement reforms, as illustrated with the recent liberalisation of FDI, representing a positive risk to the outlook.

Table 2. Events that could lead to changes in the outlook

Positive and negative risks	Possible outcomes
Higher oil prices	Higher oil prices would put pressures on inflation, the current account and public finances
An aggravation in trade tensions	Rising trade tensions would affect business sentiment and investment
The large majority of the ruling party makes it easier to pass and implement structural reforms	Reforms would ease the business environment, boost investment, productivity and growth
Lower probability events	
A default in non-banking financial companies and a contagion to banks and mutual funds	A credit crunch in non-banking financial companies would affect growth and particularly the real estate sector as housing investment is largely financed by non-banking financial companies
Non-performing loans in the banking sector have decreased but remain elevated	Renewed financial stress would impede credit flows to the economy
The exacerbation of geopolitical tensions	Geopolitical tensions exacerbate uncertainty and thus weigh on investment and consumption. They may also trigger additional military spending and thus weigh on public finance.

Improving governance

Public finance: creating space to meet social and physical infrastructure needs

Containing public debt to support investment and ensure intergenerational equity

The combined debt of the central government and the states, at close to 67% of GDP in FY 2018-19, is higher than in most other EMEs. Financing risks have so far been contained since: i) public debt is largely denominated in rupees, reducing external vulnerabilities; ii) debt maturity is relatively long (more than 8 years on average), which reduces rollover risks; and iii) India has a high revenue potential from asset sales, as the government owns many enterprises and banks. However, interest payments are high as a share of GDP, although government bonds face a captive market as banks are mandated to hold government securities. While one rating agency upgraded India's sovereign debt in November 2017, others still rate it at the lowest investment grade with a stable outlook, underlining persisting public finance risks, at least as seen by rating agencies.

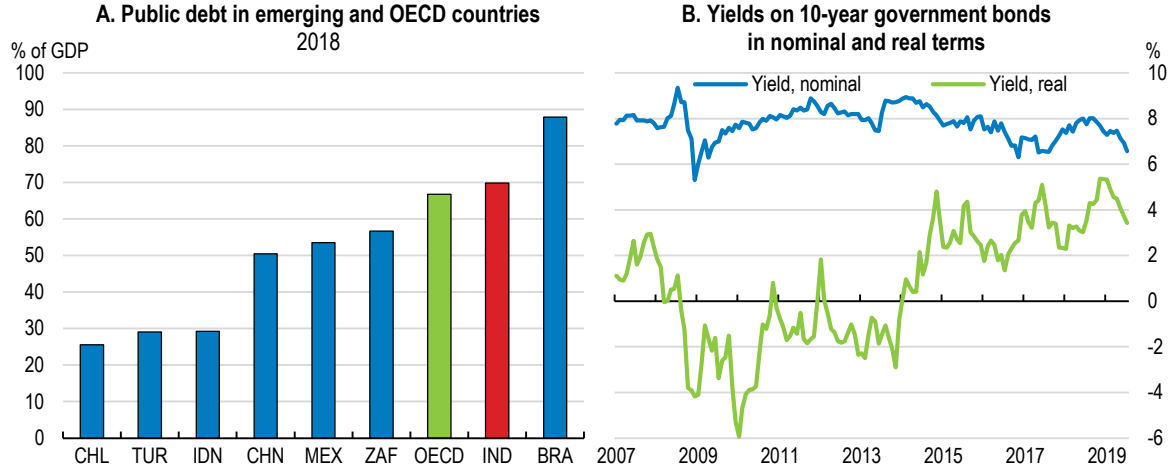
To promote fiscal sustainability, the government has accepted the recommendation by the Fiscal Responsibility and Budget Management (FRBM) Review Committee to make the government debt-to-GDP ratio the primary fiscal target. The combined debt of the central government and the states is to decline to 60% (40% for the central government and 20% for the states) by FY 2024-25. Defining the level beyond which public debt has a detrimental effect on growth is not an easy task (Reinhart and Rogoff, 2010[8]) (Égert, 2012[9]). However, the level recommended by the FRBM Review Committee is close to the prudent debt target as defined by (Fall et al., 2015[10]), taking on board the different linkages between government debt and economic activity, with estimations for India presented in (Joumard et al., 2017[11]). The combined deficit for the central government and the states becomes the operational target – a deficit of 3% of GDP for the central government by the end of FY 2020-21 while the 3% rule continues to apply for the states.

Public enterprises' borrowing requirement has risen. For those controlled by the central government, the borrowing requirement estimated by the OECD, stood at 2.2% in FY 2018-19, up from 1% of GDP in FY 2014-15, excluding financial corporations' surplus. A large

share of food subsidies is carried over through delayed payments to the Food Corporation of India (Government of India, 2019[12]), which had to borrow about 0.9% of GDP in FY 2018-19. Other public spending programmes financed partly off-budget include: fertiliser subsidies, the irrigation scheme, railway and power projects, and public bank recapitalisation. Some public enterprises controlled by the States are also accumulating losses, in particular some State Electricity Boards. Implicit liabilities from public enterprises and banks are eventually reflected in states and central government debt. Overall, public sector borrowings have risen to about 8% of GDP in FY 2018-19 according to OECD estimates, in line with some other estimates (HSBC, 2019[13]).

Steady public sector borrowing has pushed up public debt, putting pressures on financial markets. The FRBM Act has brought explicit central government's guarantees under control – additional loan guarantees should be less than 0.5% of GDP. Over the three-years from FY 2014-15 to FY 2016-17, however, additional liabilities assumed by the government amounted to 4.1%, 4.7% and 3.2% of GDP (Government of India, 2019[12]). In FY 2017-18, they stood at 2.2 % of GDP (Government of India, 2019[14]). With gross household financial savings estimated at 11% of GDP, the high public sector borrowing potentially puts pressure on borrowing costs for smaller companies and slows monetary policy transmission (Figure 11). Establishing a fiscal council would help monitor progress toward fiscal targets and bring transparency on the cost of public programmes carried out off-budget and contingent liabilities associated with public enterprises and banks.

Figure 11. Public debt and yields on government bonds



Note: The year-on-year change in consumer prices has been used to derive the yield in real terms.
Source: IMF, World Economic Outlook, April 2019; OECD calculations based on data from CEIC.

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Debt sustainability analysis highlights possible outcomes and risks going forward (Box 1). It reveals that under a no-policy change (*baseline*) scenario, the debt-to-GDP ratio declines gradually as long as growth remains robust. As growth slows, however, the debt-to-GDP ratio rises again. A *fast reform* agenda would deliver stronger growth, and hence better debt-to-GDP outcomes (Figure 12). In contrast, should public debt inflate as the government recapitalises public banks and absorbs public enterprises' losses (*debt takeover* scenario), the public debt-to-GDP ratio would increase steadily. Implementing a *social welfare and formalisation* agenda would be the most promising scenario over the longer

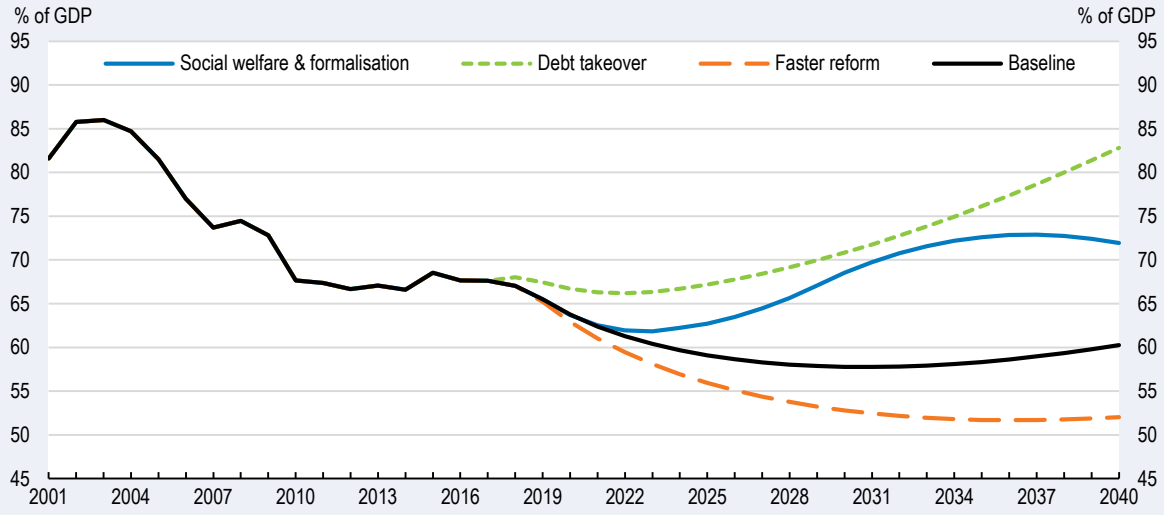
term. The gradual increase in health and education spending would improve wellbeing and boost GDP per capita. It would cause the debt-to-GDP ratio to deteriorate initially but the related productivity and formalisation gains would gradually put the public debt-to-GDP ratio back on a downward path.

Box 1. Debt sustainability analysis

The combined debt of the central government and the states declined from 86% of GDP in FY 2003-04 to 67% in FY 2018-19 (Figure 12), despite a relatively large fiscal deficit. Going forward, the sustainability of India's combined government debt-to-GDP ratio can be assessed based on stylised assumptions for: economic growth, inflation, financing costs, and fiscal policy (including the level and composition of the primary deficit). Various scenarios have been considered:

- Under the **baseline scenario**, the primary deficit to GDP ratio is set at 1.7% of GDP (i.e. its level in FY 2017-18), inflation at 4% (equivalent to the target for consumer price inflation), the long-term interest rate in real terms at 2.1% (i.e. the average level over the 5 years-period to FY 2017-18), and economic growth adjusting towards the OECD long-term economic scenario thereafter up to 2040 (Guillemette and Turner, 2018[15]). The debt-to-GDP ratio declines to below 60% by 2025 but tends to increase at the end of the projection period as growth slows.
- Under a **faster reform scenario**, the government engages in bold reforms in product and labour market regulations at virtually no public finance costs. Reforms boost GDP growth by 1 percentage point. The debt-to-GDP declines rapidly to just over 50% of GDP by 2040.
- Under a **debt takeover scenario**, the government takes over the debt of public enterprises or recapitalises banks for a cost estimated at 1 percentage point of GDP every year from 2020. Real interest rates gradually increase by half a percentage point from 2019 to 2023 before stabilising. The debt-to-GDP ratio embarks on an unsustainable path and stands at over 80% in 2040.
- Under an **effective social welfare and formalisation scenario**, public spending on education and health doubles by 2030 – corresponding to a gradual increase in public spending by 4¼ percentage points of GDP over a 10 year period. Better health and education translate into higher productivity, with annual growth increasing by 0.7 percentage points by 2030. This, in turn, promotes formalisation and the tax-to-GDP ratio gradually increases by 4½ percentage points by 2040. The primary deficit increases until revenue from formalisation outweighs new spending. The debt-to-GDP ratio tends to increase but then stabilises when the full benefits of better health and education are translated into higher income. In 2040, GDP per capita is about 18% higher than in the "debt takeover" scenario while the debt-to-GDP is lower.

Figure 12. General government debt to GDP ratio under four stylised scenarios



Source: OECD Secretariat simulations.

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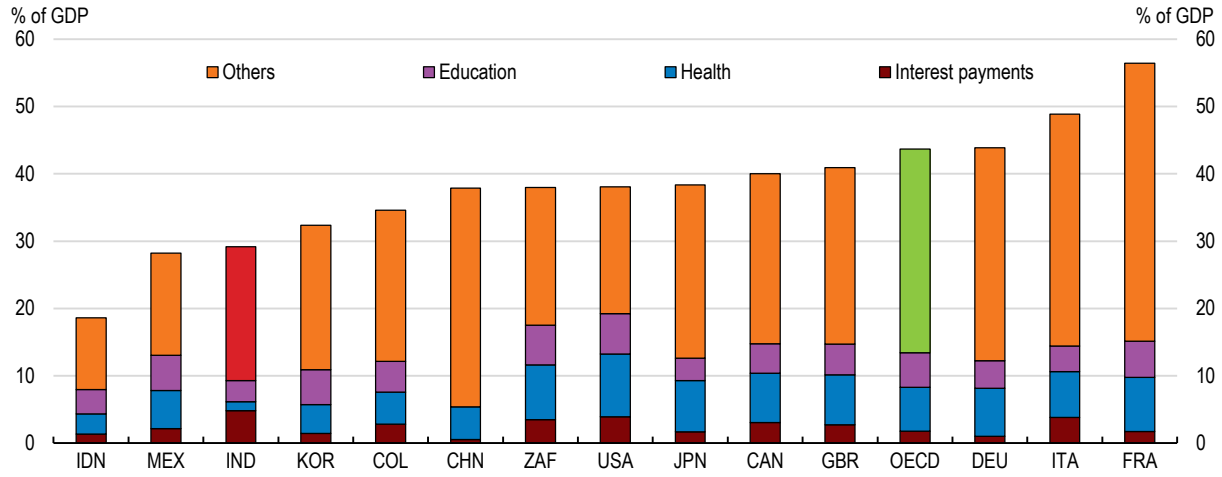
Spending: household support has become more efficient and fairer while outlays for social and physical infrastructure remain low

Spending pressures have been strong. The 14% increase in central government employees' wages from 2016, as per the recommendation of the 7th Pay Commission, has weighed on the central government's and later on states' budgets. Other spending pressures have arisen from: public bank recapitalisation (about 0.5% of GDP in both 2017 and 2018, and 0.3% in 2019); states' absorption of the debt of states' electricity distribution companies (about 0.7% of GDP in both FY 2015-16 and 2016-17); the increase in minimum support prices for some agricultural products; the acquisition of military hardware to upgrade ageing defence equipment in the context of escalating geopolitical tensions in the region; the implementation of the One Rank One Pension (OROP) policy for the military; the introduction of a new insurance scheme for hospital care; and more generous subsidies for housing loans (Chapter 2).

Despite pressures, total government spending has remained relatively low and stable over time – it stood at 27.5% of GDP in FY 2018-19, about the average level over the period 1980-2018. Public spending on infrastructure – whose fiscal multiplier is relatively high – has declined (Reserve Bank of India, 2019[16]). Public spending on health and education, at slightly above 1¼ and 3.1% of GDP, respectively, has also remained low (Figure 13). Going forward, the government has committed to invest INR 100 trillion (about USD 1.4 trillion) over the next five years in the infrastructure sector.

Figure 13. Public spending remains low but interest payments account for a large share

General government expenditure, percentage of GDP, 2017 or latest year available



Note: For India, data refer to the revised estimates of fiscal year 2015-16. Other expenses for China include education expenses. OECD refers to an unweighted average for 29 member countries for which 2017 data is available.
Source: Government of India, Indian Public Finance Statistics, 2016-2017; OECD, National Accounts database; World Bank, World Development Indicators database; OECD Health Statistics 2017; OECD Education at a Glance 2018.

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Reforming household support schemes has created fiscal space by delivering fairer and more effective social welfare. To facilitate households' access to some consumption goods (including food, oil, fertilisers, water and electricity), India has long subsidised prices. Price subsidies have proved to be costly (1½ per cent of GDP recorded in the budget in FY 2017-18, plus large indirect costs, such as debt take-over for enterprises distributing subsidised goods). The Direct Benefit Transfer model (Box 2) introduced gradually since 2013 has delivered large savings – on average a sixth of the costs of programmes covered – thanks to the elimination of fake beneficiaries and voluntary opt-out schemes. The largest savings registered so far have been for cooking gas and food subsidies and for the rural public employment programme (NREG). Overall, from 2013 to March 2019, savings amounted to INR 1.4 trillion (over 0.7% of FY 2018-19 GDP). Extending gradually pilot programmes for two large subsidy programmes – food and fertilisers – could generate additional savings.

There is room to rationalise farmer support schemes. The new income support scheme for landholding farmers (PM Kisan) comes over and above other subsidies to support the agricultural sector, including fertilisers, electricity, irrigation, credit and other inputs (OECD/ICRIER, 2018[17]). Its estimated cost is INR 750 billion (0.4% of GDP) from FY 2019-20, and an additional INR 200 billion (0.1% of GDP) from FY 2020-21. In addition, several states have written off farm loans – amounting to 0.9% of GDP in Rajasthan and 2.4% of GDP in Karnataka in 2018 – which may undermine credit discipline and exacerbate income inequality, since the poorest farmers do not benefit as they rely predominantly on informal money lenders rather than banks (Government of India, 2013[18]). To contain public spending and avoid the excessive use of subsidised inputs with a detrimental environmental impact (in particular fertilisers, electricity and water), the farmer scheme should gradually replace other agricultural subsidy schemes and farm loan waivers.

Box 2. Reforming price subsidies: the Direct Benefit Transfer model

India launched a subsidy reform in 2013 using a model that could serve as best practice for many countries. The Direct Benefit Transfer (DBT) aims at improving the effectiveness and fairness of public subsidies and household transfers (Subramanian, 2018[19]). It relies on three enablers: i) a unique biometric identification system (Aadhaar); ii) the opening of bank accounts for all households that did not have one; and iii) digital payment systems to avoid middlemen.

The subsidy reform has contributed to:

- Better equity by removing the pro-rich bias often embodied in price subsidies -- households with low income or living in remote areas tend to consume less energy, water, food, and other subsidised products, than wealthier urban households;
- Financial inclusion as poor households now have a bank account, associated with a life insurance and credit opportunities;
- Reduce price distortions and incentives for excess consumption in environmental resources (such as energy and water) and black market operations;
- Generate fiscal savings.

From 2014, a direct financial transfer, equal for all households, has gradually replaced the subsidy on cooking gas (LPG). This reform has generated about USD 8.4 billion up to March 2019, by reducing fraud and "ghost beneficiaries". The reform has also removed the bias against poor households and those living in remote areas who, in the past, purchased fewer LPG bottles than wealthy households, or none at all. To improve targeting, in 2015 India launched the "Give it Up" campaign to encourage the wealthy to forego their LPG subsidy to promote social justice.

Out of the 1200 schemes run by various ministries, 439 are now managed under the DBT framework. In some cases, incentives have been built in (e.g. maternity benefits have been made conditional on children immunisation). Digitalisation has boosted applications for benefits in some cases, e.g. for national scholarships to meritorious students with family income of less than INR 600 000 annually.

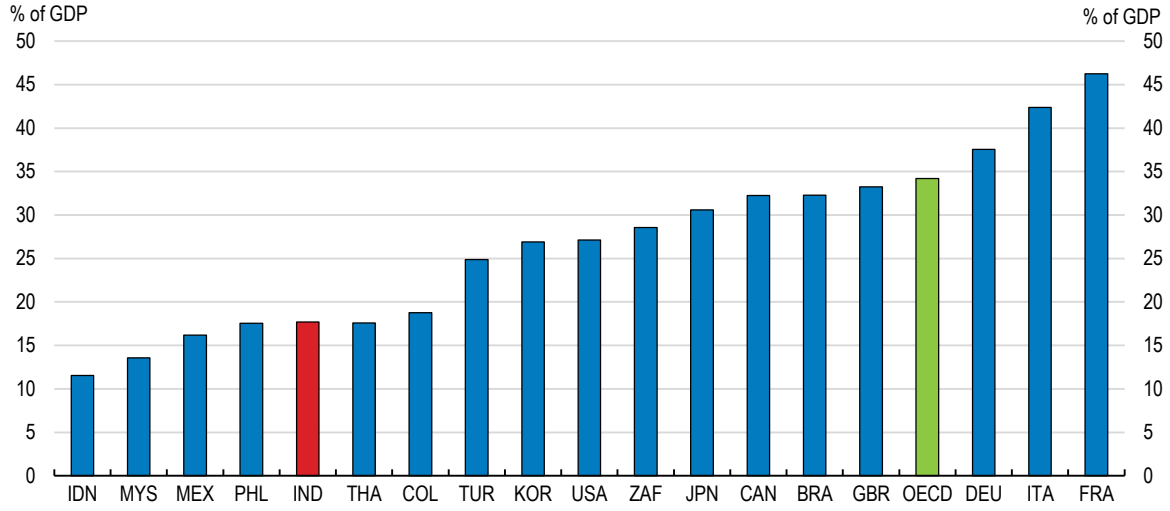
Raising more and better taxes

There is scope to raise more and better tax revenue to reduce public debt and fund large spending needs for social and physical infrastructure. Tax collection remains low (Figure 14), partly reflecting India's low income level, its high degree of informality and narrow base due to a wide array of tax breaks.

Several reforms are contributing to improve tax compliance, in particular the implementation of the GST, whereby compliant firms can claim back taxes paid on their inputs. Other measures include: stricter enforcement of income tax rules, the obligation for individuals to quote the unique identification (Aadhaar) number in their income tax return from April 2019, restrictions on cash transactions coupled with incentives for digital payments, the implementation of the Project Insight which links databases on taxes, credit card payments, jewellery purchases and others, and time-bounded tax amnesty programmes. Overall, the number of companies and individuals filing tax returns increased by 22% in FY 2017-18 and income tax revenue increased by 19%.

Figure 14. The tax-to-GDP ratio remains low

Tax revenues, 2017 or latest year available



Note: Data for India refer to fiscal year 2018-19.
Source: Annual Report of the Reserve Bank of India, 2019; OECD, Global Revenue Statistics database.

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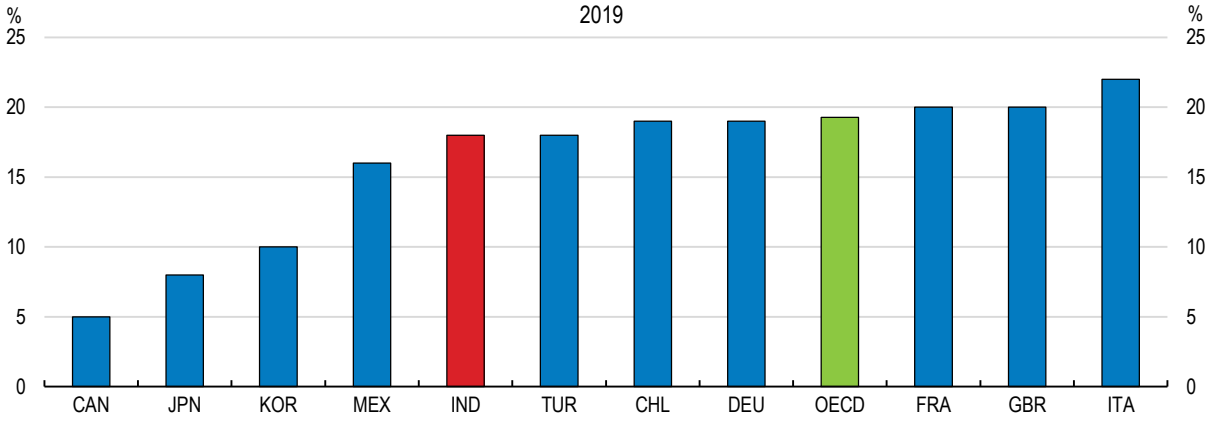
Simplifying the Goods and Services Tax (GST) further would help increase compliance. Measures have been taken to make it easier to comply with the GST and to get faster refunds. Since the introduction of the GST in July 2017, the GST Council has brought many commodities from the 28% list to the standard (18%) rate – a rate close to the OECD average (Figure 15). The number of registered taxpayers for the GST was over 12 million in July 2019, of which 3.8 million new registrants. In April 2019, the number of GST returns filed was about 20% higher than one year earlier. However, the number of reduced rates remains high (Table 3). To reduce high costs of compliance for small traders, the exemption limit was doubled to INR 4 million in April 2019. It is high by international standards, loosening the self-compliance mechanism embodied in the GST. In addition, petroleum products and electricity are still exempt. The effective GST rate has declined and now stands at less than 12% (Reserve Bank of India, 2019[20]). Efforts to simplify the GST and broaden the base should continue so as to raise more revenue, reduce collection costs and improve compliance.

The 2017 *OECD Economic Survey of India* (OECD, 2017[1]) recommended reforming the property and personal income taxes to raise more revenue and increase the redistributive impact of taxes. It estimated that bringing personal income tax thresholds more into line with other EMEs and abolishing tax expenditure would increase personal income tax revenue by about 50%. The FY 2019-20 budget hiked tax rates for top income brackets. However, while in FY 2017-18 less than 4% of the population filed a tax return, the budget also multiplied the basic exemption by two to INR 500 000 (about USD 7 000), increased the threshold above which capital and rental income is taxable, and exempted the second house from the tax on notional rent up to a ceiling. This set of measures will weigh on tax revenue and lower the redistributive impact of the personal income tax. The 2017 *OECD Survey* also recommended introducing an inheritance tax and giving local governments more powers over the base and rates of recurrent taxes on immovable property. These recommendations still apply (Table 4).

Figure 15. Standard GST/VAT rates across selected countries



Source: GST Council; Consumption Tax Trends 2018: VAT/GST and Excise Rates, Trends and Policy Issues.

StatLink http://dx.doi.org/10.1787/888934047330

Table 3. GST/VAT: reduced rates and registration thresholds across selected countries

2019

	Number of reduced rates	Range of reduced rates	Registration threshold/ exemption limit (USD)
India	5 reduced rates, plus 1 luxury rate (28%)	0 to 12%	220 006 from April 2019
Canada	1	0%	23 976
Chile	No reduced rate	-	None
France	3	2.1 to 10%	103 913
Germany	1	7%	22 456
Israel	1	0%	26 132
Italy	3	4 to 10%	90 381
Japan	No reduced rate	-	100 408
Korea	1	0%	34 205
Mexico	1	0%	None
Turkey	2	1 to 8%	None
United Kingdom	2	0 to 5%	119 167

Note: Exchange rates for conversion into USD are Purchasing Power Parity (PPPs) rates for GDP.
Source: Consumption Tax Trends 2018: VAT/GST and Excise Rates, Trends and Policy Issues; OECD Secretariat.

The reforms recommended in this Survey will have a modest, and positive, net impact on public finances (Table 5).

Table 4. Past OECD recommendations on public finance

Key recommendations	Measures taken since February 2017
Ensure that government debt to GDP returns to a declining path	The government accepted the recommendation of the FRBM Review Committee to use debt as the primary fiscal target and bring the debt-to-GDP ratio down to 60% by FY 2024-25
Increase public spending on physical and social infrastructure and gradually extend the subsidy reform to other products, including fertilisers and food	A publicly-funded insurance for hospital care has been launched and 150 000 primary care and wellness centres are to be created. Pilot reform has taken place for the food and fertiliser subsidy.
Raise more revenue, especially from property and personal income taxes Remove the tax expenditures that benefit the rich most and freeze the income thresholds from which rates apply	The surcharge for high-income earners (annual income > INR 20 million) was increased. However, the threshold above which individuals pay taxes was multiplied by 2 in FY 2019-20 and tax rebates for housing investment have been made more generous, weighing on revenue and on the redistributive impact of the personal income tax.
Increase the number and training of staff employed in the tax administration	No action
Enable municipalities to raise more real estate taxes	No action

Table 5. Illustrative fiscal impact of selected reforms

Reform	Impact on the fiscal balance, % of GDP	Comments and assumptions
Raise more revenue from recurrent taxes on immovable property and personal income taxes by removing the tax expenditures that benefit richer households the most and freeze the income brackets in the personal income tax rate schedule	1.2	Increase in personal income tax revenue by 50%
Open more benches and employ more and better trained professionals in commercial courts	-0.0	Increase in justice expenditure by 20%
Increase resources in the health care sector by training more and better doctors and nurses and giving priority to primary care (Net short-term effect (2 years))	-0.2	An increase in health spending will result in productivity gains. Wages will increase and will be reflected in additional tax revenue. After 10 years, the public spending to GDP ratio will increase by 1.1 percentage points and revenue by 0.6 percentage points. After 20 years the net impact will be positive.
Net long-term effect (10 years)	-0.6	
Extend the new income-support for farmers to tenant farmers and labourers and consolidate with other subsidies to the agricultural sector, in particular fertilisers	-0.1	
Further reduce tariffs and simplify the tariff structure, with a view to improve consumer and producer access to better or cheaper inputs, and to improve compliance	0	According to (NITI Aayog, 2017[21]), unifying all industrial tariffs to 7% would result in no decline in tariff revenue. It would eliminate the incentive to misclassify imports to evade tariffs.
Measures to tackle air pollution (10 years)	-0.3	The measures are the ones described under the green growth section
Potential revenue from carbon pricing (long term effects)	3.5	Upper bound estimate, without the behavioural response to higher effective carbon prices, which would reduce emissions and therefore tax revenue
Total (Short term effects)	**0.9**	

Note: The simulation for the impact of a personal income tax reform is described in (Joumard, Thomas and Morgavi, 2017[22]). The measures to tackle air pollution and their costs are described in (IIASA and CEEW, 2019[23]). Potential revenue from carbon pricing are estimated in (Marten and van Dender, 2019[24]) and based on the median effective carbon rate among (non-zero) sector-level (mainly transport, other services, industry and construction) effective carbon rates across all countries. For the other reforms, the fiscal impact is calculated using an accounting exercise.
Source: OECD calculations.

Reducing the prevalence of corruption

Perception indicators suggest that corruption in India is on par with, or lower than in, many other EMEs but higher than in OECD countries (Figure 16). The Transparency International Corruption Perceptions Index further suggests that corruption has declined, with India's rank improving from 85th out of 174 countries in 2014 to 78th out of 180 in 2018.

For public procurement, which often is a major source of corruption, one key issue is the lack of comprehensive procurement legislation (Hazarika and Ranjan Jena, 2017[25]). The procurement regime is fragmented, with variation in practices and interpretations across ministries and organisations. The discretion that the procuring entities have in interpreting rules and regulations makes public procurement highly vulnerable to unfair practises and corruption. It also leads to inefficient infrastructure and additional costs for taxpayers. To reduce the risk of corruption, efforts have been made to promote e-procurement and e-payments. However, while tenders incorporate clauses on prohibiting corrupt practices in the bidding process, no penalties are specified.

Firm-level corruption is also an issue, deterring foreign investment and creating unfair competition. In the 2014 World Bank Enterprise Survey, a large share of companies reported being expected to give gifts to secure government contracts, get an operating or import license or obtain a construction permit. Complicated tax and licensing systems, combined with numerous government "touch points" and weak law enforcement, were identified as key reasons for companies to indulge in corrupt practices (Ernst & Young, 2013[26]). The situation has likely improved since then, thanks to efforts to simplify regulations and promote e-government. India was ranked 66th, out of 141 countries on the "incidence of corruption" index of the 2019 *Global Competitiveness Report* (World Economic Forum, 2019[27]).

People also suffer from corruption, which tends to fall disproportionately on the poor since the well-positioned often have the connections to avoid it. Encouragingly, (CMS India, 2018[28]) finds that petty corruption in basic services for citizens has come down. Nevertheless, 27% of households experienced corruption at least once in 2018, while availing any of the 10 public services covered, compared to 52% in 2005. Interactions related to police, housing/land records and health/hospital services are most prone to corruption. There are also significant differences across states, with Madhya Pradesh, Maharashtra and West Bengal performing better.

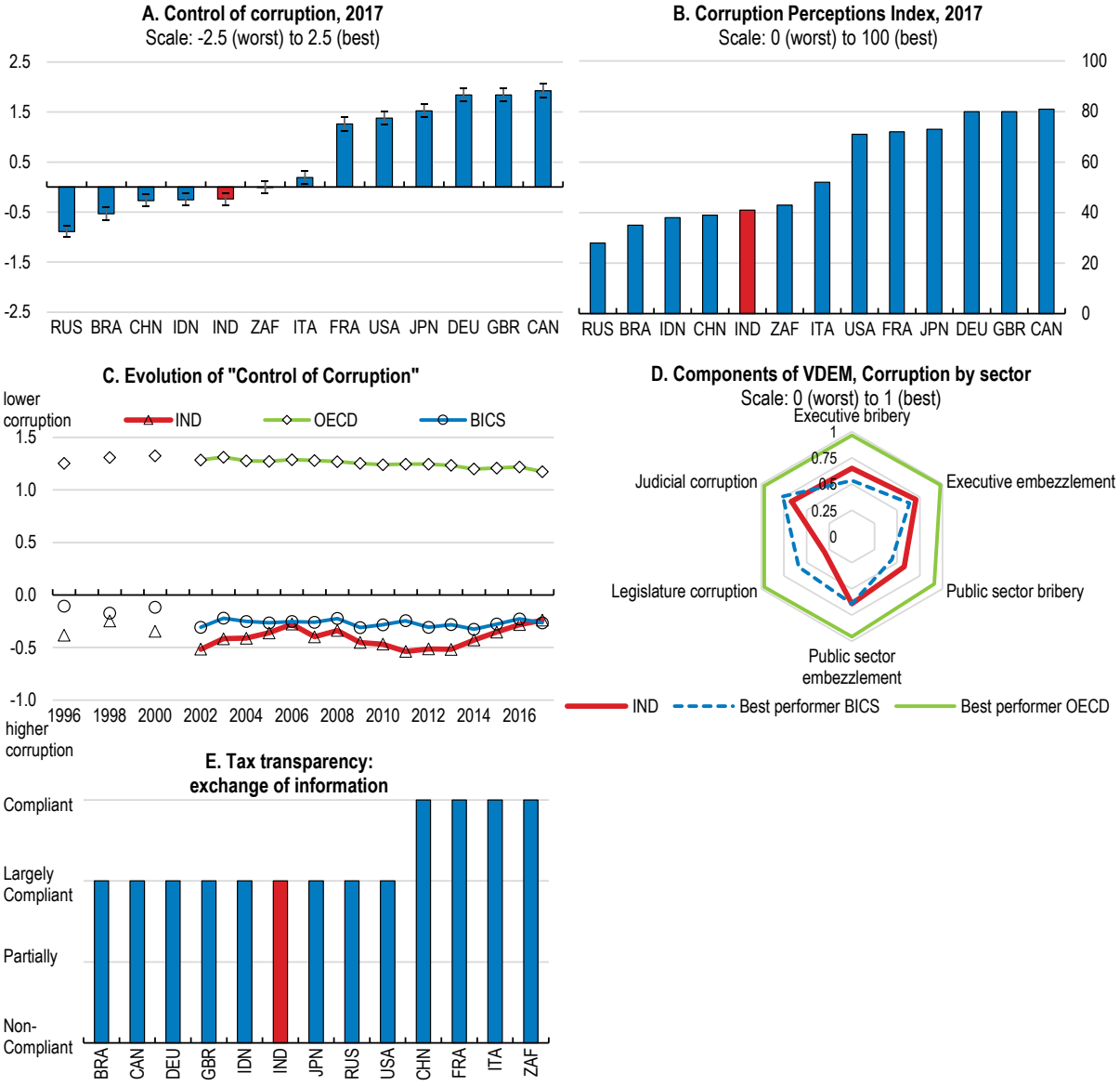
Important policy actions have been taken to fight against corruption

Increased reliance on e-government and digital payments are helping to reduce corruption and graft. Many public services have been digitalised, such as paying taxes or obtaining permits, thereby reducing the number of face-to-face interactions with government officials and thus opportunities for corruption. For public procurement, the implementation of government e-market place has improved transparency. A major initiative for households is the replacement of price subsidies by direct benefit transfers, paid to beneficiaries on their bank account. Measures to reduce the cost of digital payments have boosted their use, thus enhancing transparency and accountability.

Various measures have also been taken to increase transparency and avoid corruption and money laundering. The Lokpal Act, passed in 2016, requires public servants to declare their assets annually. The 2016 Benami Act has prohibited real estate transactions in the name of others, eliminating an important vehicle for laundering black money, while the Real

Estate Regulation Act (RERA) implemented from 2017 has promoted transparency and accountability in the real estate sector. To prevent special interests from capturing the policy process, the FY 2017/18 budget reduced the maximum amount of cash donation from one person to a political party from INR 20 000 to INR 2 000.

Figure 16. Indicators of corruption



Note: The "Control of corruption" indicator compiles individual indicators. The chart shows both the point estimate and the margin of error. For details on the "Corruption Perceptions Index" (Panel B) see https://www.transparency.org/cpi2018. The corruption indicator by the Varieties of Democracy Project ("VDEM") (Panel D) is one of the subcomponents of the World Bank "Control of Corruption" indicator. BICS include Brazil, Indonesia, China and South Africa. Panel E refers to the ratings for overall assessment on the exchange of information in practice. For details, see http://eoi-tax.org/library#reviews.

Source: World Bank; Transparency International; Varieties of Democracy Institute, University of Gothenburg, and University of Notre Dame; (Kaufmann, Kraay and Mastruzzi, 2010[29]); OECD Secretariat's own calculations based on the materials from the Global Forum on Transparency and Exchange of Information for Tax Purposes, OECD.

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Laws are also being changed to make corruption an offence. The Prevention of Corruption Act, passed in 2018, has made it an offence to bribe Indian public officials, and established a corporate criminal liability for such bribery. Previously, India could only prosecute bribe givers as accomplices of the bribe receivers. In addition, India can now prosecute companies, not just individuals, for paying bribes. The body for investigating complaints of corruption against public servants in the central government, as envisaged by the 2013 Lokpal Act, was established in March 2019. India could consider signing the OECD Anti-Bribery Convention; several non-OECD emerging market economies already did so. It makes it an offence to bribe foreign public officials and would strengthen India's arsenal to fight against corruption and help Indian companies to enter foreign markets.

Ensuring that the judiciary has the capacity to prosecute economic and financial crimes is key to tackling corruption. The three main institutions in charge of investigating corruption cases – the Comptroller and Auditor General (CAG), the Central Bureau of Investigation (CBI) and the Central Vigilance Commission (CVC) – all face recruitment problems (Central Vigilance Commission, 2018[30]; Mathur, 2018[31]); as an illustration, 1312 out of the 7274 CBI positions were vacant at the end of 2018. To reduce further corruption and the associated costs for the population, India should speed up the recruitment process for existing institutions. It should also look at whether coordination between anti-corruption institutions is strong enough.

Addressing key social challenges and providing access to core public services for all

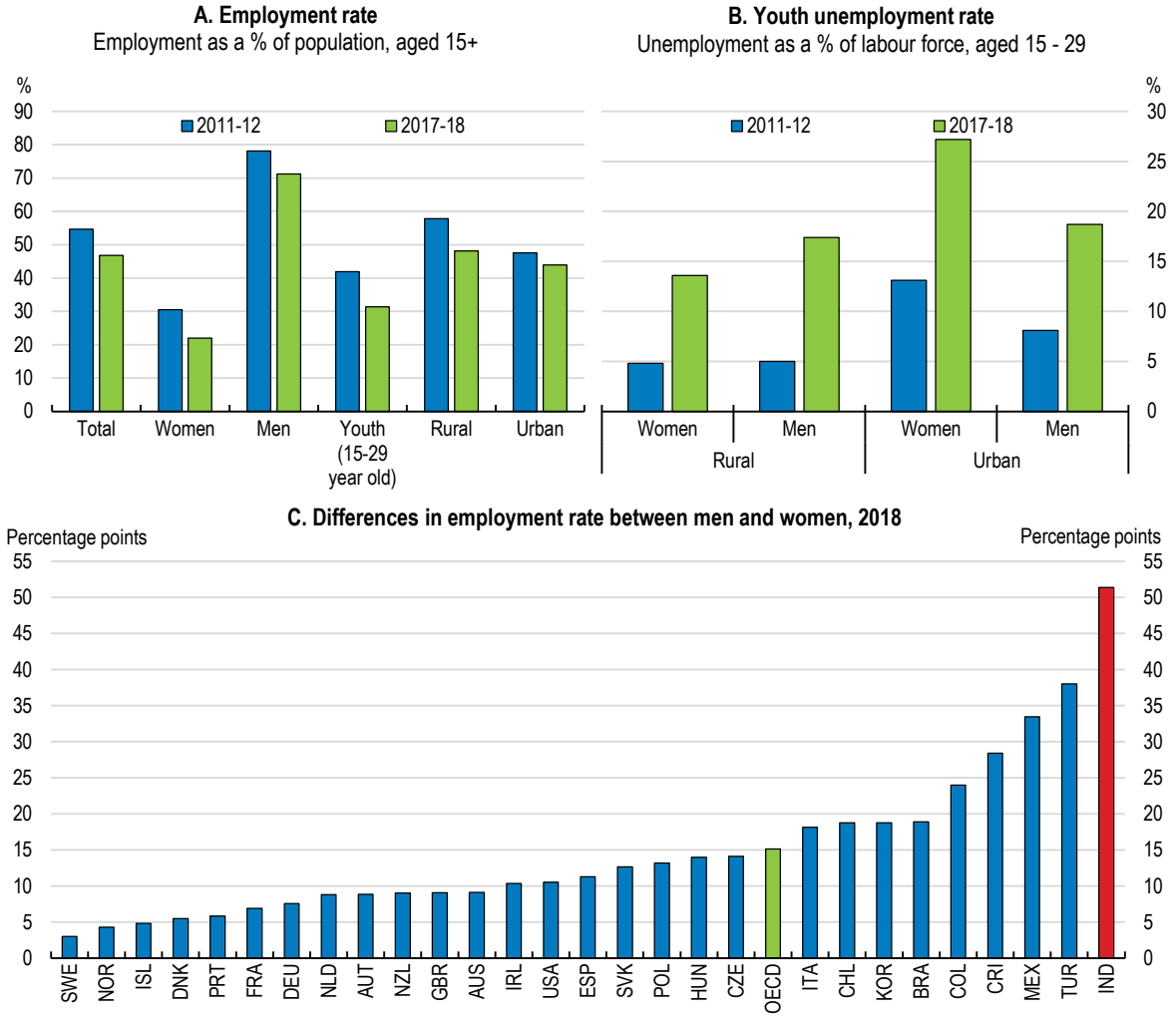
The pace and quality of job creation remain too low

Creating more and higher quality jobs is key to meet the aspirations of the estimated 11 million persons entering the labour market every year, absorb more women into the labour market and reduce under-employment and informality which contribute to income inequality. The latest household survey for 2017-18 reveals that the employment rate has declined. For women, the employment rate stands below the level in many other emerging economies (Figure 17). Young urban educated women are most at risk of unemployment. Under-employment and poor job quality remain important issues (NITI Aayog, 2017[21]).

