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OVERVIEW



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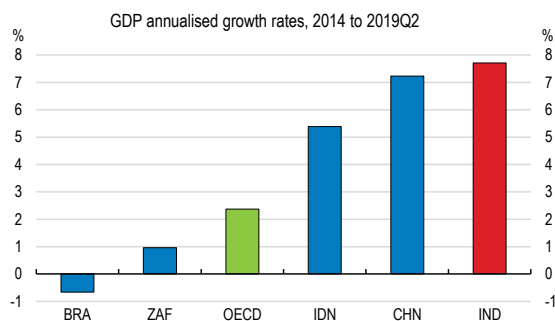
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Executive summary

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.

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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.

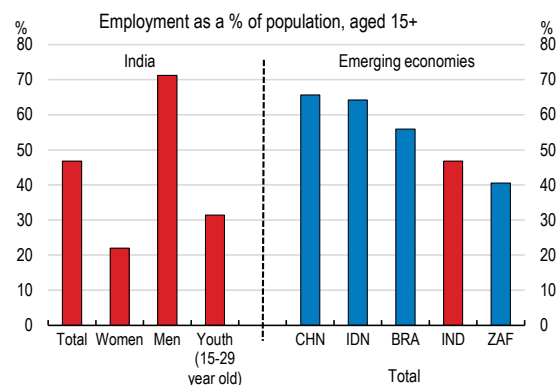
Ambitious reforms have been passed; implementing them fully would boost incomes and wellbeing. The Goods and Services Tax (GST) has replaced a pile of indirect taxes, reducing domestic trade barriers and input costs. Together with cuts in corporate taxes, it should spur investment and productivity. Measures 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.

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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

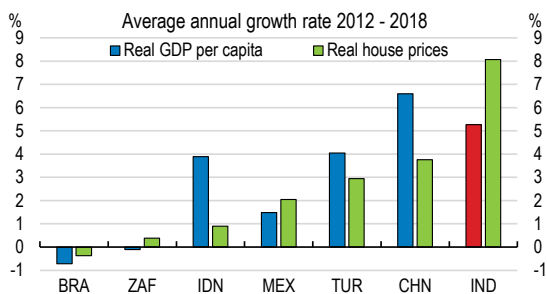
move, OECD simulations suggest that modernisation of India's regulations affecting services trade would contribute to the success of the *Make in India* initiative despite restrictions in its exports in partner markets. However, political economy considerations are a constraint.

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

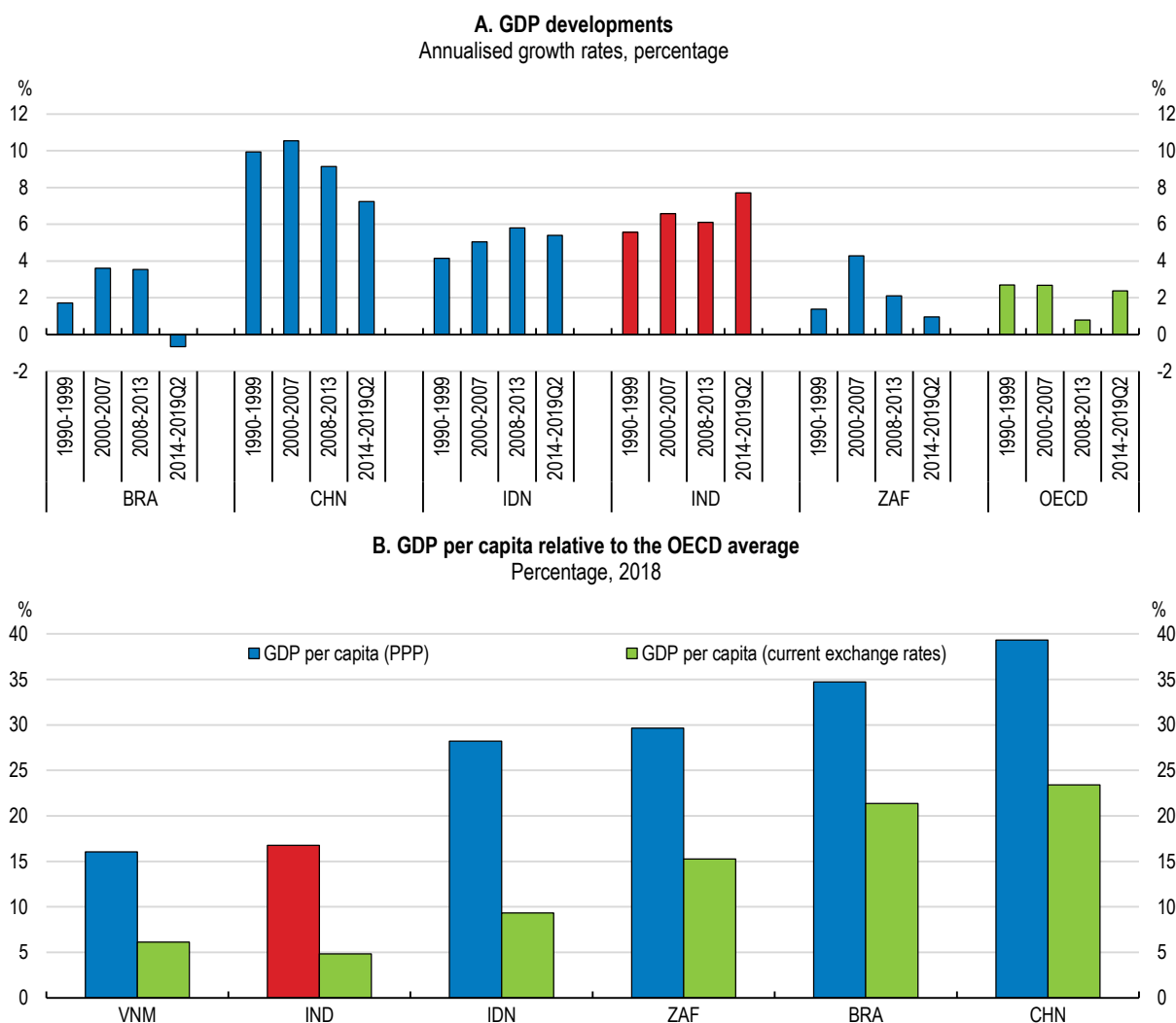
India has been the fastest growing G20 economy since 2014 (Figure 1). Although GDP per capita in PPP terms still stood at 56% of the average for Brazil, India, Indonesia, China and South Africa (and 17% of the OECD average) in 2018, the pace of convergence has accelerated. India has become a key player 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.

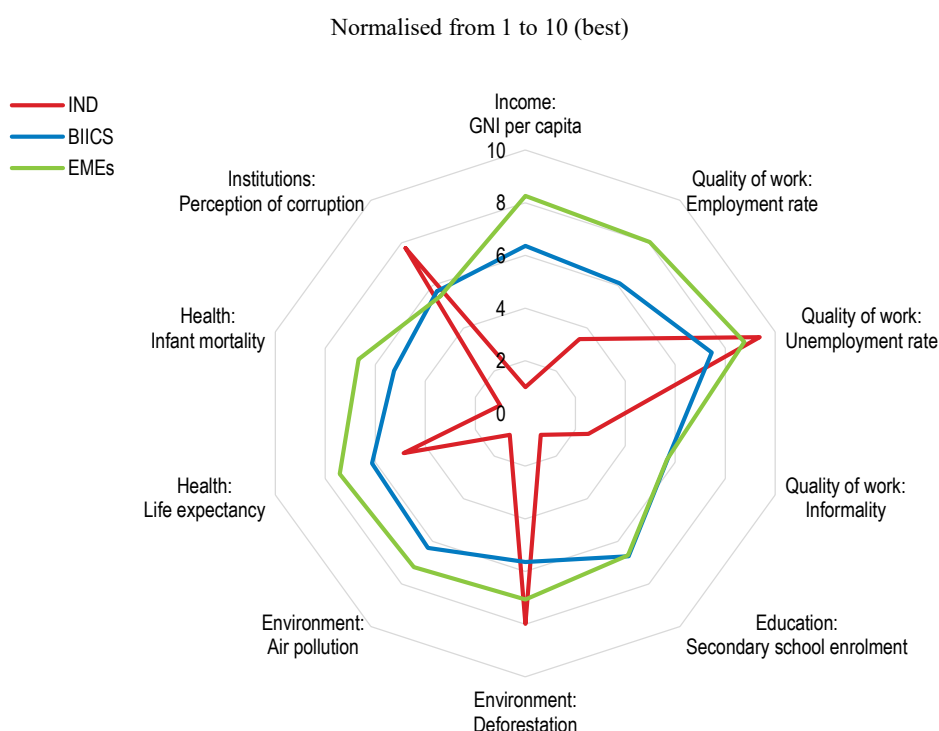
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Structural reforms raise productivity, investment and incomes although in the short-term they may have economic and political costs. Total investment has grown fast since late 2017 and the investment-to-GDP ratio is recovering. Large public sector 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



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:

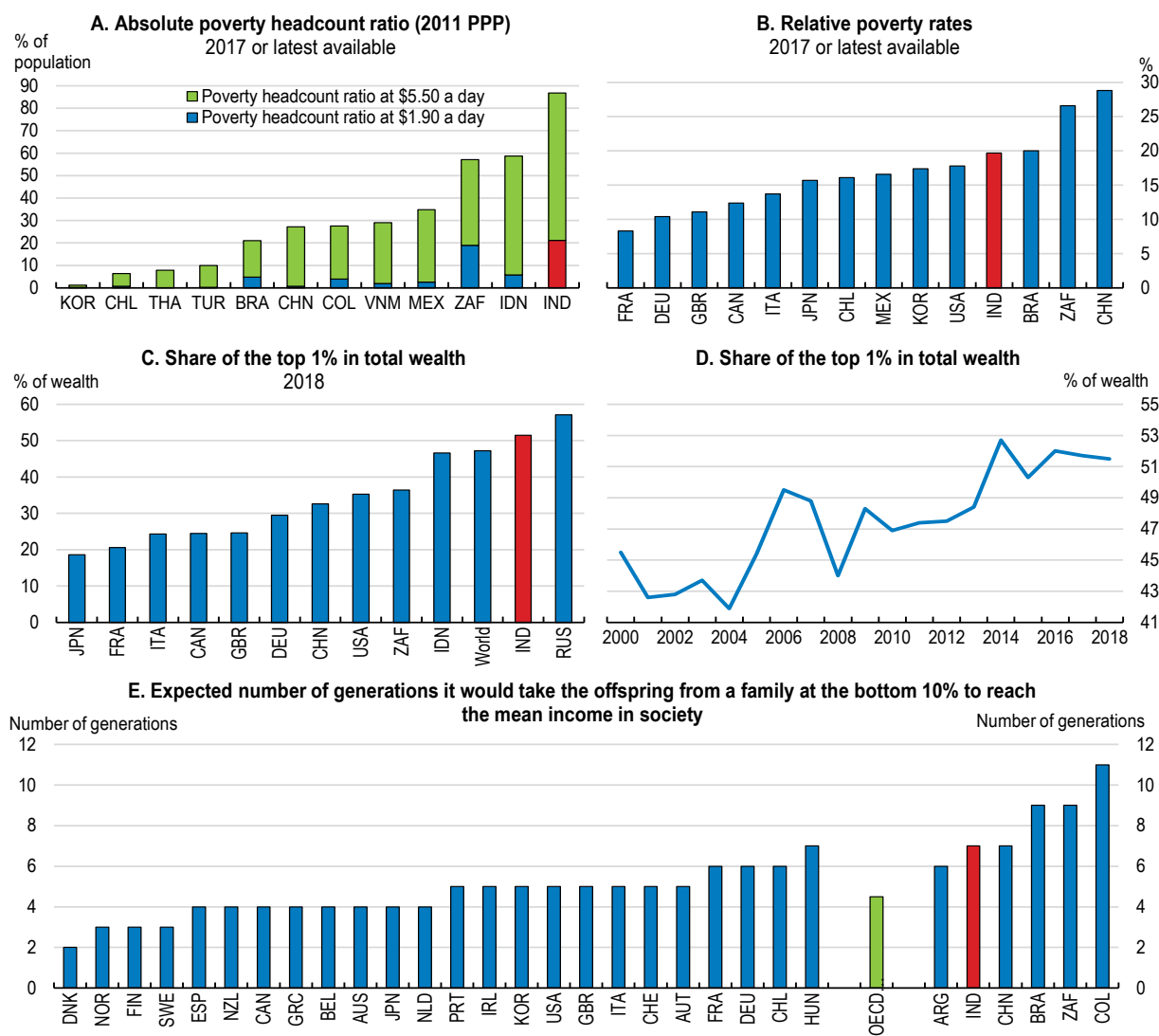
- The Housing for All initiative, launched in 2015, subsidises low-income households' access to a brick and cement house with gas, water, electricity and a toilet (Chapter 2).
- Electricity reached every village in 2018, and half a billion people have gained access to electricity since 2000 (International 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.

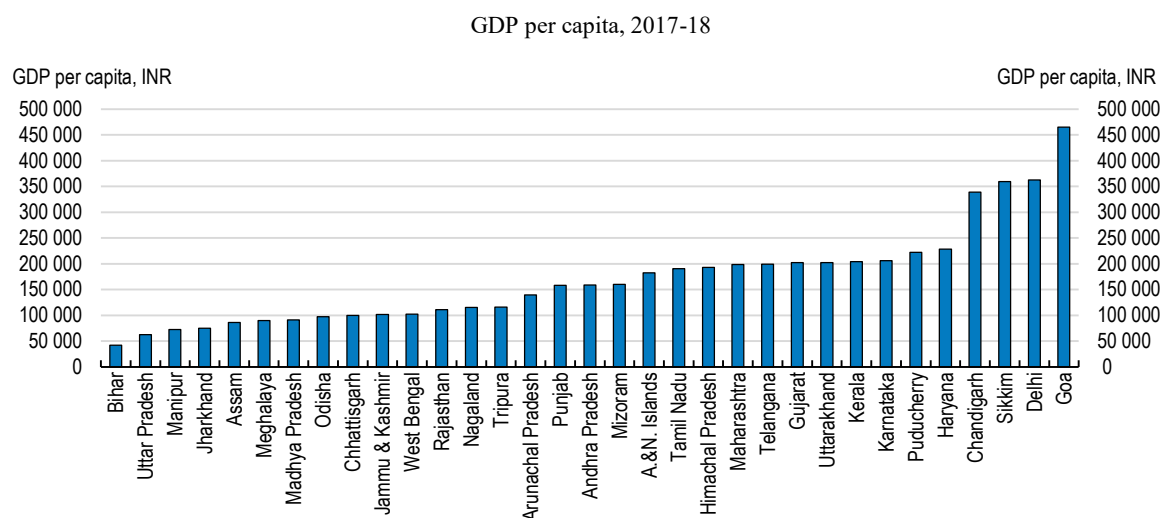
Figure 3. Inequality is high



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

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.

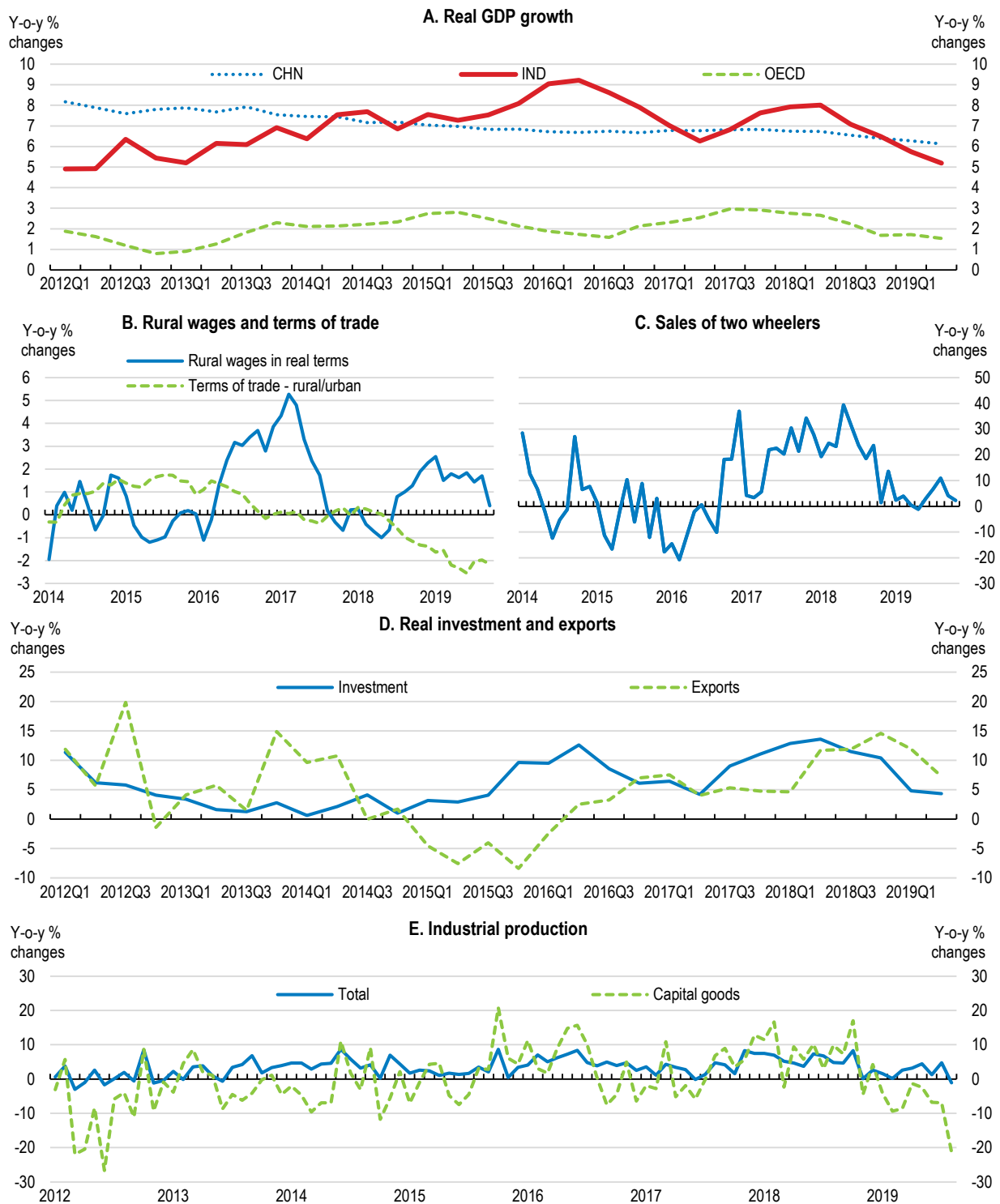
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India remains a growth champion despite recent slowdown

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.

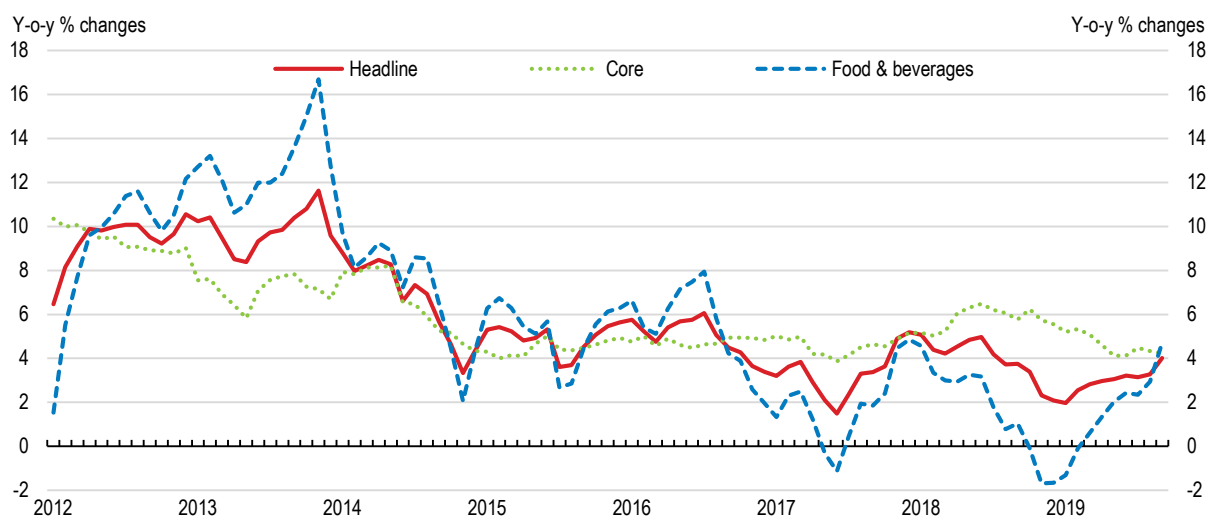
Inflation has dropped since 2014, aided by lower oil prices, moderation in food inflation and the flexible inflation targeting framework adopted in 2016. The decline in food price inflation – food accounts for about half of the consumption basket – has been steep (Figure 6). It reflects increasing supply 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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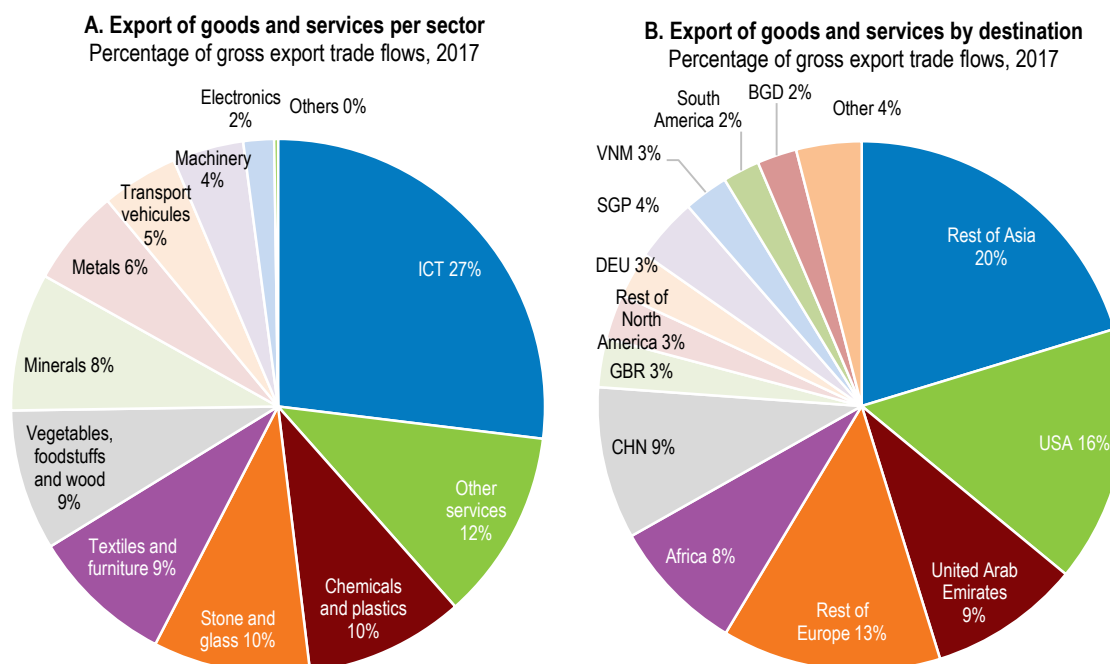
Figure 6. Headline inflation remains below the 4% target

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

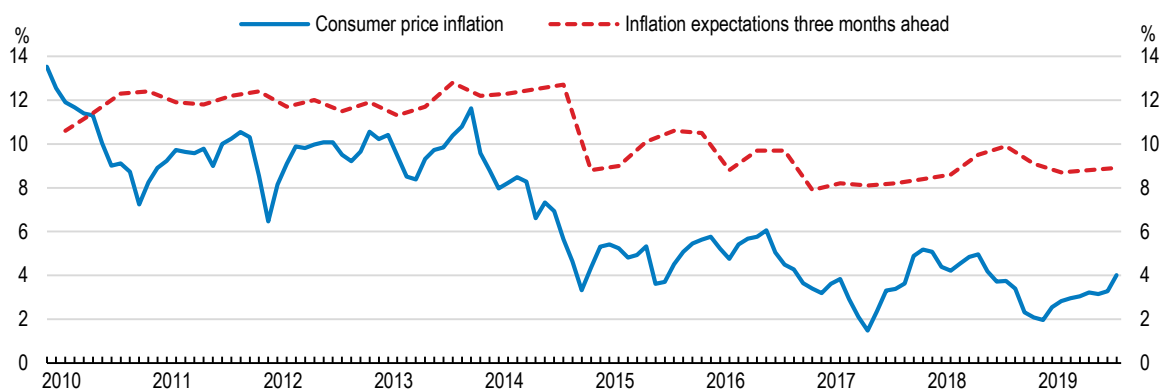
Source: Atlas of Economic Complexity, Centre for International Development, Harvard University.