Efforts have been made to better use public and private job-matching websites. The National Career Service (NCS) portal created in 2015 now links most employment exchanges of the country to facilitate online registration and job postings. In May 2019, about 10 million job seekers and 13 thousands employers were active on the portal. The NCS also provides employment-related services like career counselling, vocational guidance, information on skill development courses and internships.

Various measures have been taken to make labour regulations and institutions friendlier to job creation. The government has aimed at simplifying, rationalising and amalgamating 44 central government labour laws into four labour Codes on Wages, Industrial Relations, Social Security and Occupational Safety, Health and Working Conditions, respectively. Parts of the 2017 Code on Wages have been adopted: a INR 178 (about USD 2.5) daily floor wage set by the central government was introduced in 2019 and will apply to all employees; wages can now be paid by bank transfers and the payment of bonuses is extended to all employees. The fixed-term employment Act was amended in March 2018 to allow all firms which hire workers for a specific period to provide them equal pay conditions as those with a permanent contract. The rest of the Codes are still at pre-legislative consultative stages.

Figure 17. The employment rate has declined and is low for women



Source: Annual Report, Periodic Labour Force Survey (PLFS) 2017-18, National Statistical Office; OECD, Labour database.

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Labour regulations remain complex, with concurrent responsibilities at the central and state government level. Some are stringent, including the employment protection legislation which prohibits firms with more than 100 employees from dismissing even one employee without government approval. Most of them kick in as firms grow, although thresholds vary, thus discouraging job creation and leaving many workers in the informal sector. Reducing barriers to formal employment further by introducing a simpler and more flexible labour law which does not discriminate by size of enterprise remains a priority. Labour regulations should also be modernised to ensure equal work opportunities for women, as recommended in the 2014 *OECD Economic Survey of India* (OECD, 2014[2]).

The lack of timely and comprehensive official labour data makes it difficult to assess policy outcomes and priorities. The national household (NSSO) survey is very rich but so far has been carried out only every five years and is published with a lag – the June 2017 to June 2018 survey was published in June 2019. Moreover, the publication of several other official

but partial surveys has been discontinued – including the Annual Survey by the Labour Bureau, the quarterly employment surveys and the Annual Survey of Industries. Improving the quality and timeliness of data should be a key objective.

Addressing poverty in rural areas

Poverty in rural areas – where two thirds of the population still live – is high, reflecting low agricultural incomes and few non-farm employment opportunities. The latest poverty data suggest that 36% of agricultural households live below poverty line and an additional 5% are in extreme poverty (Government of India, 2014[32]). Low income in the agricultural sector results from a host of factors (Box 3). First, productivity is low, partly reflecting the extreme fragmentation of land plots (OECD, 2017[1]) and limited mechanisation. Land reform, including better land titling, would enable land pooling and improve productivity. Second, producer prices for some of the major crops have been set below comparable reference prices in international markets (OECD/ICRIER, 2018[17]). Third, the heavy reliance on subsidies for fertilisers and water has polluted soils and depleted underground water.

Box 3. The agricultural sector in India: key features and policies

The agricultural sector in India remains large, accounting for 16% of GDP in 2018 and 44% of total employment. Productivity is low, partly reflecting the fragmentation of landholdings. At the same time, India has also emerged as a major exporter of several agricultural commodities and has diversified production towards high value pulses, fruits, vegetables and livestock products. Developments in the agricultural sector will also be key for future labour supply and job creation, environmental and export performance as well as for rural/urban migration.

Over the past several decades, agricultural policies in India have sought to ensure the well-being of both farmers and consumers. With about 80% of India's poor living in rural areas, addressing widespread poverty and ensuring domestic food security are key objectives.

The (OECD/ICRIER, 2018[17]) review provides an in-depth analysis of *Agricultural policies in India*. It reveals that, to keep food prices low, restrictions stemming from agri-marketing regulations have been used, together with export restrictions targeting several commodities. As a result, Indian farmers have received prices lower than those prevailing in international markets across most commodities over the last two decades. On the other hand, there are programmes that provide huge subsidies for farm inputs, such as fertilisers, electricity, and irrigation water. At the same time, funding for public services — such as physical infrastructure, inspection, research & development, and education and skills, that are essential to enable the long-term productivity and sustainability of the sector -- has not kept pace. These domestic and trade policies in conjunction have led to a reduction in Indian farm revenue by an estimated 5.7% in the past three years.

To increase farmers' income, the government has relied on various initiatives and programmes, in line with the recommendations made by the Committee on Doubling Farmers' Income by 2022. It introduced a cash transfer (PM Kisan) for farmers in March 2019. This income scheme moves away from the traditional approach for agricultural support with subsidised inputs. It helps address tail risks specific to agriculture (e.g. poor monsoon and crop or animal diseases) and thus could promote investment and

production in the agricultural sector. Initially targeted on small farmers, i.e. those with land holdings below two hectares (more than 80% of land-owning farmers), it was extended in May 2019 to all farmers. About 145 million beneficiaries are entitled to receive a cash transfer of INR 6 000 annually (about USD 85). The overall cost was estimated to be about 0.4% of GDP.

The PM Kisan scheme builds on various experiments carried out at the state level. Covering all land-owning farmers, as in the Telangana's Rythu Bandhu scheme, avoids the risk of exacerbating the fragmentation of land, which keeps agricultural productivity low. However, schemes targeting land-owning farmers may not reach the poorest, e.g. tenant farmers and casual daily labourers. Schemes in Andhra Pradesh and Odisha do cover landless labourers. In addition, income-support schemes come over and above existing input subsidies, adding to the overall fiscal cost and price distortions. They may also slow the transition out of the agriculture sector towards more productive activities. The outcomes of existing schemes in terms of poverty reduction, raising well-being and agricultural productivity should be assessed, and adjustment made to improve their effectiveness.

Enabling access to health care for all

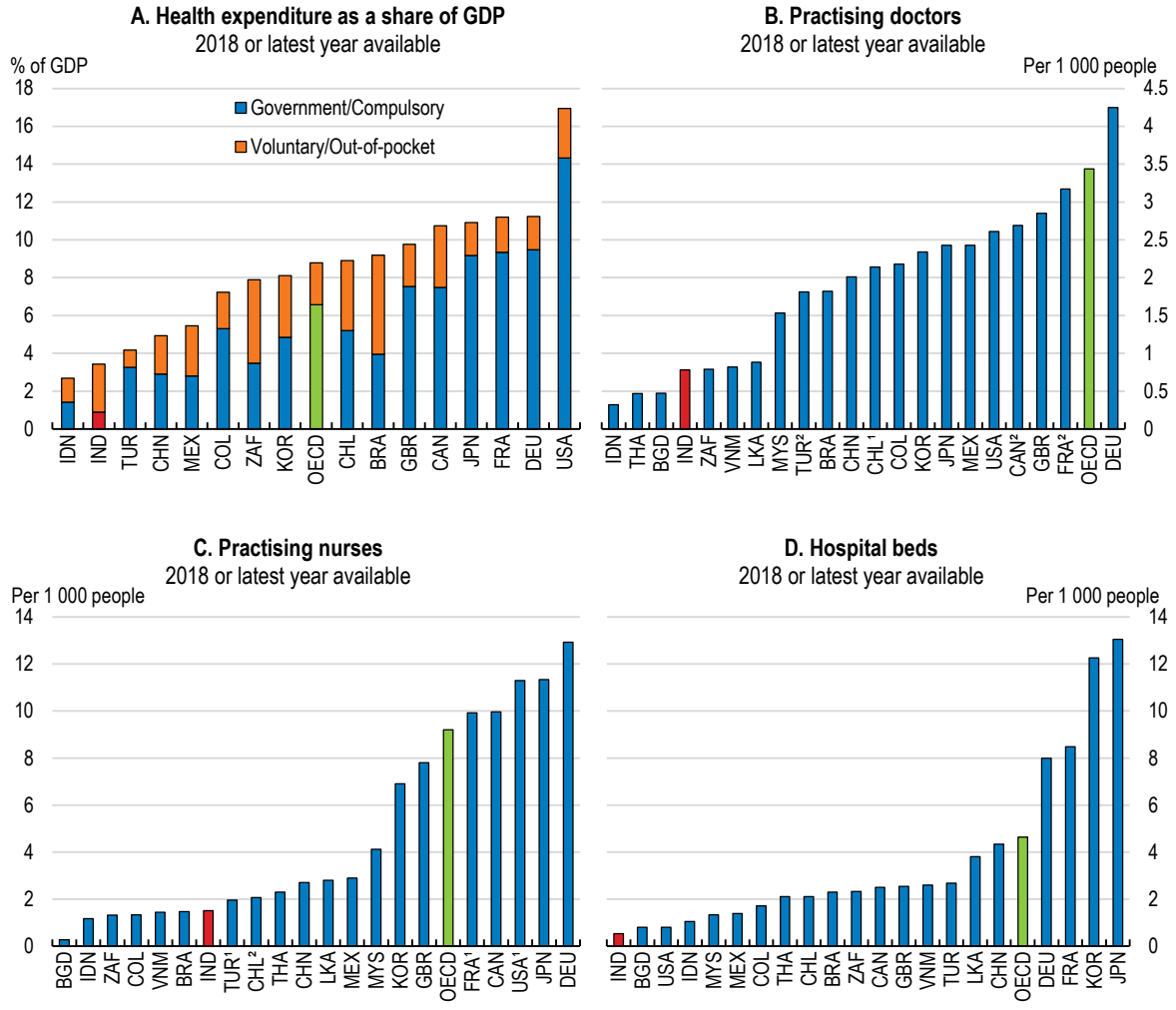
To improve health outcomes, the government has promoted preventive care and public health measures in line with recommendations in the 2014 OECD *Economic Survey of India* (OECD, 2014[2]). A key objective of the *Clean India* mission, launched in 2014, was to improve access to sanitation facilities and ensure universal coverage by the end of 2019. Reducing open defecation should help reduce food and water contamination and thus avoid the spread of communicable diseases, to which children are most vulnerable. More than 100 million toilets had been built since October 2014.

The Indradanush mission, launched in 2014 and intensified in October 2017, aims at immunising children and pregnant women against several preventable diseases (including diphtheria, tetanus, poliomyelitis, tuberculosis, measles and hepatitis B), with a focus on underserved and vulnerable population groups (Gurnani et al., 2018[33]). Overall, the immunisation coverage increased by 18.5 percentage points from 50% in targeted districts.

Further improving health outcomes for all, and thus wellbeing, requires increasing public spending on health care, which currently stands below 1½ per cent of GDP (Figure 18). Strong primary care is key to make health care affordable and equitable across the country. Sri Lanka and Thailand have become known as success stories for raising universal health coverage, largely because they invested in universal free services with a much greater focus on primary care (Harlem Bruntland, 2018[34]). The Indian government now envisages creating 150 000 wellness and primary health care centres over the next 5 years to provide free primary care, medicines and diagnostic services.

The number of doctors and nurses is low, especially in rural areas. Public primary care centres have suffered from a shortage of adequately trained and motivated personnel with relatively low compensation packages (NITI Aayog, 2018[35]). To address unmet needs for primary care, people rely on private facilities which may employ unqualified doctors and nurses (Sharma, 2015[36]) (Patel et al., 2015[37]). Although public health care, in principle, offers free basic health care services for all, households relying on private informal providers face high out-of-pocket spending. Raising the number of general practitioners and nurses should be a priority. The government's decision in August 2019 to establish 75 new medical colleges, with the aim of adding capacity for 15 700 students, is encouraging. Given the long education and training time for health professionals, the associated increase in public spending on health care should be phased in gradually.

Figure 18. Health care resources are low



Note: For all panels, OECD refers to an unweighted average of latest available observations. Panel B: 1. Data refer to all doctors licensed to practice, resulting in a large over-estimation of the number of practising doctors. 2. Data include not only doctors providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. (adding another 5-10% of doctors). Panel C: 1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. 2. Data for Chile refer to all nurses who are licensed to practice.
Source: OECD/WHO, Health at a Glance: Asia/Pacific 2018; OECD, Health database.

StatLink http://dx.doi.org/10.1787/888934047387

To ensure better access to hospital care for all, the government launched a new insurance scheme in April 2018. The PM-JAY aims at offering about 500 million deprived individuals free access to a pre-defined set of procedures in both public and private hospitals. The new insurance scheme replaces the Rastriya Swasthya Bima Yojana (RSBY) created in 2008, raising the annual spending ceiling per family from INR 30 000 to INR 500 000 (USD 7 000) and removing the restriction on the number of beneficiaries per family. This should reduce the risk of poverty when a member of the family is admitted to hospital. By providing users a choice between private and public hospitals, government-

sponsored insurance schemes create incentives for public providers to increase volumes of care.

Several OECD countries, in particular Mexico, have extended health insurance to low-income groups with success. The hospital focus is, however, specific to India. By raising the demand for hospital services, the new health insurance scheme risks putting pressures on scarce health professionals. The government should make sure that the implementation of the hospital insurance scheme does not divert resources away from primary and preventive care, which is deemed to be more cost effective, and from rural areas which are poorly served by hospitals.

Promoting access to a retirement scheme for informal workers

Although India has a young population, it should now begin to build a sound and fair retirement system. Almost half of its population is below age 25, but the population of those aged 60 and above is projected to increase by 200 million by 2050 (CRISIL, 2019[38]). At least 85% of workers are not contributing to any pension scheme (Kumar Anand and Chakraborty, 2019[39]), including those from firms with fewer than 10 employees (the so-called unorganised sector) as well as contract workers from the organised sector. Less than one in four people above retirement age receive a pension.

The small share of Indians covered by a retirement scheme are mostly from the upper or upper-middle class. For them, pension schemes are generous, with a flat and very high replacement rate compared to other G20 economies (OECD, 2017[40]). Spending on pensions for public servants amounted to 2.2% of GDP in FY 2015-16. For those without a retirement plan, a minimum (social) pension exists. Set at INR 200 (less than USD 3) per month for people aged 60-79 and INR 500 (USD 7) for those over 80, it is low compared to most other emerging economies. Census data reveal that one in five persons aged 80 is still working, suggesting that social pensions are too low and the elderly poor must often work to make ends meet.

In February 2019, the government announced a new voluntary and contributory pension scheme for workers from the unorganised sector. The PM-SYM aims to cover 100 million workers, out of the estimated 420 million workers in the unorganised sector, with a monthly pension of at least INR 3 000 (USD 43) after age 60. Workers with an income up to INR 15 000 per month (about USD 215) and aged between 18 and 40 are eligible – younger subscribers contribute a lower amount but over a longer period. The government then matches 100% of the contribution – a generous level by international standards (Table 6). This matching contribution is to be maintained over the entire investment period, contrasting with the Atal Pension Yojana (APY) scheme, launched in 2015, wherein the government matched contributions only at the outset. Enrolment under the PM-SYM is encouraging so far – 3 million people had enrolled as of mid-July 2019. In June 2019, the government has opened the PM-SYM for small shopkeepers and retail traders by requiring them minimal documentation – Aadhaar number and bank account details – to enrol.

Table 6. Government non-tax financial incentives to promote saving for retirement

	Matching contributions (match rate)	Fixed nominal subsidies
OECD countries	Australia (50%), Austria (4.25%), Chile (50% or 15%) [1], Hungary (20%), Mexico (325%)[2], New Zealand (50%), Turkey (25%) United States (50% to 100%)[3],	Chile, Germany, Lithuania, Mexico, Turkey
Selected non-OECD countries	Colombia (20%), Croatia (15%)	

1. Chile has two different matching programmes, one for young low earners (50% match rate) and one for voluntary contributors (15% match rate).
2. The matching programme for Mexico only applies to public sector workers.
3. The matching programme for the United States refers to the Thrift Savings Plan for federal employes. The first 3% of employee contribution is matched dollar-for-dollar, while the next 2% is matched at 50 cents on the dollar.
Source: (OECD, 2018[41])

To reduce poverty among the elderly and increase fairness in public support for pensions, the government should assess progress in enrolment with the PM-SYM. If low, parameters could be adjusted. Experience in other countries (such as Colombia) suggest that flexibility in the amount contributed and withdrawn is important, given the erratic nature of informal income. The government should also provide additional funding for social pensions, which could come from savings on the generous public employee scheme. The defined-benefit pension scheme for public employees could be capped or the replacement rate made progressive.

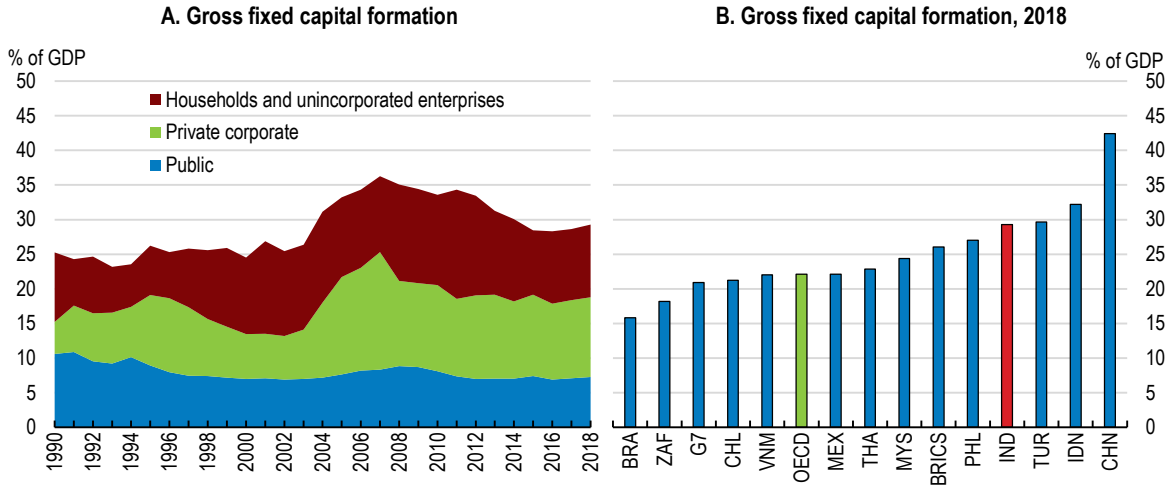
Table 7. Past OECD recommendations on promoting more inclusive growth

Key recommendations	Measures taken since February 2017
Introduce a simpler and more flexible labour law which removes disincentives for firms to create jobs	The government has proposed amalgamating 44 central government labour laws into four labour Codes on Wages, Industrial Relations, Social Security and Occupational Safety, Health and Working Conditions. Most of the Codes are still at a consultative stage. The labour contract rules introduced in 2016 for the textile and apparel industry were extended to all sectors in March 2018, giving more flexibility to companies to hire fixed-term employees. The Code on Wages, approved in 2019, regulates wage and bonus payments for all employees, allows the payment of wages by bank transfers and set a floor wage for all employees.
Upgrade electricity and water infrastructure and provide access to all.	Electricity reached every village from 2018, although not to everybody in every village. Progress in sanitation coverage has been rapid (more than 100 million toilets built since 2014).
Set energy and water prices high enough to cover economic costs for investors, replacing subsidies by better targeted household financial support	Some states' electricity distribution companies have revised up electricity prices, though not all. Some companies are still registering large losses.
Continue efforts to improve access to core public services for all	Preventive health care has been intensified, including vaccination campaigns and better sanitation. The government announced the creation of 150 000 primary care and wellness centres and introduced a new government-sponsored insurance scheme for hospital care. The benchmarking of states has been extended to health and education services
Produce timely data on employment to help design better policies	The Task Force for Improving Employment Data was created in May 2017. The Quarterly Periodic Labour Force Surveys have been published from FY 2018-19 and the first Annual Report is available for FY 2017-18.

Promoting investment and productivity to boost income convergence

Lifting investment is key to boost productivity and growth. The investment rate fell from 36% to 28% of GDP between 2007 and 2016, driven by a decline in private corporate investment (Figure 19). Erosion of the capital stock has weighed on the economy's growth potential (Figure 20). Although the investment rate is recovering gradually, it stands below the level of most other fast-growing EMEs. Bringing income growth to above 7% will require investment to address infrastructure shortages (Chapter 1) and to upgrade production capacities. This will in turn sustain productivity gains and job creation. Structural reforms are key to this end (Box 4).

Figure 19. The investment rate is recovering gradually



Note: In both panels, data for India refer to fiscal years.
Source: CEIC; RBI; IMF World Economic Outlook, April 2019.

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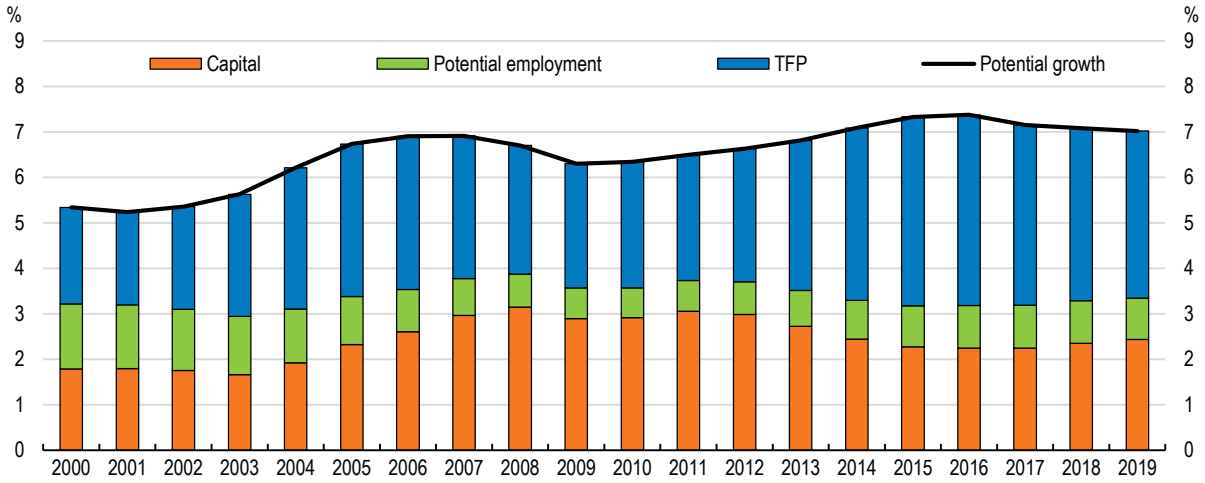
Figure 20. Potential growth is slowing down

Contributions to potential growth



Note: Dates refer to calendar year. Potential growth is modelled using a constant-returns-to-scale Cobb-Douglas production function with fixed factor shares. The three main inputs are labour, fixed capital excluding housing and labour efficiency (Chalaux and Guillemette, 2019[42]). Data for 2019 are estimates.
Source: OECD Economic Outlook 105 database.

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Box 4. The impact of structural reforms on per capita income

Structural reforms can boost economic growth and incomes. The OECD has estimated the relationship between reforms and total factor productivity, capital deepening and the employment rate for a sample of OECD and major non-OECD countries (Égert, 2017[43]). The OECD analysis suggests that if India were to implement a selected set of reforms, per capita income could increase by almost 10% over 10 years. One caveat, though, is that although India is included in the sample, estimation results may not fully capture the country-specific idiosyncrasies.

The main findings of the simulations are presented in Table 8:

- A reduction in tariffs by 20% would raise per capita income by 3.5% over 10 years.
- With the full implementation of the Insolvency and Bankruptcy Code, i.e. reducing the effective time of insolvency procedure by around 50 days, per capita income could increase by 1.7% over 10 years.
- An improvement of property rights (by reducing the gap with OECD average by half) would enhance the rule of law. Per capita income could increase by 1.4% over 10 years.
- Less corruption (by reducing the gap with OECD average by half) would produce an increase in per capita income of 2.7% over 10 years.

Table 8. Impact of reforms to boost potential GDP

	Effects on the level of per capita income (%) 10 years
Product market regulation	
Barriers to trade & investment	3.5
Cost of starting a business	0.3
Time of insolvency procedures	1.7
Labour market regulation	0.2
Public governance	
Government effectiveness	0.1
Rule of law	1.4
Control of corruption	2.7
Total	9.8

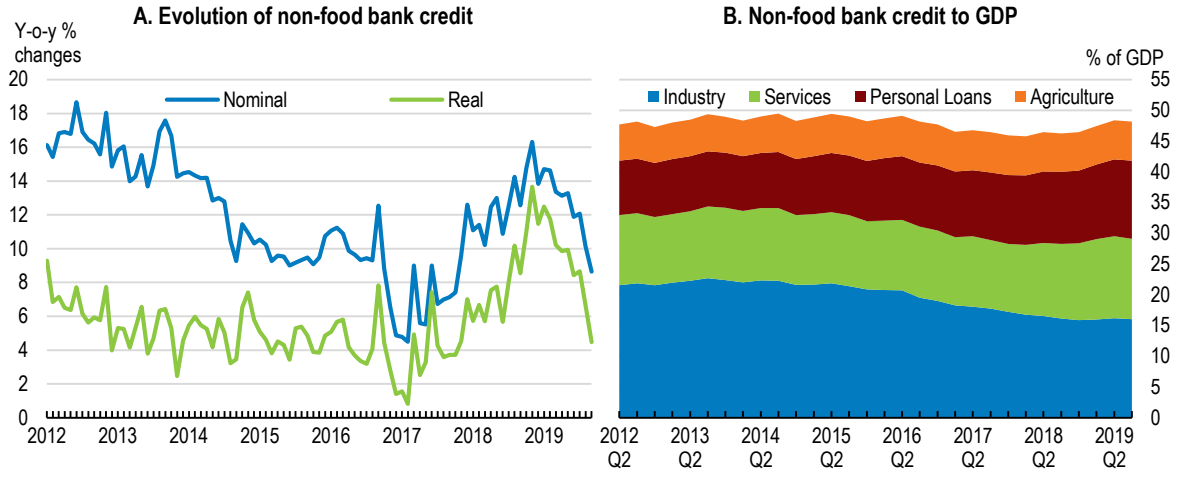
Note: The framework relies on a production function approach. The influence of policies on GDP is typically assessed through their impact on supply-side components: labour productivity and employment. Each in turn can be further decomposed, into capital intensity and multifactor productivity, and labour force participation and unemployment. The impact of structural reforms is quantified from a range of cross-country reduced-form panel regressions on three channels: multi-factor productivity, capital deepening and employment. The overall impact on GDP per capita is obtained by aggregating the policy effects of the various channels through a production function.
Source: OECD calculations based on (Égert, 2017[43]).

Improving further financial sector soundness to support business investment

Credit to the economy is decelerating since early 2019 and its composition is changing. Bank credit, at around 50% of GDP, is low compared to the average level in BIICS. Loans to the industrial sector no longer decline as a share of GDP (Figure 21). On the supply side, non-banking financial companies (NBFCs) and private banks have played an increasing role while public banks' market share in total credit has declined by about 10 percentage points since 2012 (Figure 22). This changing composition suggests that the financial sector has become more competitive and inclusive. NBFCs tend to serve borrowers often excluded from the formal banking sector in the form of small personal loans or innovative financial services to small enterprises (Ray, 2019[44]). They are also competing with banks in some areas, including financing infrastructure and housing projects.

The recovery in bank loans and the recent decline in non-performing loans (NPLs) suggest that measures to restore the soundness of the banking system are gradually paying off (Box 5). Under the revised Prompt Corrective Action (PCA) framework, operational since April 2017, the Reserve Bank of India monitors key performance indicators for banks as an early warning exercise. If the thresholds related to capital, asset quality and profitability are breached, banks may face restrictions on dividend distribution, and may have to reduce high risk-weighted assets and credit concentration, increase provision coverage, introduce a time-bound plan to reduce NPLs, and restrict branch expansion and capital expenditure. Between April 2017 and January 2018, 11 public banks were put under the PCA; so far five public banks and the only private bank were taken out following improvements in their capital position and asset quality.

Figure 21. Bank loans are decelerating, after two years of strong growth



Note: Total non-food bank credit. Data for credit are quarterly averages of monthly data. Credit composition is based on data from 41 commercial banks that account for roughly 90 per cent of total non-food bank credit.
Source: RBI; OECD, Analytical database.

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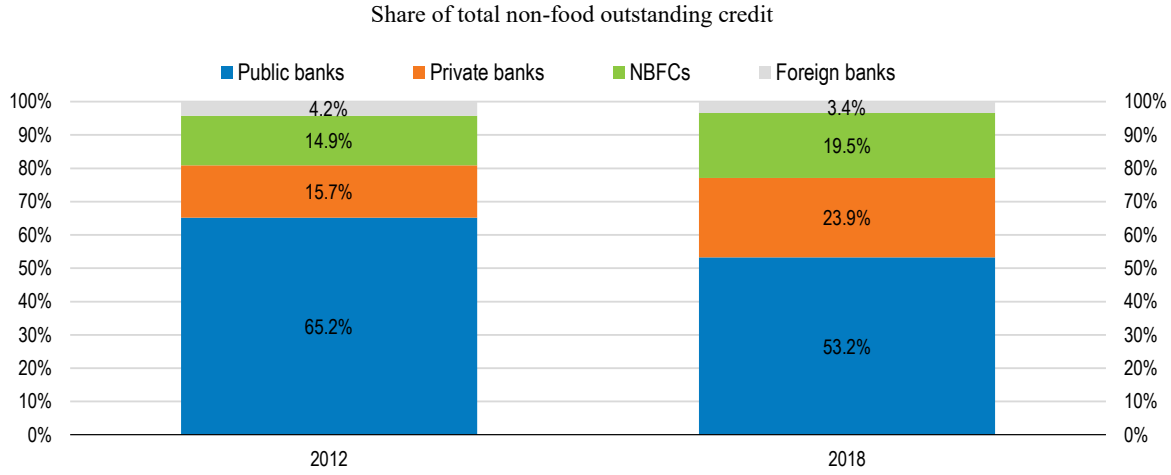
Figure 22. The share of public banks in loans is decreasing



Note: The stacked bars show the shares per category in total outstanding credit. NBFCs stands for Non-Banking Financial Companies. Public banks include: Nationalised banks, Regional rural banks, State Bank of India and its associates. Private banks include: Private sector banks and Small finance banks.
Source: RBI.

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Box 5. Measures taken to address non-performing loans

To identify and address non-performing loans in the banking sector, the RBI has taken various measures, including:

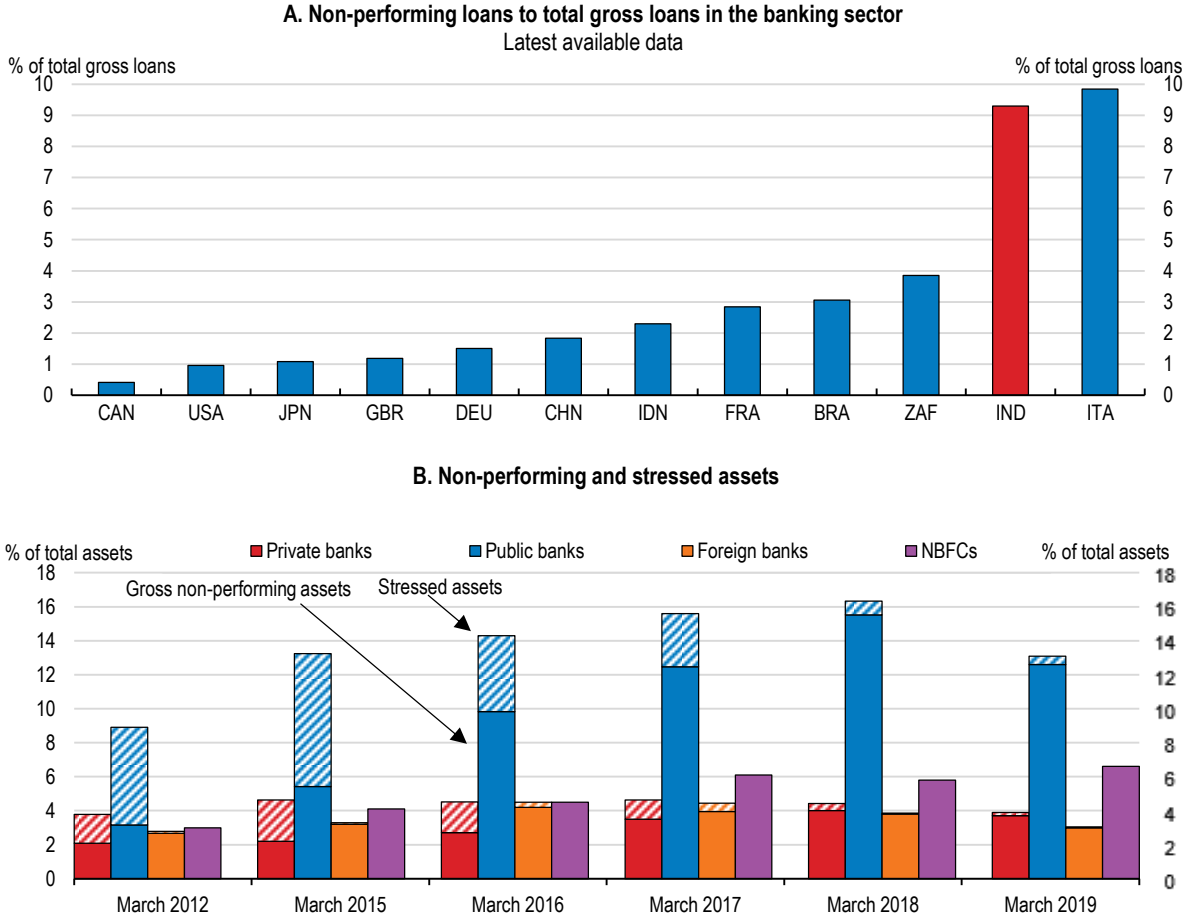
- An Asset Quality Review was conducted in 2015 across banks.
- The RBI required banks to make public disclosures when the divergence in asset classification and provisioning, as assessed by RBI, is beyond a certain threshold.
- A Central Repository of Information on Large Credits database was implemented to help banks taking informed credit decisions.
- A framework for identifying, reporting and monitoring wilful defaulters by banks was established.
- Early Warning Signals and Red Flagged Accounts to minimise delays in acting upon borrowers misusing bank funds have been introduced.
- The Large Exposure Framework to limit concentration to a specific borrower and the framework for resolution of stressed assets establishing broad principles have been revised.
- Additional provisioning for delayed implementation of resolution process or filing of insolvency application under the Insolvency and Bankruptcy Code has been introduced.

To enable banks to meet regulatory requirements, public banks' recapitalisation was realised in 2017 and 2018, contingent upon measures to strengthen governance and operations (IMF, 2018[45]). An additional INR 700 billion (0.3% of GDP) has been included in the 2019-20 budget. Since 2017, the government has also promoted public bank consolidation. In August 2019, ten public banks were merged into four, reducing the number of public banks from 27 in 2017 to 12. Bank consolidation will be accompanied by governance reforms, better pay packages and rationalising board committees.

These measures are welcome but more reforms could enhance credit and resource allocation. Non-performing loans remain high by international standards, especially for public banks (Figure 23). Provisioning affects bank profitability (Figure 24) and is reflected in high intermediation costs (FICCI, 2018[46]). Although banks' capital adequacy has improved and stands above regulatory requirements (Reserve Bank of India, 2018[47]), capital ratios are relatively low. Lowering the 51% threshold for government share could help strengthen public banks' balance sheets, reinforce governance and efficiency and limit future demands on public finance [(OECD, 2017[1]), (IMF, 2018[45])].

Non-banking financial companies (NBFCs) register relatively low but increasing non-performing loans. Long-term lending out of short-term resources exposed a few NBFCs to asset-liability mismatches and has caused stress on their liquidity positions. This asset-liability mismatch has recently exacerbated default risks and put the NBFCs into stress. While some NBFCs face higher borrowing costs, the better performing ones have continued to raise funds. The government and the Reserve Bank of India have taken several measures to extend liquidity support to the NBFCs through various schemes (Box 6). The decision, in May 2019, to create a specialised structure within the Reserve Bank of India to strengthen the supervision and regulation of banks and NBFCs is welcome. A draft liquidity risk management framework has been proposed for NBFCs which, inter alia, includes the introduction of a liquidity coverage ratio in a phased manner from April 2020. Closely monitoring asset quality would increase transparency and reduce uncertainty.

Figure 23. Non-performing loans have started to decline but remain high in public banks



Note: In Panel A, data refer to March 2019 for India; February 2019 for South Africa; 2018Q4 for Brazil, Canada and China; 2018Q3 for France, Japan and United States; 2018Q2 for Italy and United Kingdom; 2018 for Germany and Indonesia. In Panel B, data on stressed assets are not available for NBFCs.
Source: IMF, Financial Soundness Indicators database; RBI.

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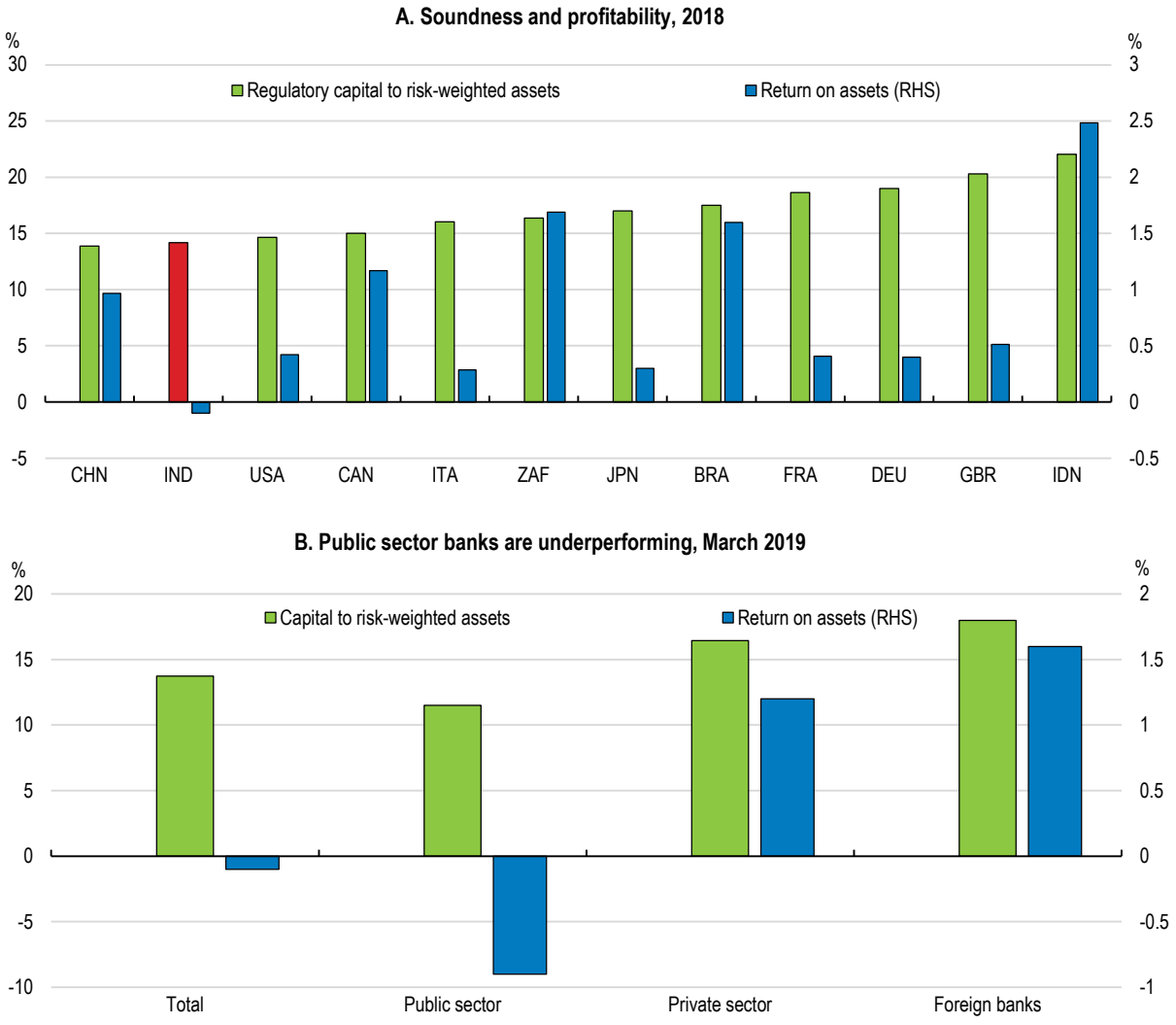
Figure 24. Banks' quality of assets and profitability remain low



Note: In Panel A, data show an average based on all available quarterly observations for 2018.
Source: IMF, Financial Soundness Indicators database; RBI.