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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

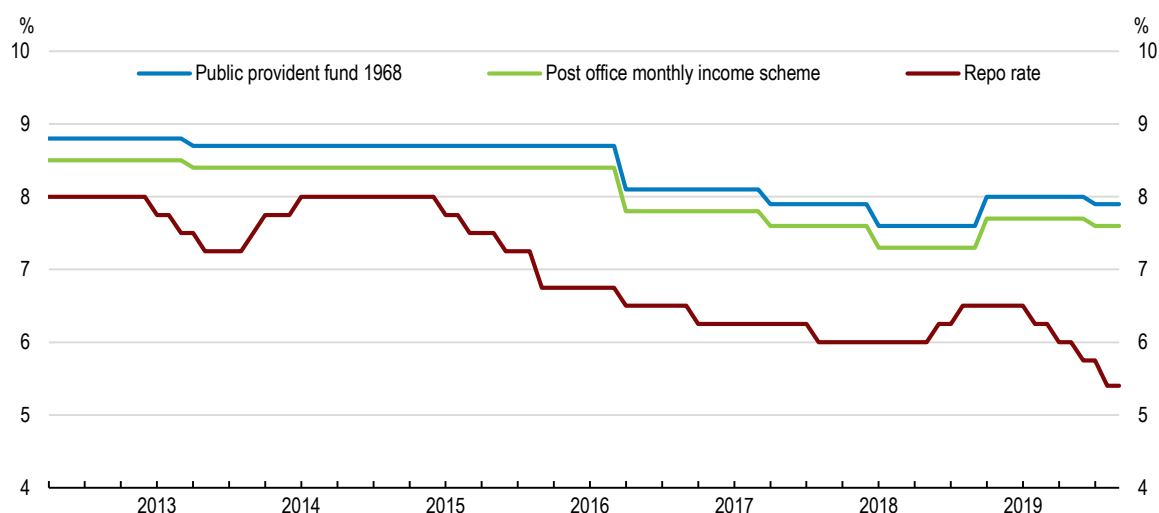
Source: Reserve Bank of India.

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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.

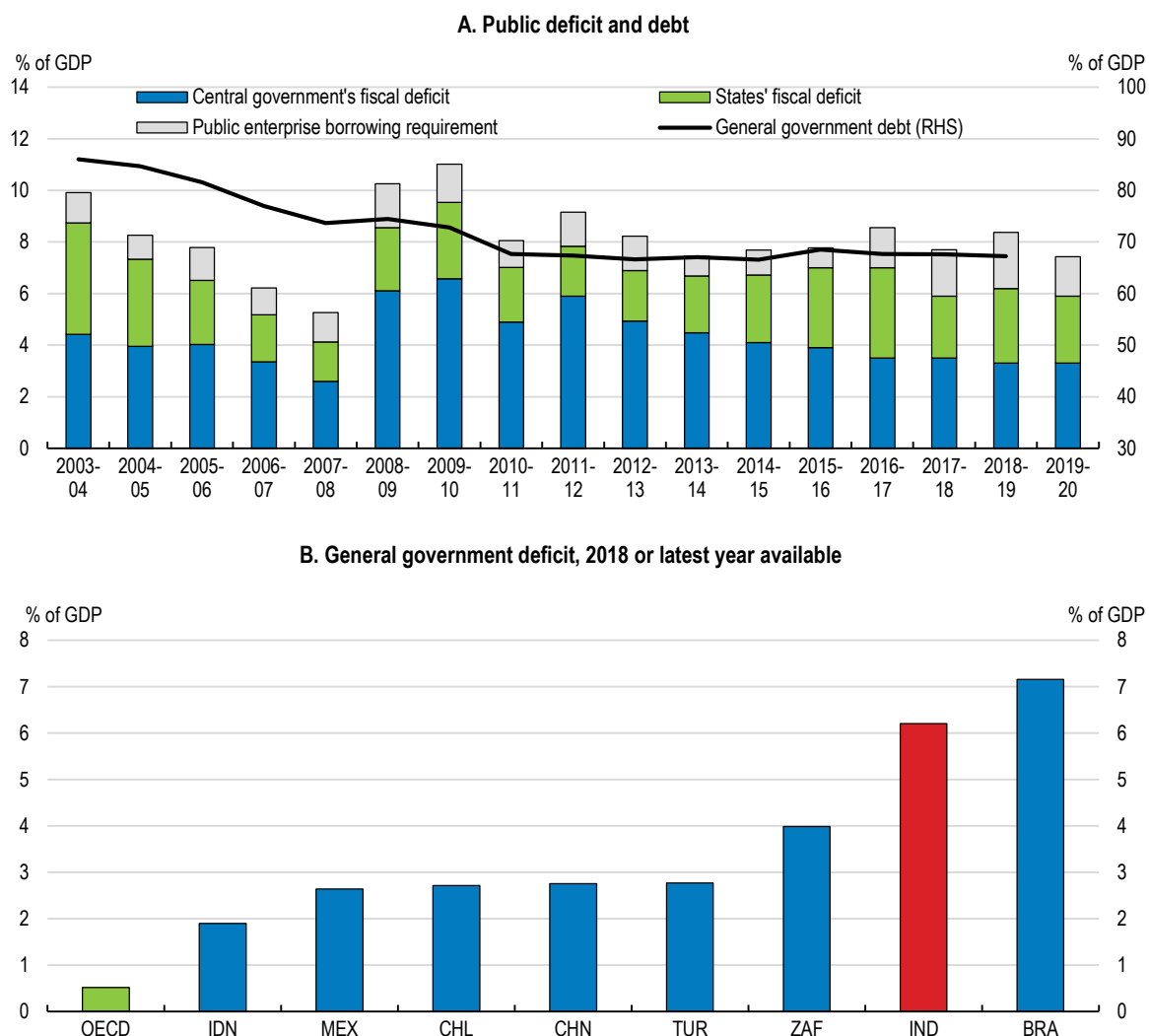
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India has little fiscal space

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
<i>Memorandum items</i>						
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.

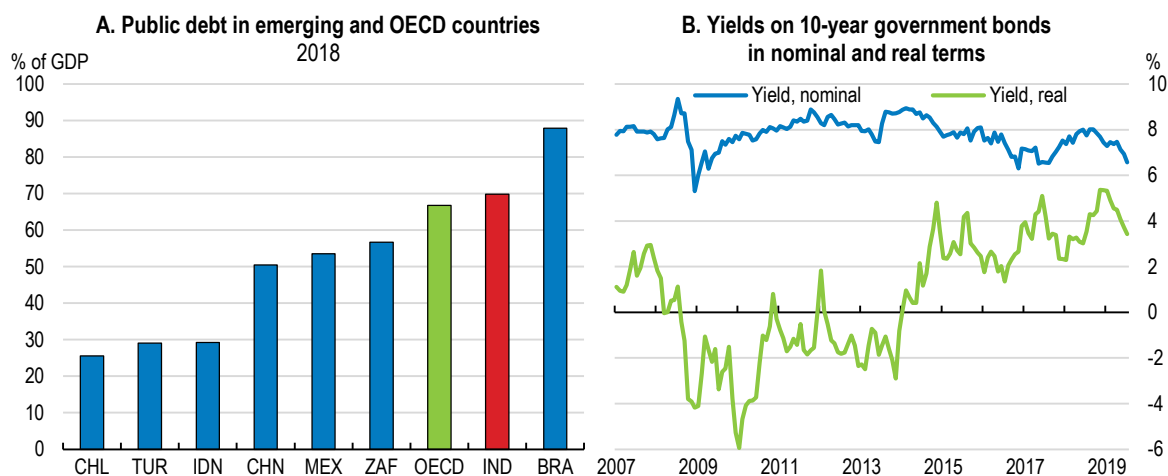
To promote fiscal sustainability, the government has accepted the recommendation by the Fiscal Responsibility and Budget Management (FRBM) Review Committee to make the government debt-to-GDP ratio the primary fiscal target. The combined debt of the central government and the states is to decline to 60% (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

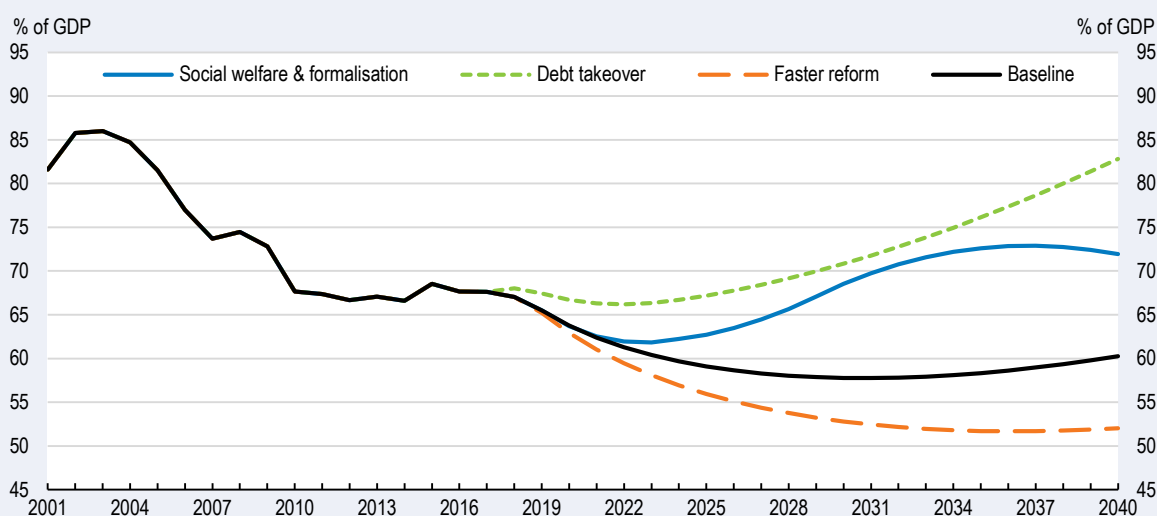
term. The gradual increase in health and education spending would improve wellbeing and boost GDP per capita. It would cause the debt-to-GDP ratio to deteriorate initially but the related productivity and formalisation gains would gradually put the public debt-to-GDP ratio back on a downward path.

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



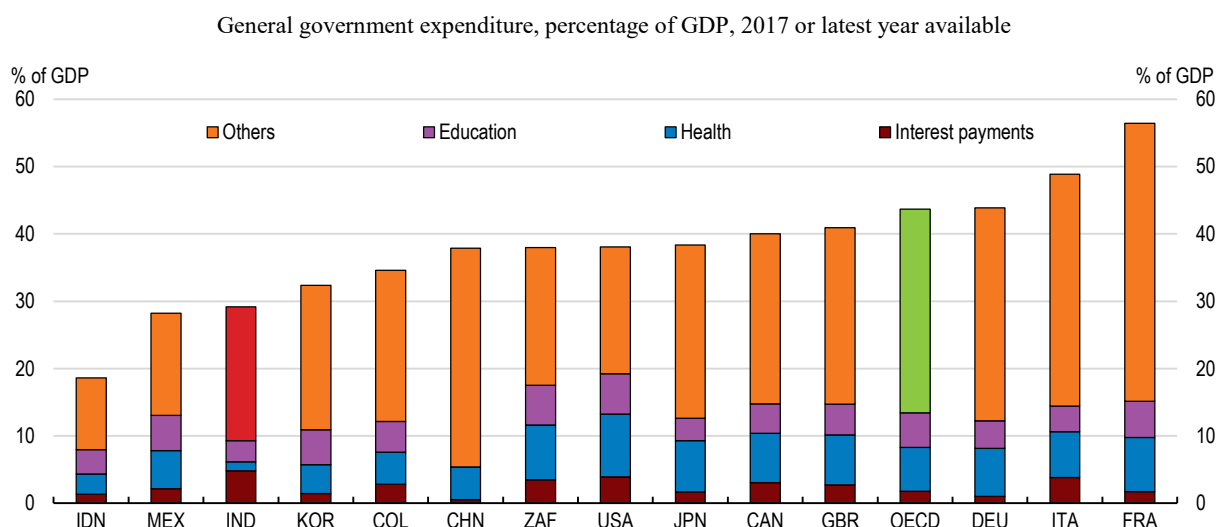
Source: OECD Secretariat simulations.