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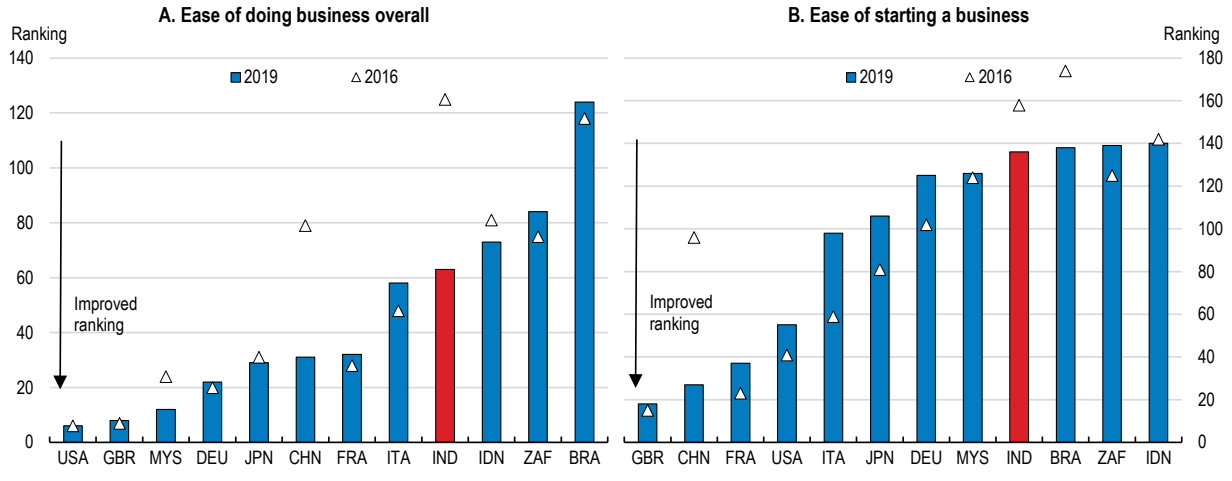
Box 6. Measures taken to strengthen supervision and regulation of non-banking financial companies

- The Reserve Bank of India (RBI) monitors the balance sheets of the large non-banking financial companies to assess signs of weakness and prescribes corrective measures to be undertaken.
- The regulatory framework for non-banking financial companies is being harmonised, thereby facilitating better implementation of activity-based regulations.
- The RBI has proposed introducing a Liquidity Coverage Ratio for all deposit-taking non-banking financial companies and for non-deposit taking ones with asset size of INR 50 billion (US$ 700 million) and above gradually over a period of four years between April 2020 and April 2024.
- Non-banking financial companies with asset size of more than INR 50 billion (US$ 700 million) have been advised to appoint a Chief Risk Officer to ensure highest standards of risk management.

Continuing to improve the business climate

Doing business has become easier in recent years. In 2019, India stands at the 63th place (Figure 25), out of 190 countries, in the World Bank Doing Business ranking (from 130th in 2016). Online procedures for certification and environmental clearances, a single-window clearance system for construction permits in Delhi and the online building permit approval system in Mumbai have made it easier to start a business. The replacement of many indirect taxes imposed by states and the central government by the Goods and Services Tax has resulted in a leaner tax system. The electronic sealing of containers, the upgrading of port infrastructure and electronic submission of supporting documents with digital signatures contributed to reduce time and costs to export (Chapter 1).

Figure 25. The ease of doing business has improved



Source: World Bank, Doing Business.

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There is scope to further improve the business climate. Enforcing contracts is still difficult. Time and costs to register an enterprise are higher than in many EMEs. Moreover, in 2018, it took 1 445 days to resolve commercial disputes, against around 400 in Indonesia, Malaysia and Vietnam (World Bank, 2018[48]). The judiciary system is slow due to a shortage of judges, insufficient administrative support available to judges, low use of IT technologies and unjustified cases. The government has estimated that increasing the number of judges by around 10% would allow a full resolution of annual cases even without efficiency gains. Resolving the backlog of cases in five years would require ambitious but achievable productivity gains (Ministry of Finance, 2019[49]).

Despite the promulgation of the 2013 Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, land acquisition remains complicated, making it difficult to embark upon greenfield manufacturing investment requiring floor space. The system of land titles is scattered across various records such as registered sale deeds, property tax documents and government survey records. As in many emerging economies, land registries are imperfect, as they often do not reflect the on-ground position [(OECD/ICRIER, 2018[17]); (Gopalan and Venkataraman, 2015[50]), (Mishra and Suhag, 2017[51])].

The 2008 Digital India Land Records Modernisation Programme has contributed to the digitisation of land records, with encouraging experiments at the state level. Karnataka, Andhra Pradesh and Tamil Nadu have digitalised their village property records. In Odisha, drones have been used for geospatial mapping, and proved to be a cheap and fast option. Computerisation of land records was completed in 90% of India's villages and maps were digitised in 53% of them as of April 2019. However, many states still do not have the means to review land (National Real Estate Development Council, 2019[52]). The allocation of land without owner through surveys has been completed in only 12% of the villages. The process of land titling should be accelerated by building capacity through officials training at the local level.

A swifter resolution of insolvencies would improve allocation of resources

The full implementation of the 2016 Insolvency and Bankruptcy Code will boost productivity by enabling a faster reallocation of resources from low to high productivity sectors and companies. Key objectives of the Code are to: i) reduce delays in bankruptcy resolutions – on average 4.3 years before implementing the Code; ii) maximise the value of assets; and iii) clean up non-performing loans by giving creditors better control over the resolution process. The Code also promotes healthier debtor behaviour and should help contain future non-performing loans.

The Code's design conforms with international best practices (Box 7) and implementation has gradually improved. Initially, priority was given to resolving 12 key cases, accounting for 25% of non-performing loans. As of June 2019, resolution plans had been approved for six companies and a liquidation order had been passed for one company. Overall, by the end of June 2019, resolution plans had been approved for 120 companies and liquidation orders had been passed for 475 companies. Recovery rates, at around 50%, are above the BIICs average (around 40%) but below the OECD average (around 70%) (Insolvency and Bankruptcy Board of India, 2019[53]; World Bank, 2018[48]).

The average length of resolution reached 341 days (Table 9). Only one third of the cases were resolved within the 270-day limit, and procedures tend to be longer for large cases (Insolvency and Bankruptcy Board of India, 2019[53]). The limit was extended to 330 days in July 2019. Delays are due to procedural issues, weak infrastructure and lack of qualified

professionals, as well as unjustified proceedings (PWC-CII, 2018[54]) . To reduce delays further, five new benches have been announced in the past year. Continuing to increase resources and upgrade skills in the benches of National Company Law Tribunal will be needed to reduce delays. More benches should also be opened if needed.

Table 9. Insolvency and Bankruptcy Code: encouraging outcomes but delays should be reduced further

A. Over time

Period of approval of resolution plans	Number of resolved bankruptcy cases	Total amount due to creditors (INR bn) (A)	Recovered capital by creditors (INR bn) (B)	Average recovery rate (B)/(A) (%)	Average length of resolution process in days
2017Q3	2	10.2	0.8	7.4%	204
2017Q4	7	45.0	17.8	39.5%	238
2018Q1	13	31.0	14.5	46.9%	261
2018Q2	14	430.7	181.6	42.2%	290
2018Q3	28	95.8	81.3	84.9%	344
2018Q4	15	74.7	31.1	41.6%	349
2019Q1	14	93.8	59.8	63.8%	388
2019Q2	20	43.7	41.8	95.6%	437
Total	**113**	**824.9**	**428.7**	**52.0%**	**341**

B. Per size of claims

Quartiles	Number of resolved bankruptcy cases	Total amount due to creditors (INR bn) (A)	Recovered capital by creditors (INR bn) (B)	Average recovery rate (B)/(A) (%)	Average length of resolution process in days
1st quartile (smallest claims)	29	1.9	2.1	109.1%	309
2nd quartile	28	7.5	7.6	101.8%	307
3rd quartile	28	25.7	25.1	97.6%	363
4th quartile	28	789.8	393.9	49.9%	387
Total	**113**	**824.9**	**428.7**	**52.0%**	**341**

Note: Average length of resolution processes in days is the unweighted averages.
Source: Insolvency and Bankruptcy Board of India, Quarterly Newsletters 2017Q4 to 2019Q2.

Box 7. The Insolvency and Bankruptcy Code: key features, outcomes and international comparisons

The Insolvency and Bankruptcy Code (IBC) initially required creditors to agree on a resolution plan within 180 days (plus a possible extension of 90 days), from insolvency commencement date. Under IBC, creditors take control of the assets of the defaulting debtors, in contrast to the earlier system in which assets remained in possession of debtors till resolution or liquidation. The owners of the defaulting company cannot bid and existing management is removed. The IBC Bill was amended in July 2019, with two major changes: first, the time allowed for resolution was extended to 330 days. Second, the amendment recognises and restores the priority of financial creditors over operational creditors in clear terms. Hierarchy among secured and unsecured financial creditors is also recognised in the amendment. If no buyer is found and a resolution plan cannot be agreed upon within the required time frame, the company is taken to bankruptcy court.

The implementation of the Insolvency and Bankruptcy Code has achieved significant results. As of June 2019:

- More than 2659 Insolvency Professionals (IP) registered;
- More than 95 Insolvency Professional Entity (IPE) registered;
- 16 benches of National Company Law Tribunal (NCLT) actively pursuing Insolvency and Bankruptcy cases
- More than 1290 insolvency proceedings are going on in various benches;
- Almost 600 cases have either been resolved or put into liquidation (Insolvency and Bankruptcy Board of India, 2019[53]).

The OECD has developed indicators on key characteristics of insolvency regimes (Adalet McGowan and Andrews, 2018[55]), with three categories: personal costs to failed entrepreneurs; lack of prevention and streamlining; and barriers to restructuring. An indicator of the personal costs to failed entrepreneurs is the time to discharge – the lengthier, the more expensive. In India, the *de jure* time to discharge ranges among the best performers. Regarding prevention and streamlining, while early warning systems do not exist in India, special procedures for SMEs are in place. One feature that may potentially impose barriers to restructuring is the inability of creditors to initiate restructuring – only financial creditors can.

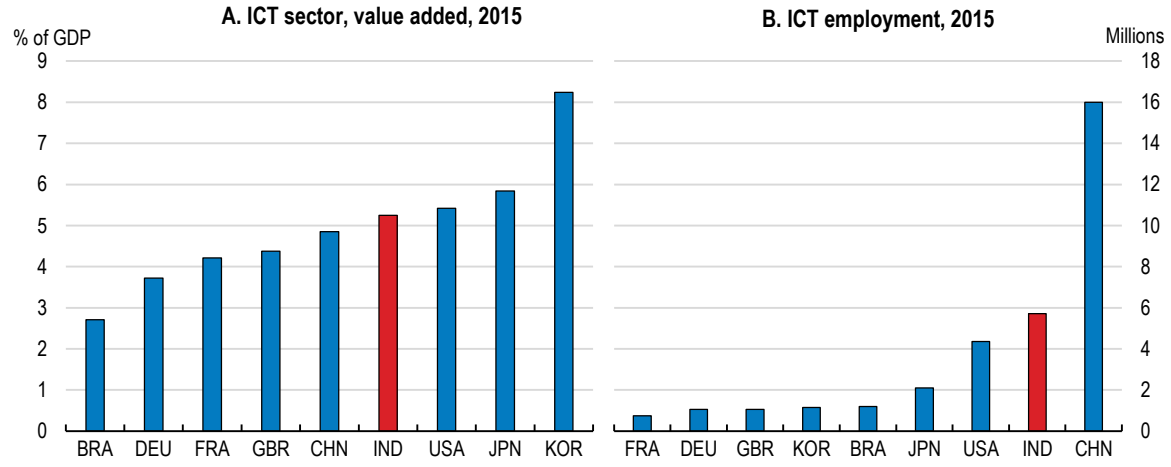
Unlocking the digitalisation potential

India is digitalising fast, the contribution of the ICT sector to growth is increasing and employment in the sector is large (Figure 26). In 2015, the government launched the *Digital India* initiative to "transform India into a digitally empowered society and knowledge economy" by providing digital infrastructure and literacy to all Indians and by enhancing e-government.

An increasing number of government formalities can be carried out online. India relies on electronic ballots, including for the latest general elections. Increased reliance on e-procurement has promoted competition and improved infrastructure quality (Lewis-Faupel et al., 2016[56]). The new GST Network enables more than 10 million businesses to register all transactions on a common digital platform. Combined with the GST e-way bill system

(an electronic document now required for the movement of goods), it reduces the scope for tax avoidance and evasion. Property rights are being digitalised.

Figure 26. The contribution of the ICT sector in the economy is large



Note: The ICT sector excludes the manufacture of magnetic and optical media and ICT trade industries.
Source: European Commission 2019 PREDICT Dataset.

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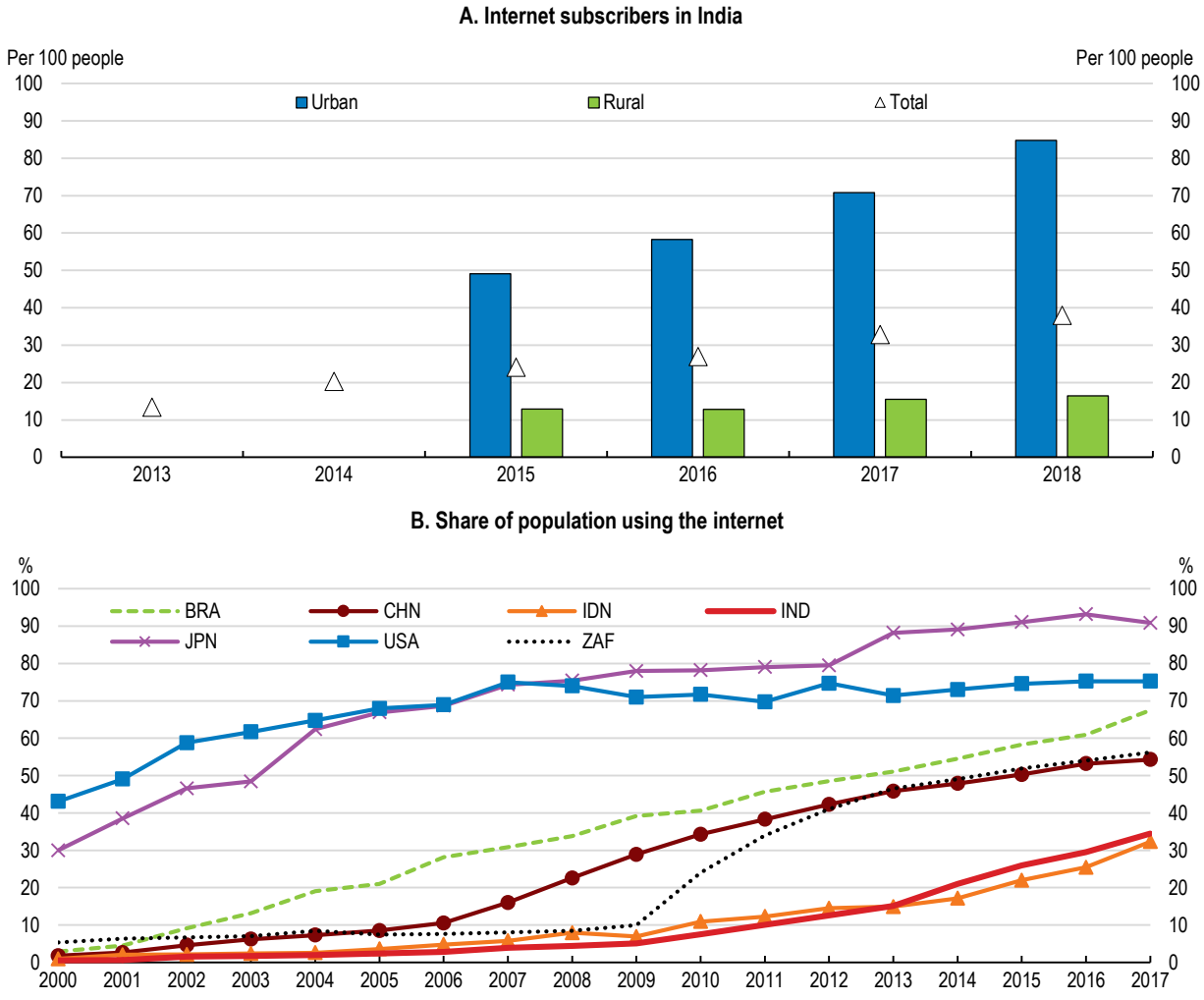
Although an increasing share of households and firms are adopting digital technologies, a digital gap remains. The number of internet subscriptions has doubled in less than 4 years, reaching about 600 million in December 2018 (Figure 27). Internet speed has increased and costs have declined with new actors in the sector. Incentives to pay by credit cards coupled to reforms in households subsidies (direct government transfers on individuals' bank accounts linked to a unique biometric identification number) have helped increase the volume and value of digital payments, although from a low level (Figure 28). E-commerce is developing fast and its value in 2026 (USD 200 billion) is expected to be 8 times that of 2017 while the number of online shoppers could increase from 15% of the online population today to 50% by 2026 (Deloitte, 2019[57]). It could create over one million jobs by 2022 (PwC-NASSCOM, 2018[58]). However, the gap between urban and rural households is growing. Digital adoption is also uneven among firms: large firms are ahead in domains requiring large investments such as making sales through their own website while small firms are leaders in other areas, such as acceptance of digital payments and the use of social media to reach and support customers (McKinsey, 2019[59]).

Greater digital transformation can be facilitated by a number of policies. Bridging the rural/urban divide would require further developing digital infrastructure, especially in rural areas. Ensuring adequate access to high-speed internet may require pro-competition reforms in telecom sectors (e.g. encouraging the emergence of new entrants or enabling infrastructure sharing) to reduce prices and spur investment. Addressing financial needs especially for young innovative firms would also support the adoption of digital technologies. Upgrading skills should be another priority since it can offer a double dividend of boosting productivity and supporting inclusiveness.

Figure 27. Internet penetration has increased mainly in urban areas



Source: Ministry of Communications, Government of India; World Bank, World Development Indicators database.

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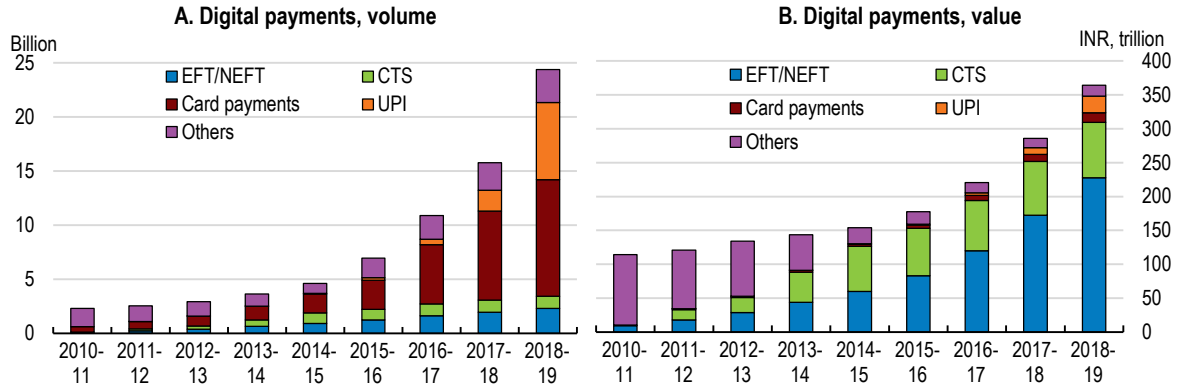
Literacy and numeracy are prerequisites for developing the skills required by the digital economy (OECD, 2016[60]). The 2014 *Economic Survey on India* (OECD, 2014[2]) recommended to continue improving access to education, especially at the secondary level, and to focus on the quality of education at all levels. It also recommended providing better and earlier vocational training (Table 10). These recommendations are still valid. Lifelong training should also be promoted.

Figure 28. Digital payments are growing fast



Note: NEFT refers to National Electronic Funds Transfer; CTS refers to Cheque Truncation System; Card payments include credit card and debit card payments at point of sales and UPI refers to Unified Payment Interface and includes Immediate Payment Services.
Source: RBI; National Payments Corporation of India.

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Table 10. Past OECD recommendations on promoting investment and productivity

Key recommendations	Measures taken since February 2017
Strengthen public bank balance sheets by recapitalising them, promoting bank consolidation and lowering the 51% threshold below which the government share cannot fall	In 2017 and 2018, the government realised a recapitalisation package of public banks amounting to 0.5% each year and in 2019 another one amounting to 0.3% of GDP. The government completed two major merger operations in 2017 and 2019.
Gradually reduce the obligations imposed on banks to hold public bonds and lend to priority sectors	The statutory liquidity ratio, currently at 19%, is gradually being reduced by 25 basis points every quarter until it reaches 18% in April 2020
Enable reforms in land ownership laws, improve the land registry and step up the digitisation of land records.	Digitalisation at the state level is progressing, computerisation of existing land records being almost complete.
Implement the gradual reduction in the corporate income tax from 30% to 25% while broadening the tax base	A new corporate income tax structure has been introduced with reduced rates and no exemption; for new manufacturing companies, a low income tax regime will be in place up to 2023. India has ratified the multilateral convention to prevent Base Erosion and Profit Shifting (BEPS) in 2019.
Continue improving access to education and provide better and earlier vocational training	The government is developing information on education outcomes at the state level to promote competition across states.

Air pollution is a major challenge for green growth and wellbeing

India has reduced the CO_2 intensity of its economy and energy efficiency has improved (Figure 29). Nonetheless, energy consumption is growing strongly along with the economy overall, albeit from a low starting point, and may more than double by 2040 on planned policy settings (IEA, 2018[61]). India's development needs are challenging in a world that has to achieve carbon neutrality by 2050 to keep the global temperature increase to 1½ degrees or less. The way energy supply will be rolled out will be crucial to meet sustainable development and environmental challenges.

The share of renewables in primary energy supply declined for many years as the use of biomass, mostly by households for cooking and heating, levelled off. Biomass contributed about 90% of the renewable energy supply in 2016. Recent measures – in particular the Ujjwala scheme introduced in 2016 which provides financial assistance to poor households to meet the upfront costs of gas connections -- may have helped to reduce it further. The burning of biomass still exacerbates air pollution (Chafe et al., 2019[62]). Solar and wind-based electricity have helped raise the renewable energy supply recently. In 2017, investment in renewable electricity generation, mostly for solar and wind, topped investment in fossil fuel-fired generation (IEA, 2018[63]). It is set to expand substantially, as the government has set ambitious renewables targets.

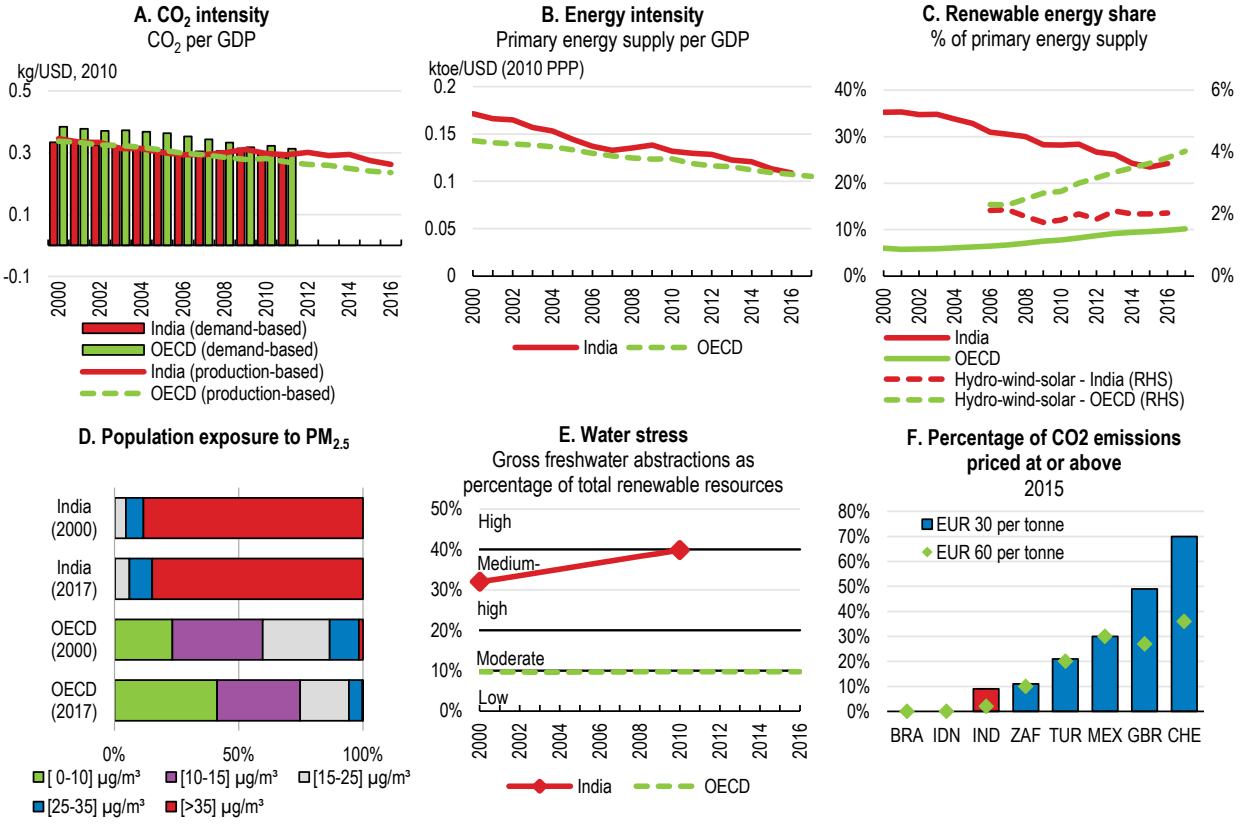
Most of the population is exposed to very high outdoor small particle pollution. Fewer than 1% enjoy air quality within the World Health Organisation's recommended pollution limit (IIASA and CEEW, 2019[23]). Out of the ten cities most affected by air pollution in the world, as measured by the concentration of fine particulates ($PM_{2.5}$), nine are Indian. Around half is exposed to concentrations that do not meet India's National Ambient Air Quality Standards – these standards reflect local geographic, topographic and meteorological factors.

The predominant sources of outdoor pollution vary by region (IIASA and CEEW, 2019[23]). Residential energy use, notably solid fuel combustion, contributes more than half of small particle pollution. Solid fuels are mostly biomass, including wood, animal dung and crop residue. Power plants, industrial processes and agriculture also contribute. In Delhi, transport is a major cause of air pollution. Power plants and industry are the biggest polluters in Haryana and Maharashtra.

Recent expert work estimates that almost 820 000 Indians have died prematurely in 2017 because of outdoor pollution, mostly on account of small particles: 23% more than 5 years earlier. Relative to its population, outdoor air pollution-related premature mortality is among the highest in major emerging and OECD economies (Roy and Braathen, 2017[64]). In addition, it is estimated that approximately 170 million households, mostly in rural areas, are exposed to indoor pollution primarily from poor combustion of solid fuels in traditional cook stoves, resulting in more than 600 000 premature deaths annually (IEA, 2018[61]). The welfare cost of premature mortality alone is estimated at 7% of GDP annually for outdoor air pollution and 4.2% for indoor air pollution. Air pollution impairs children's development (World Health Organization, 2018[65]) and diminishes education outcomes (Heissel, Persico and Simon, 2019[66]). Finally, it reduces worker productivity, lowers agricultural yields (OECD, 2016[67]) and raises health care spending (Barwick et al., 2018[68]).

Since 2010, the government has increased taxation of coal, the main fossil fuel used in electricity generation and industry, imposing an INR 400 tax per tonne of coal in 2017. Nonetheless, the implied price of CO_2 emissions from taxes is a fraction of international climate cost benchmarks. Diesel is taxed at about half the rate of gasoline (OECD, 2018[69]) but is more polluting. Since low-income households typically do not own cars, higher fuel prices are unlikely to be regressive. Impacts on public transport and on low-income farmers could be relieved with targeted measures such as income transfers and improved public transport access.

Figure 29. Green growth indicators



Note: Panel A: CO2 emissions from combustion of oil, coal, natural gas, and other fuels. GDP in constant PPP-adjusted USD. Panel F: Switzerland and the United Kingdom are among the countries with the smallest carbon pricing gaps.
Source: OECD (2018) Green Growth Indicators; OECD (2018) Effective Carbon Rates 2018; United Nations Food and Agriculture Organisation AQUASTAT database (Panel E).

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India has committed to reducing the greenhouse gas (GHG) emissions intensity of GDP by one third, compared to 2005 levels, by 2030. India is likely to achieve this ambitious target (Climate Analytics, 2018[70]). It has pledged to increase the share of non-fossil based energy resources in cumulative electric power installed capacity to 40% by 2030, with the help of international transfers of technology and low-cost international finance. Indeed, relying on a rapid expansion of renewables, combined with investment in energy efficiency to phase out fossil-fuel based electricity generation, can reduce the cost of deploying energy infrastructure (World Bank, 2019[71]).

The National Electricity Plan also foresees coal capacity additions to meet rising energy demand. Unabated construction of coal plants (where CO_2 emissions are not removed through capture and storage or use) risks locking in emissions over the long term (IEA, 2019[72]). Some of these planned power plants are also in highly water-stressed areas (World Resources Institute, 2019[73]; Global Coal Plant Tracker, 2018[74]). Instead of building new coal plants, the government should consider increasing reliance on bio-fuels and renewable energy.

India is considered one of the countries most exposed to future water risks (OECD, 2017[75]) and climate change will aggravate water scarcity. Water stress interacts with energy supply. About 40% of thermal power plants, mostly coal-based, are located in areas facing high water stress. Droughts and water shortages have resulted in shutdowns (Luo, Krishnan and Sen, 2018[76]). Warm water effluents pollute surface waters and ecosystems. Increasing water scarcity heightens these impacts (OECD, 2017[75]). Coal mines and coal-fired power are also important sources of chemical water pollution.

The government is taking action to tackle air pollution, but more is needed

India is implementing measures to reduce air pollution, including emission norms and technical standards for thermal power plants, industrial combustion and road vehicles (IIASA and CEEW, 2019[23]). It has also taken measures to double wind and solar energy capacity between 2018 and 2023 (IEA, 2018[77]). To reduce the burning of crop residue, which contributes to a high air pollution level in Delhi, the government has promoted in-situ management of crop residue in Delhi's neighbouring states. Targeted programmes provide clean liquefied petroleum gas connections, to replace more polluting kerosene and biomass firing among the poor, and should benefit 80 million poor households by 2020 (IEA, 2018[61]).

These measures are expected to reduce air pollution significantly, provided they are implemented effectively. Nonetheless, 45% of Indians would still live in areas exceeding national standards in 2030. Upgrading emission standards and norms to the latest technology in high-income countries would help but would still not be sufficient. The cost of implementing these standards could amount to around 1% of GDP (IIASA and CEEW, 2019[23]).

Bringing air pollution to national standards by 2030 would require additional measures (IIASA and CEEW, 2019[23]), including: increased electrification combined with the replacement of coal by natural gas and renewables in the power and industry sectors; providing advanced cookstoves for all households still using biomass for cooking; efficiency improvements in buildings and appliances; improved public transport infrastructure and capacity; and stronger incentives for the adoption of electric vehicles. India is pursuing many of these policies. Their benefits argue for accelerated introduction.

India launched the National Clean Air Programme in 2019, initially for 5 years. It aims to bring down small particle air pollution by 20-30% by 2024 by improving the monitoring network across the country, enhancing public awareness and implementing a management plan for the prevention, control and abatement of air pollution. City-specific action plans will be developed for all 102 cities that exceed national air quality safeguards (Ministry of Environment, Forest and Climate Change, 2019[78]).

Table 11. Findings and recommendations

Findings (main findings in bold)	Recommendations (main recommendations in bold)
Further improving macroeconomic policies and governance	
There is scope to raise more personal income tax revenue to finance much needed investment in infrastructure and higher public spending on health and education and to adhere to the set target on public debt to GDP.	**Raise more tax revenue by removing the tax expenditures that most benefit the rich, freezing nominal personal income tax brackets and improving compliance.** Rich farmers should be brought into the personal income tax net.
Revenue from property taxes is low, in particular recurrent taxes on immovable property. There is no inheritance tax.	Give local governments the exclusive power to levy a real estate tax. Introduce an inheritance tax.
Revenue from the Goods and Services Tax has disappointed. The number of rates is high. So is the registration threshold. Core goods (oil and electricity) are exempted.	Simplify further the structure of the Goods and Services Tax by reducing the number of rates and exemptions.
Government deficit to GDP has declined but various public spending programmes are partly financed off-budget. Contingent liabilities are looming.	**Improve transparency on off-budget transactions and contingent liabilities, e.g. by creating an independent fiscal council.**
Inflation targeting, combined with lower oil prices and partial deregulation on the food market, have brought down inflation which is now below target. Monetary policy transmission remains incomplete.	**Monetary policy should remain accommodative as long as inflation is set to remain comfortably close to the target.** **Reduce the spread between administered rates on small savings and market rates to improve monetary policy transmission.**
Corruption has declined but remains high. The lack of a comprehensive legislation for public procurement, consistent across levels of government, is an issue.	**Harmonise legislation on public procurement across the government.** Consider signing the OECD anti-bribery convention.
Boosting investment, productivity and growth	
Resolution delays under the Insolvency and Bankruptcy Code are frequent.	**Continue to open more benches and employ more and better trained professionals in commercial courts.**
Financial risks, in particular non-performing loans in public banks, have declined but remain high. Some non-banking financial companies, partly financed by banks, suffer from an asset-liability mismatch.	**Closely monitor asset quality of non-banking financial companies.**
Efforts have been made to recognise and restructure faster non-performing loans. Public banks have been recapitalised. Reforming public banks' governance has lagged behind.	Continue to enhance boards' independence and give management more autonomy in recruiting and setting wages to attract talents.
Public ownership remains large weighting on productivity.	Accelerate disinvestment in public assets.
Addressing social challenges	
Labour regulations are complex and discourage firms to grow and create quality jobs. Job creation has been slow and most jobs are in the unorganised/informal sector without formal contract and social security coverage. Labour-intensive exports are lagging behind.	**Introduce a simpler and more flexible labour law which removes disincentives for firms to create jobs.** Quickly adopt and implement the four labour codes.
The lack of timely and comprehensive official labour data makes it difficult to assess policy outcomes and priorities.	Improve the quality and timeliness of labour data.
The population health status lags behind the average increase in income. Public spending on health care stands below 1½ per cent of GDP. The number of doctors and nurses is low by international standards, in particular in rural areas.	**Train more general practitioners and nurses.**
The new income-support scheme for land-owning farmers will help reduce poverty but leaves behind tenant farmers and labourers. It comes over and above fertiliser subsidies which affect soil and water quality and health.	**Extend the new income-support for farmers to tenant farmers and labourers and reduce input subsidies to the agricultural sector, in particular fertilisers.**
The government introduced a voluntary pension scheme for informal workers with a generous matching rate to promote enrolment.	Assess progress in enrolment and adjust parameters if needed, in particular flexibility in the amount and timing of workers' contributions.
Female labour force participation is low.	Further modernise labour laws to ensure equal work opportunities for women.
Many young people are out of work and not in education and training.	Continue improving access to education and provide better and earlier vocational training.

Promoting green growth	
Most of the Indian population is exposed to high outdoor and indoor pollution. Household energy use is the biggest contributor.	Deploy efficient stoves to those households that will not have access to electricity or gas within the next 10 to 20 years.
Energy consumption per capita is low and will increase steadily.	Further increase the share of renewable energy in meeting energy needs.
Coal-fired power contributes to air and water pollution and water scarcity. Building new coal-fired power plants risks locking in emissions over the long term.	Gradually raise the tax on coal and use the additional revenue to compensate low-income households.

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Thematic chapters

Chapter 1. Challenges and opportunities of India's enhanced participation in the global economy

India is becoming a key player in the global economy partly reflecting the reduction in tariffs since the early 1990s and relatively low non-tariffs barriers. It performs extremely well in exporting information and technology services, pharmaceuticals and petroleum products. India's large diaspora is well integrated abroad, helping to develop new export markets and facilitate the transfer of technology and know-how. However, India could perform better in some domains. These include labour-intensive manufacturing exports, where India has a clear competitive advantage, and foreign direct investment. Better performance in these areas would boost job creation and thus make growth more inclusive. It would require improving further infrastructure, in particular transport and energy provision, modernising product market regulations, developing skills, and reconsidering barriers to trade and investment. OECD simulations suggest that India would be a major beneficiary were barriers to trade and investment be reduced multilaterally. In the absence of a multilateral agreement, the economy would also gain from further liberalisation of trade and investment. Although India faces restrictions on its export markets, OECD simulations suggest that if India cuts tariffs and non-tariff measures restricting trade by 20% and improve trade facilitation, domestic production would rise by about 3%, exports by 14%. It would also create jobs in the manufacturing sector.

India has seized many opportunities

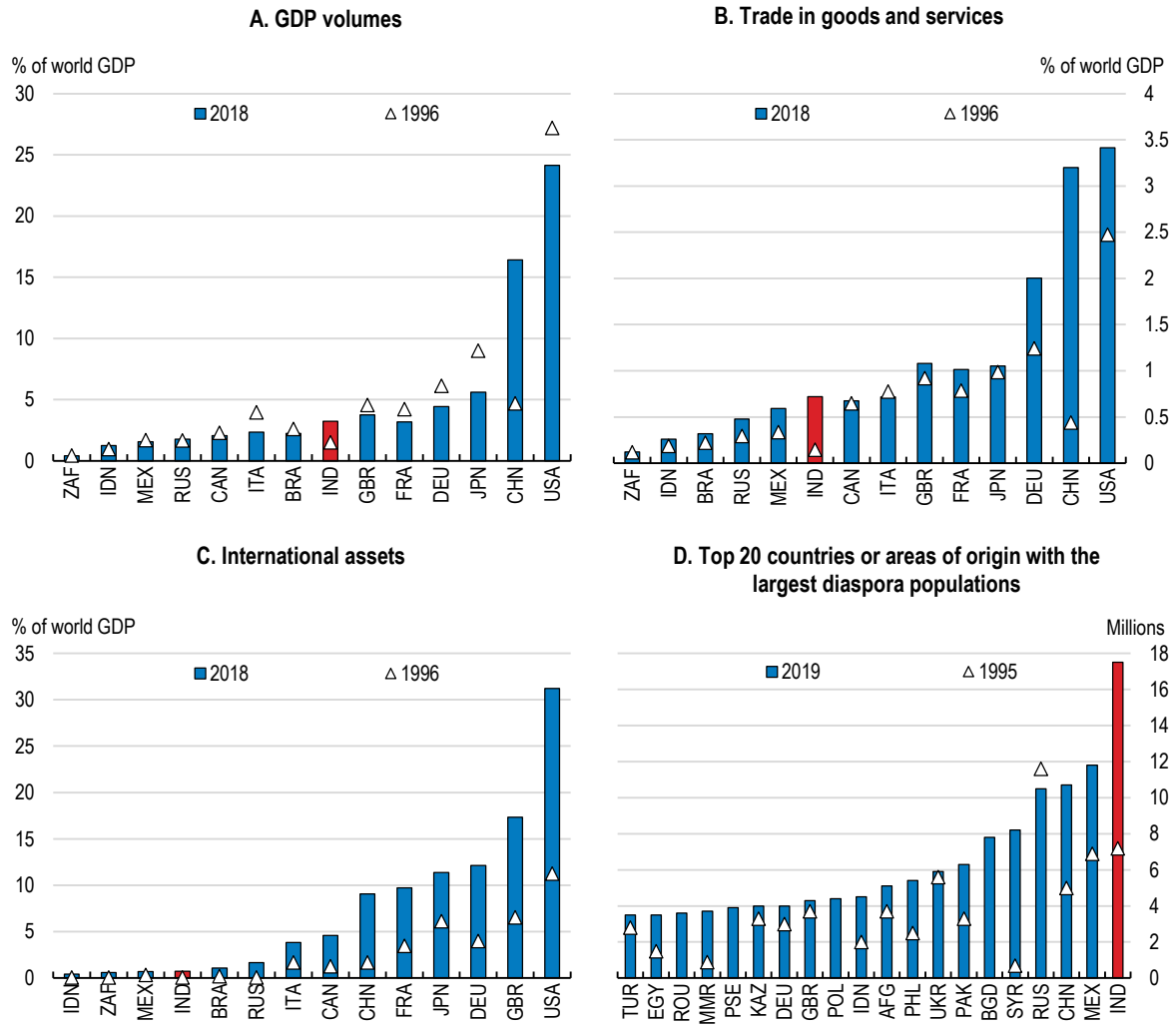
The participation of India in the global economy has risen and is high, in terms of GDP, trade, number of Indians living abroad, although less so in terms of international capital (Figure 1.1). India has developed know-how and succeeded in exporting many goods and services to a large number of countries. It has specialised in sectors which will likely be in high demand in the near future (e.g. information technology and communication (ITC) services, pharmaceuticals and medical devices). India's diaspora – the largest in the world – has helped develop trade networks while migrants' remittances and savings have supported domestic consumption and investment.

Exposure to trade has increased and India has gained market shares

India's exposure to trade – as measured by exports and imports share in GDP – has increased significantly since the mid-1990s (Figure 1.2). The sharp reduction in tariffs which took place in the early 1990s, coupled with the dismantling of some non-tariff barriers, played an important role (Panagariya, 2004[1]). Trade opening has offered new opportunities for consumers, who gained access to a much wider spectrum of goods, and for firms, as they could import world-class inputs and become more competitive. Competition from abroad also facilitates the diffusion of innovation and promotes the search for productivity, putting pressures on monopolistic rents (OECD, 2015[2]).