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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

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.

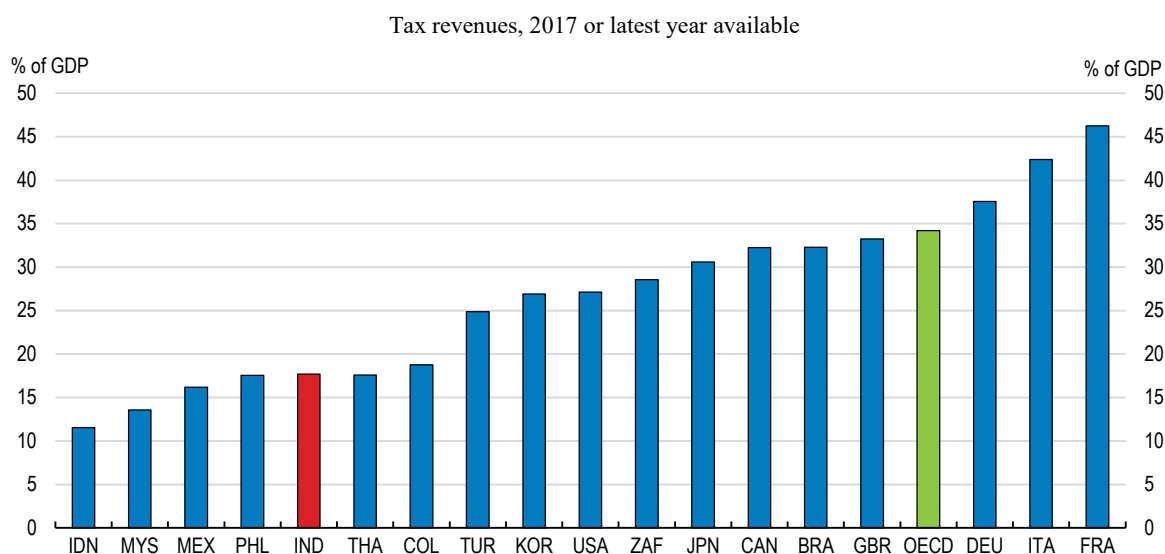
From 2014, a direct financial transfer, equal for all households, has gradually replaced the subsidy on cooking gas (LPG). This reform has generated about USD 8.4 billion up to March 2019, by reducing fraud and “ghost beneficiaries”. The reform has also removed the bias against poor households and those 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

Note: Data for India refer to fiscal year 2018-19.

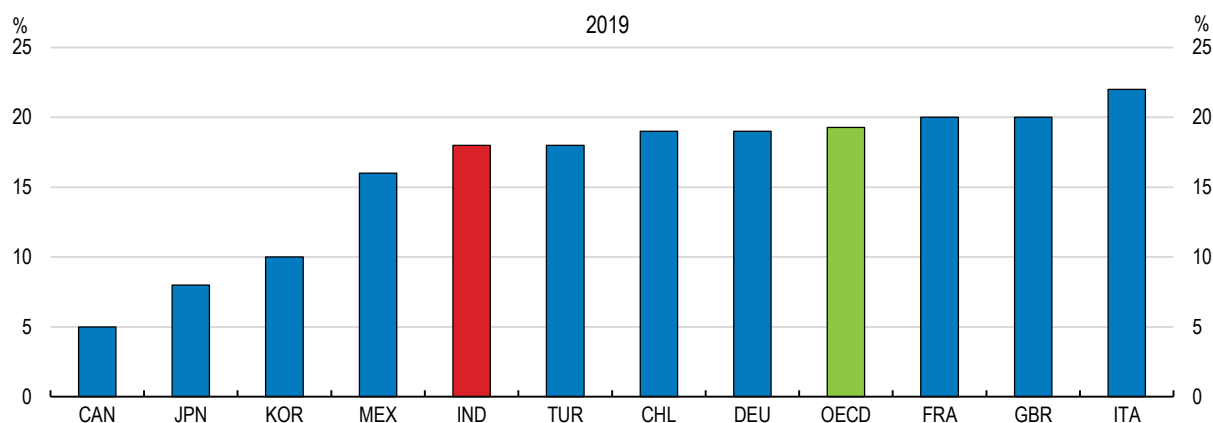
Source: Annual Report of the Reserve Bank of India, 2019; OECD, Global Revenue Statistics database.

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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_[11]) 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.

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

	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 practices 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.

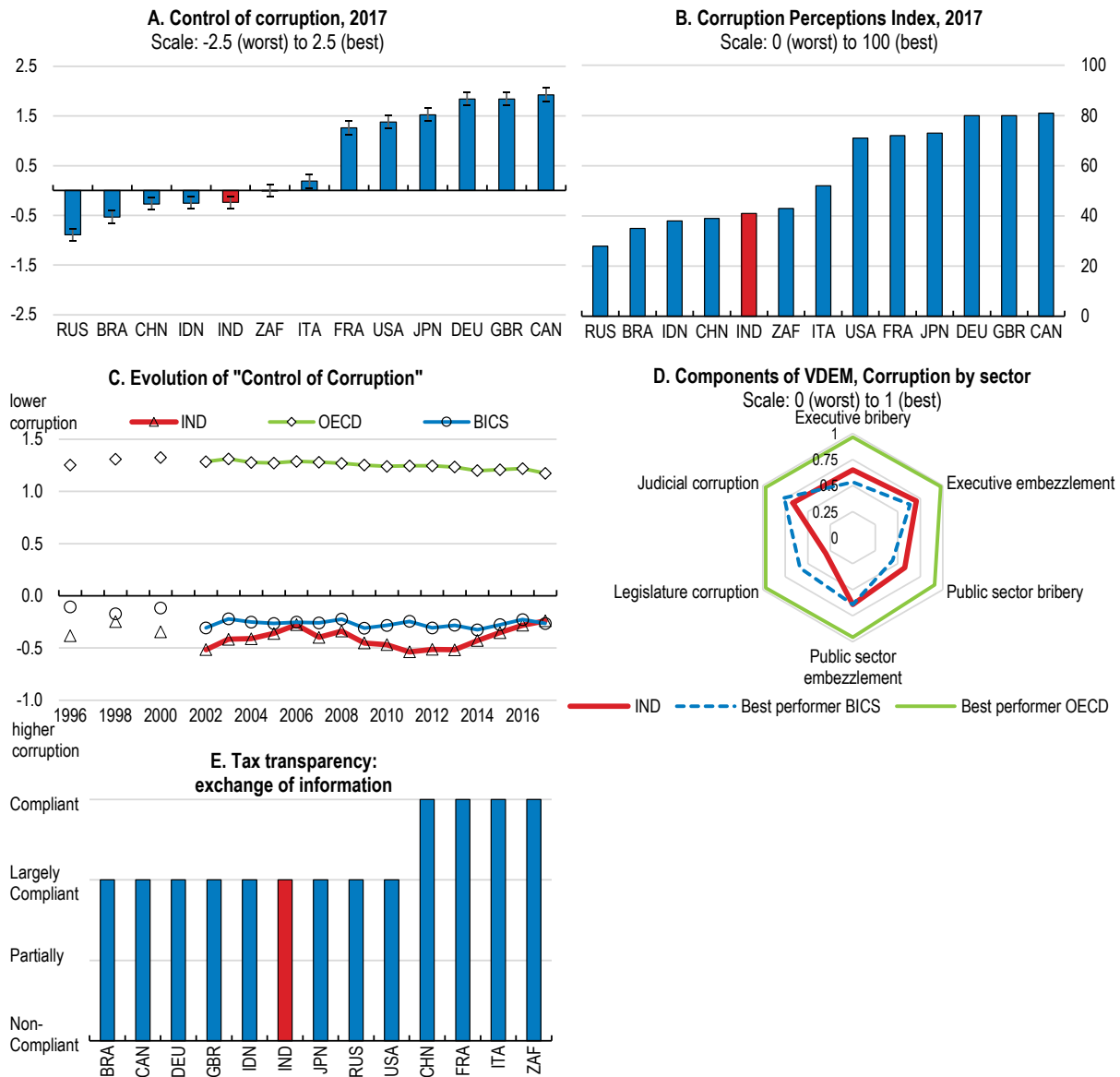
Important policy actions have been taken to fight against corruption

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

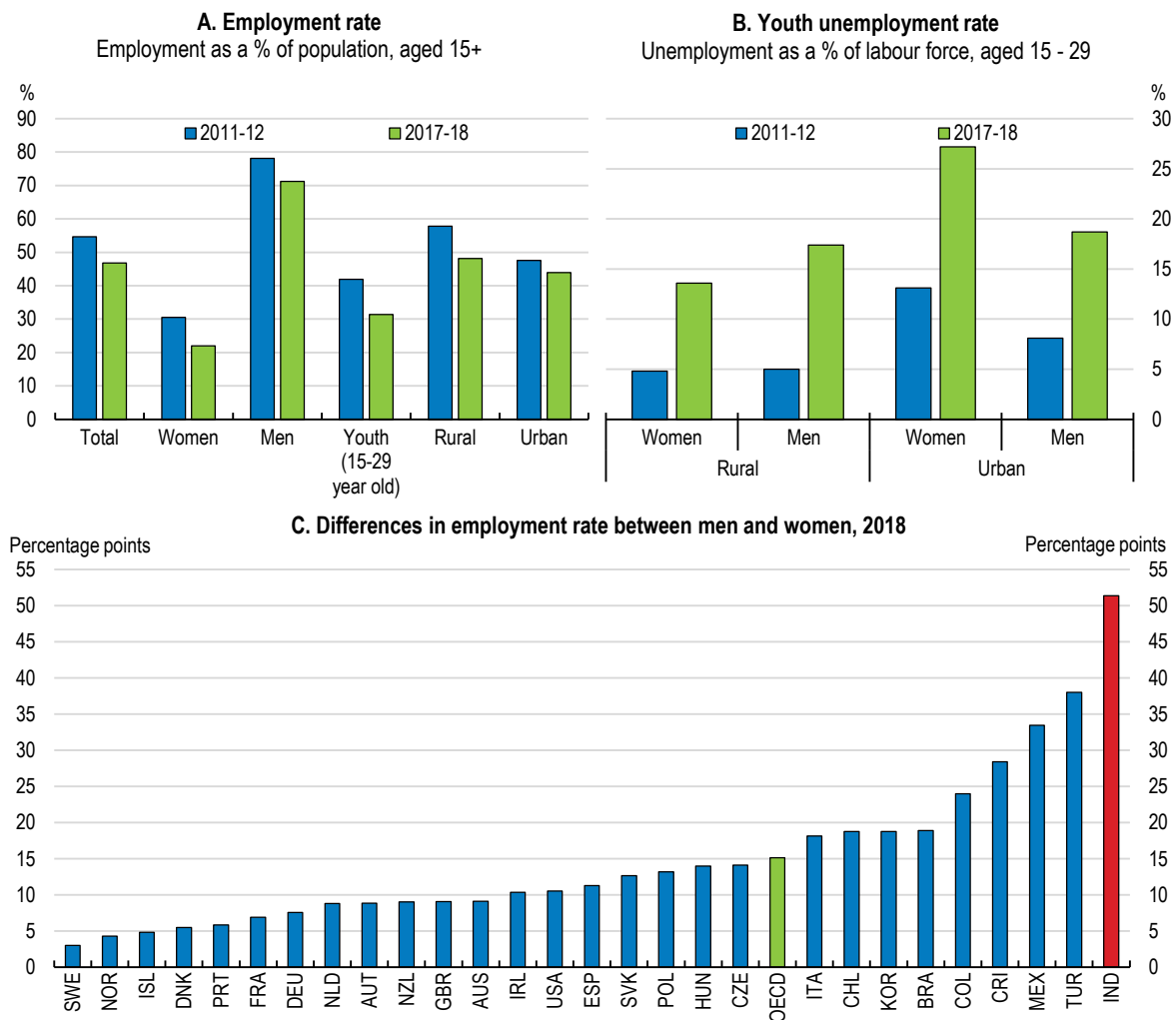
The pace and quality of job creation remain too low