Since becoming more open to trade, India's exports- and imports-to-GDP ratio increased fast and now stand broadly at par with China. The large share of services in total exports however stands out. The rise in the export-to-GDP ratio since the late 2000s has been partly reversed as India and many other EMEs have suffered from sluggish global demand and some re-shoring by advanced economies (AEs). Indian exports also suffered from the appreciation of the rupee and from temporary disruptions in domestic value chains associated with the 2016 demonetisation and the roll out of the Goods and Services Tax (GST) in 2017. Overall, export performance, measured by how much India's exports have grown relative to its market growth, has remained solid (Figure 1.3). India's share in world exports of goods and services rose from 0.5% in the early 1990s to 2.1% in 2018.

Figure 1.1. India has become a major actor in the global economy



Note: GDP and trade shares in world GDP are based on volumes at market exchange rates. Trade refers to the sum of imports and exports. International assets are financial assets of residents of an economy that are claims on non-residents and gold bullion held as reserve assets. In Panel B, 1996 refers to 1997 for India. In Panel C, data for 1996 refer to 2001 for Brazil, India and Mexico, and 2004 for China.

Source: OECD; IMF Balance of Payments; United Nations, Department of Economic and Social Affairs, Population Division (2019); and OECD calculations.

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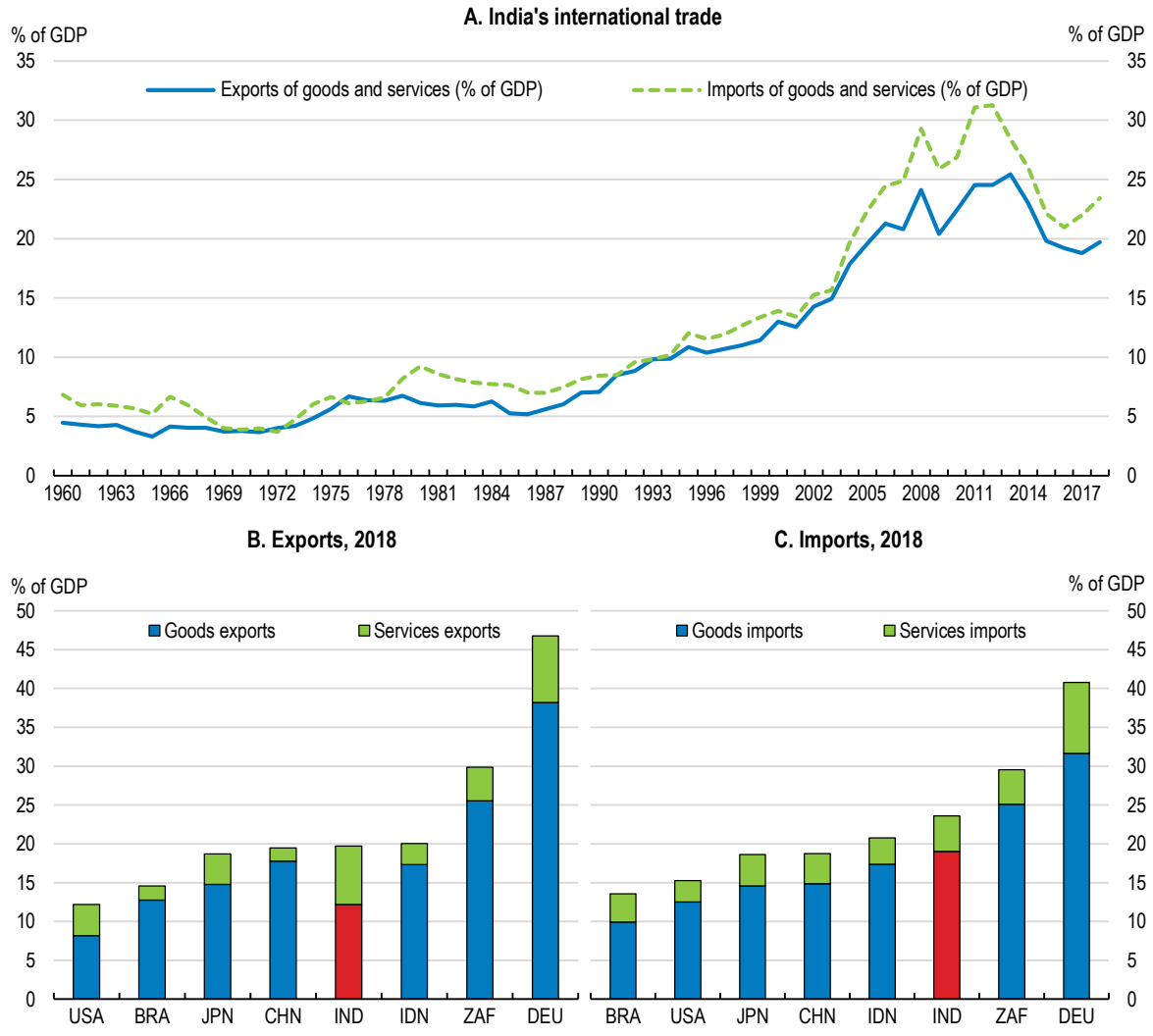
Figure 1.2. Trade intensity has increased



Source: World Bank, World Development Indicators database.

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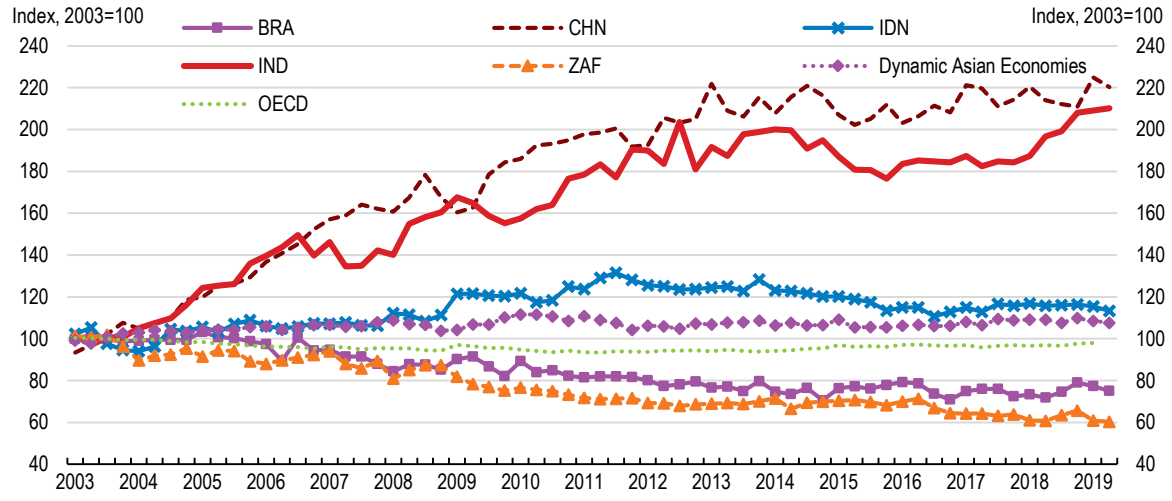
Exports of ICT services have been particularly buoyant

Growth in service exports has been rapid (Figure 1.4). India's share of world services trade more than quadrupled from 0.5% in 1995 to 3.5% in 2018. India has become one of the major exporters of business services (Benz, Khanna and Nordås, 2017[3]), notably in the Information, Communication and Technology (ICT) sector (Box 1.1). Medical and wellness tourism is also supporting growth in service exports, with patients seeking high-quality medical treatments at competitive costs in some Indian hospitals. Exports of services now account for more than one third of total exports, with the lion's share in ICT (Figure 1.5) — a larger share than in most OECD countries and emerging economies. India is also developing specific action plans for twelve identified champion services including tourism, transport and logistics.

Figure 1.3. Export performance has been solid



Note: Export performance is measured as actual growth in merchandise and services exports relative to the growth of the country's export market, which represents the potential export growth for a country assuming that its market shares remain unchanged. Dynamic Asian Economies consist of: Hong Kong China, Malaysia, Philippines, Singapore, Chinese Taipei, Thailand and Viet Nam.
Source: OECD, Analytical database.

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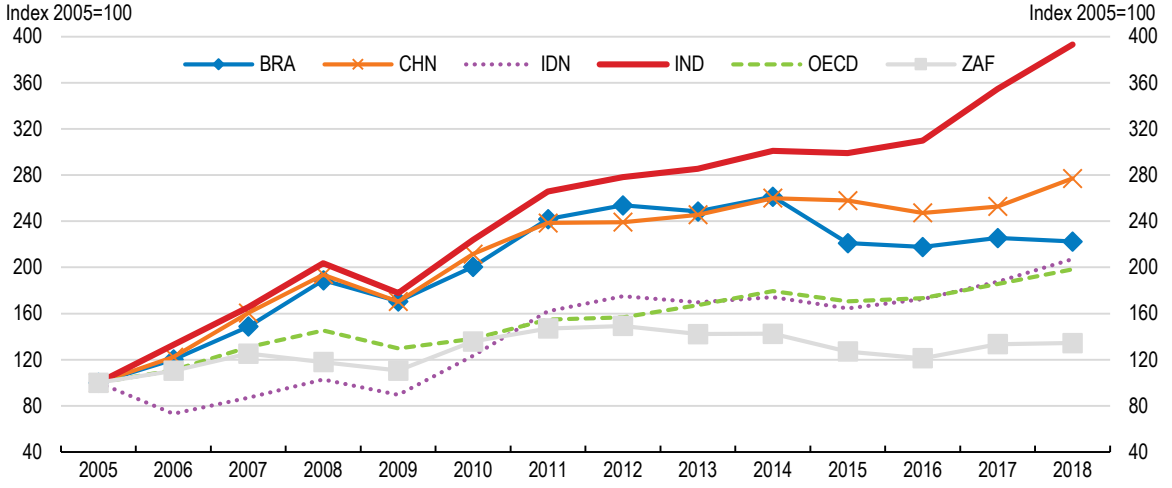
Figure 1.4. Growth in services exports has been rapid



Note: Services credits, USD, converted, seasonally adjusted.
Source: OECD, Balance of Payments BPM6 database.

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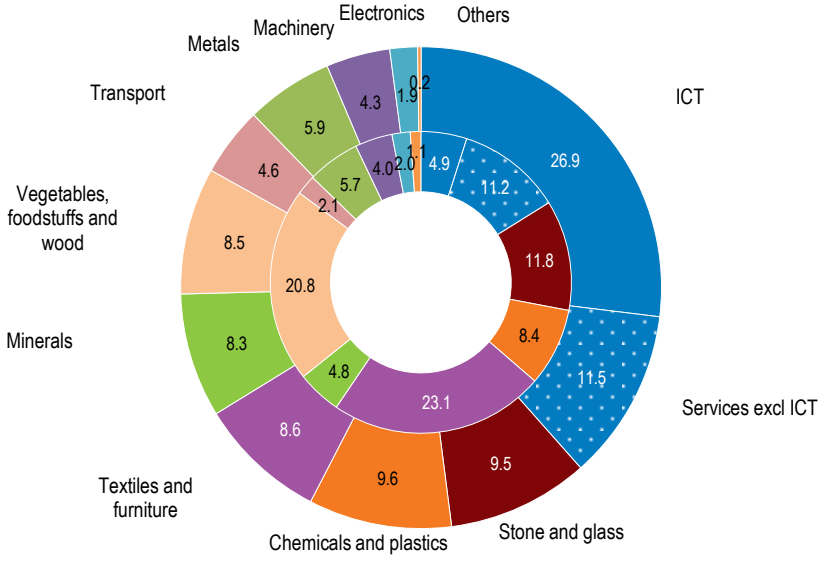
Box 1.1. Key factors behind the success of the ICT sector

Looking at the success of the ICT sector, (Mehrotra, 2019[4]) lists 4 key factors:

1. The government has invested in creating high-speed Internet connectivity for software parks;
2. The government has allowed the ICT industry to import duty-free both hardware and software;
3. The ICT industry has been able to function under the Shop and Establishment Act and hence was not subject to the 45 labour laws which apply to industries;
4. The ICT sector benefits from public investment in technical education.

Figure 1.5. The composition of exports has moved towards skill- and capital-intensive items

Shares in exports per category, % of total exports, 1996 (inner circle) and 2017 (outer circle)



Note: Circles show the shares per category in total exports for 1996 (inner circle) and 2017 (outer circle).
Source: Atlas of Economic Complexity, Centre for International Development, Harvard University.

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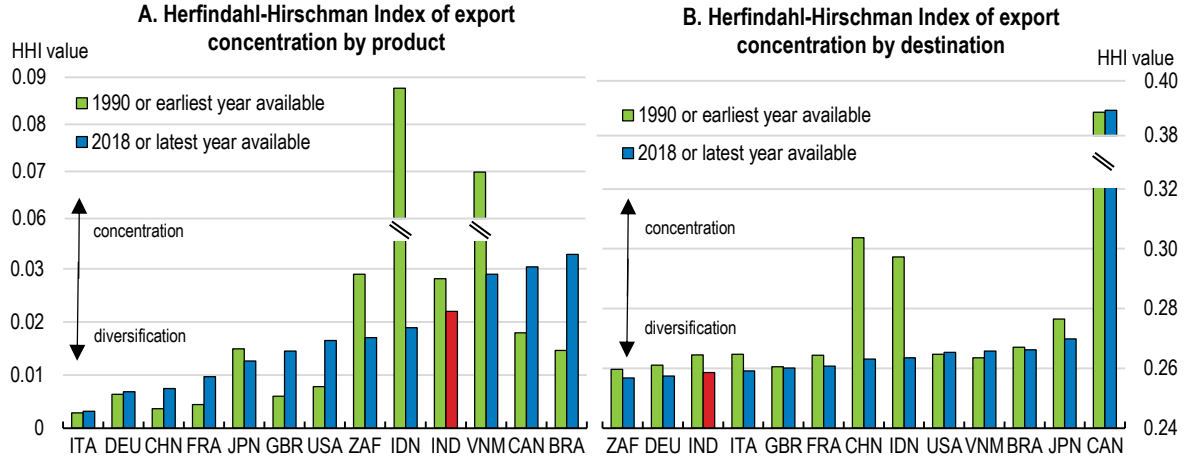
India has performed well for some goods

India's market share for some skill- and capital-intensive goods has surged. For pharmaceutical exports, India accounted for 2.5% of total world exports in 2018, up from 1.1% in 1995, making it the 11th largest exporter in the world and, by far, the first among EMEs. In the smartphone segment of electronic goods, India has transformed itself from being a net importer to a net exporter. Crude refining capacity has expanded (most crude oil is imported), and the share of petroleum products in total exports has increased steadily from 1.5% of merchandise exports in 1995 to close to 15.1% in 2018. India is also the largest manufacturer of cut and polished diamonds, exporting 93% of its production.

India's export basket is well diversified

India has succeeded in increasing the number of goods exported and in serving new markets/countries (Figure 1.6). Its export basket is highly diversified and exports to emerging economies are growing fast. Such a diversification reveals the high potential of the Indian economy to adjust to new demands. It also reduces exposure to risks such as lower demand in one country or for one specific product.

Figure 1.6. Export products and markets are diversified



Note: The Herfindahl-Hirschman Index (HHI) measures the concentration of a country's export in terms of products (Panel A) or destinations (Panel B).
Source: OECD calculations using data from the UN Comtrade database.

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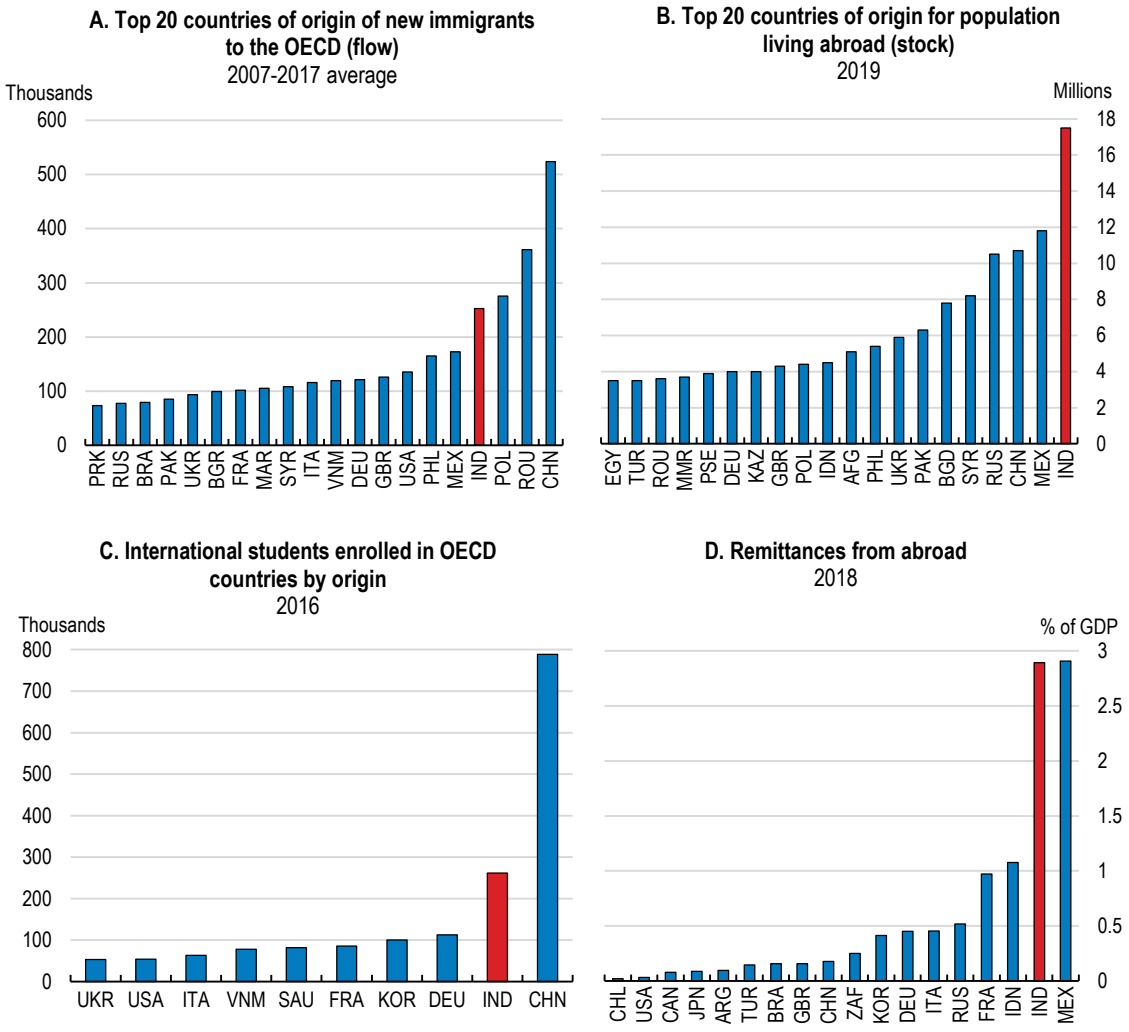
The large diaspora living abroad is an asset

India has the largest diaspora in the world (Figure 1.7). It was the fourth top country of origin for new migrants to OECD countries over the period 2006-16, with many Indians emigrating to non-OECD (in particular Gulf) countries. The number of Indian students enrolled in OECD countries is also large and has continued to grow in recent years, albeit at a slower pace, amid prospects for more restrictive immigration policies in some OECD countries.

Indians living abroad are valuable assets for the Indian economy. Inflows from remittances, at 2.9% of GDP in FY 2018-19, are large. They have contributed to reduce poverty, raise consumption and investment in education and health. They are also a rather stable source of current account financing. Non-resident Indians also support domestic investment via deposits in the financial system or direct investment.

Figure 1.7. Migration flows, stocks and remittances are large



Note: In Panel D, data refer to personal remittances that consist of personal transfers and compensation of employees.

Source: OECD, International Migration database; OECD, Education at a glance database; United Nations, Department of Economic and Social Affairs, Population Division (2019); World Bank, World Development Indicators database.

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Migration can facilitate the transfer of skills, knowledge and technology. Empirical work on Indians living in the United States suggests that about one fifth of Indian students abroad return to their home country; skills Indian investors acquire abroad may find application in India (Breschi, Lissoni and Miguelez, 2019[5]). A large diaspora can also contribute to the development of export markets in residence countries by triggering demand for home-grown commodities and by lowering transaction costs between importers and exporters (Aleksynska and Peri, 2014[6]; Giovannetti and Lanati, 2015[7]). (Karayil, 2007[8]) provides evidence on the migration-trade link for India's exports to the Gulf countries.

India could perform better in some domains

The government aims at getting India even more and better integrated into the global economy. The objectives are: to double India's share of world trade; to make India a hub for global value chains under the *Make in India* flagship; to boost foreign investment inflows by modernising regulations; and to attract more savings from Indians living abroad. As an encouraging sign, some multinationals have made India a manufacturing hub for automobile exports to Africa. The imposition of US tariffs on Chinese products could accelerate the rejigging of value chains. Preliminary data suggest that India has seized some of the market shares lost by China, with more success in capital- and skill-intensive industries than in labour-intensive ones (Figure 1.8), although other factors may have driven the increase in India's exports to the United States. The Reserve Bank of India has recently taken measures to reduce transaction costs for inward remittances.

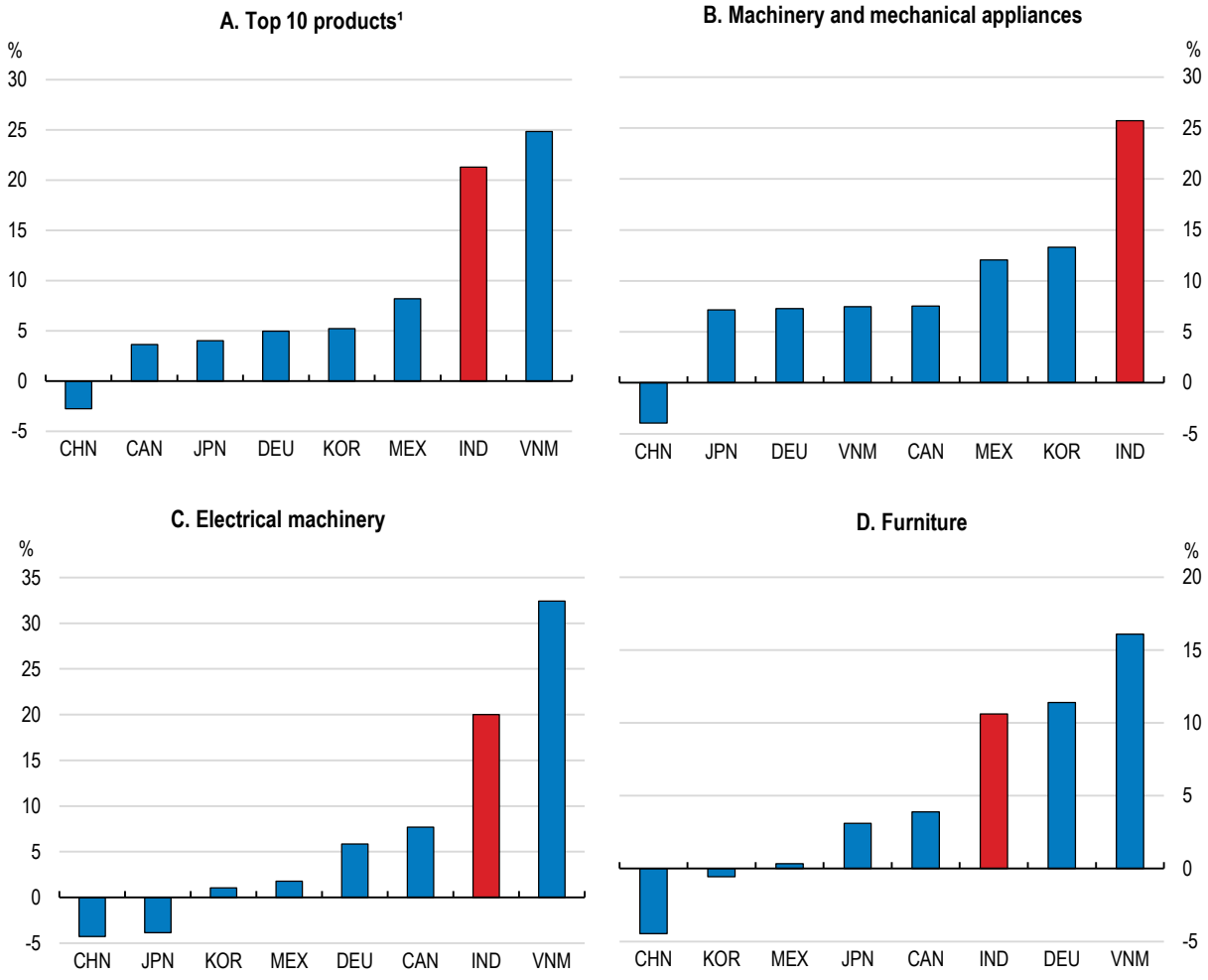
The rest of this section reviews challenges India faces in seizing the full benefits from its participation in the global economy, in particular in terms of job and income creation, and options to address them.

Exports of labour-intensive manufacturing products could grow faster. The export performance of textiles, leather and agricultural products have lagged behind, thus limiting the positive impact of trade opening on net job creation. The textile sector provides an illustrative case. Within textile exports, the share of yarns and fabrics, which are increasingly automated, has increased while the share of labour-intensive products, like carpets, has declined (Das Krishna and Kumar, 2015[9]). A focus on the low-technology segment (Lall classification, UNCTAD data) for textile, garment and footwear, reveals that India has stopped gaining market shares since 2013; Vietnam now has a larger market share (Figure 1.9). Overall, manufacturing exports have fallen as a share of total exports and their composition has shifted from labour-intensive to high-skill and technology-intensive items (Figure 1.10).

More dynamic manufacturing exports would create jobs, including for the many unskilled workers currently unemployed or under-employed in the low-paid unorganised sector. Although automation and artificial intelligence may affect the demand for low-skilled labour across the world (McKinsey Global Institute, 2019[10]) and in India (Mani, 2019[11]), increasing manufacturing exports could still help create more and better jobs in India in coming years. The increase in Chinese workers' incomes creates a window of opportunity for Indian's exports for at least two reasons. First, demand from China is increasing, including for Indian products. Second, Indian workers are becoming more competitive thanks to lower wages, though other Asian countries are also benefitting (Figure 1.11).

Figure 1.8. Changes in US imports from selected countries

Annualised percentage growth rates, 2017-2019 (first 6 months of each year)



Note: Based on the HTS2 classification. The top 10 products accounted for 68.6% of total US imports in the first six months of 2019.
Source: United States International Trade Commission.

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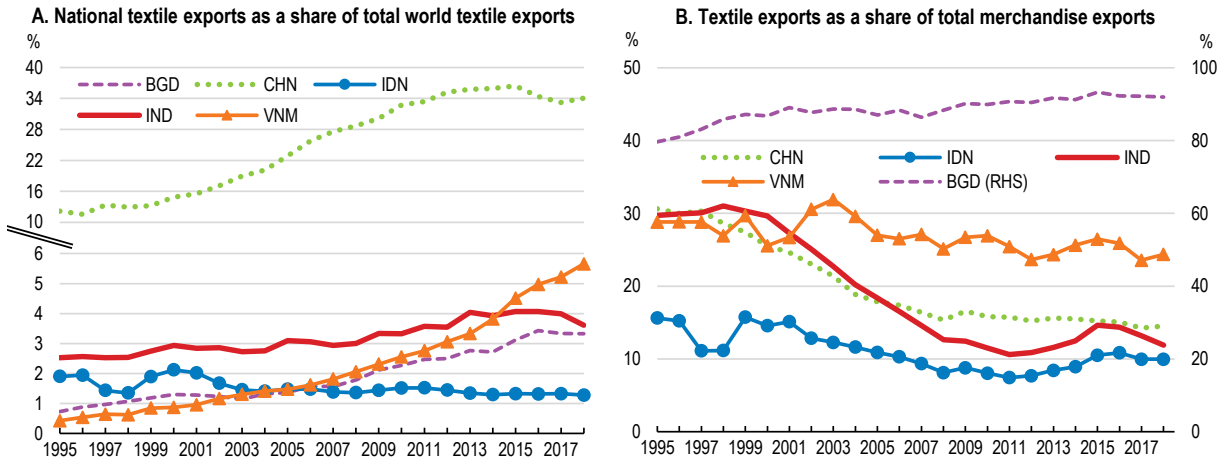
Figure 1.9. Exports of textile, garment and footwear: losing steam and market share



Note: Low-technology exports of textile, garment and footwear according to Lall classification.
Source: OECD calculations based on UNCTAD data.

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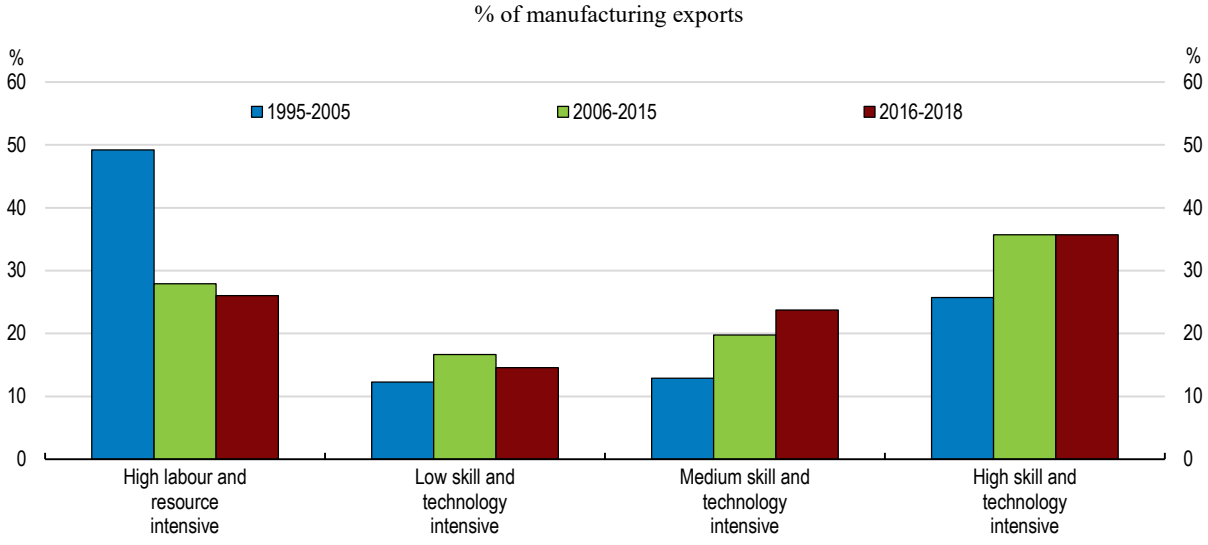
Figure 1.10. The skill and technology content of manufacturing exports has increased



Source: UNCTAD/STAT.

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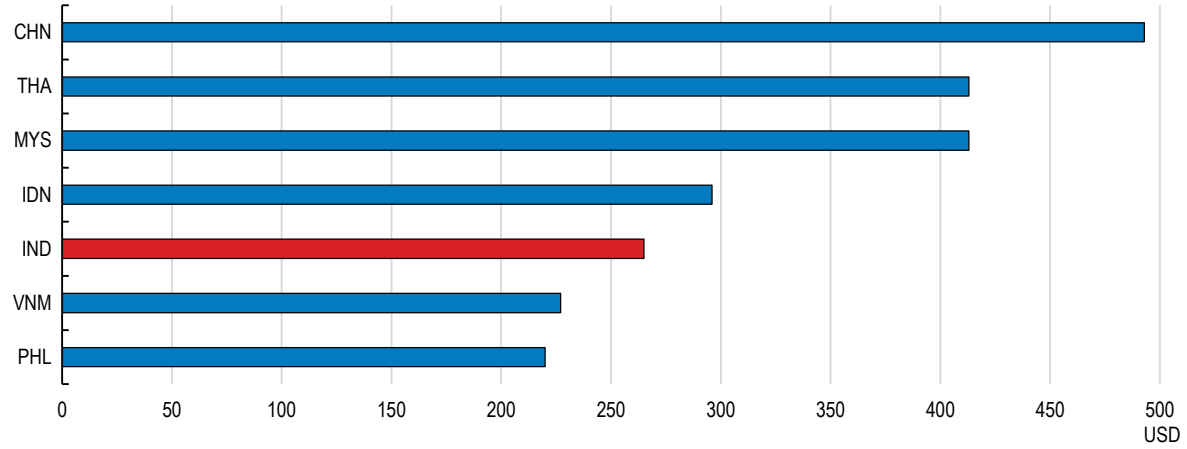
India is an exporter of agricultural products and its trade surplus in agricultural commodities has grown (OECD-FAO, 2014[12]). The recent OECD/ICRIER review of agricultural policies in India suggests that value chains in the food sector however remain relatively under-developed (OECD/ICRIER, 2018[13]). It concludes that a more open and stable trade policy regime is essential for India to develop a more sophisticated domestic processing and distribution industry and to more fully exploit its comparative advantage to export certain agricultural commodities.

Reaping the full benefits of globalisation, in particular the boost in job and income creation, would require addressing constraints faced by firms. Domestic bottlenecks affect all companies, whether or not they actually export. Others constraints are specific to trade, including trade infrastructure and logistics.

Figure 1.11. Wages are lower than in many other competitors

Manufacturing worker monthly wage, USD, 2018



Note: The average wage in the local currency was converted to the U.S. dollar, using the average exchange rate of October 2018 published by the central bank of each country/region or by the State Administration of Foreign Exchange for China.
Source: Japan External Trade Organization (JETRO), "Survey of Japanese-Affiliated Companies in Asia and Oceania", 2018.

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Addressing domestic bottlenecks: infrastructure and business environment

The performance gap between exports of services and manufacturing suggests that some constraints are particularly binding for labour-intensive manufacturing firms, and less so for services. The 2014 OECD *Economic Survey of India* (OECD, 2014[14]) concluded that manufacturing, for which the production process tends to be more fragmented than for services, suffered most from tax cascading – taxes were levied on each successive transfer, inclusive of any previous tax being levied, as indirect taxes levied on inputs were not creditable from indirect taxes levied on outputs. The implementation of the Goods and Services Tax (GST), by allowing firms to deduct taxes on inputs, is a clear improvement and the manufacturing sector has benefitted most. Other constraints identified in the 2014 OECD Survey include: infrastructure bottlenecks and labour laws which are more stringent for industries than services and create disincentives for firms to grow.

Infrastructure bottlenecks have lessened but some persist

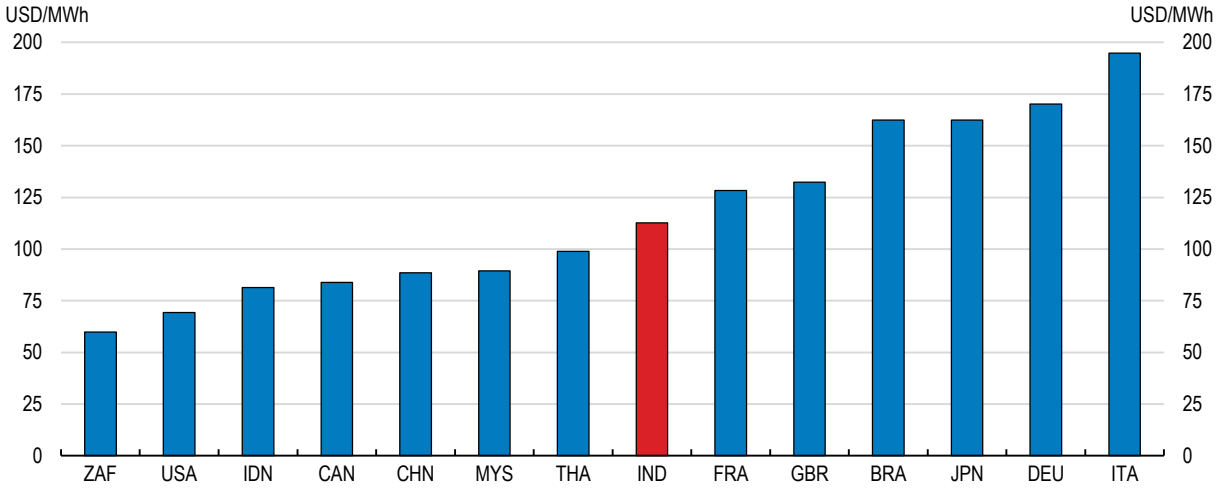
The quality of infrastructure is a key determinant of countries' participation in global value chains (Ignatenko, Raei and Mircheva, 2019[15]). As exports of goods tend to be more intensive in energy and transport than services, they suffer more from infrastructure bottlenecks. In India, the government has made laudable progress in increasing electricity generation and transmission capacities, in particular from renewable sources, to fulfil its commitment to provide electricity for all. Total generation increased from 1 000 TWh in 2010 to 1 600 TWh in 2017, making India the third-largest electricity market in the world

(IEA, 2018[16]). In 2018, electricity reached every village and the government aims to provide electricity for all by 2019.

The competitiveness of electricity-intensive exports has suffered from relatively high electricity prices and the lack of reliable provision in some parts of the country (FICCI, 2018[17]) (Subramanian, 2018[18]). The provision of electricity has expanded significantly and power cuts are becoming less frequent. Still, India ranked 108th out of 141 economies in 2019 on the World Economic Forum competitiveness index for the quality of electricity supply. In addition, commercial and industrial users pay a higher price than households and farmers. Cross-subsidisation, coupled with large technical and transmission losses, has been reflected in relatively high electricity prices for industries (Figure 1.12). Several reforms, such as reducing the number of electricity prices and making retail tariffs more cost-reflective, are being implemented in some states and would help make industrial companies based in India more competitive.

Figure 1.12. Electricity prices are high for businesses

Industry electricity prices, US Dollars/MWh, 2018 or latest year available

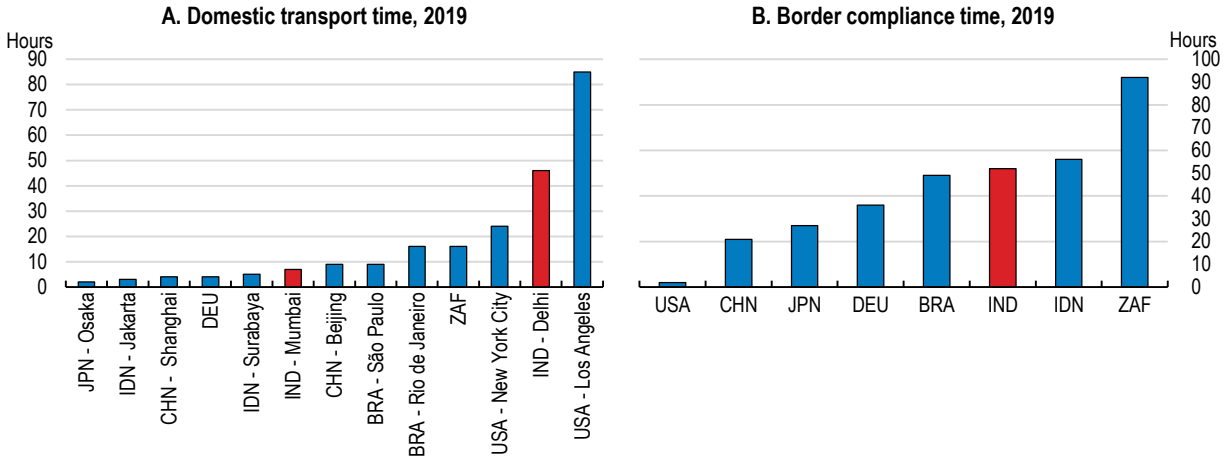


Note: Data for India refer to 2017.
Source: IEA, World Energy Prices, 2019 edition. IEA All rights reserved. For detailed information: https://www.iea.org/statistics/prices/

Transport infrastructure bottlenecks, by increasing costs for exporting goods and importing intermediate inputs, are weighing on firms' competitiveness. They also make it difficult for some regions to seize the opportunities that trade can offer for local development. The construction of highway and rural roads has accelerated in recent years. India has also made great progress in building airport related infrastructure. However, seaport infrastructure lags behind and, together with poor trade logistics, hampers India's external competitiveness. Around 90% of India's external trade (by volume) and 70% (by value) are handled by ports (NITI Aayog, 2018[19]). Most container handling ports lack the capability to handle large container vessels due to inadequate depth. India has only one trans-shipment port in Kochi. A large share of containers is thus transhipped through other ports, such as Colombo and Dubai, creating additional costs and delays. Recent measures taken by the government have improved India's ranking in World Bank logistics performance.

Weak hinterland connectivity between production centres and gateway ports is another issue. It takes 46 hours to move shipments between a warehouse in Delhi and a port, i.e. at least 3 times more than the time required in other large emerging economies (Figure 1.13). Freight capacity by rail is saturated, although several dedicated freight corridors, under construction or preparation, should double freight capacity by rail. Inefficient regulations add to the infrastructure gaps. As an illustration, inter-state freight transport by road requires a national permit and administrative approval from each individual state's regional transports authority, generating additional costs and delays to the transport of goods.