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^[11]) 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

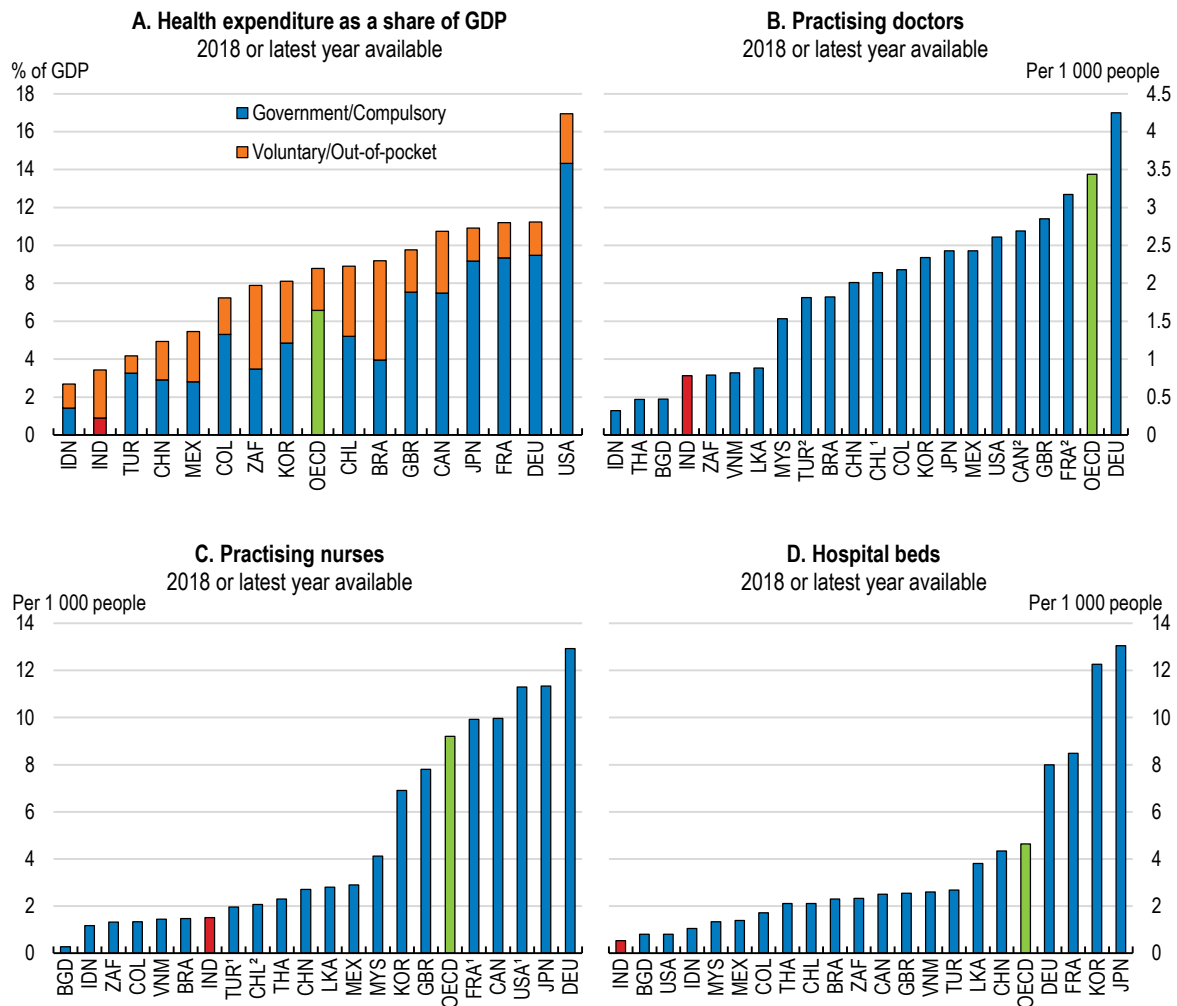
To improve health outcomes, the government has promoted preventive care and public health measures in line with recommendations in the 2014 OECD *Economic Survey of India* (OECD, 2014^[2]). A key objective of the *Clean India* mission, launched in 2014, was to improve access to sanitation facilities 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.

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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 employees. 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.

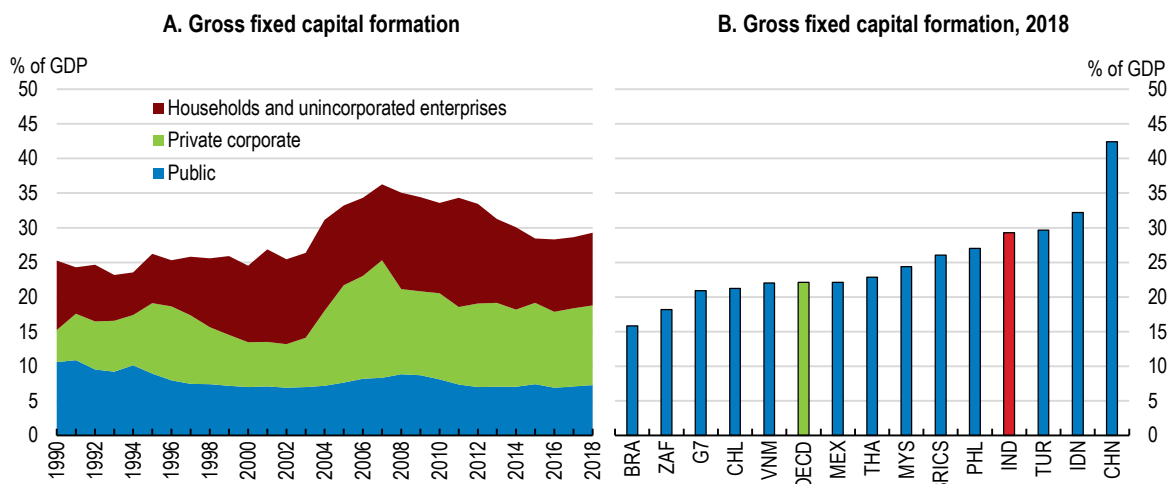
Table 7. Past OECD recommendations on promoting more inclusive growth

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).

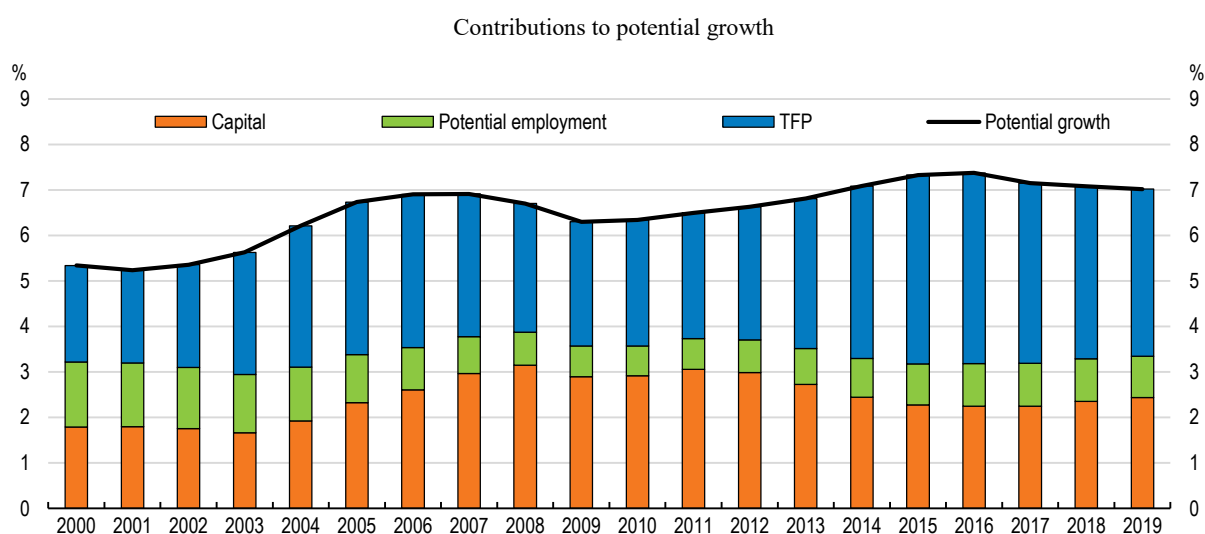
Figure 19. The investment rate is recovering gradually



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

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 (Chaloux 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

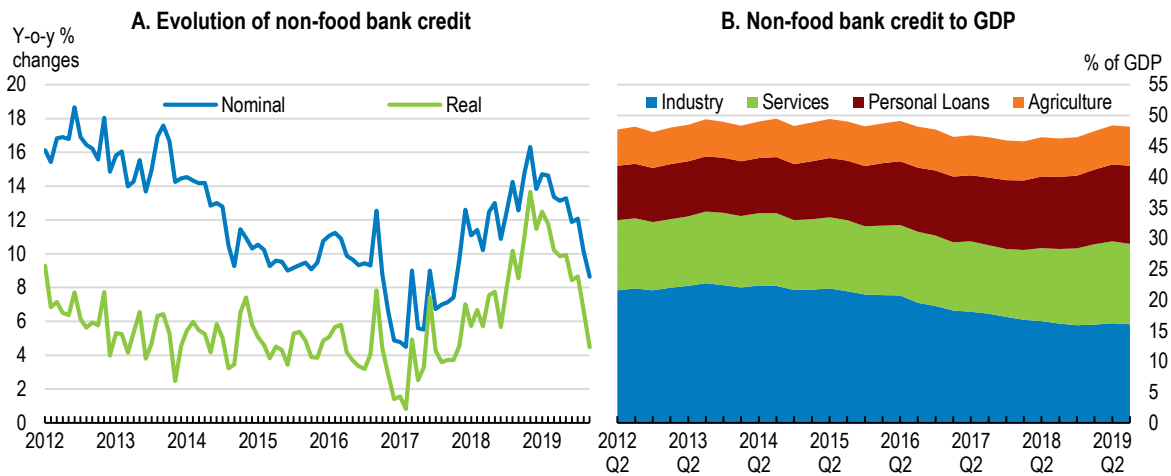
Note: The framework relies on a production function approach. The influence of policies on GDP is typically assessed through their impact on supply-side components: labour productivity and employment. Each in turn can be further decomposed, into capital intensity and multifactor productivity, and labour 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

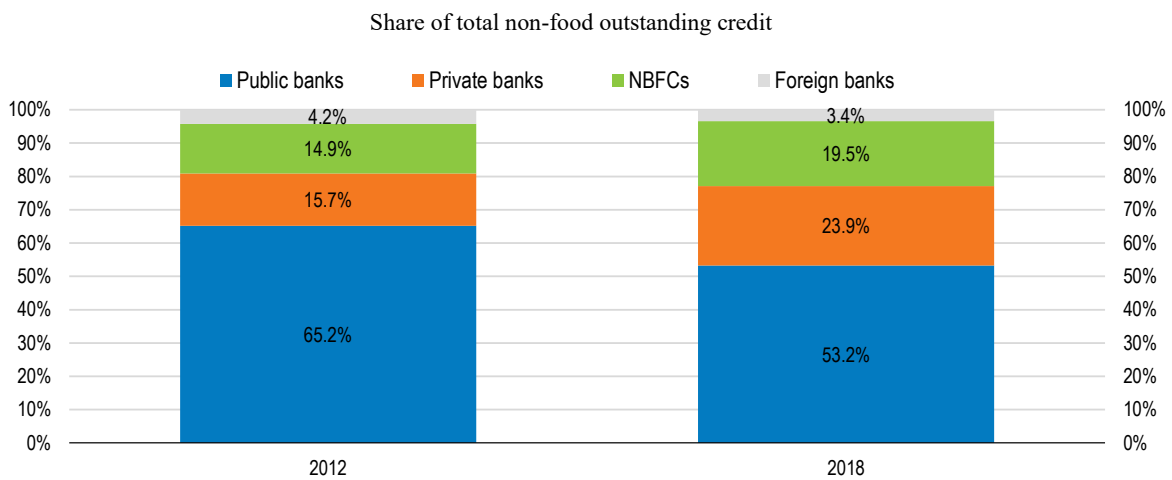
Credit to the economy is decelerating since early 2019 and its composition is changing. Bank credit, at around 50% of GDP, is low compared to the average level in BIICS. Loans to the industrial sector no longer decline as a share of GDP (Figure 21). On the supply side, non-banking financial companies (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