Figure 1.13. Infrastructure and trade logistics are weighing on India's competitiveness



Note: In Panel A, domestic transport captures the time associated with transporting the shipment from a warehouse in the largest business city of the economy to the most widely used seaport or land border of the economy. It includes the time for the actual transport; any traffic delays and road police checks; as well as time spent on loading or unloading at the warehouse or border. For a coastal economy with an overseas trading partner, domestic transport captures the time from the loading of the shipment at the warehouse until the shipment reaches the port. For an economy trading through a land border, domestic transport captures the time from the loading of the shipment at the warehouse until the shipment reaches the land border. In Panel B, border compliance captures time for customs clearance and inspection procedures conducted by other agencies, e.g. the time for conducting a phytosanitary inspection.
Source: World Bank, Doing Business.

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Container traffic at Indian ports is increasing rapidly. The Sagarmala programme launched in 2015 aims at modernising and developing ports, enhancing port connectivity, supporting coastal communities and stimulating port-linked industrialisation (Box 1.2). The government also aims at improving infrastructure effectiveness, reducing the turnaround time at major ports from about 3.4 days in 2018 to the global average of 1-2 days by 2022-23 (NITI Aayog, 2018[19]). Measures to improve the ease of trading across borders have been taken, including the replacement of manual forms with e-filing, e-delivery and e-payment for shipping lines and agents, and a reduction in charges for non-peak hours at ports. The government has also abolished restrictive cabotage rules that prevented foreign ships from transporting containers between Indian ports.

Box 1.2. Ongoing programmes to improve ports and roads: Sagarmala and Bharatmala

The Sagarmala programme, launched in 2015 for the period to 2025, aims at reducing logistic costs – both direct costs and inventory handling costs – for foreign and domestic trade by developing and rehabilitating ports. It also aims at doubling the share of water transportation in the modal mix, since it is more cost-effective and emits less greenhouse gas than road and railway transport (Citi GPS, 2018[20]) (FICCI, 2018[17]). More than 605 projects have been identified by the government under the Sagarmala initiative, with a budget of INR 8.8 trillion (about 4.6% of 2018 GDP). As of 2018, 89 projects were completed and 443 were under various stages of implementation and development. Turnaround time at major ports has reduced from 107 hours in 2011-12 to close to 60 hours in the first seven months of FY 2018/19.

The Bharatmala programme, launched in 2017 for a five-year period, aims at developing 83 677 km of roads, including economic corridors to strengthen links between manufacturing centres and export hubs. Roads account for the lion's share in inland freight transport. The overall cost of the programme was estimated at INR 6.9 trillion (3.6% of 2018 GDP). The programme relies partly on public-private partnerships, in particular for highways. As of February 2019, 137 road projects with an aggregate length of 6 530 km had been awarded and were in various implementation stages.

Labour regulations are weighing on competitiveness, more so for industries

Labour regulations are more stringent for industries. Since these regulations become binding as firms grow, they create incentives for the firms to stay small. Firms cannot exploit economies of scale and productivity suffers, as does the competitiveness of labour-intensive manufacturing exports. In addition, employment protection legislation, which requires firms with 100 or more employees to obtain prior government permission to dismiss one or more workers, applies only to industrial establishments (OECD, 2014[14]). Introducing simpler and more flexible labour laws that do not discriminate by size of enterprise should be a priority.

Streamlining administrative and regulatory processes further would help: the case of special economic zones

The Special Economic Zones (SEZs) policy was announced in 2000 to overcome difficulties resulting from the multiplicity of controls and clearances, lack of infrastructure and unstable tax regimes. It aims at promoting exports, domestic and foreign investment, and at creating jobs. Firms operating in these zones enjoy various income tax exemptions, duty-free imports and improved ease of doing business (Thomas et al., 2017[21]). In particular, these zones provide a single-window clearance for central and state level approvals as well as income tax exemption on export profit during the first 5 years and 50% for the next 5 years. The tax benefit will disappear for units settling in such zones after March 2020. As of December 2018, India had 230 operational SEZs, which accounted for 18% of exports of goods and services (up from 3.2% in FY 2005/06) and employed two million people.

To keep up the reform momentum and speed up the dispatching of manufacturing exports, the government has proposed the creation of coastal employment zones (Box 1.3). Tax benefits linked to employment creation would add to existing incentives for special

economic zones. Coastal zones are also likely to relax labour regulations. As of March 2019, 14 coastal zones have been proposed and plans were being developed for four pilot ones in Andhra Pradesh, Gujarat, Maharashtra, and Tamil Nadu.

Special zones can be useful instruments to experiment reforms on product and labour markets. Experience in EMEs has revealed that SEZs display mixed results however. Some firms move to the zones just to avail the concessions and some sell their products to the domestic market. Relations between the domestic and export markets are often an issue. It may become unattractive for a firm located in special zones to sell to, or buy, from the domestic market, thus limiting the positive impact on firms serving the domestic market (Joumard, Dhaoui and Morgavi, 2018[22]). Gradually extending regulatory and administrative reforms which promote productivity and job creation in special zones to the rest of the economy should be considered.

Box 1.3. NITI Aayog has proposed creating Coastal Employment Zones

In its *Three Year Action Plan 2017/18 to 2019/20*, the government (NITI Aayog) suggested the creation of two Coastal Employment Zones, one on the east coast and the other on the west coast, to capture agglomeration effects and attract large multinational firms leaving China because of rising labour costs.

The main features of the proposed zones would be:

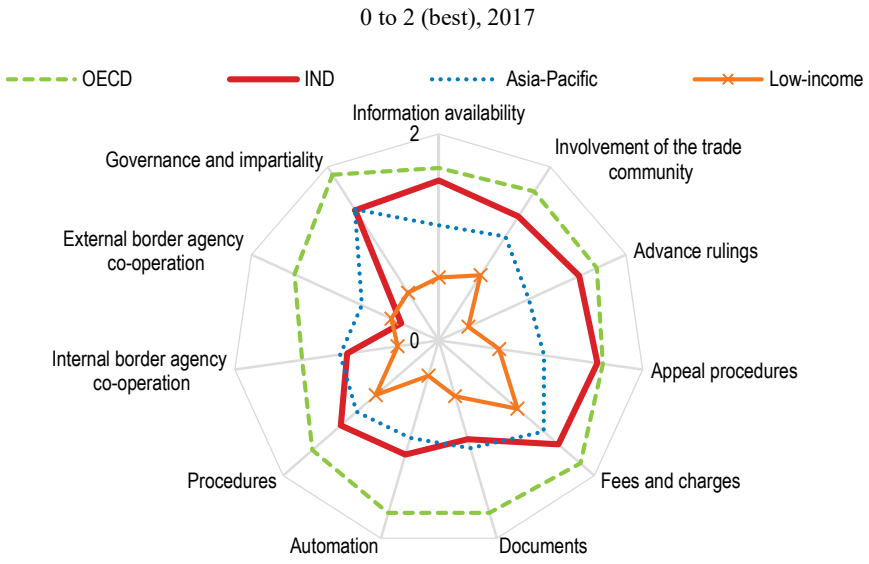
- *Large areas (i.e. larger than existing special economic zones) with flexible land conversion rules*. Coastal zones are to be spread over 500 km^2 or more and include existing habitations and industry structures. They will have sufficiently flexible land conversion rules to permit the conversion of these habitations and structures into alternative uses over time as industrialisation proceeds. Flexibility in the Floor Space Index would also be granted.
- *More liberal and business-friendly regulations*. Coastal zones should have liberal labour laws, as is currently the case in Gujarat's special economic zones. They may also have more liberal land acquisition rules (as done in Tamil Nadu and Gujarat).
- *Tax breaks for new firms creating many jobs*. For new firms and firms creating many jobs, government financial support could be envisaged in the form of an upfront benefit for firms, in contrast to the existing tax relief that firms can only benefit from once they become profitable.
- Proximity to deep draft ports.
- *Public investment on infrastructure*. The central government may commit to investing up to INR 50 billion (0.03% of FY 2018 GDP) in each coastal zone to meet the infrastructure and housing needs.
- *Trade facilitation and trade liberalisation*. Clearance time for imports and exports will be reduced to international levels within the zones.

Improving further trade facilitation

India has improved significantly on trade facilitation since the mid-2010s by reducing the number of documents and level of fees, and thus trade costs. India is now close to best performance in OECD countries on many dimensions identified in the OECD indicator

(Figure 1.14). Still, the number of documents for importers and exporters is high and agency cooperation at the border could be improved. Overall, the time and costs for border compliance with customs and other regulations are relatively high. Variation and unpredictability in lead times for containers also create hidden costs for exporters and importers. The government announced new measures to reduce the processing time at ports and airports in September 2019: the adoption and testing of standards will be encouraged while export clearances – including some customs requirements which are currently processed manually – will gradually become digital.

Figure 1.14. India has improved and compares well on most trade facilitation dimensions



Note: OECD, Asia-Pacific and Low-income all refer to unweighted averages.
Source: OECD Trade Facilitation Indicators, 2017.

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India has launched the National Trade Facilitation Action Plan for 2017-2020, after ratifying the WTO Trade Facilitation Agreement in 2016. This plan aims at increasing the efficiency of cross-border trade by reducing border and documentary compliance time, permitting exporters to electronically seal their containers at their own facilities, and reducing physical inspections. The Plan foresees a decline in dwell time for imports to within three days for sea cargo, within two days for air cargo and on the same day for land customs. For exports, the aim is to reach below two days for sea cargo and on same-day for air cargo.

Reducing the number of documents and harmonising external formalities would improve competitiveness. OECD estimates, based on the METRO computable general equilibrium trade model (OECD, 2015[23]), suggest that bringing trade facilitation to the G20 average level would boost India's exports by 1.6% over a 5-year horizon (see Box 1.6, Table 1.2 below). These reforms would benefit most manufacturing sectors, including agro-food, textile and apparel, heavy manufacturing, and electronic and transport equipment (OECD, 2018[24])]. Implementing the government's Plan, including the Indian Customs Single Window Project, will facilitate trade and support India's export performance.

Reconsidering tariffs barriers

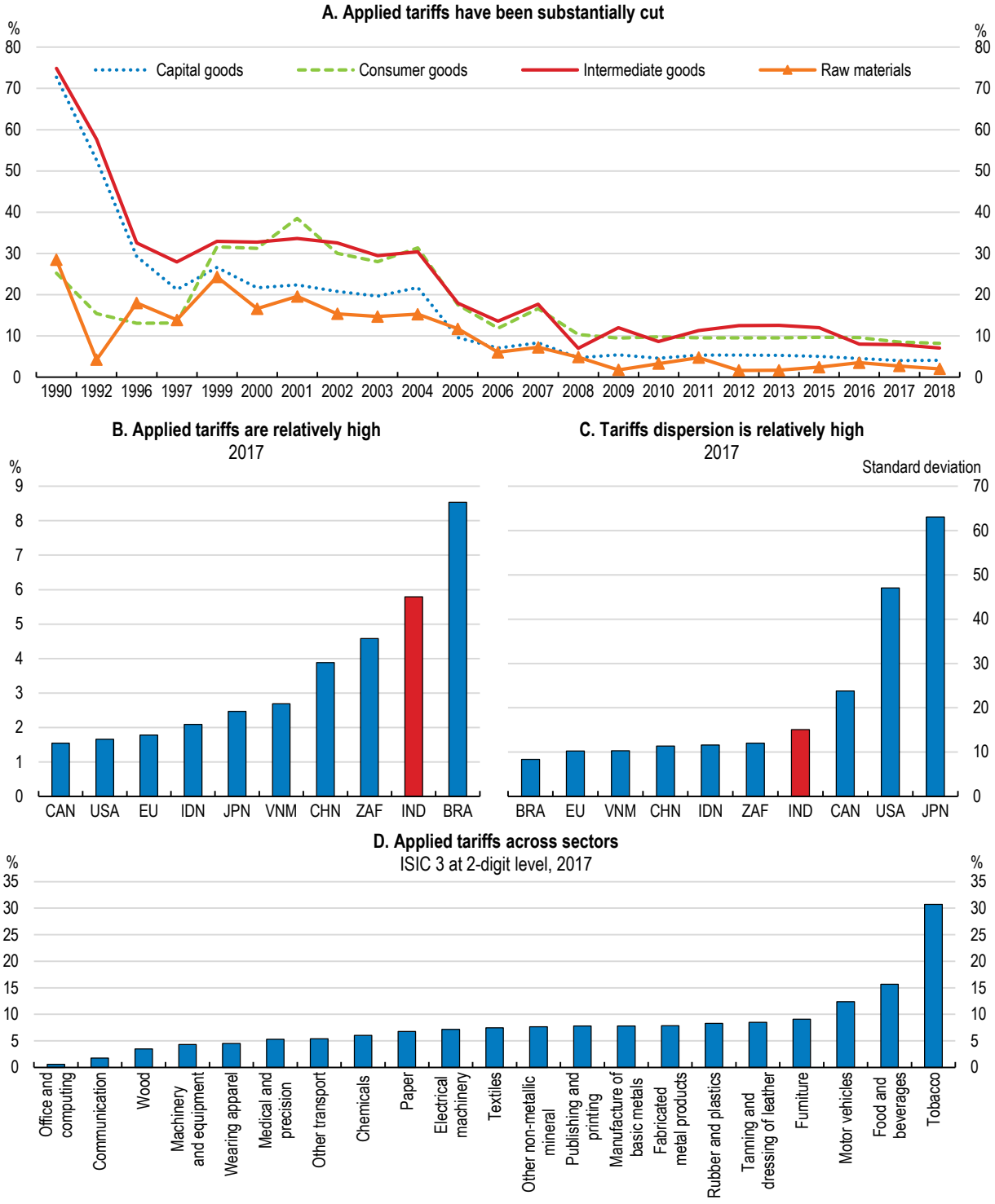
Import tariffs have been cut sharply since the early 1990s (Figure 1.15). The average effectively applied tariff level was below several large EMEs in 2017, although still higher than most OECD countries. Tariffs were raised in the annual Budget for FY 2018-19. Empirical analysis carried out for various countries suggests that tariffs often harm low-income households disproportionately since they tend to: i) consume more out of their total income; ii) spend more on traded goods out of their total consumption basket [(Furman, Russ and Shambaugh, 2017[25]) for the United States; (OECD, 2019[26]) for Argentina; and (OECD, 2018[27]) for Brazil]. In India too, low-income households are most affected as tariffs on food are high. In a scenario where all import tariffs are halved, OECD estimates suggest that households would, on average, see their purchasing power increase by more than 5% (Figure 1.16). Those with the lowest income (the bottom 10%) would see their purchasing power increase by more than 8%. Besides price reductions, lowering tariffs would give households access to a larger variety of goods.

High tariffs and frequent rate adjustments weigh on firms' competitiveness. In 2017 and 2018, import tariffs were hiked on various labour-intensive items and electronic goods (e.g. mobile phones and TVs) to support local industries and thus promote job creation in the manufacturing sector. Because they stifle competitive pressures, tariffs may, however, insulate domestic producers from the need to increase productivity.

More expensive imports of intermediate products, owing to import duties, can penalise exports by raising input costs and run against the objective of making India an export hub. The textile sector is an illustrative case, characterised by poor performance of apparel exports made from synthetic cloth – despite the fact that this is a much larger and faster growing market than cotton clothing. Indeed, high import tariffs on synthetic fibres and fabrics are putting manufacturers based in India at a cost disadvantage compared to many competitors. Indian textile exporters are further penalised by the fact that several competitors (e.g. Bangladesh) access the EU market at zero rate under the Everything but Arms initiative. The tariff escalation (also called "inverted duty structure") – whereby import tariffs on inputs are higher than on finished goods – has been an issue in several sectors, including textile, capital goods, cement and electronics (FICCI, 2016[28]).

The complexity of India's tariff structure – including the large dispersion in tariff rates (Figure 1.15C) – raises administrative and compliance costs while the lack of clarity on tariffs at a product level creates some uncertainty. Import duties are often coupled with an additional customs duty, a special additional customs duty, a social welfare surcharge equivalent to 10% of the tariff on imported goods and a customs handling fee (NITI Aayog, 2017[29]). To relieve the impact of custom duties paid on inputs for exporters, India implements an export incentive scheme. The government is in the process of replacing it by a new scheme which will simplify the refund of tax, duties and other surcharges. The government has envisaged unifying all industrial tariffs to 7%. This would reduce incentives to misclassify imports and evade tariffs, and be neutral for the budget (NITI Aayog, 2017[29]).

Figure 1.15. Import tariffs have been cut but remain high and dispersed



Note: Panels A, B and D show weighted averages of effectively applied tariffs across single products, whereby the tariffs are weighted by the import value of each product. Tariffs were hiked on several items in 2018.
Source: UNCTAD Trade Analysis Information System (TRAINS) data extracted from the World Bank, World Integrated Trade Solutions.

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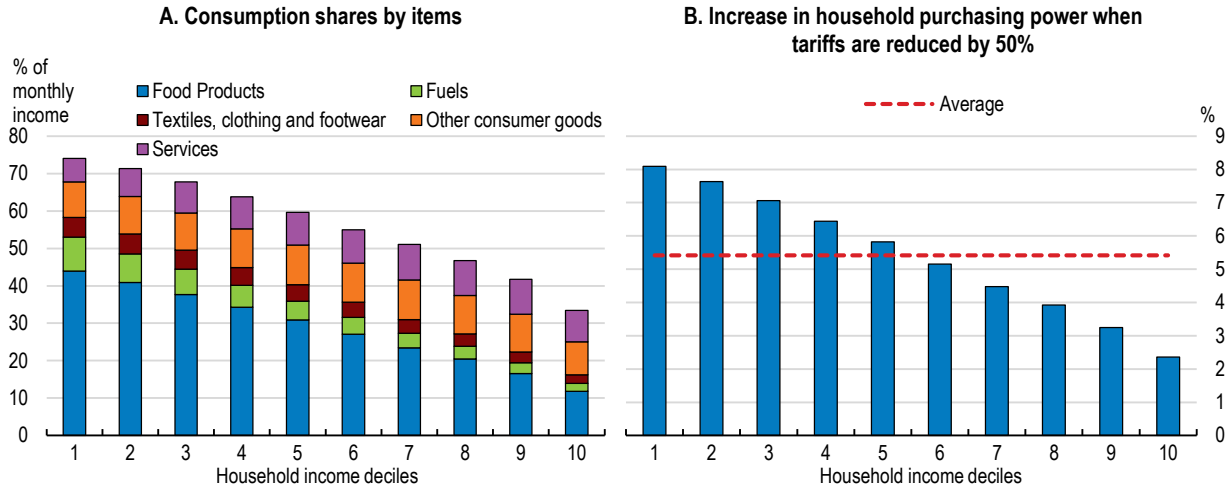
Figure 1.16. Halving import tariffs would benefit most low-income households



Note: In both panels, the x-axis shows the ten income deciles of the household income distribution, starting with the poorest decile (0-10%). The effects of trade-induced price reductions on households' purchasing power are evaluated using a compensating variation, which measures how much the expenditure can be decreased when consumer prices fall so that the utility level remains the same than before the price decrease. The level and composition of households' consumption by income decile are taken from the Household Survey, 68th Round (July 2011 - June 2012) from the National Sample Survey Office (NSSO). To compute changes in domestic consumer prices induced by a cut in tariffs, the simplifying assumption is that a change in import prices is fully passed to domestic prices of tradable goods, as data on product-specific market structures are not available -- see (Grundke and Arnold, 2019[30]). Tariff rates are for 2017. They are weighted average rates at product level based on the HS 1988/92 classification.
Source: OECD calculations based on Household Survey, 68th Round (July 2011 - June 2012) from the National Sample Survey Office (NSSO). Tariff rates are UNCTAD Trade Analysis Information System (TRAINS) data extracted from the World Bank, World Integrated Trade Solutions.

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Reliance on non-tariff measures is moderate, except for local content and anti-dumping measures

The percentage of products and share of imports covered by non-tariff measures (NTMs) are both relatively low in India. NTMs are related to measures that pursue regulatory objectives. Sanitary measures and technical barriers and standards are mostly implemented in the food sector, often to overcome or reduce the impacts of perceived market imperfections, such as those related to health risks. Still, some NTMs may penalise consumers and affect the development of new technologies by reducing competitive pressures on local producers. Frequent border control measures and quantitative restrictions on vehicles may be a case in point. India is also considering introducing a steel import norm whereby foreign steel makers would need to get certification from the Bureau of Indian Standards for high-grade steel products being used by Indian manufacturers. The Indian auto-industry could be penalised before local steel manufacturers start producing the specialised grades of steel they need for some auto-components while foreign manufacturers may not be interested in getting certification due to the low volume involved.

Non-tariff measures may raise trade costs and penalise more small companies with less access to legal and regulatory information. The OECD has developed a method to convert NTMs into ad-valorem equivalents (Cadot, Gourdon and van Tongeren, 2018[31]).

Empirical analysis carried out at the OECD suggests that the cost of NTMs in India stands at about 6% -- lower than in many OECD countries (Figure 1.17).[1] On the other hand, India relies on local content requirements, requiring firms to use domestically-produced goods and services, in particular in electrical machinery and equipment (including solar panels and telephone sets). By restraining competition from imports, local content requirements reduce the choice of inputs or providers and raise production costs. OECD work suggests that such requirements weigh on competitiveness and exports (OECD, 2016[32]). Anti-dumping measures are also used, in particular on steel and chemical products. Empirical analysis suggests that these tend to raise import prices and increase profit margins in protected sectors, with adverse impacts on consumers and downstream industries (Aggarwal, 2010[33]). Similar impacts have been observed in Brazil (OECD, 2018[27]).

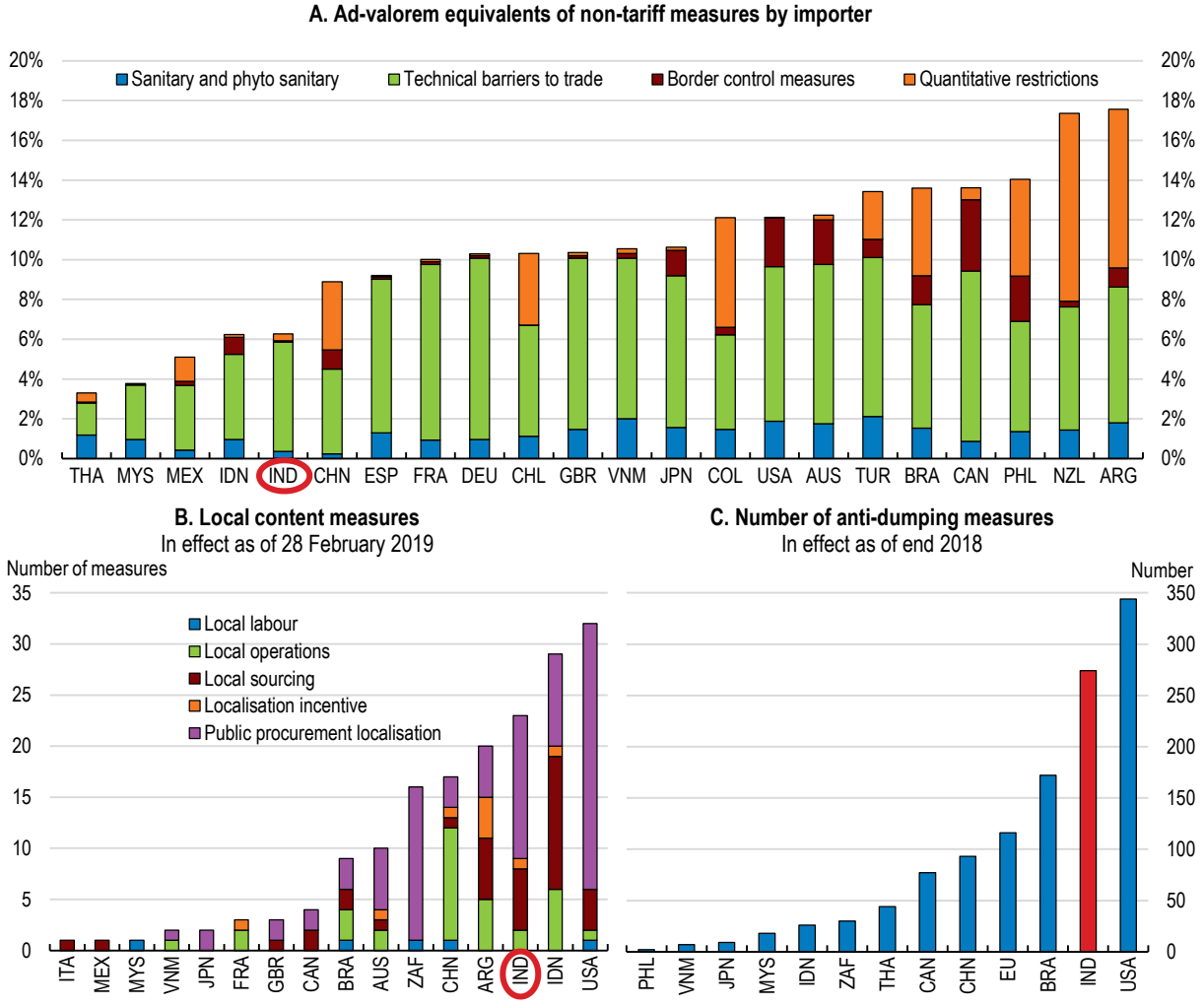
Gains from services trade liberalisation

Facilitating services trade can bring benefits to consumers and strengthen domestic productivity and export performance. OECD analysis (Rouzet and Spinelli, 2016[34]) concludes that pro-competitive services trade reforms can reduce the price of certain services by about 20%, and in some countries by almost 80%, providing substantial savings to manufacturing enterprises and eventually final consumers.

India has recently taken steps towards more competitive services by raising or eliminating limits on foreign equity in civil aviation, cable and satellite broadcasting and the insurance sector and allowing for foreign branches for reinsurance activities. A number of restrictions on cabotage in maritime transport were lifted in 2018. For single-brand retail trade, India has eased local sourcing requirements in 2019 by relaxing the definition of goods subject to the 30% local sourcing requirement. Single-brand retailers will also be allowed to open online stores before setting up brick-and-mortar ones (not more than two years after).

[1] While the OECD methodology captures a wide array of non-tariff measures, as inventoried in the UNCTAD MAST system, it does not identify all trade-related regulations, such as measures imposed at the sub-national level. The measurement of ad-valorem equivalents of non-tariff measures controls for country-specific factors and should be interpreted as the additional trade costs that can come on top of the general costs of doing business.

Figure 1.17. A moderate use of non-tariff measures, except local content and anti-dumping



Note: The ad-valorem equivalent (AVE) of a non-tariff measure is the proportional rise in the domestic price of the goods to which it is applied, relative to a counterfactual where it is not applied, as defined in Cadot, Gourdon and van Tongeren (2018).
Source: Cadot, Gourdon and van Tongeren (2018); Global Trade Alert; WTO.

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Foreign suppliers still face some restrictions in some services sectors (Export-Import Bank of India, 2019[35]). While 100% foreign equity is permitted for construction of railway infrastructure, railway operations are reserved for Indian Railways, a state-owned enterprise. Rail freight operations in other emerging markets such as China or Brazil are less restricted, providing positive spillovers to manufacturing firms that rely on those services. However, Indian Railways has enabled a private operator to operate train services from 2019. Some professional services suppliers are protected from foreign competition. For example, only Indian nationals are allowed to practise as lawyers or architects and can become partners or hold equity in firms active in the two sectors. Granting access to these professions based on qualification rather than nationality would help raise quality and lower prices that benefit businesses and consumers. Overall, the degree of service trade

restrictions as assessed by the OECD is similar to the level in China and Indonesia but remains higher than the OECD average (Box 1.4, Figure 1.18).

India's services exports face restrictions from other countries, reducing potential gains from trade in services where India is competitive (Mukherjee and Kapoor, 2017[36]). In recent years, several countries have raised restrictions on the temporary movement of professionals, so-called "Mode 4" in the WTO, through quotas, labour market tests and limitations on duration of stay. Such restrictions are affecting India's ICT exports and most other business services as these depend a lot on movement of people. India also restricts the temporary movement of professionals, limiting the possibility for Indian engineers and other professionals to team up with foreign partners and offer service support for both local and foreign manufacturers.

Reducing restrictions to services trade would boost trade in services. Recent work (Benz, Khanna and Nordås, 2017[3]) estimates that a reduction of India's restrictions to the mean for ten large countries would increase services trade by 85%. As an example, with better telecommunication connectivity, design and engineering could become a new source of services exports.

Modernising regulations on services trade would boost competitiveness and exports of goods, thus contributing to the success of the *Make in India* initiative. Because services are key inputs for other sectors and support participation in global value chains, stringent regulations on services are weighing on export performance far beyond services. The Trade in Value Added (TiVA) database reports that exports of machinery and motor vehicles have the highest services content in India, along with textiles and metals. Distribution, transports, telecommunication, energy and financial intermediation are particularly important for the manufacturing sector. India's manufacturing exports could rise significantly should services regulations be improved. Improvement in fixed broadband services is seen as a priority to help Indian manufacturers scale up export volumes (Benz, Khanna and Nordås, 2017[3]).

In a scenario of a simultaneous cut in service restrictions across G20 countries, empirical work (OECD, 2019[37]) suggests that India would be the single largest beneficiary in terms of production growth. Better-priced services inputs would feed manufacturing expansion. In the absence of such a multilateral move, OECD simulations suggest that a modernisation of India's regulations affecting services would also boost manufacturing exports, output and jobs (Box 1.5).

Box 1.4. The OECD Service Trade Restrictiveness Index: key features

The OECD Services Trade Restrictiveness Index (STRI) provides information on regulations affecting trade in services in 22 sectors across OECD countries and several EMEs (Figure 1.18). The STRI covers limitations on market access and national treatment, as well as national regulatory and competition policies, which apply to both Indian/resident and foreign/non-resident companies, and investment policies. In some sectors, even though India applies no or little sector-specific restrictions, the STRI is still slightly higher than the OECD average – computer services, road transport and engineering services are examples – reflecting administrative procedures and licensing and permit requirements which apply to all companies (Nordås, 2019[38]).

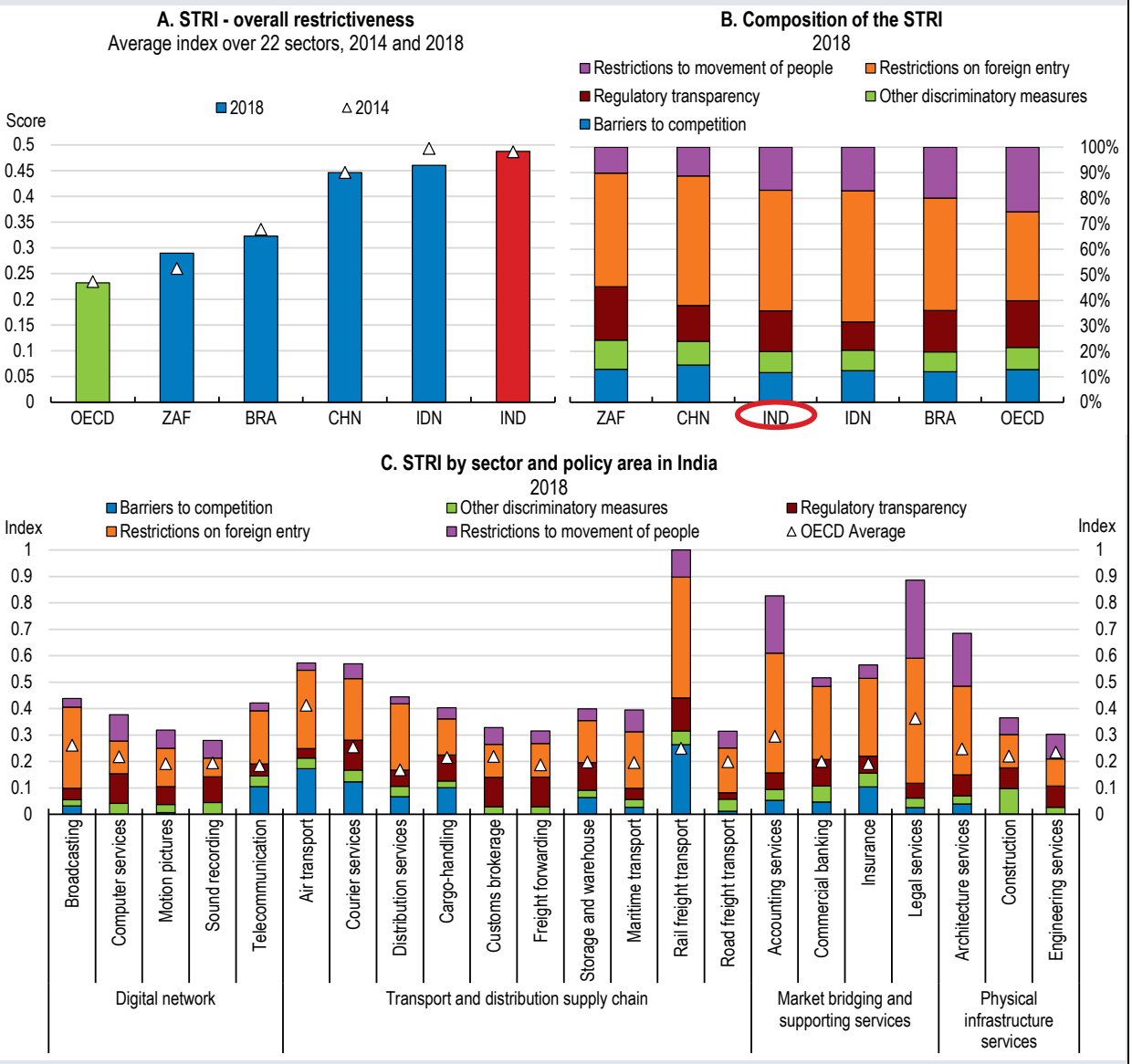
The policy measures accounted for in the STRI database are organised under 5 policy areas:

- Restrictions on foreign entry include information on foreign equity limitations, requirements that management or board of directors must be nationals or residents, foreign investment screening, restrictions on cross-border mergers and acquisitions, capital controls and a number of sector-specific measures.
- Restrictions on movement of people include information on quotas, economic needs tests and duration of stay for foreign natural persons providing services as intra-corporate transferees, contractual services suppliers or independent service suppliers, and recognition of foreign qualifications in regulated professions.
- Other discriminatory measures include discrimination of foreign services suppliers as far as taxes, subsidies and public procurement are concerned; and instances where national standards differ from international standards where relevant.
- Barriers to competition include information on anti-trust policy, government ownership of major firms and the extent to which government-owned enterprises enjoy privileges and are exempted from competition laws and regulations. Sector-specific pro-competitive regulation in network industries also falls under this category.
- Regulatory transparency includes information on consultations and publications prior to entering into force of laws and regulations. It also records information on administrative procedures related to establishing a company, obtaining a license or a visa.

The STRI reviews regulations currently in force and does not take into account preferential trade agreements. The STRI database is updated every year and countries covered are given the opportunity to comment on, and discuss, the accuracy of the information therein.

As it is the case for any composite indicator, STRI scores are dependent on the selection and weighting of measures it incorporates. These have been validated by experts. Sensitivity tests suggest that the results are fairly robust. India has concerns with the STRI methodology since some regulatory barriers relevant to EMEs may not be fully reflected, such as visa-related issues and non-portability of social security benefits.

Figure 1.18. Services trade restrictions, as measured by the OECD, are relatively stringent



Note: The STRI takes values between zero and one, one being the most restrictive. OECD refers to an unweighted average.
Source: OECD, Services Trade Restrictiveness Index database.

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Box 1.5. OECD simulations: impacts of a unilateral *versus* multilateral cut in services trade restrictions

The first, immediate, impact of a cut in restrictions on services trade is to reduce the prices of services used as inputs. There are however many second-round effects, including:

- Production increases in sectors where services are a large share of intermediate inputs;
- Higher exports for those goods and services which become more competitive thanks to the decline in input costs;
- Job growth in sectors where production increases;
- Increase in income/GDP.

To quantify the potential economy-wide impacts of trade reforms, the OECD has developed a global computable general equilibrium model, METRO (OECD, 2015[23]). Two scenarios are presented here:

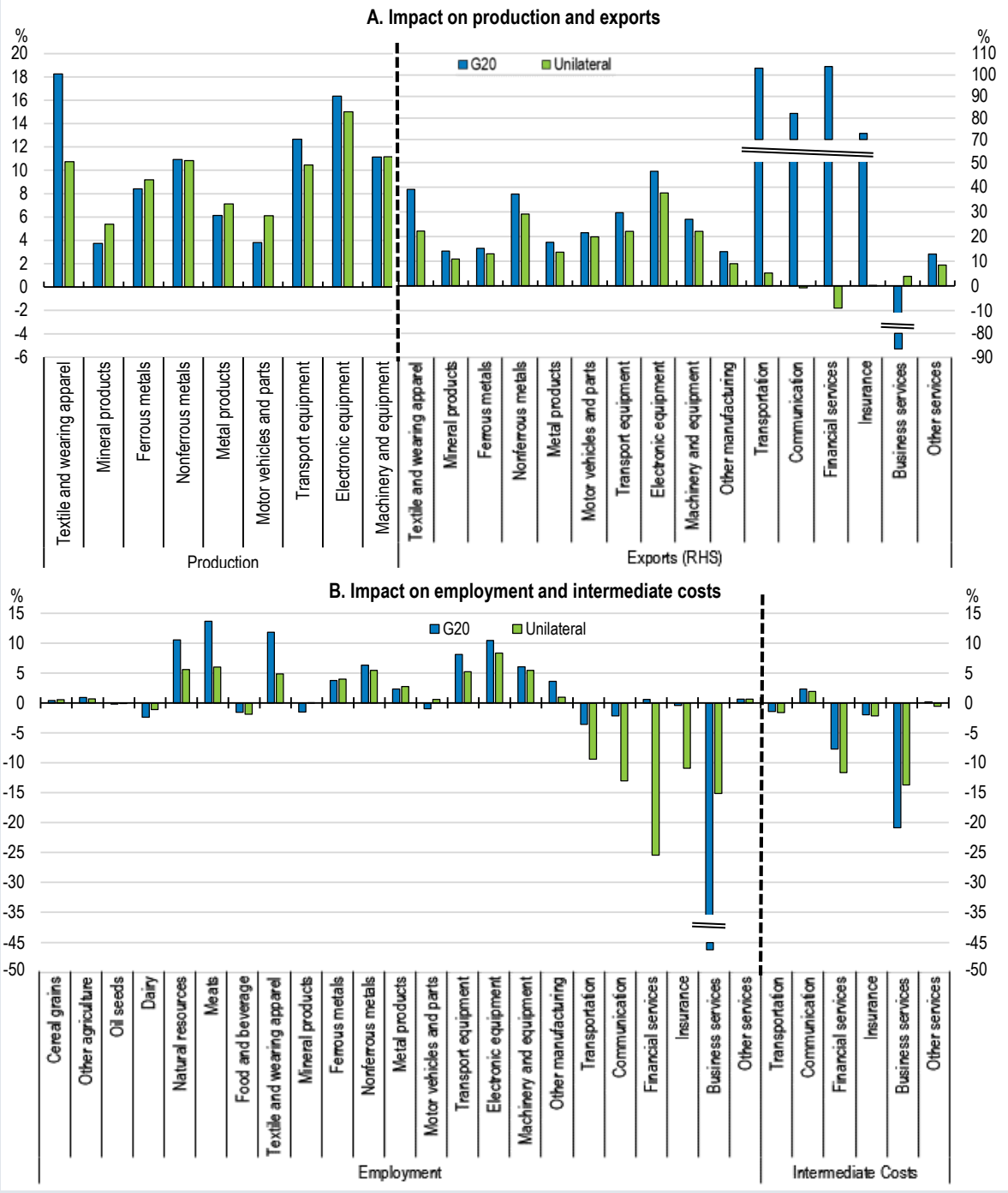
- A multilateral move where all G20 countries reduce their STRI to the benchmark (Benz and Gonzales, 2019[39]). The level of services trade regulation among member states of the European Economic Area is assumed to be what can be achieved through a cooperative approach – i.e. the benchmark. This translates into a reduction in trade costs for services averaging just over 90%; and
- India reduces unilaterally its STRI score by 20%.

The economic impacts by sector are presented in Figure 1.19. Key findings are as follows:

- The reduction in India's input prices is bolder in the multilateral scenario as Indian producers gain from both lower domestic prices and improved access to cheaper imports.
- The increase in production is higher in several sectors, but not all, under the multilateral (and bolder) scenario. Sectors that would benefit the most include textile and electronic equipment.
- Exports increase, notably in manufacturing for which services account for a large share of intermediate inputs. Exports of services also increase sharply in the multilateral scenario, in particular transportation and communication (which include IT services). For most sectors, the multilateral scenario (with a larger reduction in services trade restrictions) is more favourable reflecting two main factors: i) India also benefits from the opening of others' markets; ii) the implicit reduction in India's services trade restrictions is higher in the multilateral scenario where India is supposed to reduce services trade restrictions to the benchmark. Under the unilateral scenario, exports of most services will benefit, with the main exception of financial services.
- Employment in several manufacturing sectors increase, including textile, transport and electronics equipment.

Figure 1.19. Economic impact of a multilateral and unilateral cut in service trade restrictions

Changes from the baseline



Source: OECD simulations based on the METRO model.