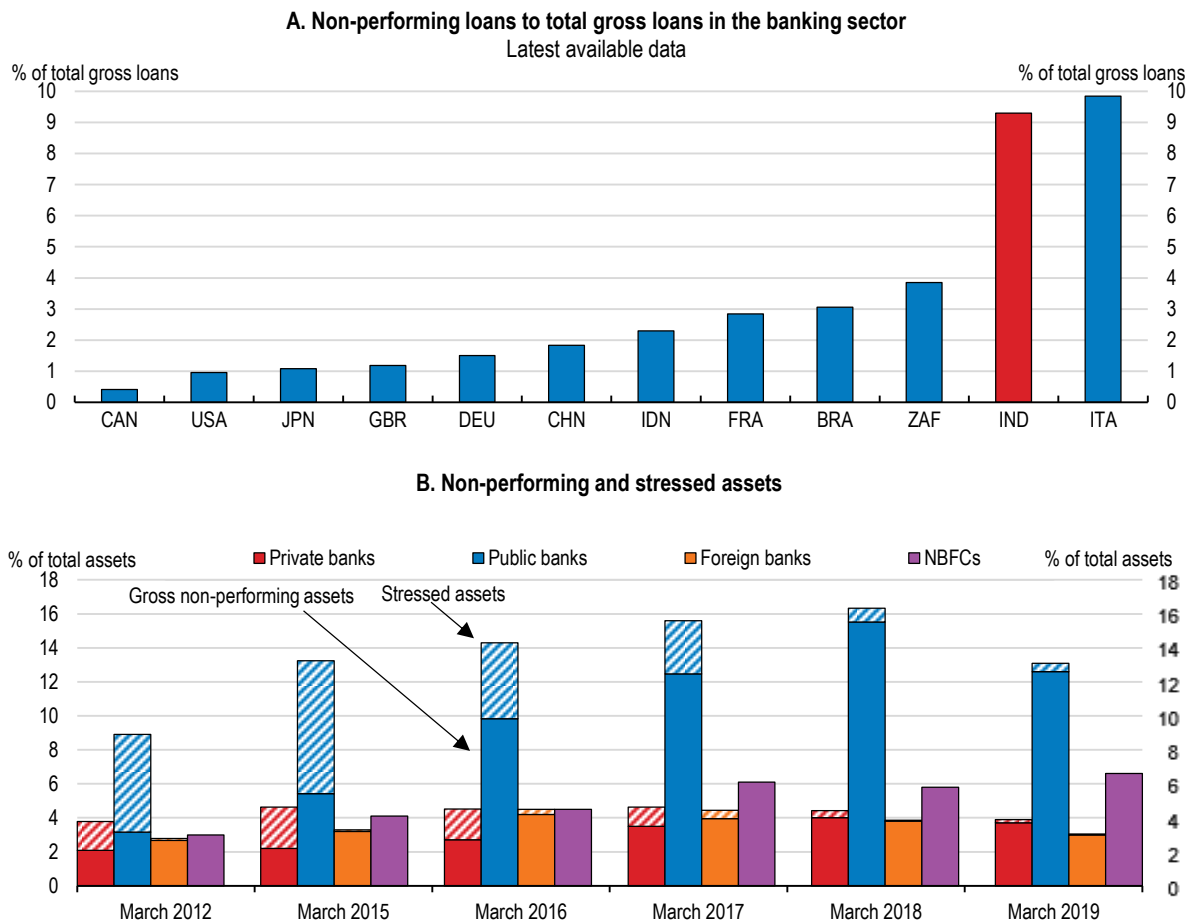
To identify and address non-performing loans in the banking sector, the RBI has taken various measures, including:

- 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.

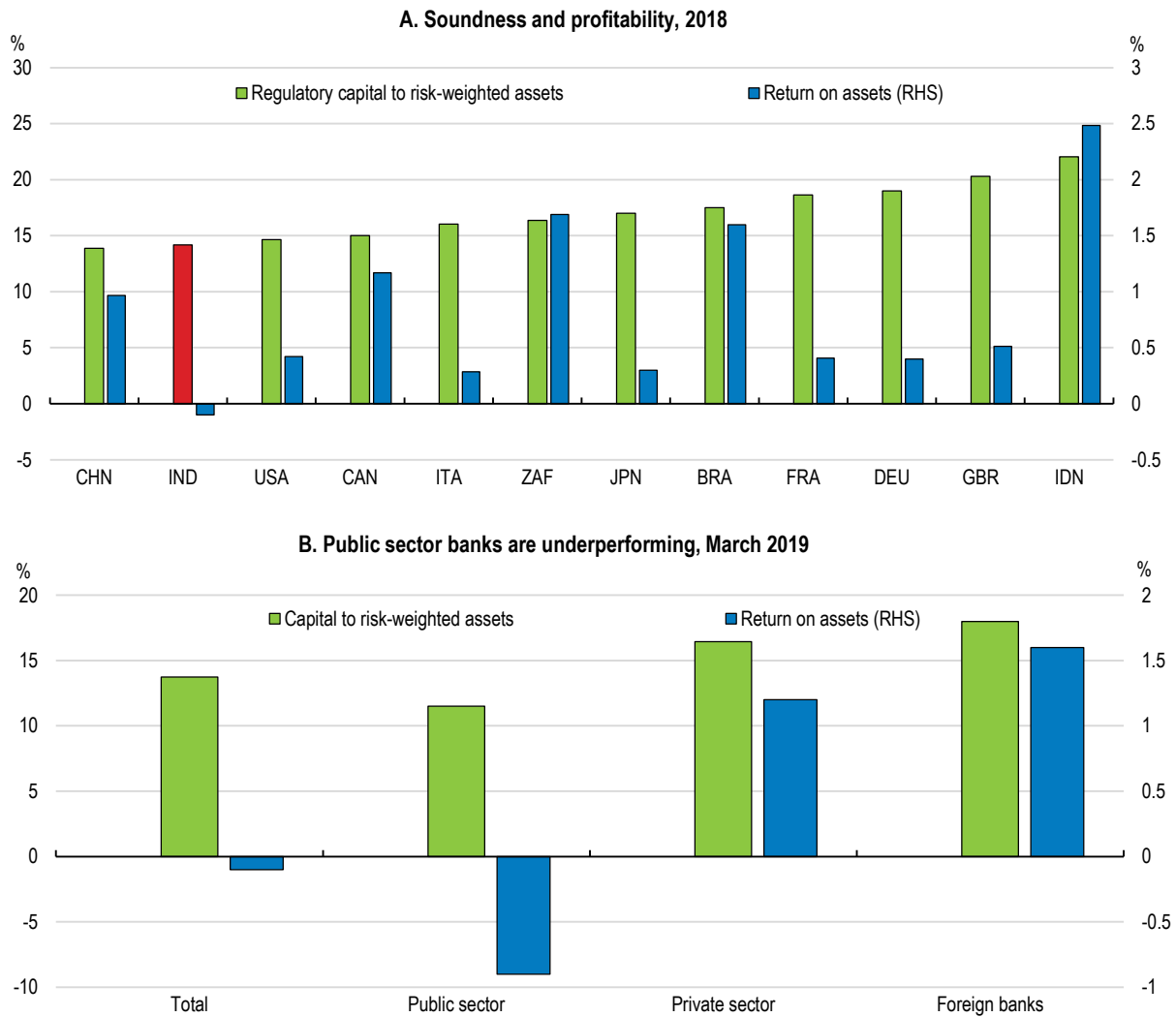
Figure 23. Non-performing loans have started to decline but remain high in public banks

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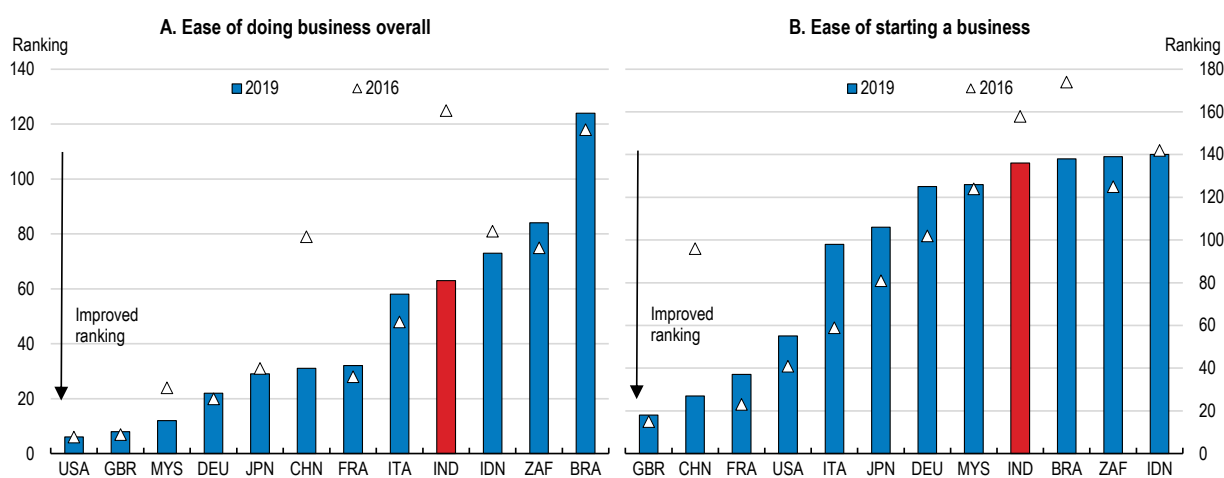
Box 6. Measures taken to strengthen supervision and regulation of non-banking financial companies

- 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
1 st quartile (smallest claims)	29	1.9	2.1	109.1%	309
2 nd quartile	28	7.5	7.6	101.8%	307
3 rd quartile	28	25.7	25.1	97.6%	363
4 th 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.

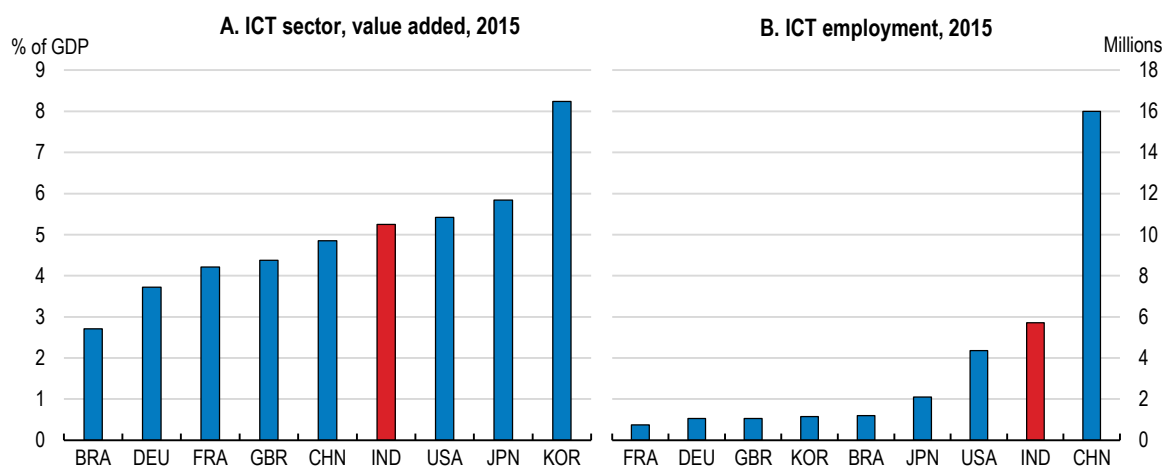
Unlocking the digitalisation potential

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.