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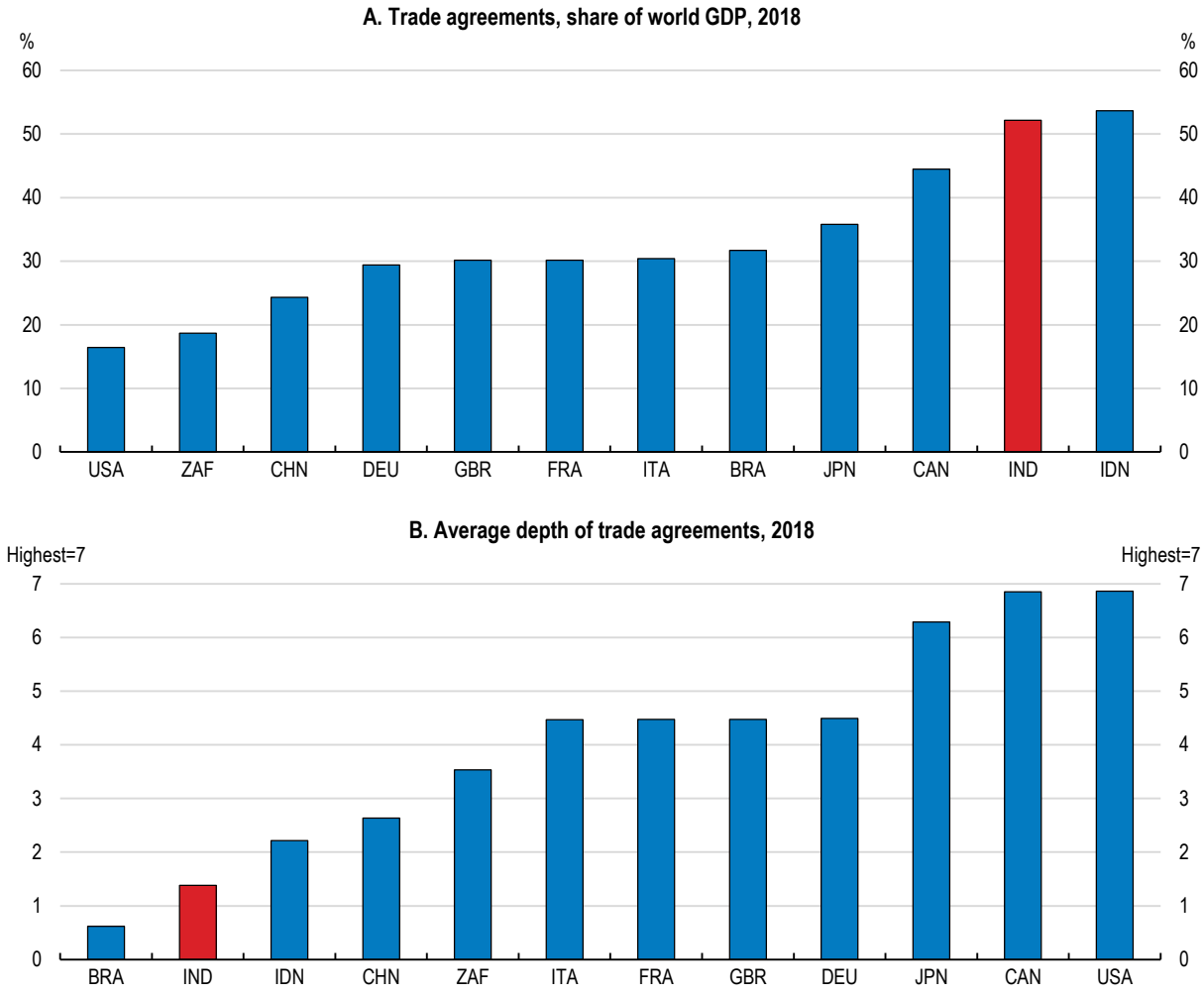
Developing trade agreements or cutting tariffs?

India has used preferential trade agreements as a key component of its trade and foreign policy, especially since the early 2000s. It has concluded bilateral agreements with several Asian countries (including South Korea in 2009 and Japan in 2011), in goods more so than in services (Government of India, 2016[40]). It is party to various regional trade agreements, including the SAFTA, the Asia Pacific Trade Agreement, and the ASEAN and discussions are ongoing on the Regional Comprehensive Economic Agreement (RCEP) with China and other Asian countries. India does not have preferential agreements with the European Union and the United States. Overall, countries covered by a trade agreement with India account for a relatively large share of the world GDP (Figure 1.20).

Empirical evidence on the impact of preferential trade agreements on export performance is mixed. Some sectors appear to have benefitted, while others have experienced an increase in imports (Government of India, 2016[40]). Several factors may affect these results. *First*, the depth of most preferential agreements signed by India is relatively low (Figure 1.20B) – those with Japan and South Korea are exceptions since they embody some cooperation in services trade, investment, standards and competition. *Second*, the initial level of tariffs matters: as tariffs tend to be higher in India than elsewhere, trade agreements may, in the short run, boost imports more than exports. *Third*, in the absence of concomitant improvement in the business environment, exports may fail to exploit fully the opportunities offered by foreign market opening. This would largely explain why Indian apparel exporters have not been able to increase their export shares in Japan after the move to zero tariffs under the trade agreement (Mukherjee et al., 2018[41]). Overall, for preferential agreements to deliver their full impact on exports, India should undertake complementary improvements in the business environment.

OECD simulations suggest that, even in the absence of new bilateral, regional or multilateral trade agreements, India would benefit from reducing trade tariffs: exports, domestic production and income would increase. The METRO model has been used to compare the impact for India of a multilateral reduction in tariffs -- all G20 countries are assumed to lower their tariffs to the lowest level implemented across G20 countries – to a situation where India alone cuts tariffs (Table 1.1). The positive impact of India reducing trade tariffs is only marginally smaller than the impact from a multilateral reduction, reflecting the fact that effectively applied tariffs in G20 partner countries are already relatively low. The simulated impact of a multilateral move on India is however likely underestimated since a large share of India's exports are to countries which are not members of the G20. Overall, even acting alone, the Indian economy would benefit from improved trade. Some firms, in particular small and less competitive ones, may however suffer from a more competitive trade environment (see below).

Figure 1.20. India has developed preferential trade agreements but their depth is limited



Note: Trade agreements are weighted by partner countries' GDP in PPP US dollars, excluding domestic countries' GDP. The measure of depth is taken from (Dür, Baccini and Elsig, 2014[42]). This is an additive index that combines seven key provisions that can be included in preferential trade agreements. The first provision captures whether the agreement foresees that all tariffs (with limited exceptions) should be reduced to zero (that is, whether the aim is to create a full free trade area). The other six provisions capture cooperation that goes beyond tariff reductions, in areas such as services trade, investments, standards, public procurement, competition and intellectual property rights. The higher the outcome (score varies between 0 and 7) the deeper the trade agreement.

Source: World Bank, World Development Indicators database; OECD calculations based on the Design of Trade Agreements (https://www.designoftradeagreements.org/), May 2019.

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Table 1.1. Unilateral *versus* multilateral cut in tariffs: impacts for the Indian economy

Percentage change from the base level

	Unilateral cut: India lowers tariffs to lowest G20 level	Multilateral cut – all countries lower their tariffs to lowest G20 level
Real GDP	0.3	0.3
Imports	3.6	5.0
Exports	7.7	8.6
Domestic production	0.5	0.7

Source: OECD estimations based on the METRO model.

The OECD METRO model has been used to quantify the impacts of a reduction in India's trade barriers under various reform scenarios, including non-tariffs barriers and service trade restrictions (Box 1.6). In each of these scenarios, consumption, investment, exports, domestic production and income, all increase compared to the base level (Table 1.2). Employment in the manufacturing sector increases. Among the four trade reforms envisaged (scenario 1 to 4), reducing services trade costs has the strongest impact, with a significant increase in manufacturing employment.

Box 1.6. OECD simulations: impact of a unilateral reduction in trade barriers

The OECD's trade model, METRO, is a computable general equilibrium model (CGE) that has a comprehensive specification of economic activity within and between economies. The underlying approach for the multi-region model is the construction of a series of single country CGE models that are linked through trade relationships. It models bilateral trade relationships for 61 economies and 57 sectors. The model is documented in (OECD, 2019[43]) and is regularly used to assess economic impacts of trade policies.

The METRO model has been used here to quantify the impacts for India of a unilateral reduction in trade barriers under 5 scenarios:

1. A 20% unilateral cut in India's tariffs on goods;
2. A 20% unilateral cut in the estimated ad-valorem equivalents (AVE) related to India's non-tariff measures on goods;
3. A 20% unilateral cut in the estimated AVEs of India's non-tariff measures in services for India;
4. A reduction in India's trade facilitation costs to the average G20 level;
5. Simultaneous trade liberalisation (i.e. all four types of trade barriers reduced).

Key results are as follows:

- By unilaterally reducing all trade barriers, India's real GDP increases by 2.4% and total production by almost 3%. While benefits are widely shared across agriculture and manufacturing industries, Indian service sectors would face stiffer competition from foreign suppliers.

- Production in the service sectors, particularly financial services, decline as firms substitute away from domestic providers. However, downstream industries that rely on services as inputs benefit from the fall in intermediate input prices.
- The cost of intermediate goods and services in manufacturing sectors, like motor vehicles and machinery, decrease by 3% and 2 %, respectively. Improvements in trade facilitation increase access to intermediate goods from foreign sources and reduce production costs.
- Demand for labour shifts away from services sectors, where production declines, while jobs in the textile and electronic equipment sectors increase by about 5% and 10%, respectively – the METRO model assumes full employment in the economy.
- Exports across all sectors increase with the exception of the financial sector. The largest increases in exports are in manufacturing sectors, driven by reductions in the services trade restrictions. Exports increase, even in the scenario where only import tariffs are reduced, reflecting the impact of lower input costs on India's competitiveness.

Table 1.2. Macroeconomic impact of a reduction in India's barriers to trade

% change from base

	20% reduction in tariff rates	20% reduction in non-tariff trade costs on goods	20% reduction in non-tariff trade costs on services	Trade facilitation costs reduced to G20 level	Simultaneous liberalisation
Real GDP (expenditure)	0.1	0.3	1.5	0.5	2.4
Private consumption	0.4	0.4	3.6	0.5	4.9
Investment	0.0	0.5	2.3	0.9	3.9
Imports	0.6	1.1	15.0	1.9	19.0
Exports	1.3	0.9	9.9	1.6	14.1
Domestic production	0.1	0.0	2.3	0.4	2.8

Source: OECD estimates based on the METRO Model.

More foreign investment could promote income growth and support export performance

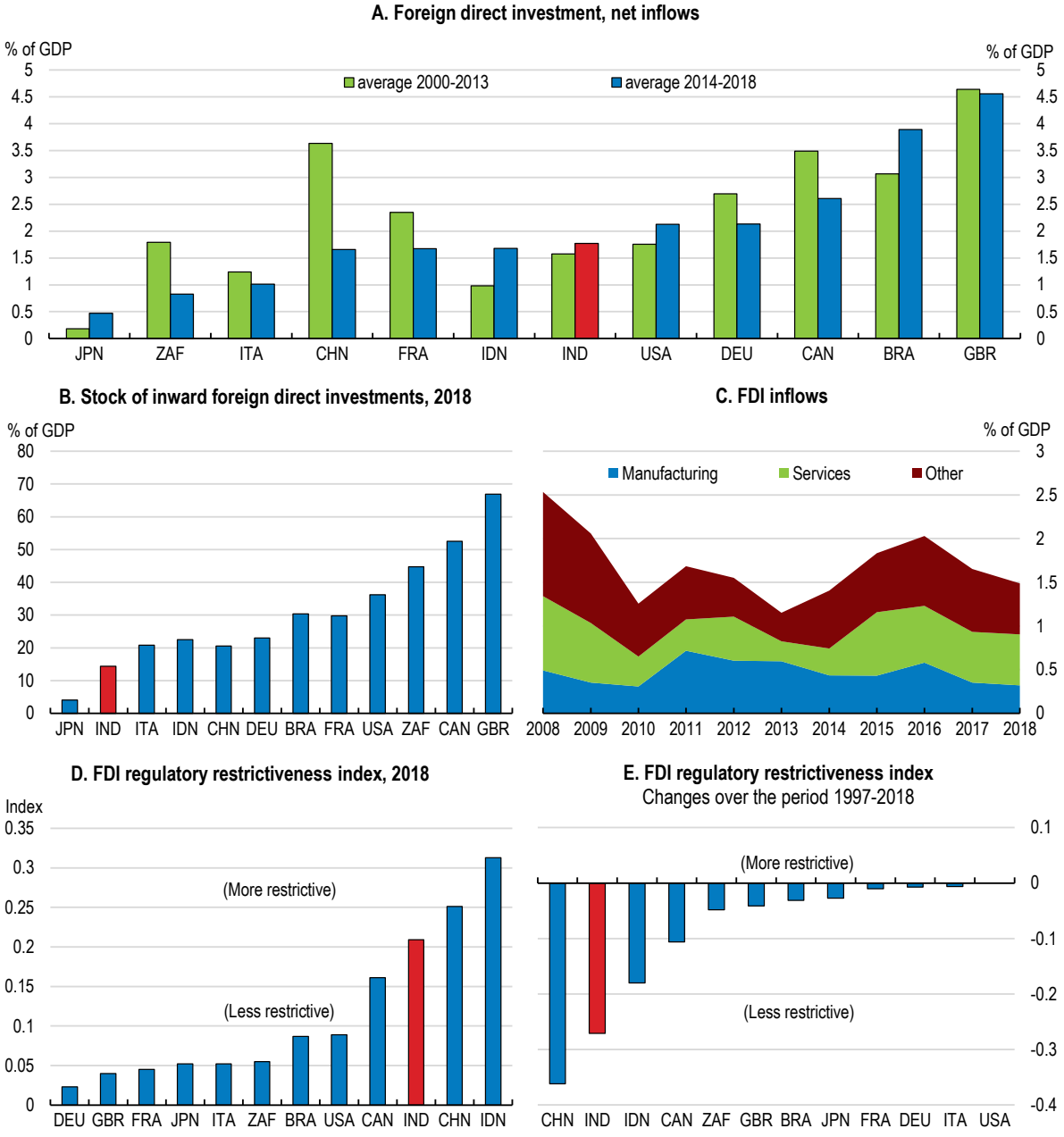
Foreign investment usually brings technology, knowledge and management skills, boosting productivity and export performance in the host country. It may also facilitate access to global markets. Empirical evidence suggests that inflows of foreign direct investment (FDI) in India have promoted services exports [(Kumar Dash and Parida, 2013[44]); (Saleena, 2013[45])]. In the automobile industry, some foreign companies have built production capacity in India, making India an export hub for markets such as Africa and West Asia. Some Indian auto-part manufacturers became world leaders by having first acquired technical and managerial skills from leading original equipment manufacturers (Saraf, 2016[46]). FDI can also boost activity in small and medium-sized enterprises (SMEs) to global value chains, contrary to the frequent belief that benefits accrue mainly to large firms. Empirical evidence for ASEAN economies suggests that SMEs tend to export intermediate goods to global value chains indirectly through sales to multinational firms which then export (López González, 2017[47]).

India has liberalised its FDI policy in many sectors over the past two decades. Since 2014, India has been a top reformer: caps on foreign participation have been raised and more sectors have been brought under the automatic route, avoiding the administrative burden associated with the government approval route. The opening was most ambitious in the air, real estate and retail distribution sectors. In 2017, the Foreign Investment Promotion Board was abolished and the government approval system was simplified and decentralised -- concerned ministries are now invited to accept or reject FDI projects within a shorter timeframe (8-10 weeks). Overall, the OECD FDI Restrictiveness Index suggests that in 2018 India was more open than several other EMEs, including China, Indonesia and Malaysia. While global FDI flows declined three years in a row to 2018, FDI inflows to India as a share of GDP have remained robust (Figure 1.21).

The government aims at making India a more attractive FDI destination. FDI restrictions in single-brand retail, digital media, contract manufacturing and coal sector were loosened in August 2019. Local sourcing norms for single-brand retail FDI have been softened. In presenting its Budget for FY 2019-20, the government indicated that further reforms are likely, including in the insurance, aviation and media sectors.

Restrictions on FDI remains higher than in most OECD countries, especially in banking and insurance, legal, accounting and audit services and agriculture. In retail trade, 100% FDI is allowed and large foreign retailers have recently invested in India. However, new guidelines for FDI in the e-commerce sector remain relatively restrictive (Box 1.7). Restrictions on FDI, combined with structural bottlenecks (see above), act as an impediment to FDI inflows. Further liberalisation and simplification of FDI policy could trigger foreign investment. The impact could be large: i) in the context of rising trade tensions where firms are considering relocating their production facilities, and ii) given the relatively low stock of FDI in India compared to other EMEs while the size of the domestic market is large.

Figure 1.21. Inward foreign direct investment has remained relatively low despite lighter regulations



Note: In Panel A, data for 2018 for India are based on OECD calculations using CEIC data. In Panel B, data for Brazil and South Africa are for 2017. In Panel C, services includes computer software and hardware. The FDI Regulatory Restrictiveness Index measures statutory restrictions on foreign direct investment across 22 economic sectors. It looks at four main types of restrictions on FDI: 1) Foreign equity limitations; 2) Discriminatory screening or approval mechanisms; 3) Restrictions on the employment of foreigners as key personnel and 4) Other operational restrictions. Restrictions are evaluated on a 0 (open) to 1 (closed) scale. The overall restrictiveness index is the average of sectorial scores.

Source: Government of India, Ministry of Commerce and Industry; World Bank, World Development Indicators database; OECD calculations based on CEIC data; OECD, FDI Main Aggregates database; OECD, FDI Regulatory Restrictiveness Index database.

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Box 1.7. Recent changes in e-commerce rules

In February 2019, a new circular on FDI was issued on FDI guidelines relating to e-commerce. It confirms that fully-owned foreign companies may enter e-commerce in India, but under conditions that restrict the business model of foreign retailers. The regulation distinguishes between the inventory based and the market-place based models of e-commerce. Foreign ownership is only allowed in the market-place model.

In the market-place model, the e-commerce entity provides a platform over which sellers and buyers interact. In addition, the e-commerce entity may offer logistics support and payment systems to vendors. Specifically, foreign e-commerce suppliers may only engage in business-to-business (B2B) operations. Furthermore, market-place based e-commerce entities may not sell goods or services produced by firms in which they own shares. Another criterion is that no vendor may have more than 25% of its sales through the market-place e-commerce -- this regulation may be hard to enforce, since the e-commerce entity would not have information about its customers' total sales. Finally, the regulation most likely implies that foreign bricks and mortar retailers cannot offer online sales.

Although the regulation may protect small traditional retailers in India, it will hurt consumers by restricting the basket of goods they have access to and by stifling price competition. Moreover, the regulation may result in lost opportunities for local manufacturers. Modern retailers offer a channel for small manufacturers to reach consumers beyond their village, and often also support them in improving product quality and complying with standards.

Mitigating the adverse effects of enhanced participation in the global economy

In most countries, globalisation increases incomes for many, but not all. Recent empirical work suggest that the average income benefit of globalisation tends to be higher in emerging than in advanced economies, but that income inequality is likely to increase in EMEs (Lang and Mendez Tavares, 2018[48]). In India, high-performing sectors abroad tend to employ skilled workers – the ICT sector is one of them – or be capital-intensive – e.g. oil refining. On the other hand, the labour intensive manufacturing sector has so far benefitted less from globalisation. Overall, trade has tended to benefit skilled workers and asset-rich individuals more than unskilled workers, deepening income inequality.

Trade may also exacerbate regional disparities because of the geographical concentration of activities, fuelling discontent. Empirical work for the OECD area (Rusticelli et al., 2018[49]) suggests that trade has an important role in regional labour market developments. A YouGov survey (Bertelsmann-Stiftung, 2018[50]) suggests that people in India see globalisation and trade as a positive development for wages and job security, while the opposite view prevails in advanced economies. Still, a large majority calls for stronger protection against foreign competition.

Opening India further to trade and investment will entail a reallocation of resources both across sectors and within sectors across firms. The new Insolvency and Bankruptcy Code will help reallocate capital from declining industries and firms to more promising ones. Modernising labour laws should help reallocating labour from sectors adversely affected by trade to growing sectors, and thus to reduce disparities across individuals and regions.

A more fluid housing market would be instrumental to enable the geographical relocation of people (see chapter 2).

Policies can reduce the burden of adjustment for poor and vulnerable households. Equipping people with the means to succeed in an open and changing world should be a priority. This would require putting more resources in the education system, in particular more trained teachers. Providing vocational training opportunities is also key to help workers to get ready for new jobs in expanding sectors and enhance their chances of accessing better-paid jobs. Reinforcing the social safety net may also help. Recent moves in this direction – in particular, the enhanced insurance for hospital care, pension insurance for informal workers, the minimum income for farmers – could help.

Large emigration flows may help raise living standards, including for low-income families through remittances, but brain drain may be an issue. In the health care sector, migration may weigh on the ability to provide quality public services for all. In the early 2010s, India was the world's top supplier of emigrant doctors and second supplier of emigrant nurses (OECD, 2015[51]). Nurses born in India work in many OECD countries, primarily the United States (42% of Indian-born nurses working abroad), the United Kingdom (28%), Australia (9%), New Zealand and Ireland (7% each). Some of the health professionals working abroad return to practice in India and can contribute their knowledge and clinical and research skills. Experience in other countries (Dodani and Laporte, 2005[52]) suggests that brain drain can be converted into brain gain by developing training programmes and research projects with health professionals living in the home country. Still, avoiding too large an outflow of nurses and doctors may call for better work and pay conditions for nurses and doctors in India.

Table 1.3. Recommendations to improve India's participation in the world economy

Findings (main findings in bold)	Recommendations (key recommendations in bold)
Removing domestic bottlenecks	
The quality and reliability of transport and electricity networks have improved but transport times are still long and electricity outages are an issue in some regions, weighing on the competitiveness of the manufacturing sector.	**Invest further to improve electricity provision, roads and ports.**
Labour-intensive manufacturing exports are lagging behind. Labour regulations are complex, in particular in the industrial sector, and discourage firms to grow and exploit scale economies, hampering competitiveness.	Introduce a simpler and more flexible labour law which removes disincentives for firms to create jobs.
Special economic zones account for a growing share of total exports. They can be a useful instrument to experiment product and labour market reforms.	Extend gradually the regulatory and administrative reforms which promote productivity and job creation to the rest of the country.
Removing foreign trade and investment barriers	
Tariffs harm more low-income households and weigh on export competitiveness. Even in the absence of a multilateral trade agreement, India would benefit from a reduction in trade tariffs.	**Strive for a multilateral trade agreement or, as a second best, further reduce tariffs.**
The dispersion in import tariffs is large. Higher rates in inputs than on final products penalise domestic producers. They also add to administrative and compliance costs.	Simplify the tariff structure.
Manufacturing exports embody a high share of services. Reducing restrictions to services trade would promote manufacturing exports and job creation.	**Further reduce restrictions to services trade.**
FDI restrictions have declined sharply but are higher than in many OECD countries.	Further streamline restrictions to FDI.
Trade facilitation has improved but the number of documents remains high and co-operation across agencies is still lacking.	Further improve trade facilitation by reducing the number of documents for importers and exporters and by improving agency co-operation at the border.

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Chapter 2. Housing for all

Housing is a key part of well-being and contributes to spatial and social mobility. In India, the housing market is characterised by excess demand for affordable dwellings, a small rental market and an oversupply of high-end housing, especially in urban areas. The housing shortage among low-income groups is large, despite increases in the stock of quality housing in recent years, as house prices are high relative to incomes and access to credit is often difficult. Prices are high because of structural rigidities in the market, stemming from stringent zoning and land regulations, restrictive floor indices and high transaction costs, in the context of high population density. Ongoing urbanisation, and particularly rural-urban migration, will intensify demand for affordable housing, especially at the low end of the market. Improving the functioning of the market calls for clarifying property rights and easing rent control and zoning rules. Lowering transaction taxes, especially stamp duties, would support mobility. Simplifying land use regulations and enhancing contract enforcement would also boost housing supply. The Real Estate (Regulation and Development) Act of 2016, which aims at bringing transparency, protecting the interests of homebuyers and boosting investment in the real estate sector, helped improve the market situation. By improving the collateral security, the law can also facilitate access to housing finance. The Housing for All programme that aims to provide a home for every Indian by 2022 is a good way forward in reducing the shortage. As with many past government programs, it promotes ownership. More is needed to develop rental housing and to address the needs of vulnerable groups. The 2019 Model Tenancy Act is a step in the right direction.

The rapid rise in population and incomes over the past decades has resulted in an increase in demand for housing. However, despite several public housing programmes that boosted supply, the housing shortage remains. In 2015, according to government estimates, about 40 million households faced housing shortages —which includes the homeless and households in sub-standard or congested dwellings, or without basic amenities—. The housing shortage is larger in rural areas, where the large majority of the population lives, and among low income groups.

Providing adequate and affordable housing is an ever-growing challenge. Demand for housing will rise as the population continues to increase and the migration from rural to urban areas accelerates. India is projected to have the fastest growing urban population in the coming decades among the BRIICS.

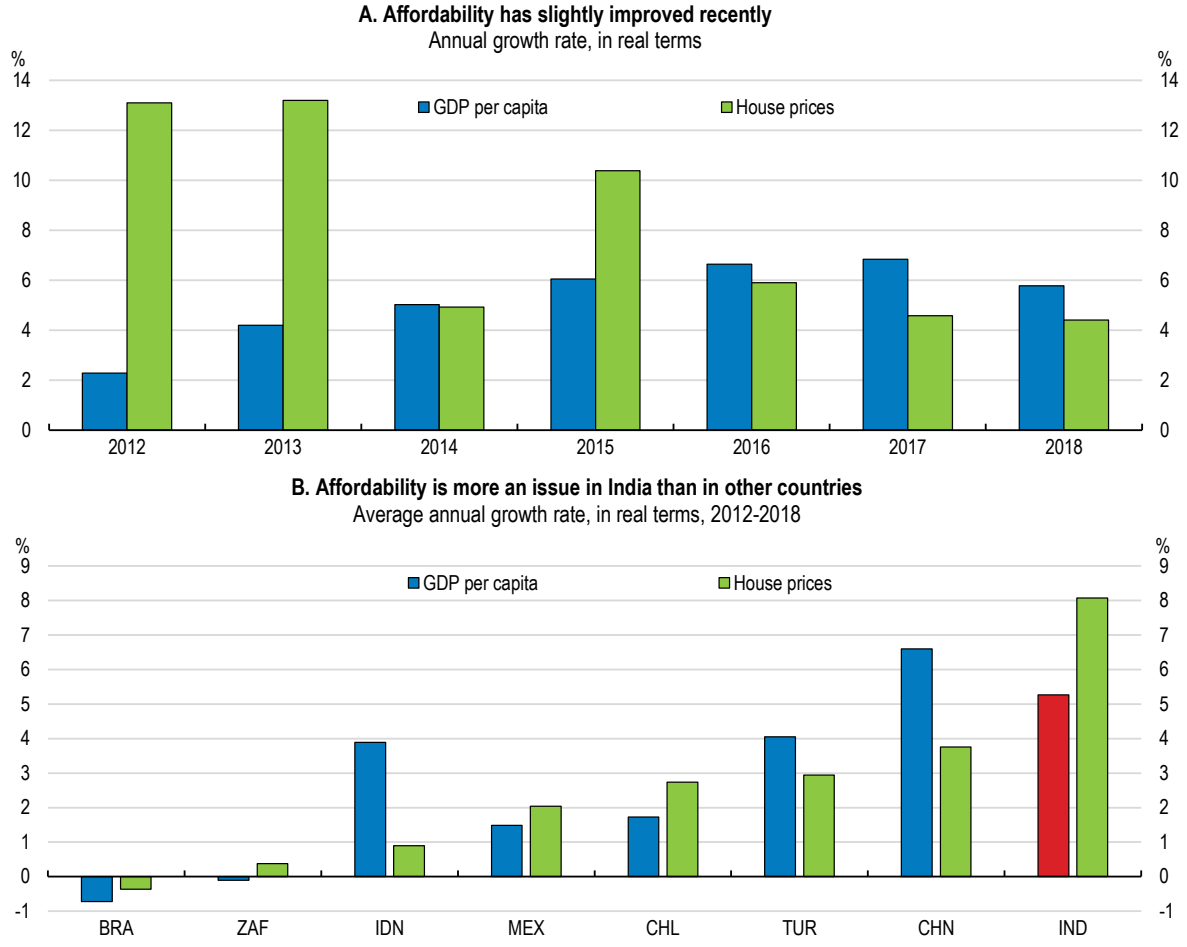
The housing market is very fragmented, influenced by various regulations. The rental market is small, as rigid rent controls and strong renter protection laws limit return to investment and incentives for maintenance for owners (IDFC, 2018[1]). Weak property rights and costly land acquisition constrain supply. At the same time, there are large stalled real estate projects in many suburbs and numerous vacant houses, pointing to oversupply of certain types of housing and a misallocation of the housing capital stock. Access to finance is also difficult, affecting certain categories of demand, as the mortgage market remains small (Soundararajan, 2017[2]).

Average real housing prices have increased much more than GDP undermining housing affordability in particular for low income households (Figure 2.1). The various regulations and costly land in urban areas tend to drive up house prices, which can be much higher than low income households' annual incomes (Tiwari and Rao, 2016[3]).

Improving the functioning of the housing market and addressing affordability are key challenges. Access to affordable housing is crucial for achieving a number of other policy objectives, including poverty reduction, equality of opportunity and more inclusive and sustainable growth. The housing market should enable spatial mobility between and within cities as job opportunities arise, and vertical mobility so that people can change house and neighbourhood when they climb the socio-economic ladder.

The government has launched various initiatives, including the *Housing for All* scheme and the *Smart cities* programme. Support has mostly favoured ownership in terms of interest subsidies or building programmes. There are ambitious targets for 2022 (based on current needs) for new houses in both urban and rural areas. Improving the regulations governing the housing market should also receive more attention. This chapter will discuss various elements of the housing market, past policies to increase affordable housing and potential policies to better respond to needs.

Figure 2.1. Affordability has improved but remains an issue



Note: Data for India relate to fiscal years.
Source: OECD.

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A persistent shortage with many vacant units points to large imbalances in the housing market

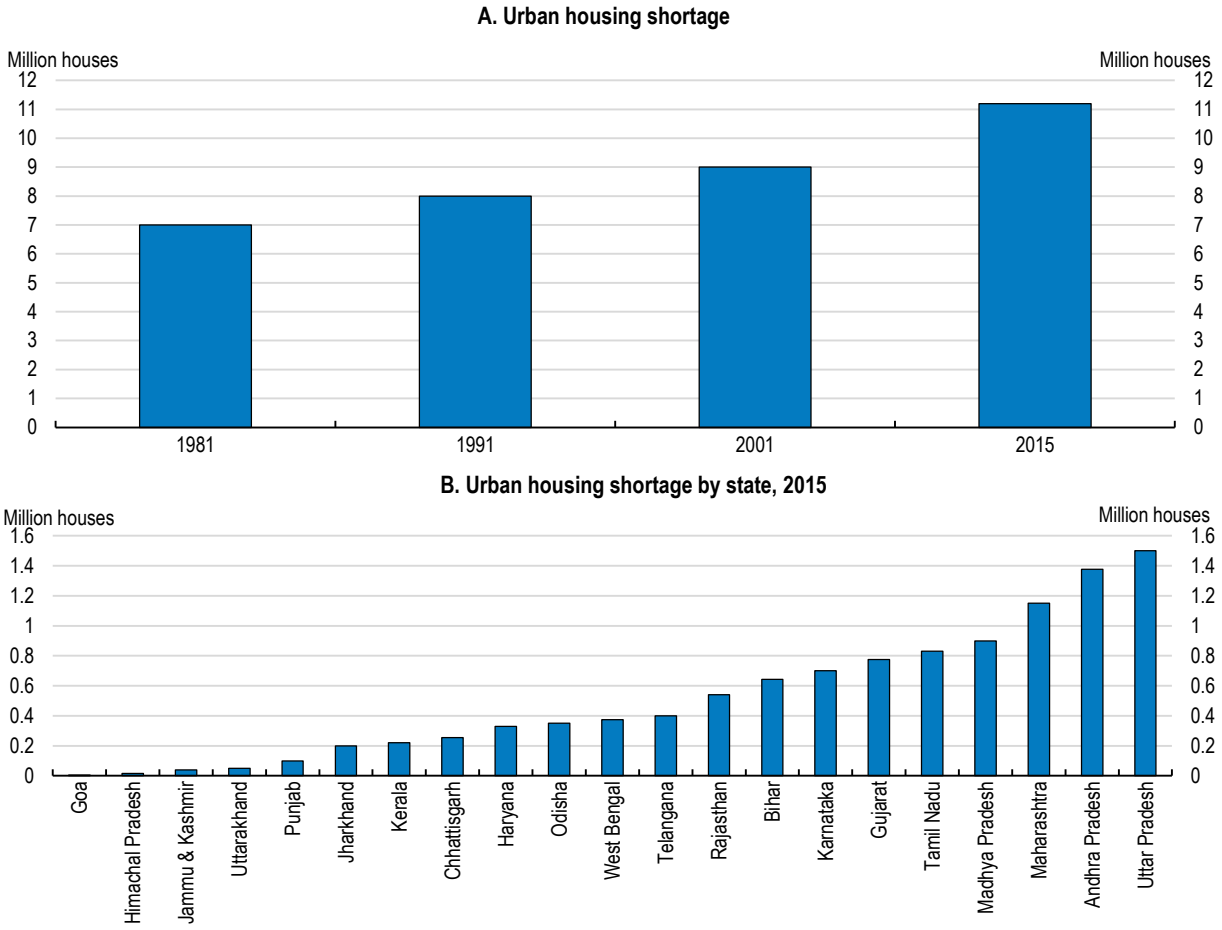
Housing shortages continue to be a challenge

International comparisons show that the share of people living in poor quality housing in India is high compared to other Emerging Market Economies. The urban shortage has increased fast in recent times (Figure 2.2, panel A) and continues to worsen as migration and natural population growth have intensified, but the biggest shortage is still in rural areas. There are large regional differences – the shortage is particularly important in Uttar Pradesh, Andhra Pradesh and Maharashtra (Figure 2.2, panel B). In urban areas, the housing shortage is mainly due to congestion, i.e. too many people per dwelling, whereas in the rural areas it is related to the quality of housing. Housing shortage will be addressed with the completion of the Housing for All programme and other social programmes (see below).

Housing conditions have improved for some vulnerable groups

Despite rising urbanisation and housing shortages, the share of population living in slums has decreased in the last two decades. However, around 25% of the total urban population still live in slums, similar to other large EMEs (Figure 2.3, panel A). The disparity across states is large, ranging from 6% of the urban population living in slums in Kerala to more than 35% in Andhra Pradesh, Chhattisgarh, Haryana and Maharashtra (Figure 2.3, panel B). Many workers who migrate from rural to urban areas to work end up in slums as they cannot afford buying a house, and the rental market is not well developed (see below). Globally, people living in the richest states (as measured by GDP per capita) face better housing conditions on average (Figure 2.4).

Figure 2.2. The urban housing shortage has worsened



Note: Housing shortage = Households living in non-serviceable katcha (nondurable) + households living in obsolescent houses + households living in congested houses + households that are homeless.
Source: Ministry of Housing and Urban Affairs.

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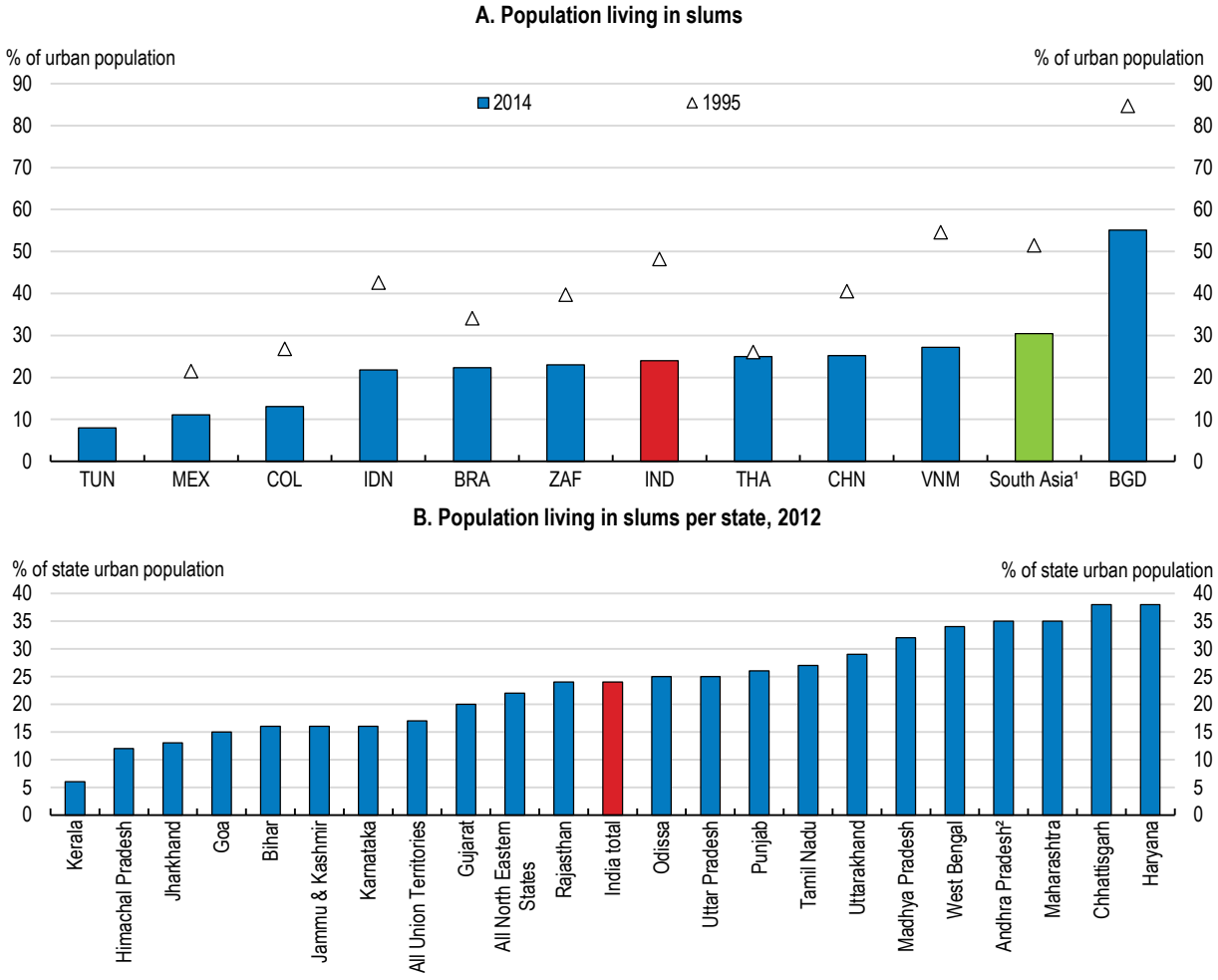
Figure 2.3. The share of people living in slums is comparable to other EMEs but high in some states



Note: South Asia according to the definition of the World Bank. 2. Andhra Pradesh includes Telangana.
Source: World Bank, World Development Indicators database; Ministry of Housing and Urban Affairs.

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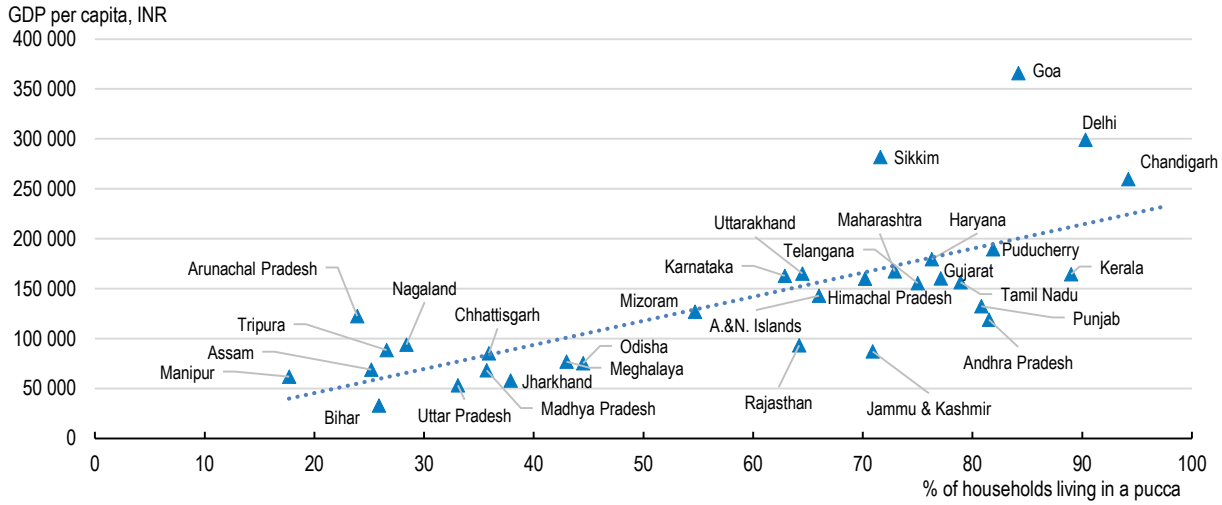
Housing conditions for the homeless have also improved somewhat (defined as those who live in "the open or roadside, pavements, in hume-pipes, under fly-overs and staircases, or in the open in places of worship, mandaps, railway platforms etc."). Their number was estimated in the 2011 Census at 1.8 million (0.15% of total population or 3-4% of the shortage), a slight decline from the previous census especially in rural areas, while it increased in cities (Kumuda, 2014[4]) (Figure 2.5, panel A). The share of homeless population differs across states (Figure 2.5, panel B).