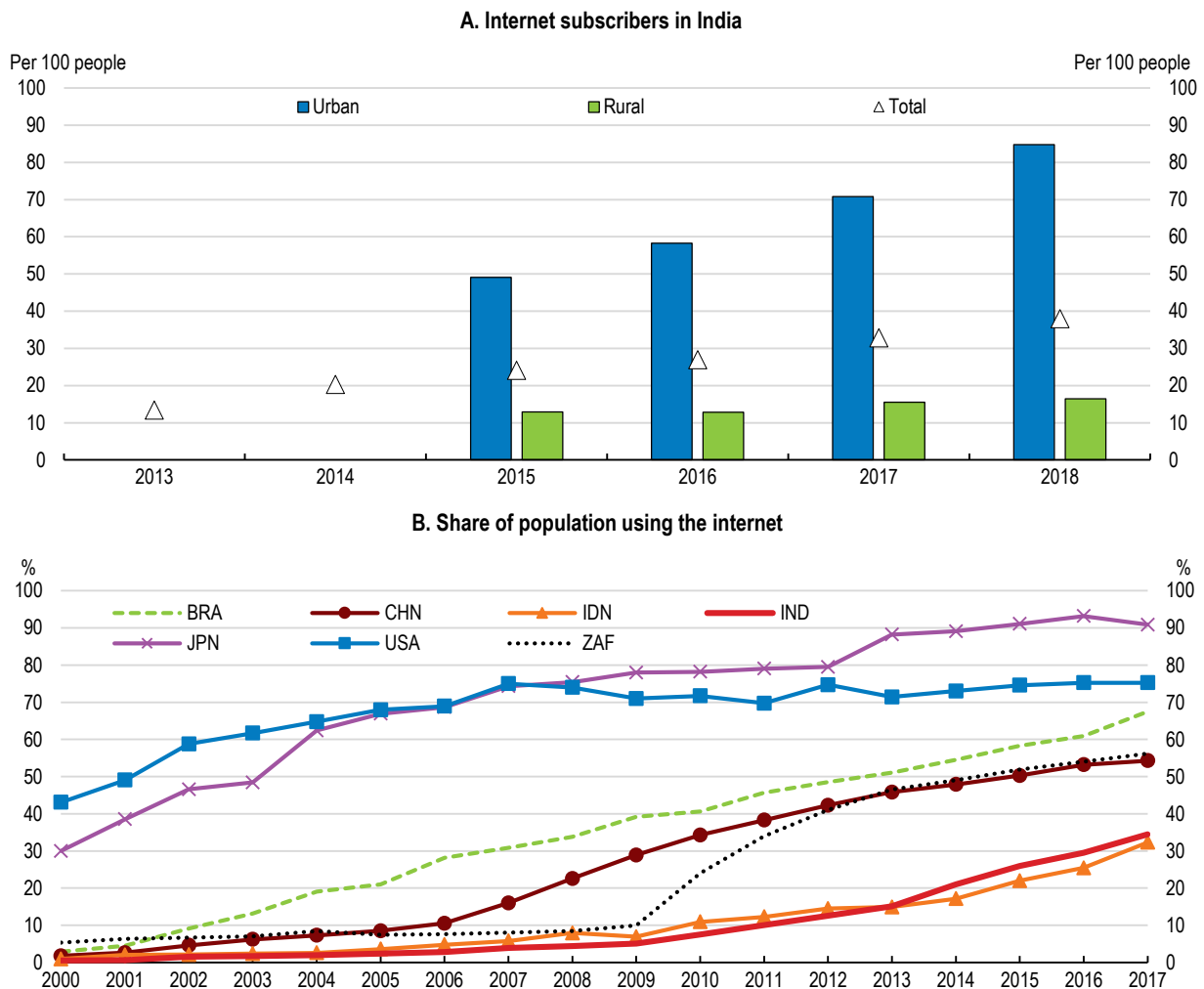
Source: European Commission 2019 PREDICT Dataset.

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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

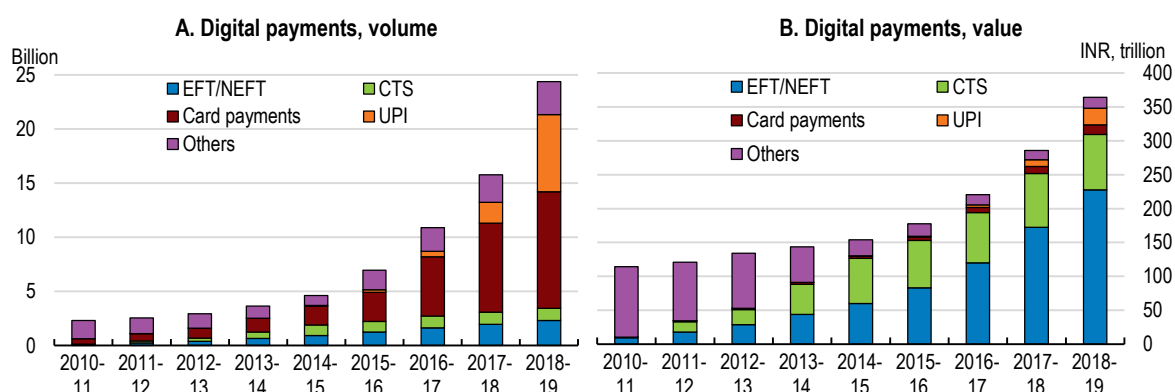


Source: Ministry of Communications, Government of India; World Bank, World Development Indicators database.

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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. Implement the gradual reduction in the corporate income tax from 30% to 25% while broadening the tax base	Digitalisation at the state level is progressing, computerisation of existing land records being almost complete. 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 CO₂ 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.

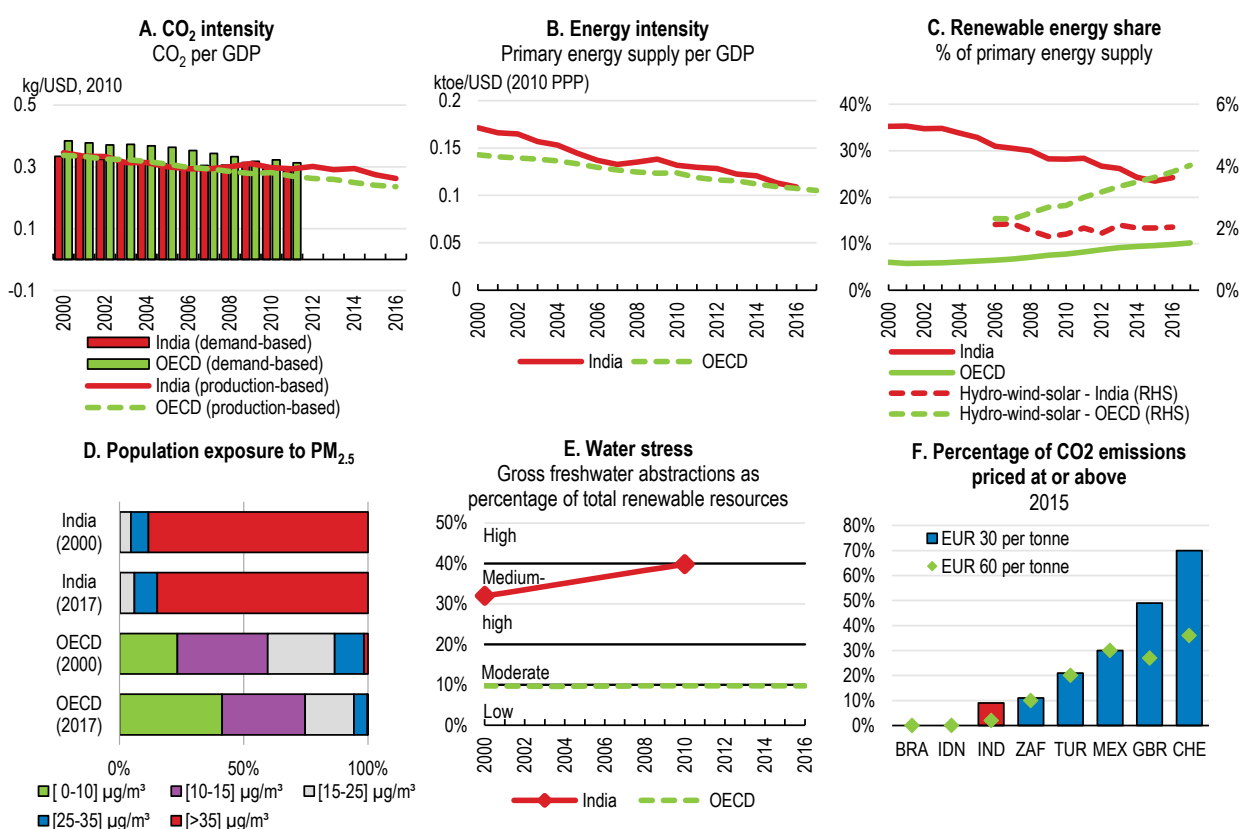
Most of the population is exposed to very high outdoor small particle pollution. Fewer than 1% enjoy air quality within the World Health Organisation's recommended pollution limit (IIASA and CEEW, 2019^[23]). Out of the ten cities most affected by air pollution in the world, as measured by the concentration 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 CO₂ 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 CO₂ 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.
Revenue from property taxes is low, in particular recurrent taxes on immovable property. There is no inheritance tax.	Rich farmers should be brought into the personal income tax net. 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.

References

- Adalet McGowan, M. and D. Andrews (2018), “Design of insolvency regimes across countries”, *OECD Economics Department Working Papers*, No. 1504, OECD Publishing, Paris, <https://dx.doi.org/10.1787/d44dc56f-en>. [55]
- Barwick, P. et al. (2018), “The Morbidity Cost of Air Pollution: Evidence from Consumer Spending in China”, *NBER Working Paper*, No. 24688, National Bureau of Economic Research, Cambridge, MA, <http://dx.doi.org/10.3386/w24688>. [68]
- Beetsma, R. and X. Debrun (eds.) (2018), *Measuring IFI independence: A first pass using the OECD IFI database*. [79]
- Bloch, D. and J. Fournier (2018), “The deterioration of the public spending mix during the global financial crisis: Insights from new indicators”, *OECD Economics Department Working Papers*, No. 1465, OECD Publishing, Paris, <https://dx.doi.org/10.1787/2f6d2e8f-en>. [95]
- Bloch, D. and J. Fournier (2018), “The deterioration of the public spending mix during the global financial crisis: Insights from new indicators”, *OECD Economics Department Working Papers*, No. 1465, OECD Publishing, Paris, <https://dx.doi.org/10.1787/2f6d2e8f-en>. [96]
- Bourguignon, F. (2015), “Revisiting the debate on inequality and economic development”, *Revue d’Economie Politique*, Vol. 125, pp. 633-663. [5]
- Calel, R. and A. Dechezleprêtre (2016), “Environmental Policy and Directed Technological Change: Evidence from the European Carbon Market”, *Review of Economics and Statistics*, Vol. 98/1, pp. 173-191, http://dx.doi.org/10.1162/REST_a_00470. [94]
- Central Bank of Iceland (2019), *Financial Stability, 2019/1*. [120]
- Central Bank of Iceland (2019), *Monetary Bulletin, 2019/1*. [110]
- Central Bank of Iceland (2019), *Monetary Bulletin, 2019/2*. [126]
- Central Bank of Iceland (2019), *Monetary Policy Committee Report to Parliament, 2018:2*. [109]
- Central Bank of Iceland (2019), *Removal of Capital Controls on Holders of Offshore Krónur and Reduction of Special Reserve Requirement on Capital Inflow, News, 4 March*. [103]