Figure 2.4. Housing conditions are better in rich states

Living in a decent house (pucca) vs GDP per capita, 2015-2016



Note: Houses made with high quality materials throughout, including the floor, roof and exterior walls, are called pucca houses.
Source: OECD calculations based on data from CEIC; National Family Health Survey 2015-16, International Institute for Population Sciences.

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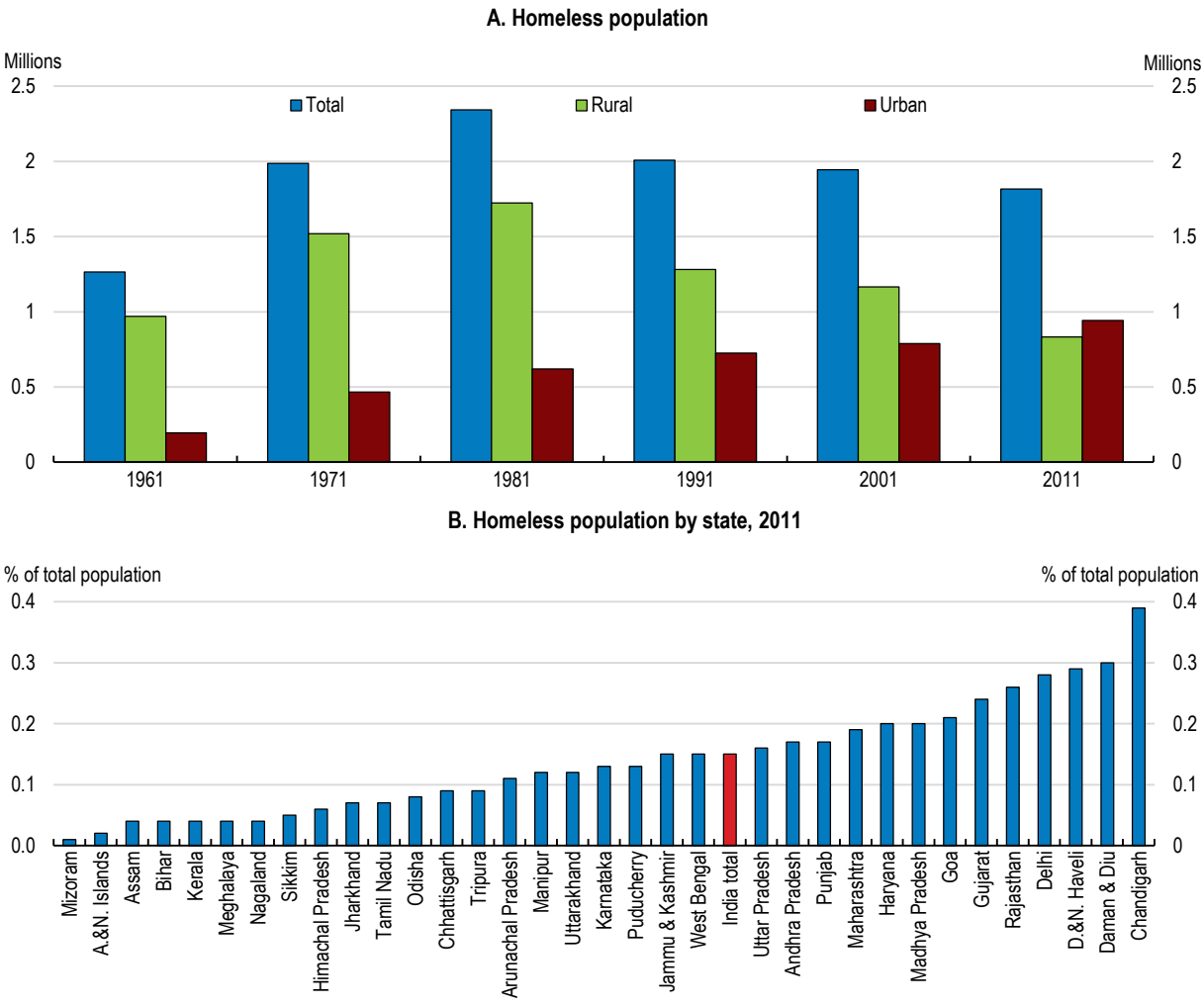
Access to basic services has also improved in recent years. In April 2018, the last village without electricity received power. The Swachh Bharat Mission has brought toilets to 98% of the rural population. Access to piped water has also improved, except in some states such as Bihar, Uttar Pradesh and Jharkhand where more than 70% of the rural population still does not have access to it (Figure 2.6).

Figure 2.5. Fewer homeless people in rural areas but more in urban areas



Source: Data from the respective population censuses; Sanjukta Sattar, "Homelessness in India", Shelter, April 2014, Volume 15, No. 1.

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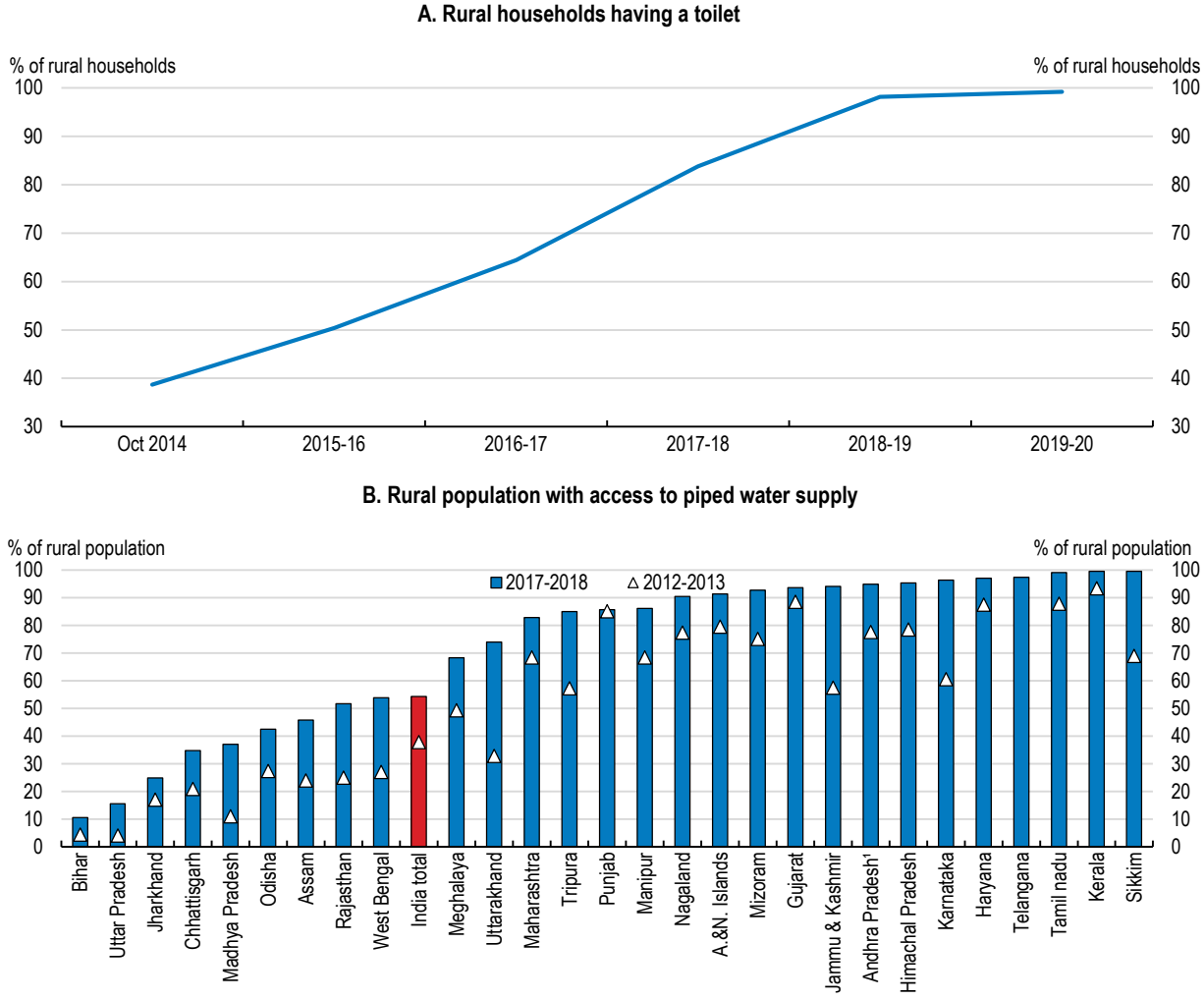
High housing prices make affordability a major problem

Real housing prices increased significantly between 2010 and 2015, and have stabilised since then, partly reflecting temporary factors (Figure 2.7, panel A). The evolution differs significantly across cities (Figure 2.7, panel B). Property prices relative to income are high in comparison to other emerging markets (see below).

House prices are high relative to incomes for most people. Overall affordability measured by the "house price to income" ratio or the "loan to income" ratio has worsened over the past 4 years (RBI, 2019[5]). The average house price was estimated to be much higher than the annual income for the poorest income group in 2010 (Tiwari and Rao, 2016[3]) (Figure 2.8). As the data refer to 2010 and since then income have increased and house prices have stabilised, it can be assumed that the situation has improved. On the other hand, there are indications that wealth inequality has widened. Closing the gap for the poorest households with subsidies alone would be extremely costly. By contrast, owing to rent

controls, renting a house is relatively affordable and more so than in other EMEs (Figure 2.9).

Figure 2.6. Access to basic services has improved



Note: Andhra Pradesh includes Telangana for the data referring to 2012-13.
Source: Ministry of Drinking Water and Sanitation.

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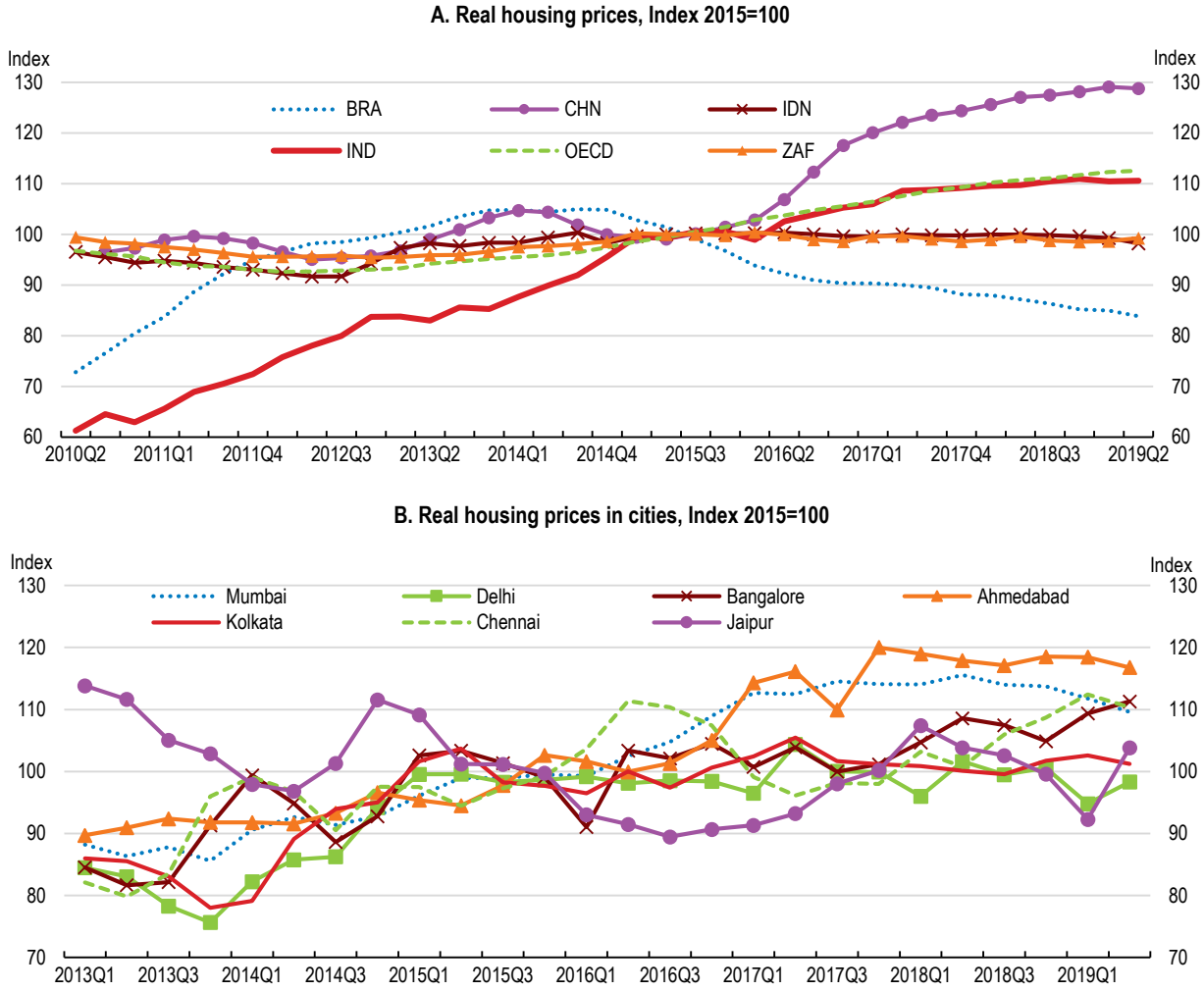
Figure 2.7. Housing prices have decelerated



Note: The series in Panel A are based on the real housing price index, deflated with the private consumption deflator, from the OECD. The series in Panel B are based on 3-month average housing price indices, deflated with the urban CPI, from the RBI. The base for all series is the 2015 average value.
Source: RBI; OECD, Prices and Purchasing Power Parities database.

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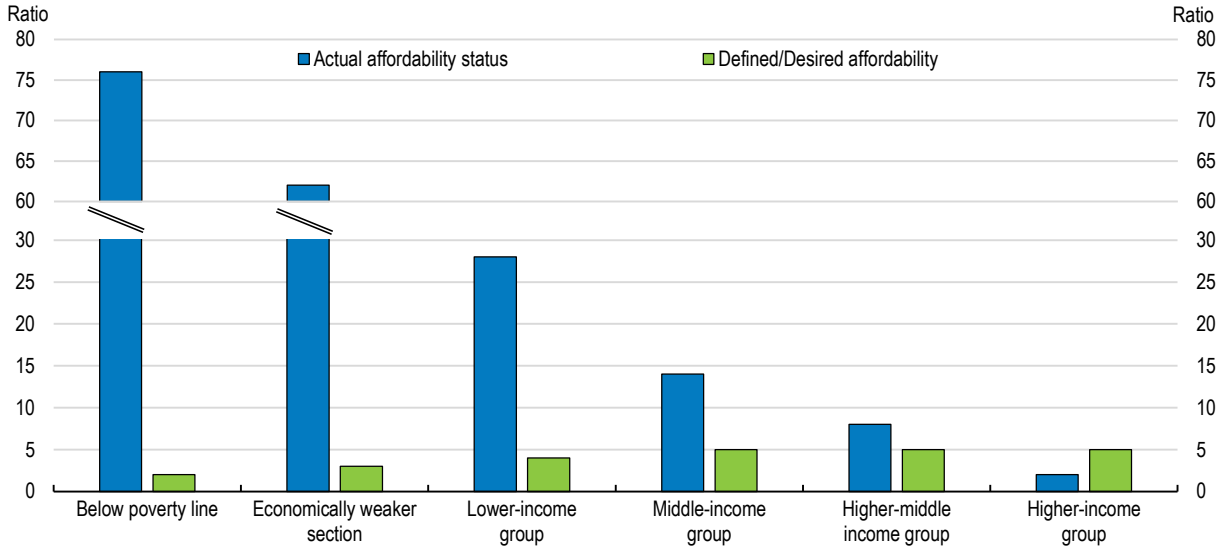
Gaps in the price-to-income ratio across different income groups affect incentives to build various types of housing. The increase in real income per capita, especially for the wealthiest 1% and 10% (by 6 and 2 percentage points respectively between 2000 and 2018), led developers to favour large and luxury apartments.

Figure 2.8. Low and middle income groups cannot afford a house

Ratio of house price to annual income of households, 2010



Note: "Defined/desired affordability" is defined as the ratio of house price to annual income, assuming that the house is financed by home loans with equated monthly installments (EMIs) not exceeding a certain amount for each income groups. EMIs should not exceed 5% of the household gross monthly income for Below Poverty Line (BPL), 20% for economically weaker sections (EWS), 30% for lower-income groups (LIG) and 40%, for the middle-income group (MIG).
Source: Piyush Tiwari and Jyoti Rao, Asian Development Bank Institute, "Housing Markets and Housing Policies in India" (No. 565, April 2016).

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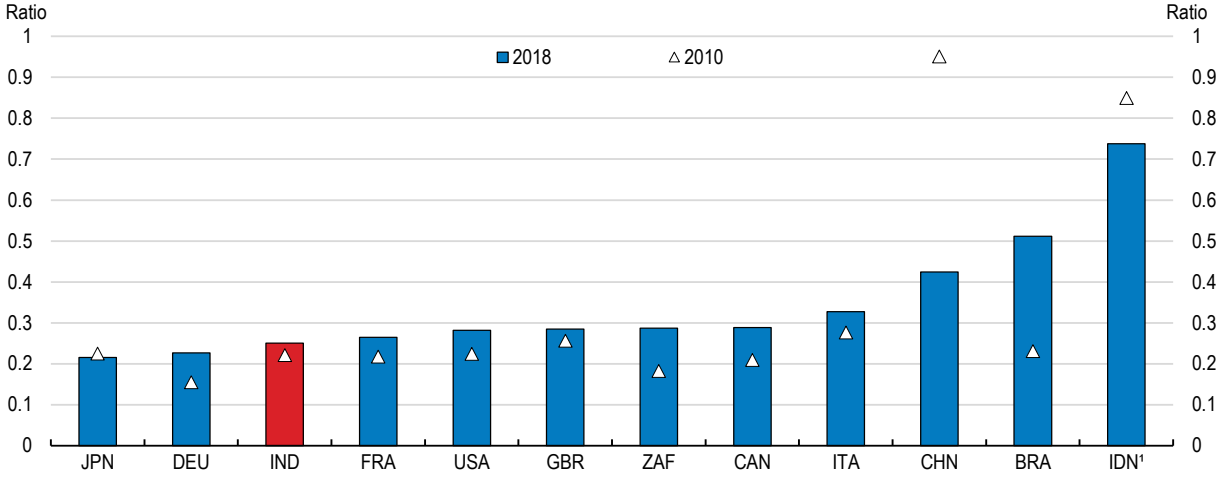
Figure 2.9. Affordability in the rental market is less an issue

Rent to income ratio



Note: Rent to income ratio is defined as annualised average monthly rent for an apartment of 50 m^2 in the city centre divided by the annualised average monthly income (after tax) times 1.5 (50% of women is assumed to participate in the workforce). Data are for 2011 for Indonesia.
Source: Numbeo and OECD calculations.

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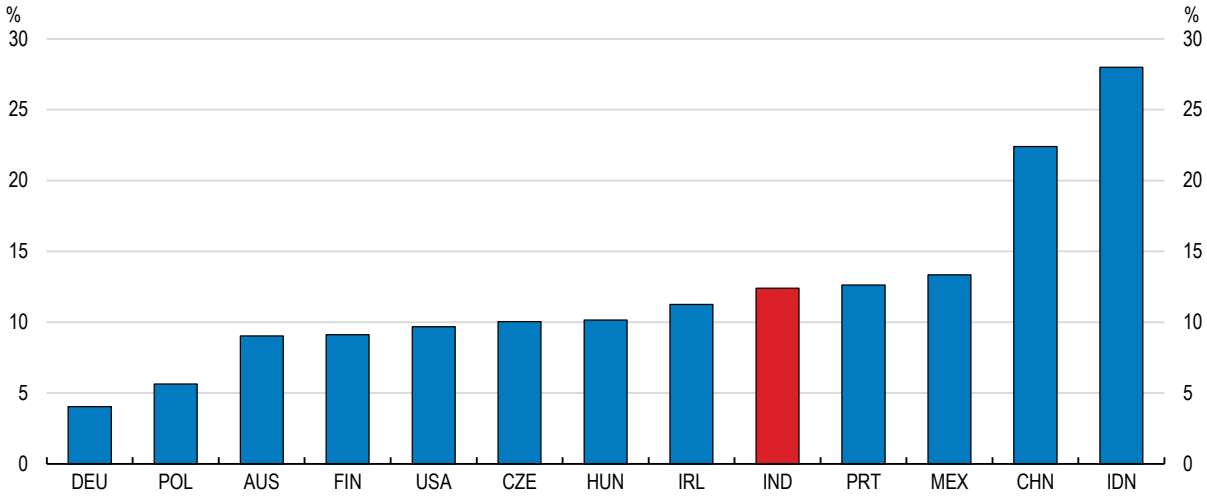
Many dwellings remain vacant

The large number of vacant dwellings points to misallocation of the housing capital stock. The 2011 Census showed 11 million vacant urban housing units. Housing vacancy rates in 2015 are lower than in other EMEs but higher than in advanced OECD countries (Figure 2.10). Most of the vacant dwellings are in mass-produced homes on peri-urban land with deficient infrastructure (transport) and basic services, far from job opportunities and city centres. This is partly a result of strict zoning laws in city centres and the policy of preserving land in city centres for government use. These laws vary across states. However, many Indians want to live closer to their jobs and this, in part, explains the numerous vacant dwellings.

Another factor is affordability, as real prices have increased significantly in the last decade, and low-income people cannot afford to buy most of these new dwellings. Moreover, it is important for most people to maintain neighbourhood connections (Barnhardt, Field and Pande, 2017[6]).

Figure 2.10. Housing vacancy rates in urban areas are large

Vacant dwellings as a percentage of total dwellings, 2015 or latest year available



Note: Year of reference: 2010 for the United States and Mexico; 2011 for Australia, the Czech Republic and Ireland. For Indonesia, data refer to Jakarta only and are vacancy rates for apartments for lease.
Source: OECD Questionnaire on Affordable and Social Housing; India MoF Economic Survey 2017-18; China Households Finance Survey; Colliers International (2017), Jakarta Property Market Report.

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The rental market is small

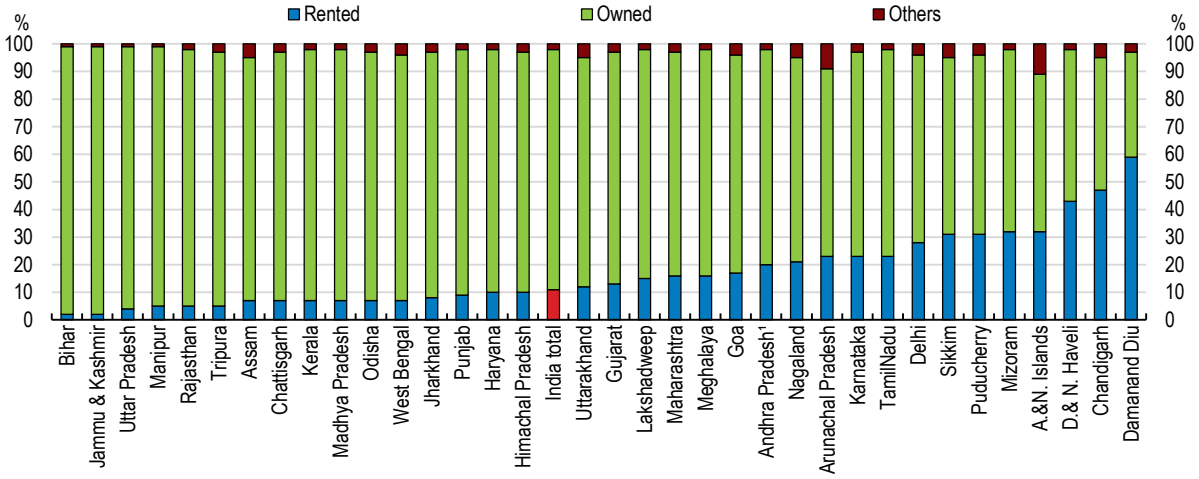
Rental housing is key to spatial mobility, as it makes it easier for people to move closer to the places where they can find a job. It is important for migrants moving to cities, temporarily or permanently, and for youth, low income and disadvantaged people who want or need to live in cities but cannot afford to buy a house.

The rental market is very small in India especially in rural areas. Even in urban areas, the share of rented housing has decreased from 54% in 1961 to 31% in 2011 out of the total stock (Tandel et al., 2015[7]). There are also stark regional differences ranging from almost

30% in Delhi to less than 5% in Bihar and Uttar Pradesh (IDFC, 2018[1]) (Figure 2.11). Moreover, most of the rentals are informal so as to avoid the strict rent controls that exist in many states.

Figure 2.11. The share of tenants is small

Percentage distribution of households by type of occupancy, 2011



Note: Andhra Pradesh includes Telangana.
Source: Ministry of Home Affairs, Office of the Registrar General of India.

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Boosting rental housing calls for modernising rent controls

Experience in OECD countries suggests that the supply of private rental housing is determined by demographics, income, the profitability of different types of investments, and housing policies related to rental regulations (which are often aimed at addressing market imperfections such as asymmetric information and/or unequal bargaining power between landlords and tenants), taxation, building regulations and rent allowances (Andrews, Caldera Sánchez and Johansson, 2011[8]). The small rental market in India is partly due to low rental yields in major cities compared to other EMEs and OECD countries (Figure 2.12) or other forms of investment due mostly to strict rent controls.

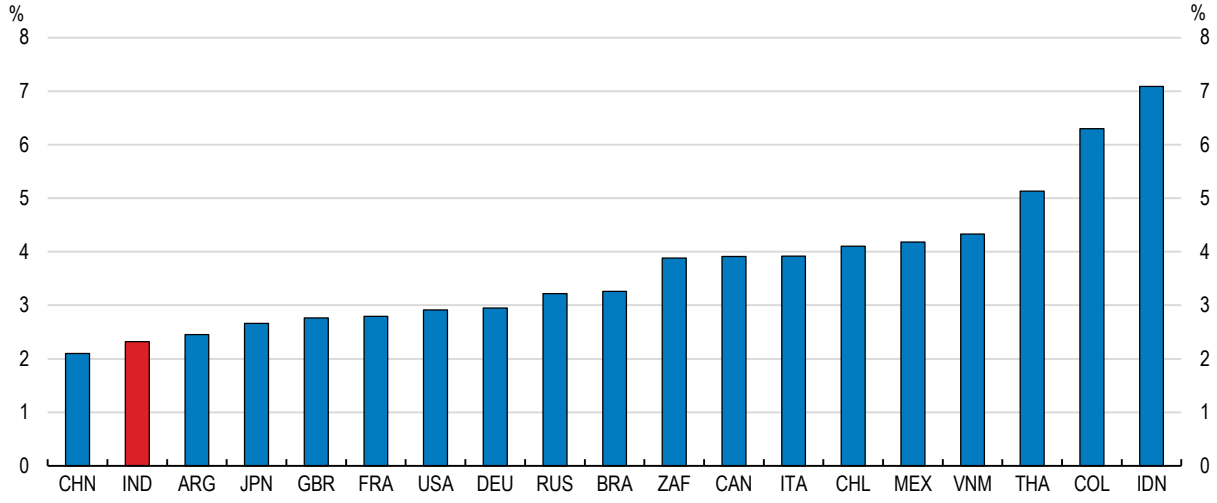
By imposing a price ceiling, rent controls generate market distortions, creating excess demand while discouraging investors for new buildings and maintenance of old ones (Nallathiga, 2005[9]). Rent controls have been in place in India since 1947 to prevent landlords from imposing very high rents on migrants when they arrive in a city (IDFC, 2018[1]). Rents have been kept at below-market rates for many years. The problem is further exacerbated by the slow pace with which disputes between owners and tenants are addressed by the judicial system, the inability to evict tenants and unclear property rights. In many states, rental rights are also transferrable to younger generations (Ministry of Finances, 2018[10]).

The central government has tried many times to persuade states to reform their rental regulations and suggested different tenancy models in 1992, 2011 and 2015. The main amendments in the 2015 tenancy model included the suppression of the standard rent level and the inclusion of the rent increase in the Tenancy Agreement. In addition to the new tenancy model, the reform of Rent Control Acts was classified as mandatory under the 2005

housing programme (the Jawaharlal Nehru National Urban Renewal Mission). However, progress has been slow (Table 2.1). In 2019, a new Model Tenancy Act has been released. Under the Act, landowners are obliged to provide a written notice three months before revising rent. The Act encourages the appointment of district collector as rent authority and heavy penalty on tenants for overstaying. The Act also restricts the security deposit to be paid by the tenant in advance to a maximum of two months' rent. Given the large number of vacant dwellings, the Act could boost the rental market. Only Andhra Pradesh, Punjab and Tamil Nadu have amended their rent control. Since 2015, the Maharashtra government has tried many times to reform rent controls without success as it faces political resistance. One of the main issues with the current rent legislation is that the standard rent level is significantly lower than the prevailing market rent and many of the existing tenants have enjoyed the excessive benefit of very low rent for more than 50 years.

Figure 2.12. Rental yields are low

Annual percentage, 2019 or latest year available



Note: Rental yields are defined as the rental income of an investment property as a percentage of its price.
Source: Global Property Guide.

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Many countries have started to eliminate rent controls. In Egypt, rent control and stringent tenant protection regulation reduced the attractiveness of rental housing for investors. In 1996, a law was passed that eliminated the rent control for newly built and vacant units. It resulted in a more dynamic market despite the fact that 40% of the rental housing stock was still under the rent control regime due to grandfathering (Peppercorn and Taffin, 2013[11]). Rent controls were in place in Brazil until 1991, when a new law eliminated it and introduced some advantages for owners and tenants. Landlords acquired the right to charge an "entry fee" at the beginning of a contract and to charge a penalty for early termination; tenants won the ban of entry fees for contract renewals, a preferential buy option in case of sale of the property and exemption from large expenses for the building (Peppercorn and Taffin, 2013[11]). In most OECD countries, the initial rent level is unrestricted. However, the rate at which rents can be increased during the term of a contract and/or the frequency of such increases is regulated in most countries, with some exceptions. In India, the states should continue to modernise the rent control system.

Table 2.1. Progress in the amendment of rent control has been slow

State	Act	Recent Amendment
Uttar Pradesh	The UP buildings (lease, rent and eviction) control Act,1982	
Bihar	UP Urban Building Act (Regulation of letting, rent and eviction),1972	
Delhi	The Delhi Rent Control Act, 1958	The Delhi Rent Control (Amendment) Act, 1995 (passed by Parliament but pending before the legislature), not implemented
Punjab	The Punjab Rent Act, 1995	The Punjab Rent (Amendment) Act, 2013, suppression of the standard rate, implemented
Orissa	Orissa house Rent Control Act,1947	
Gujarat	The Saurashtra Rent Control Act, 1951	The Saurashtra Rent Control Act, 1951
Himachal Pradesh	The Himachal Pradesh Urban Rent Control Act, 1971	
Tamil Nadu	The Tamil Nadu Buildings (Lease and Rent Control) Validation of Proceedings Act, 1971.	Tamil Nadu Regulations of Rights and Responsibilities of Landlords and Tenants Act, 2017 (similar to 2015 the Union Government model). Implemented in February 2019
Karnataka	The Karnataka Rent Control Act, 2001	Union Government Model tenancy bill 2011 (yet to be passed)
Jammu and Kashmir	The Jammu and Kashmir Houses and Shops Rent Control Act, 1966	
Andhra Pradesh/ Telangana	Andhra Pradesh Buildings (Lease, Rent and Eviction) Control Act, 1960.	Replaced with the Andhra Pradesh Residential and non-residential building Act,2017 (similar to 2015 the Union Government model), implemented in January 2018
Kerala	The Kerala Buildings (Lease and Rent Control) Act,1965	

The pressures for housing will be exacerbated by continued urban migration

Urban population growth is influenced by natural increase, reclassification of rural areas as urban ones and net internal migration. Natural increase is the major component of urban growth, accounting for about 50% of total growth. Census migration tables show that net migration accounted for around 21% of urban population growth between 1991 and 2001, and it had marginally increased to almost 23% between 2001 and 2011 (Chandrasekhar, 2017[12]). The 2017 Economic Survey by the Ministry of Finance provided a new measure based on railway passenger traffic. It estimates the annual work-related inter-state migration at around 9 million people between 2011 and 2016, up from 6 million per annum between 2001 and 2011 (Ministry of Finances, 2017[13]).

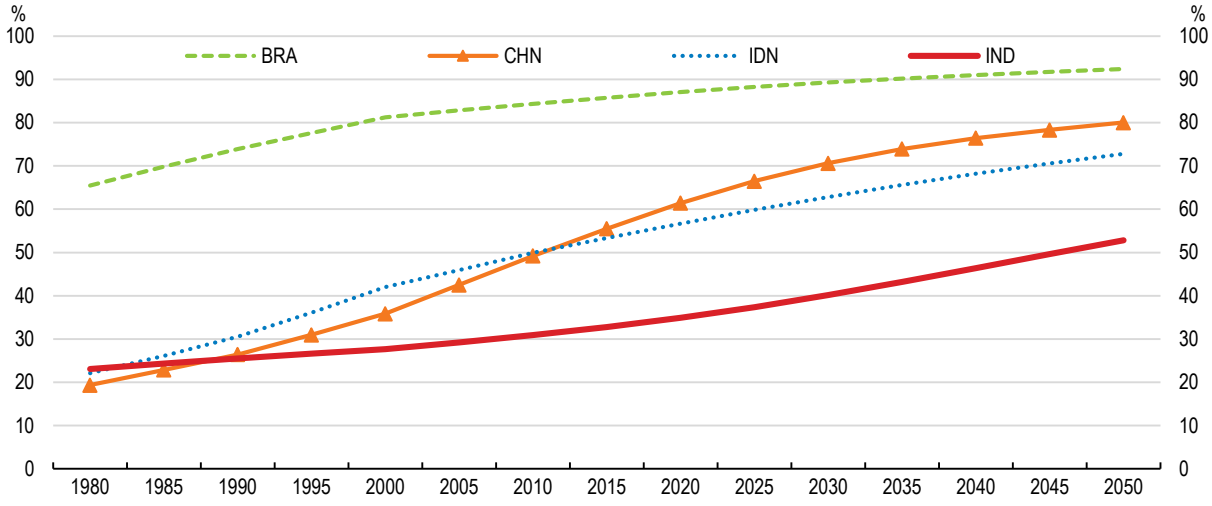
Migration can be temporary or permanent. A key driver for rural-urban migration is low agricultural income. Some programmes have reduced migration pressures to some extent. The 2005 Mahatma Gandhi National Rural Employment Guarantee Act enhances the livelihood security of the households in rural areas by providing at least 100 days of guaranteed wage employment every financial year to each household. More recently, a basic income for farmers has been included in the 2019 budget. Nonetheless, more and more people are likely to move to cities in search of better jobs opportunities and higher wages.

A large share of temporary migrants are seasonal migrants who combine several activities according to seasonal labour requirements. These are mostly poor farmers searching for jobs during the monsoon season or outside the harvest season, mainly in construction or the informal sector, to secure subsistence income. The temporary migrants are often poor, low educated, landless and belong to schedules tribes and castes (Keshri and Bhagat, 2012[14]). The highest temporary migration rates were found in Bihar, Jharkhand and Gujarat and the lowest in Haryana, Delhi and Punjab.

Migrants often arrive alone and live in very difficult conditions. Many end up living on the street while others stay in their factory to sleep, eat and bathe. Some move to a slum or an informal rental dwelling at the periphery of the cities, involving long commuting time.

Urbanisation and the natural increase in the population will put further pressure on urban housing. Currently, around 35% of the population lives in urban areas. This share is projected to rise to more than 50% in 2050 (Figure 2.13). Delhi is projected to become the world's largest city by 2028, reaching 39 million inhabitants in 2030 (United Nations). The ten cities in the world that will experience the fastest population growth between 2019 and 2035 will all be in India. Consequently, the demand for housing in cities will intensify and it is crucial to invest in urban infrastructure.

Figure 2.13. The share of urban population will increase rapidly



Note: The share of urban population is defined as the annual urban population at mid-year to the total of urban and rural population at mid-year.
Source: United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision.

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Making the housing market more efficient

Recent measures have helped to contain prices and ease access to housing

With the introduction of the *Housing for All* programmes and the related measures to support the low and middle-income home-buyers (see below), developers have reduced the size of dwellings. Moreover, recent regulations such as the RERA and the Benami Act have reduced speculation. This has also improved housing affordability, although large disparities remain between low and higher income groups.

The Real Estate (Regulation & Development) Act, 2016 (RERA) introduced in May 2016 is designed to protect buyers and boost investment in the real estate sector by bringing more transparency and accountability (Box 2.1). It has not been implemented in all states yet. In Maharashtra (a pioneer in the implementation of the RERA) it may have constrained supply first as developers needed to adapt to the new rules. The act should have a positive impact on housing provision after the adjustment period.

Box 2.1. The Real Estate (Regulation and Development) Act: a game changer

The implementation of the 2016 Real Estate (Regulation and Development) Act (RERA) started in 2017. The RERA seeks to promote transparency and accountability, protect the rights and interests of the buyers, promote fair and standard builders practices, achieve symmetry of information between the promoter and the purchaser and improve transparency of contractual conditions. It also introduces a fast-track dispute resolution mechanism.

Main provisions of RERA:

- The Act regulates transactions between buyers and promoters of residential real estate projects. It establishes state-level regulatory authorities, called Real Estate Regulatory Authorities (RERAs).
- Residential real estate projects, with some exceptions, need to be registered with RERAs. Promoters cannot book or offer these projects for sale without registering them. Real estate agents dealing with these projects also need to register with RERAs.
- On registration, the promoter must upload details of the project on the website of the RERA. These include the site and layout plan, and schedule for completion of the real estate project.
- 70% of the amount collected from buyers for a project must be maintained in a separate bank account and can only be used for construction of that project. The state government can alter this amount to less than 70%.
- The Act establishes state level tribunals called Real Estate Appellate Tribunals. Decisions of RERAs can be appealed in these tribunals.

Progress made by the states in implementing RERA as of end-September, 2019:

- 30 states or Union Territories (UTs) have notified rules under RERA, 4 north eastern states (Arunachal Pradesh, Meghalaya, Nagaland and Sikkim) are under process to notify rules under RERA.
- 29 states or UTs have set up a Real Estate Regulatory Authority.
- 22 states or UTs have set up a Real Estate Appellate Tribunal.
- 45 092 real estate projects and 35 611 real estate agents have registered under RERA across the country.

Maharashtra has been efficient in implementing the RERA, resolving cases through fast-tracked redress mechanisms. These judgments have been successful in restoring buyer sentiment in under-construction projects and in addressing difficulties in the construction development process. Some judgments have been delivered within 30 days. Since its

constitution, the authority (MahaRERA) has ruled in over 1 000 cases with the first ruling coming in September 2017. Karnataka is also thriving to head in this direction by giving prompt ruling in 63 cases.

Source: Ministry of Housing and Urban Affairs and PRS India.

The Benami Transactions Act, passed in 2008 and amended in 2015, aims at limiting cash transactions in the real estate sector. The 2015 amendment is more stringent: it expanded the definition of a Benami transaction (where a property is held by or transferred to a person, but has been paid by another person). The law also established adjudicating authorities and an Appellate Tribunal to deal with Benami transactions and penalty for entering into Benami transactions (Ministry of Finance, PRS). By dampening demand, the Bill has probably contributed to price moderation.

Other measures have been implemented to limit cash transactions with an impact on the housing sector. The Permanent Account Number (PAN) was made mandatory for all transactions above INR 0.2 million (USD 2 900) and in July 2016, the Supreme Court recommended a ban on cash transactions above INR 0.3 million (USD 4 300) and an upper limit for cash holdings of INR 1.5 million (USD 2 150). Demonetisation also had a temporary impact on prices. The measure has restrained demand for some time and held back price increases.

To promote further housing investments, the government has introduced tax incentives for some housing categories. In 2019, the GST rate on housing construction was reduced from 12% with an input tax credit to 5% without an input tax credit for housing outside the "affordable housing segment". For the latter, the GST rate was reduced from 8% with an input tax credit to 1% without an input tax credit. However, the impact of the lower rates may be partly offset by the withdrawal of the input tax credit, which can lead to an increase in the selling price if the developer passes the additional cost to the buyer. Moreover, it could also reintroduce cash transactions in the market.

To allow more people to benefit from the tax incentives, the government widened the definition of the "affordable housing segment" by considering dwellings priced up to INR 4.5 million (USD 65 000) and with a carpet area of 90 m^2 in non-metropolitan areas and 60 m^2 in metropolitan areas.

Maharashtra is an interesting example of the impact of the measures taken by the central government on the housing sector. In 2017, housing supply was hindered by the demonetisation, the introduction of the RERA and the GST. Residential building launches in the Mumbai Metropolitan Region declined by 30% (Knight Frank, 2018[15]). The market recovered strongly in 2018 and the residential launches tripled (from the low 2017 base) partly because the Supreme Court lifted the ban on new construction approvals (in place since March 2016) for a period of seven months from March 2018.

Dealing with structural rigidities in the housing market can enhance affordability

Prices are pushed up by population growth and structural factors such as high cost of construction from various zoning and other regulations, difficulties in land acquisition and high transaction costs. While it is relatively easy to deal with construction permits and getting electricity, it is much more difficult than in OECD countries and other EMEs to register property and to enforce contracts (Table 2.2). A simplification of these rules could help increase housing supply and lower prices. A particularly important issue for the

housing sector is land titling as land records do not guarantee ownership. India has a system of registered sale deeds as opposed to land titles, and it is cumbersome and costly to register a property (Figure 2.14). The record of rights (document with details of the property), property tax receipts, and survey documents are also used to recognise ownership but they are not a government-guaranteed title to the property, but only a record of the transfer of property (Mishra and Suhag, 2017[16]). More recently, some cities such as Bengaluru have attached a unique ID number to each property. Extending this practice to more cities will allow clarify property ownership, facilitate transactions and contain Benami transactions.

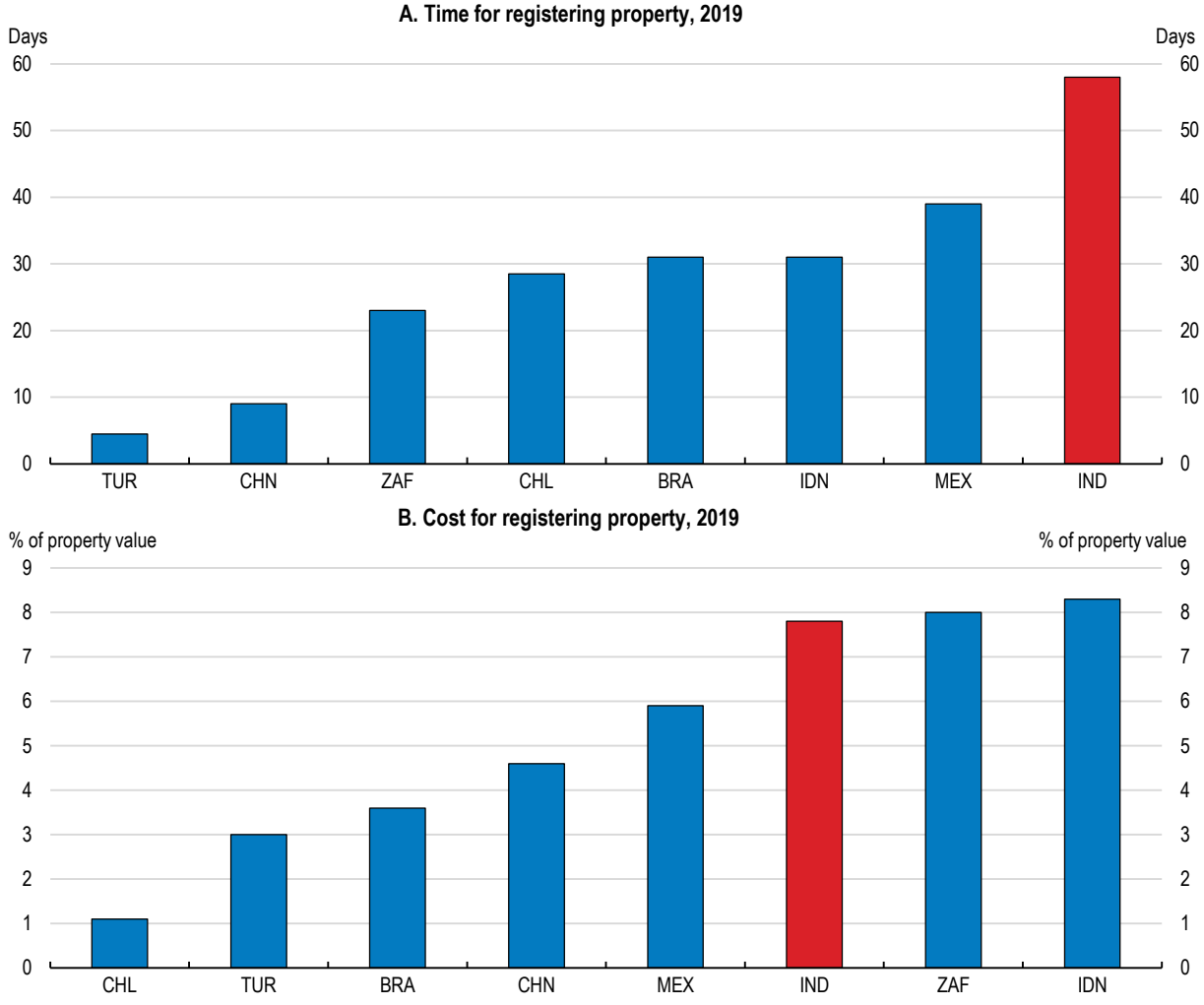
Table 2.2. Easing the business environment would help the housing sector

	Dealing with construction permits	Getting electricity	Registering property	Ease of enforcing contracts	Ease of doing business
United States	24	64	39	17	6
United Kingdom	23	8	41	34	8
Malaysia	2	4	33	35	12
Thailand	34	6	67	37	21
Germany	30	5	76	13	22
Canada	64	124	36	100	23
Japan	18	14	43	50	29
China	33	12	28	5	31
France	52	17	99	16	32
Italy	97	38	26	122	58
India	27	22	154	163	63
Viet Nam	25	27	64	68	70
Indonesia	110	33	106	139	73
Tunisia	32	63	94	88	78
South Africa	98	114	108	102	84
Brazil	170	98	133	58	124
Bangladesh	135	176	184	189	168

Note: Ranking of the countries. Countries are ranked on the Ease of Doing Business global indicator. The lower the rank the better the performance.
Source: World Bank, Ease of Doing Business.

Land records are poorly maintained and difficult to access. The central government implemented the Digital India Land Records Modernisation Programme (before named the National Land Records Modernisation Programme) to improve the quality of land records in a view to achieve complete computerisation of the property registration process and digitisation of all land records. Progress has been slow and differs across states. While Telangana, Odisha and Karnataka have nearly completed the computerisation of their land records, northeast states – Arunachal Pradesh, Meghalaya, Mizoram and Nagaland have not yet started the process. Nineteen states and Union territories, including Goa, Odisha and Tripura, have started to record property transactions and link them to cadastral maps. Between 2008 and September 2017, 64% of the funds released under the programme have been effectively used (Mishra and Suhag, 2017[16]). It is important to move to a system of registered property titles (contrary to sale deeds) as the primary evidence of ownership, and assure clear and updated land records as is done in OECD countries.

Figure 2.14. Registering a property is long and costly



Source: World Bank, Doing Business.

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Prices are also pushed up by the floor space index limiting the height of buildings in cities and by overall high population density. India is one of the most land-scarce countries in the world, and the rapid urbanisation has put more pressure on land (Figure 2.15). The floor space index (a measure of height limit regulation) is particularly low in India (Table 2.3). It affects both the selling and rental markets as it prevents the construction of taller buildings. Limiting the height of the building in cities often leads to urban sprawl that contributes to air pollution, with higher emissions from road transport. Economic consequences of urban sprawl are also numerous. It puts pressures on local public finances, as it is more expensive to provide public services to remote and low-density areas and generates notable time losses due to traffic congestion (OECD, 2018[17]).

India should consider relaxing the floor space index. This would generate more supply and lower prices allowing more people to live in city centres. A moderate increase in the height limit could lead to a substantial reduction in commuting cost for households living in the periphery (Brueckner and Sridhar, 2012[18]).

Table 2.3. The Floor Space Index is very low in India

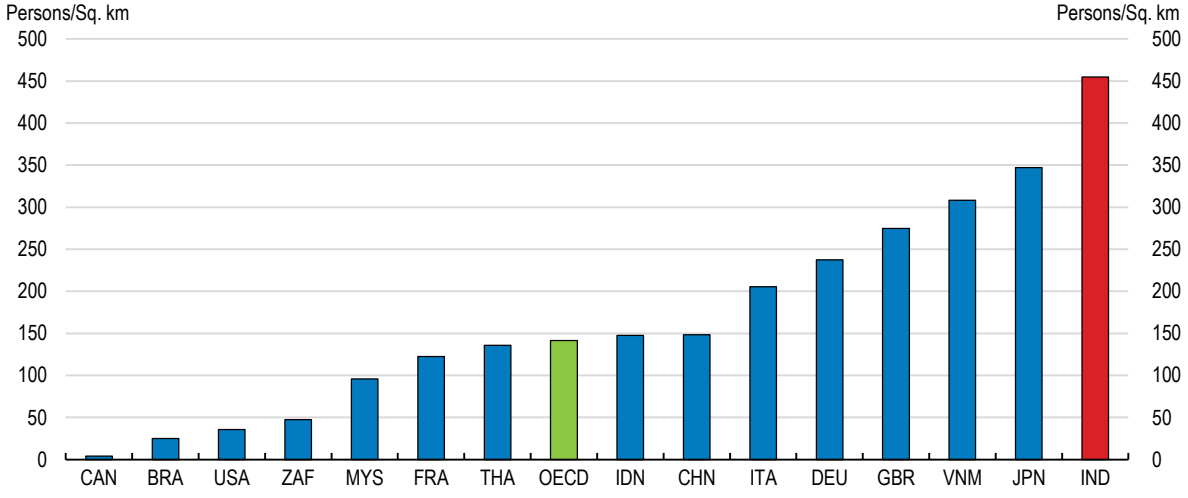
Country	City	Floor Space Index
India	Mumbai (Bandra-Kurla Complex district)	4
India	Bangalore	4
India	New Delhi	3.5
India	Chennai	3.5
India	Kolkata	3
United Arab Emirates	Dubai	34
Bahrain	Bahrain	17
USA	New York	15
China	Shanghai	13
Japan	Tokyo	20
Singapore	Singapore	12-25

Note: The floor space index is defined as the ratio of the built-up area of a building to the plot area on which it stands.
Source: Pahle India Foundation and (Brueckner and Sridhar, 2012[18]).

Transaction costs, especially stamp duties levied by states on the sale of immovable property, albeit decreasing, are relatively high compared to many EMEs (Figure 2.16). High transaction costs reduce mobility by increasing the cost of moving to places with more abundant jobs and better housing conditions. India should consider lowering these costs to promote mobility. The fiscal loss should be compensated by the greater use of recurrent taxes on immovable property based on updated property values, which are currently low, or the reintroduction of inheritance taxes (OECD, 2017[19]).

Figure 2.15. India is a dense country

Population density, 2018



Note: OECD refers to an unweighted average.
Source: World Bank, World Development Indicators database.

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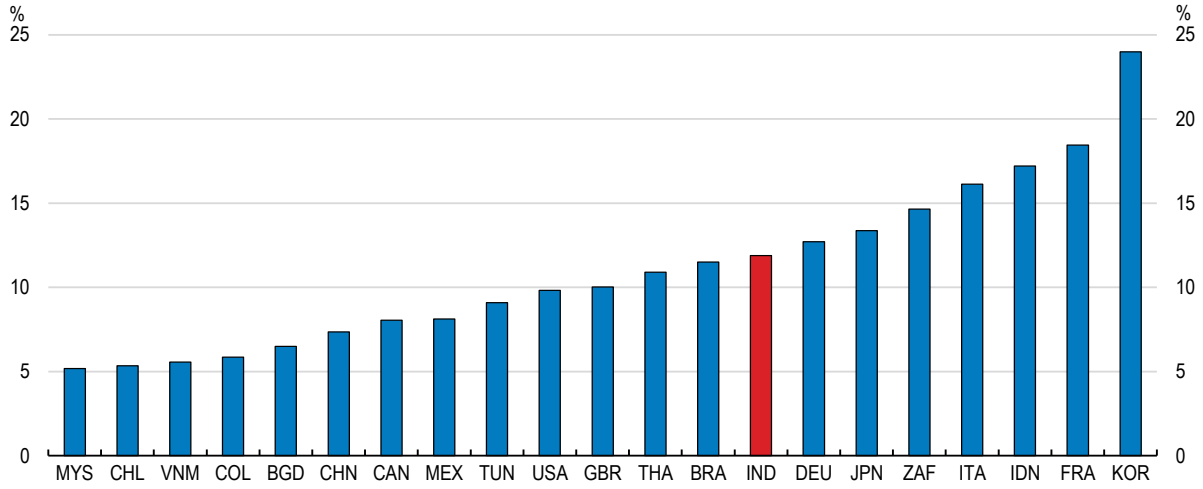
Figure 2.16. Transactions costs are high compared to other EMEs

Percentage of house price, 2019 or latest year available



Note: Transactions costs are the costs of buying a property plus the costs of selling and include fees and taxes incurred in registering the property, real estate agents fees, legal fees and sales and transfer taxes.
Source: Global Property Guide.

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Improving affordability of housing with government support

Housing has been a top policy priority for a long time in India but with mixed results

The different governments have launched many initiatives to secure decent housing for their citizens (Box 2.2). In many cities, the development of affordable housing and the rehabilitation of slums generated areas where poor and rich people live together, reducing social segregation. The persistent and acute housing shortage along with rising demand for affordable housing in cities point to many challenges.

Box 2.2 Past housing programmes in India

The different governments have launched several initiatives to provide good quality, affordable housing for all. In 1988, the National Housing Policy aimed at providing a comprehensive strategy to housing by encompassing finance, technology, land, materials, and targeted poverty alleviation. In 1998, the National Housing and Habitat Policy aimed at the construction of two million dwelling units each year and ensure priority to the housing sector (National Housing Bank, 2018[20]).

In 2005, the *Jawaharlal Nehru National Urban Renewal* Mission (JNNURM) was launched and included two components: Basic Services for Urban Poor and Integrated Housing and Slum Development Programme, which aimed at integrated development of the slums to provide shelter, basic services and other related civic amenities to the urban poor. The Mission was initially launched for a seven-year period and was extended up to 2017.

In 2009, the *Rajiv Awas Yojana (RAY)* programme was launched to promote a slum-free India in 5 years. In 2013, it included the *Affordable Housing in Partnership* (AHP) scheme to increase the stock of affordable housing. In June 2015, RAY was replaced by the *Housing for All* programme.

The impact of those programmes has been limited as the budget allocated to them was too small, despite sound objectives. Moreover, some programmes lack coordination among different stakeholders. For instance, different components of the JNNURM involved separate ministries at the Central level and were implemented by different entities at the local level (Tiwari and Rao, 2016[3]).

Most support in India has been for house ownership

In 2015, the Indian government launched the *Housing for all* (Pradhan Mantri Awas Yojana) programme with the aim of providing every family with "a pucca house (solid house) with water connection, toilet facilities, 24x7 electricity supply and access" by 2022. The programme is split in an urban and a rural schemes. The target is to construct 11.2 million houses in urban areas and 29.5 million in rural areas (10 million to be achieved by March 2019). This roughly corresponds to the estimated housing shortage around 2011. In March 2019, 83% of the 10 million rural targets had been achieved. While these programme are well targeted, a key concern is whether they can reach the very poor.

The urban programme has four pillars: In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation, the Credit Linked Subsidy, the Affordable Housing in Partnership, and a subsidy for beneficiary-led individual house construction/enhancement (Box 2.3). A model for Private Public Partnership was issued to incentivise the private sector to participate in the provision of affordable housing (Ministry of Housing and Urban Affairs, 2017[21]). Some states such as Gurajat have used this model in the context of the slum rehabilitation program. In October 2019, around 60% of the sanctioned houses were grounded (construction under progress) and 30% have been completed. Some states have registered significant progress (Figure 2.17).

The aim of the rural programme is to replace kutcha houses (non-durable) by pucca houses, enhance the well-being of beneficiaries by providing basic amenities, improve the quality of the construction through rural mason training and achieve disaster-resilient and environmentally-sustainable houses suited to local geo-climatic conditions. Progress, so far, follows what was expected, with about 80%, of houses targeted already built. Progress is monitored through geo-tagged photographs. Complete details of beneficiaries and payments made to them are available publicly. The payment is electronically transferred to the beneficiary account through a Direct Benefit Transfer platform which limits the intervention of intermediaries and reduces corruption.

Since 2009, the government has also provided an interest subsidy to the poorest households for house purchases. The Interest Subsidy Scheme for Housing the Urban Poor, targeted to the Economically Weak Sections (EWS) and Low Income Group (LIG) of the urban population, was designed to promote housing loans and increase home ownership. The scheme is still available under the *Housing for All* programme (the so-called *Credit Linked Subsidy Scheme*). While the other pillars of the *Housing for All* programme are centrally sponsored schemes implemented by the state government agencies, this is a central government scheme implemented through banks and housing finance companies (Kundu and Kumar, 2017[22]). Under this scheme, the calculation of the interest subsidy is uniform across banks and housing finance companies. Between 2015 and 2019, 718 000 people

used the Credit Linked Subsidy Scheme while only around 18 000 people benefitted from the interest subsidy scheme between 2008 and 2013.

Box 2.3. Pradhan Mantri Awas Yojana - Housing for all

Pradhan Mantri Awas Yojana – Urban (PMAY-U):

PMAY-U aims at addressing the housing requirement of urban poor including slum dwellers.

Beneficiaries include Economically Weaker Section (EWS), Low-Income Groups (LIGs) and Middle Income Groups (MIGs). The annual income cap is up to INR 300 000 (USD 400) for EWS, INR 300-600 000 for LIG and INR 600-1 800 000 for MIG. EWS beneficiaries are eligible for assistance in all four components of the programme whereas LIG and MIG categories are eligible under only Credit Linked Subsidy Scheme (CLSS) component of the programme.

The beneficiary family should not own a pucca house either in his/her name or in the name of any member of his/her family in any part of India to be eligible to receive central assistance under the programme.

The programme supports construction of houses up to 30 m^2 carpet area with basic infrastructure. Slum redevelopment projects and Affordable Housing projects in partnership (including Private Public Partnerships) should have basic infrastructure like water, sanitation, sewerage, road, electricity etc.

The houses constructed/acquired with central assistance under the programme should be in the name of the female head of the household or in the joint name of the male head of the household and his wife, and only in cases when there is no adult female member in the family, the house can be in the name of male member of the household.

Credit Linked Subsidy Scheme

The Credit Linked Subsidy Scheme first targeted the EWS and LIG seeking housing loans from banks, housing finance companies and other such institutions. It has been extended in December 2018 to the MIG with effect from 1st January, 2017. The subsidy is available for housing loans provided for new construction and addition of rooms, kitchen, toilet etc. to existing dwellings as incremental housing. The beneficiary can build a larger house, but interest subsidy would be limited to the maximum amount allowed. The generosity of the subsidy further depends on the income groups (Table 2.4).

Table 2.4. The Credit Linked Subsidy Scheme

Beneficiaries by income groups	Economically Weaker Section	Lower Income Group	Middle Income Group 1	Middle Income Group 2
Annual family income (in thousands Rupees)	Up to 300	Between 300 and 600	Between 600 and 1200	Between 1200 and 1800
Loan eligible for subsidy (in thousands Rupees)	Up to 600	Up to 600	Up to 900	Up to 1200
Maximum loan tenure	20 years	20 years	20 years	20 years
Credit linked subsidy rate	6.5%	6.5%	4%	3%
Carpet area of house	Up to 30 m^2	Up to 60 m^2	Up to 160 m^2	Up to 200 m^2

Source: Ministry of Housing and Urban Affairs.

Subsidy for beneficiary-led individual house construction

This is assistance to individual eligible families belonging to EWS categories to either construct new houses or enhance existing houses on their own to cover the beneficiaries who are not able to take advantage of any other component of the mission. Such families may avail of central assistance of INR 150 000 (USD 2 100) and should be part of Housing For All Plan of Action. A minimum addition of 9 m^2 of carpet area to the existing house will be required to be eligible for Central assistance under the 'Beneficiary Led Construction (Enhancement)' component of the housing mission.

To access the subsidy, a household must display adequate documentation regarding land ownership. Such beneficiaries may reside either in slums or outside the slums. Beneficiaries in slums which are not being redeveloped can be covered under this component if they have a kutcha or semi pucca house.

Pradhan Mantri Awas Yojana-Rural (PMAY-G)

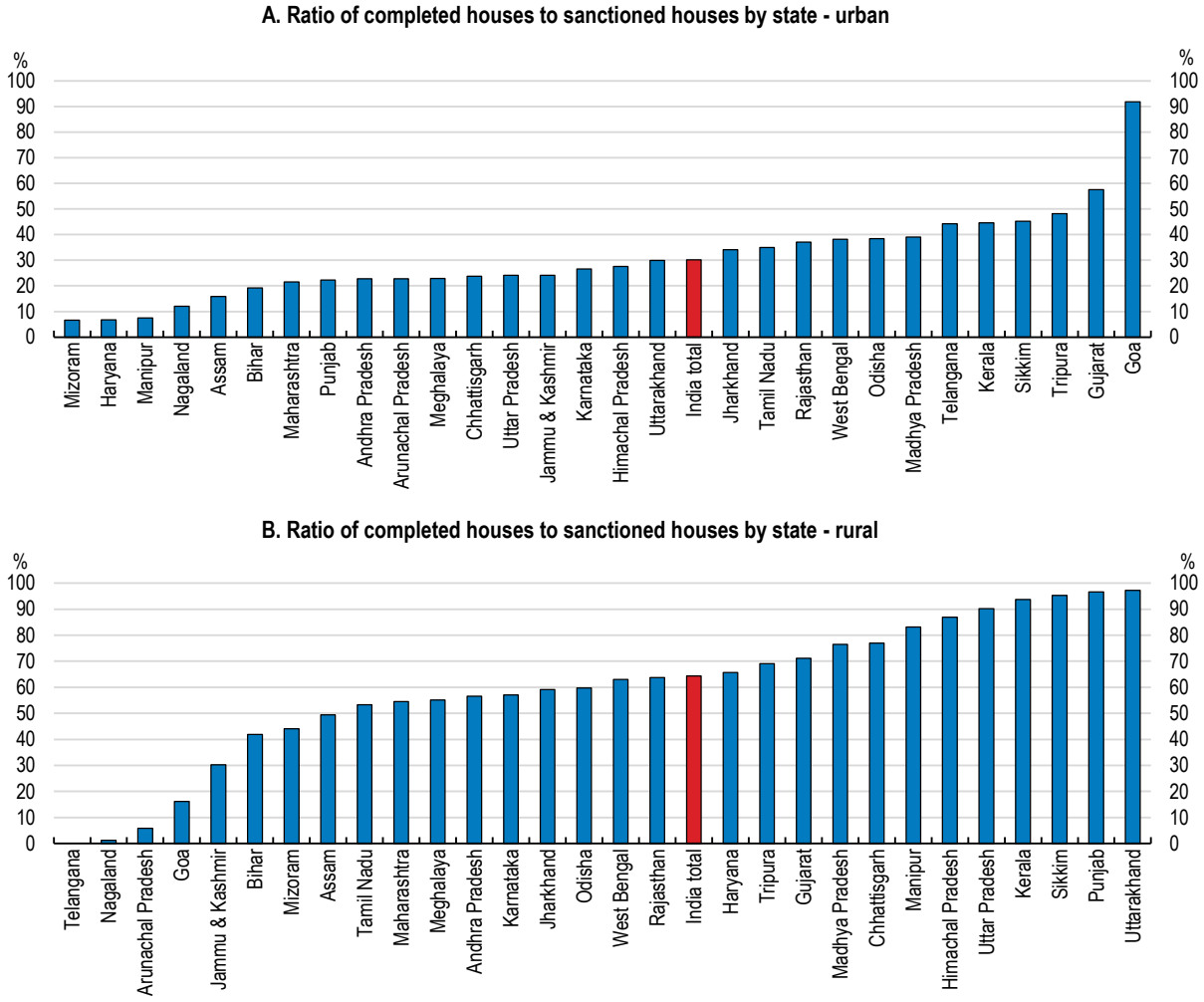
Under this programme, financial assistance is provided for construction of pucca house to all houseless and households living in sub-standard houses. The assistance is INR 120 000 (USD 1 750) in plain areas and INR 130 000 (USD 1 900) in hilly states and difficult areas. The cost of assistance is to be shared between the centre and state governments in the ratio 60:40 in plain areas and 90:10 for North Eastern and hilly states.

The minimum size of the house is 25 m^2 with a hygienic cooking space.

PMAY-G selects beneficiaries using housing deprivation parameters in the Socio Economic and Caste Census (SECC), 2011, which is verified by the Gram Sabhas (village council). Parameters reflecting housing deprivation are assigned priority with those who receive a high score on the following parameters: households with no adult member between ages 16 and 59, female-headed households with no adult male member between ages 16 and 59, households with no literate adult above 25 years, households with any disabled member and no able-bodied adult member, and landless households deriving a major part of their income from casual manual labour.

Source: Ministry of Housing and Urban Affairs and Ministry of Rural Development

Figure 2.17. Progress on the *Housing for all* programme



Note: Number of completed houses as a share of number of sanctioned houses, under the Pradhan Mantri Awas Yojana project. Data extracted on 12 November 2019.
Source: Ministry of Rural Development and Ministry of Housing and Urban Affairs.

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The integration of housing into a global urban development policy

Housing policy should be integrated into a global urban development policy which includes the provision of quality public services, sanitation, urban transports and access to employment opportunities.

The development of urban infrastructure and public service provision has not followed urban population growth, leading to an important shortage in waste management, water, energy, transport, education and health. To address these challenges, the government has launched several initiatives such as the Swachh Bharat Mission (urban), the Atal Mission for Rejuvenation and Urban Transformation and the *smart cities* programme. The Delhi Metro, begun at the end of the 1990s, is developing quickly (343 km). By December 2017, 425 km of metro lines were operational in Delhi, Noida, Gurugram, Kolkata, Mumbai,

Chennai, Bengaluru, Hyderabad, Jaipur, Lucknow and Kochi and 684 km were under construction in various cities (Ministry of Finances, 2018[10]).

The objective of the *smart cities* programme is to promote sustainable and inclusive cities that provide core infrastructure and give a decent quality of life to their citizens, a clean and sustainable environment and application of 'Smart' Solutions. The programme, which aims to develop 100 smart cities with the support of the private sector, faces some challenges. For instance, the urban local bodies which will play an important role in the implementation of the programme lack adequate financial and professional resources. Collaboration between different bodies is inefficient, and the business environment is cumbersome as regards public procurement, land acquisition, dispute resolution and procedures for certifications and environmental clearances (World Economic Forum, 2016[23]).

Support to the rental market is needed

The government can intervene to boost the construction of buildings for private and social rental. In some countries, the government provides subsidies to private developers to make the construction for rent more profitable or to offset high development costs. For instance, in the United States the Low Income Tax Credit Program provides tax breaks to house builders if they reserve units for rent to lower-income households (Joint Center for Housing Studies, 2008[24]). In Colombia, the Ministry of Finance recently allocated credit at low rate to construction companies to finance social housing. However, in most OECD countries supply-side government interventions are related to the provision of social housing. The Indian government could provide incentives (through credit subsidies) to the private sector to construct buildings for rent or convert part of the vacant housing stock into rental dwellings.

Developing the rental market was first discussed in the 1988 National Housing Policy. In 2015, the then Ministry of Housing and Urban Poverty Alleviation proposed expanding rental social housing for the urban poor. This policy would involve both the central and the state governments and encompass both supply and demand side interventions. However, this policy has not been implemented so far. As a consequence, the provision of public social rental housing is almost inexistent in India so far.

Developing the social rental market for the poor

Providing social rental housing to low income people is a common policy across OECD countries and emerging economies (Box 2.4). It is, however, generally more efficient to support the housing needs of the poor people by giving them means-tested housing-cost subsidies, generally known as housing allowances. Compared to social rental housing, this instrument provides more equitable access to the benefits and fewer disincentives to housing mobility. However, housing allowances may also be less effective in providing access to good-quality rental housing, especially for vulnerable households, who can face difficulties in finding private rental contracts as a result of their unstable revenues. Housing allowances may also have perverse effects on rental prices (Salvi del Pero et al., 2016[25]). Given the high prices of housing and size of the migration inside India and to promote mobility, the development of a social housing stock should be considered.

Box 2.4. Social housing in selected economies

In Brazil, beginning in the early 2000s, the municipality of São Paulo developed a rental housing program based on government ownership and rent subsidies for poor people. The program consists of upgrading slums and constructing new houses. A targeted system of rental vouchers was further implemented to support rent for poor families in privately owned units.

In China, municipal governments are responsible for building and managing rental housing for low and middle income people. In Beijing, government-subsidised apartments in 2015 were rented at 80% of the market rate. Municipalities in China face difficulties in financing the construction of housing and often build public rental estates outside city centres, leading to long commute times.

Singapore had favoured ownership for decades and the public rental housing sector meets the needs of the low-income population. Basic flats are rented at heavily subsidised prices (10 to 30% of the market rent) to the poor and those who have no other housing options or family support.

In France, despite supports for home ownership, the housing rental sector is large. Both the private and the social sector receive a significant part of the housing subsidies. After the disengagement of institutional investors in the 1970s and 1980s due to low returns and heavy management costs, private rental housing began receiving generous tax incentives. In 2010, the housing policy represented more than 2% of GDP. Direct subsidies are part of the welfare system and benefit more than 40% of tenants.

Source: (Peppercorn and Taffin, 2013[11])

Some state governments have provided social housing to low-income households. For instance, the Mumbai Metropolitan Regional Development Authority (MMRDA) launched the Rental Housing Scheme in 2008 with the aim of developing flats for renting, by extending the Floor Space Index (FSI) and allowing builders to purchase additional FSI. However, after the construction of the buildings, management of the rental scheme by the MMRDA was poorly organised. Thus, the government had to sell these units because of its difficulty in (i) identifying rental users in a fair and transparent manner (ii) raising rents, and (iii) forcing eviction in case of non-payment and/or misbehaviour (IDFC, 2018[1]) .

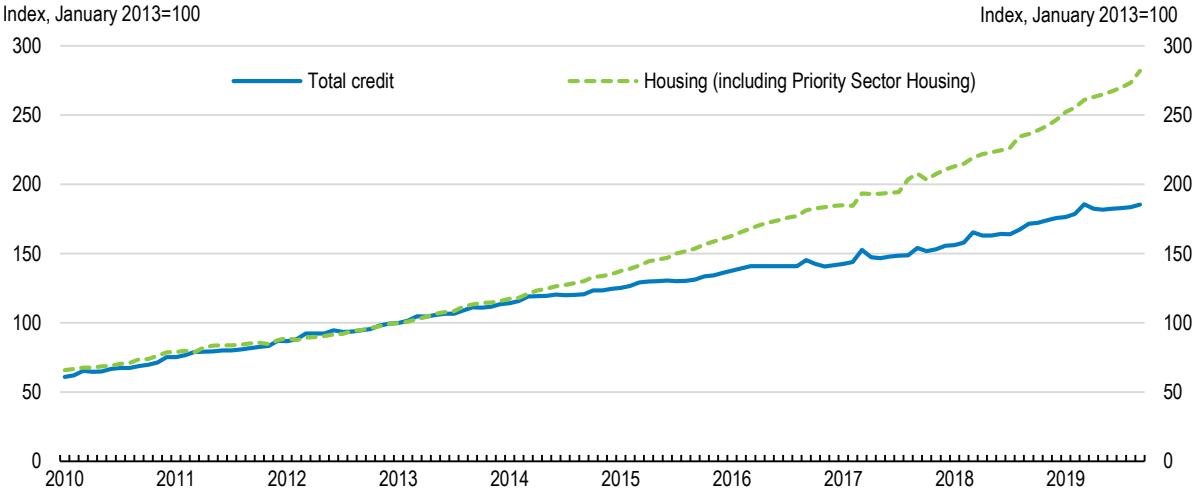
Despite the difficulties encountered in some states and taking into account the large on-going urbanisation, India could consider developing some forms of social rental housing in cities to tackle the needs of seasonal and permanent migrants. Ideally, social housing should be designed to avoid spatial segregation and promote social mixing by ensuring that locations are well integrated into the urban structure and have appropriate access to transport networks and quality public services such as education, health and culture. The development of this social rental housing could be included in the slum rehabilitation programme, where some parcels could be reserved for this purpose. In principle, social housing should be targeted to disadvantaged groups and means-tested. To be efficient, the eligibility criteria should be reassessed regularly. If tenants' eligibility has changed, an increase in the rent or a termination of the contract should be envisaged.

Further improving access to housing finance can reduce some of the shortage and raise affordability

Access to credit has often been cited as one constraint to affordable housing. Housing credit has expanded, though from a low base. It has grown faster than total credit, driven mainly by government initiatives such as fiscal incentives and the Credit Linked Subsidy Scheme (Figure 2.18). However the ratio of household debt to GDP is much lower than in OECD countries and EMEs (Figure 2.19). The loan-to-value ratio (which restricts housing loans to a certain proportion of the house value) is set at a reasonable level to avoid a real-estate boom (Figure 2.20). It is comparable to those in other emerging economies (Cerutti et al., 2015[26]). Credit information could be improved.

Housing financing is mainly provided by housing finance companies (around 80% are Public Limited and 20% Private Limited), banks and, to a much lesser extent, co-operative institutions. Banks and housing finance companies (HFC) are not allowed to finance land purchases. Since the late 1990s, the number of housing finance entities has increased and the market has deepened. Outstanding housing loans increased from 6.8% of GDP in 2010-11 to 10.3% in 2017-18 (National Housing Bank, 2018[20]). The HFC share in total loans to the housing sector has increased in the past decade to reach almost 44% in 2017-18 (RBI).

Figure 2.18. Housing credit growth has increased more than total credit



Note: Total credit excludes credit for food (related) items.
Source: RBI.

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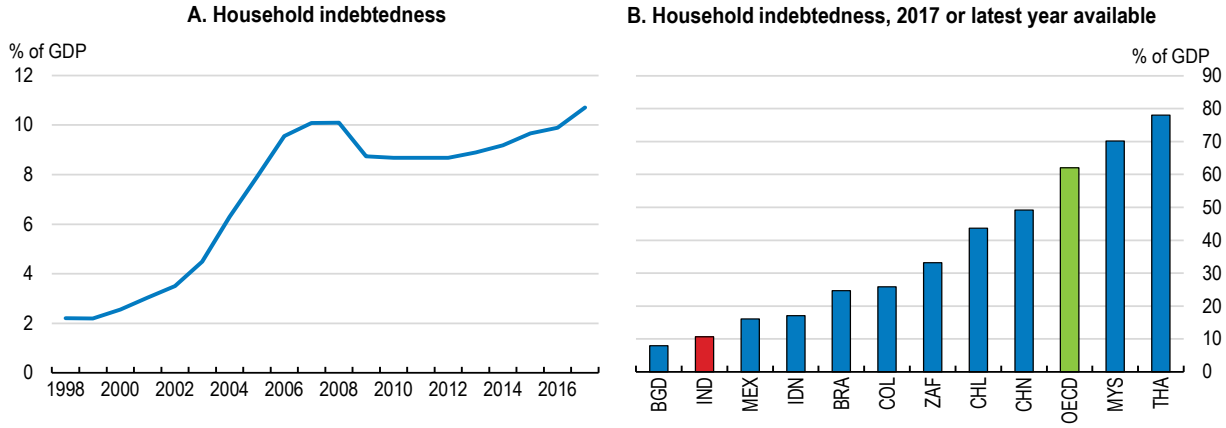
Figure 2.19. Household indebtedness is low compared with other countries



Note: Data for India include bank credit only. The ratio of household indebtedness would be around 17% if one would add the credit from Non-Bank Financial Companies and Housing Finance Companies.
Source: IMF, Global Debt database.

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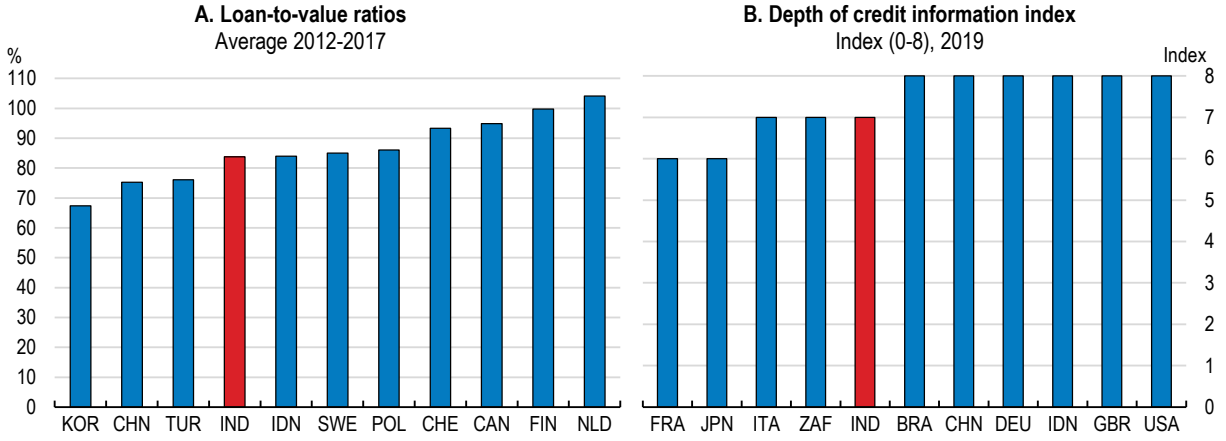
Figure 2.20. Credit regulation and information could be improved



Note: Loan-to-value ratios refer to the maximum loan-to-value ratio applied to mortgage loans.
Source: (Cournede B., S. Sakha and V. Ziemann, 2019[27]); World Bank, Doing Business.

StatLink http://dx.doi.org/10.1787/888934048375

Bank lending to the real estate sector has been affected by the increase in Non-Performing Loans (NPLs), higher risk provisioning assigned to the real estate sector by the RBI and decreasing profits in the sector. While NPLs accounted for 1.3% of total loans in 2018 for HFC, they reached 6% for NBFCs and almost 11% for the banks in September 2018 (RBI, 2018[28]). The real estate sector has also been affected with liquidity issues and increasing debt as the unsold housing stock has increased. The RBI has implemented prudential norms for housing finance to ensure that portfolios are healthy and resilient to systemic risks. Moreover, the regulation of HFCs has come under the purview of the Reserve Bank with effect since August 2019 while supervision of HFCs continues to remain with the National Housing Bank. Housing finance companies are now considered as part of NBFCs for

regulatory purpose bringing harmonization of regulations between NBFCs and HFCs. Access to finance can further be improved by enhancing credit information and implementing further prudential measures.

A significant part of the bank credit to housing (around 40% in 2018) comes under the priority sector lending schemes. The RBI requires banks to provide a certain part (40%) of their lending to specific sectors including housing for economically weaker sections and low income groups. Banks can provide loans up to a certain amount to individuals who want to buy or repair a dwelling. Moreover, loan to any governmental agency and to Housing Finance Companies that, in turn, lend the money for the purpose of purchase/construction/reconstruction of individual dwelling units or slum rehabilitation are also eligible.

In June 2018, the RBI raised the housing loan limits under the priority sector lending scheme to converge with the Affordable housing scheme. While this measure can help low-income people to buy a house, it can also lead to an increase in NPLs in the construction sector. The RBI has also constituted up a Committee on the Development of Housing Finance Securitisation Market, with a view to review the existing state of mortgage securitisation in India and various issues constraining market development, and to develop the market further.

The housing sector benefited from the introduction of the Insolvency and Bankruptcy Code (IBC) that aims at simplifying and shortening the closure of construction businesses mainly by recovering large parts of non-performing assets. The introduction of the IBC has led to the recognition of home-buyers as financial creditors, which allowed them to receive a proportionate share of the liquidation proceeds just like financial institutions. The IBC, in line with the RERA, also allows home-buyers to claim interest to compensate for a delayed possession.

Table 2.5. Main recommendations for providing better housing for all

Findings (main findings in bold)	Recommendations (key recommendations in bold)
Property rights are weak as land records do not guarantee ownership, constraining housing supply	**Continue to improve clarity on property ownership by extending the use of a unique property ID and geo-tagging, and by shifting to a system of registered property titles (as opposed to sale deeds) as the primary evidence of ownership**
Rent controls are still in place in many states. They prevent the development of the rental market as they lower return to investment and incentives for maintenance for owners	**Ease rent controls by aligning states' rent regulation to the 2019 central government's Model Tenancy Act**
The rental market is small and developers have favoured construction of high-end buildings.	Continue to provide incentives (through subsidies and PPPs) to the private sector to construct buildings for rent and dwellings for the poor
Land use regulation is stringent, limiting affordable housing supply	**Relax the Floor Space Index to allow the construction of higher buildings**
Housing shortage is high and the urbanisation will put increasing pressure	**Accelerate the completion of the *Housing for All* scheme in urban areas**
The provision of public social rental housing is almost inexistent. It hinders mobility of low income people	Keep some parts for social housing rental in the slum rehabilitation programme
Transaction costs are high. They reduce mobility by increasing the cost of moving	Lower transaction costs, in particular stamp duty

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INDIA

India has been a growth champion in recent years and has succeeded in taming inflation, the current account deficit and non-performing loans. India's participation in the global economy has risen, with outstanding performances in some services, while the largest diaspora in the world is an asset in developing new markets. India has also lifted many millions of people out of poverty and has made access to housing for all a priority. Ambitious structural reforms – including better targeted household support, financial inclusion initiatives, the implementation of the Goods and Services Tax, the Insolvency and Bankruptcy Code, the new approach to federalism and the corporate income tax reform – have played a key role. The recent economic slowdown and still large number of poor and under-employed people call for a renewed impetus on structural reform. Priorities include: creating fiscal space to finance more and better physical and social infrastructure (in particular health and education), modernising labour laws to remove disincentives for firms to create jobs and employ women, continuing to improve financial sector's health, further reducing restrictions to trade, and improving property rights and rent regulations to achieve better housing for all.

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