- Central Bank of Iceland (2018), *Financial Stability, 2018/2*. [121]
- Central Vigilance Commission (2018), “Annual Report 2017”, [30]
<http://cvc.gov.in/sites/default/files/Annual%20Report%202018%20%28English%29.pdf>.
- Chafe, Z. et al. (2019), *How much do households contribute to air pollution in India*, Ideas for India, [62]
<https://www.ideasforindia.in/topics/governance/how-much-do-households-contribute-to-ambient-air-pollution-in-india.html>.
- Chaloux, T. and Y. Guillemette (2019), “The OECD potential output estimation methodology”, *OECD Economics Department Working Papers*, No. 1563, OECD Publishing, Paris, [42]
<https://dx.doi.org/10.1787/4357c723-en>.
- Climate Analytics, N. (2018), *Climate Action Tracker*, <https://climateactiontracker.org/> [70]
 (accessed on 14 February 2019).
- CMS India (2018), *CMS-India Corruption Study 2018 -- 2005 to 2018: How well are states placed*, CMS, http://cmsindia.org/cms_ics18/CMS_ICS_2018_Report.pdf. [28]
- Council of Europe (2015), *Group of states against corruption, general activity report*. [117]
- Cournède, B. et al. (2018), “Public Finance Structure and Inclusive Growth”, *OECD Policy paper 25*. [93]
- CRISIL (2019), *Securing life’s second innings -- Opportune time to create a sustainable pension system*, <https://www.crisil.com/content/dam/crisil/our-analysis/reports/Research/documents/2018/march/securing-lifes-second-innings.pdf>. [38]
- Das, U. et al. (2009), “Setting up a Sovereign Wealth Fund: some policy and operational considerations”, *IMF Working Paper*. [92]
- Deloitte (2019), *Unravelling the Indian Consumer*. [57]
- Égert, B. (2017), “The quantification of structural reforms: Extending the framework to emerging market economies”, *OECD Economics Department Working Papers*, No. 1442, OECD Publishing, Paris, <https://dx.doi.org/10.1787/f0a6fdcb-en>. [43]
- Égert, B. (2012), “Public Debt, Economic Growth and Nonlinear Effects: Myth or Reality?”, *OECD Economics Department Working Papers*, No. 993, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5k918xk8d4zn-en>. [9]
- Égert, B. and P. Gal (2017), “The Quantification of Structural Reforms in OECD Countries: A New Framework”, *OECD Economics Department Working Papers*, No. 1354, <http://dx.doi.org/10.1787/2d887027-en>. [91]
- Einarsson, B. et al. (2013), “The production and export structure of the Icelandic economy: an international comparison”. [90]
- Einarsson, B. et al. (2015), “The long history of financial boom-bust cycles in Iceland”, *Central Bank of Iceland Working Papers No. 68*, <http://www.sedlabanki.is>. [89]

- Ernst & Young (2013), *Bribery and corruption: ground reality in India*, [26]
[https://www.ey.com/Publication/vwLUAssets/ey-bribery-and-corruption-ground-reality-in-india-india-score/\\$FILE/ey-bribery-and-corruption-ground-reality-in-india-india-score.pdf](https://www.ey.com/Publication/vwLUAssets/ey-bribery-and-corruption-ground-reality-in-india-india-score/$FILE/ey-bribery-and-corruption-ground-reality-in-india-india-score.pdf).
- Fall, F. et al. (2015), “Prudent debt targets and fiscal frameworks”, *OECD Economic Policy Papers*, No. 15, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5jrxjtjmmmt9f7-en>. [10]
- FATF (2018), *Anti-money Laundering and Counter-terrorist Financing Measures - Iceland, Fourth Round Mutual Evaluation Report*, FATF, Paris, <http://www.fatf-gafi.org/publications/mutualevaluations/documents/mer-iceland-2018.html>. [127]
- Federation of Icelandic Industrialists (2018), *The Icelandic Economy*. [101]
- FICCI (2018), *Envisioning India 2030*, <http://ficci.in/spdocument/23058/Envisioning-India-2030-web.pdf>. [46]
- Forbes, K. (2018), *Macroprudential Policy After the Crisis: Forging a Thor’s Hammer for Financial Stability in Iceland*, Report Prepared at the Request of the Task Force Dedicated to Reviewing Monetary and Currency Policies for Iceland. [88]
- Global Coal Plant Tracker (2018), *Global Coal Plant Tracker*, 2018, [74]
<https://endcoal.org/tracker/> (accessed on 4 July 2018).
- Gopalan, K. and M. Venkataraman (2015), “Affordable housing: Policy and practice in India”, *IIMB Management Review*, <http://dx.doi.org/10.1016/j.iimb.2015.03.003>. [50]
- Government of Iceland (2018), *Financial Stability should be Prioritised Over Price Stability*, News, 5 June. [122]
- Government of Iceland (2018), *Merger of Central Bank of Iceland and Financial Supervisory Authority in Preparation of Inflation Targeting to Remain the Principal Objective of Monetary Policy*, Prime Minister’s Office, News, 11 October. [111]
- Government of India (2019), *Budget 2019-20 -- Receipts budget*, Government of India. [14]
- Government of India (2019), *Report of the Comptroller and Auditor General of India on Compliance of the Fiscal responsibility and Budget management act, 2003 for the year 2016-17*, <https://cag.gov.in/content/report-no20-2018-compliance-fiscal-responsibility-and-budget-management-act-2003-department>. [12]
- Government of India (2014), *Key indicators of Situation of Agricultural Households in India, NSS 70th Round*. [32]
- Government of India (2013), *Income, Productive Assets and Indebtedness of Agricultural households in India - NSS Report No. 576*. [18]
- Guðmundsson, M. (2019), *Speech delivered at the 58th Annual Meeting of the Central Bank of Iceland, 28 March*. [87]

- Guillemette, Y. et al. (2017), “A revised approach to productivity convergence in long-term scenarios”, *OECD Economic Department Working Papers 1385*, <https://dx.doi.org/10.1787/0b8947e3-en> WORK. [86]
- Guillemette, Y. and D. Turner (2018), “The Long View: Scenarios for the World Economy to 2060”, *OECD Economic Policy Papers*, No. 22, OECD Publishing, Paris, <https://dx.doi.org/10.1787/b4f4e03e-en>. [15]
- Gurnani, V. et al. (2018), “Improving vaccination coverage in india: lessons from Intensified Mission Indradhanush, a cross-sectoral systems strengthening strategy”, *British Medical Journal*, <https://www.bmj.com/content/bmj/363/bmj.k4782.full.pdf>. [33]
- Haraldsson, G. and D. Carey (2011), “Ensuring a Sustainable and Efficient Fishery in Iceland”, *OECD Economics Department Working Papers*, No. 891, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5kg566jfrpqr-en>. [85]
- Harlem Bruntland, G. (2018), “India’s health reforms: the need for balance”, *The Lancet*, Vol. 392, pp. 1174-1175. [34]
- Hazarika, B. and P. Ranjan Jena (2017), *Public procurement in India: Assessment of institutional mechanisms, challenges and reforms*, NIPFP, https://www.nipfp.org.in/media/medialibrary/2017/07/WP_2017_204.pdf. [25]
- Heissel, J., C. Persico and D. Simon (2019), “Does Pollution Drive Achievement? The Effect of Traffic Pollution on Academic Performance”, No. 25489, National Bureau of Economic Research, <https://www.nber.org/papers/w25489.pdf> (accessed on 8 February 2019). [66]
- HSBC (2019), “India’s enigmatic state finances”, *HSBC Global Research*. [13]
- IEA (2019), *Coal-fired power, Tracking Clean Energy Progress*, <https://www.iea.org/tcep/power/coal/> (accessed on 9 May 2019). [72]
- IEA (2018), *Renewables 2018: Analysis and Forecasts to 2023*, International Energy Agency, Paris, https://dx.doi.org/10.1787/re_mar-2018-en. [77]
- IEA (2018), *World Energy Investment 2018*, OECD Publishing, Paris/International Energy Agency, Paris, <https://dx.doi.org/10.1787/9789264301351-en>. [63]
- IEA (2018), *World Energy Outlook 2018*, International Energy Agency, Paris, <https://dx.doi.org/10.1787/weo-2018-en>. [61]
- IIASA and CEEW (2019), *Pathways to Achieve National Ambient Air Quality Standards (NAAQS) in India*. [23]
- IMF (2018), *Iceland: Article IV. IMF Country Report, 18/318*. [115]
- IMF (2018), *India: 2018 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for India; Country Report No. 18/254; July 2, 2018*, <http://www.imf.org>. [45]

- IMF (2017), *Iceland: Article IV, IMF Country Report 17/163*. [116]
- IMF (2010), *Economics of sovereign Wealth Funds: Issues for Policymakers*, IMF. [84]
- Insolvency and Bankruptcy Board of India (2019), *Insolvency and Bankruptcy News*. [53]
- International Energy Agency (2017), *Energy Access Outlook 2017: from Poverty to Prosperity*. [6]
- Joumard, I. et al. (2017), “Public debt in India: Moving towards a prudent level?”, *OECD Economics Department Working Papers*, No. 1400, OECD Publishing, Paris, <https://dx.doi.org/10.1787/853c014a-en>. [11]
- Joumard, I., A. Thomas and H. Morgavi (2017), “Making income and property taxes more growth-friendly and redistributive in India”, *OECD Economics Department Working Papers*, No. 1389, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5e542f11-en>. [22]
- Kakanov, E., H. Blöchliger and L. Demmou (2018), “Resource curse in oil exporting countries”, *OECD Economics Department Working Papers*, No. 1511, OECD Publishing, Paris, <https://dx.doi.org/10.1787/a5012a3d-en>. [83]
- Kaufmann, D., A. Kraay and M. Mastruzzi (2010), *The Worldwide Governance Indicators: Methodology and Analytical Issues*, <https://ssrn.com/abstract=1682130>. [29]
- Koźluk, T. (2014), “The Indicators of the Economic Burdens of Environmental Policy Design: Results from the OECD Questionnaire”, *OECD Economics Department Working Papers*, No. 1178, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5jxrjnbnbm8v-en>. [82]
- Kumar Anand, R. and R. Chakraborty (2019), *Public expenditure on old-age income support in India: largess for a few, illusory for most*, NIPFP Working Paper No 253, https://nipfp.org.in//media/medialibrary/2019/02/WP_253_2019.pdf. [39]
- Kuznets, S. (1955), “Economic growth and income inequality”, *American Economic Review*, pp. 11-28. [4]
- Lewis-Faupel, S. et al. (2016), “Can electronic procurement improve infrastructure provision? Evidence from public works in India and Indonesia”, *American Economic Journal: Economic Policy*, Vol. 8/3, pp. 258-283, <http://dx.doi.org/10.1257/pol.20140258>. [56]
- Luo, T., D. Krishnan and S. Sen (2018), *Parched Power: Water Demands, Risks, and Opportunities for India’s Power Sector*. [76]
- Marten, M. and K. van Dender (2019), “The use of revenues from carbon pricing”, *OECD Taxation Working Papers*, No. 43, OECD Publishing, Paris, <https://dx.doi.org/10.1787/3cb265e4-en>. [24]
- Mathur, B. (2018), “The Comptroller and Auditor General: Reform the Institution to Enforce Government’s Accountability”, *Indian Journal of Public Administration*, Vol. 64/3, pp. 442-453, <http://dx.doi.org/10.1177/0019556118780092>. [31]

- McKinsey (2019), *Digital India*. [59]
- McKinsey&Company (2017), *Coping with Success: Managing Overcrowding in Tourism Destinations*. [125]
- Ministry for the Environment and Natural Resources (2018), *Iceland’s Climate Action Plan for 2018-2030*. [114]
- Ministry of Environment, Forest and Climate Change (2019), *Government launches National Clean Air Programme*. [78]
- Ministry of Finance (2019), “Economic survey 2018-2019”. [49]
- Ministry of Finance (2012), *General Owner Policy of the State: Public Companies and Associations*. [119]
- Mishra, P. and R. Suhag (2017), “Land records and titles in India”, *Ideas for India*, posted on November 20 2017, <https://www.ideasforindia.in/topics/macroeconomics/land-records-and-titles-in-india.html>. [51]
- National Real Estate Development Council (2019), *Digitalisation of land records: Benefits for property owners and the sector*. [52]
- NITI Aayog (2018), *Strategy for New India@75*. [35]
- NITI Aayog (2017), *India – three years action agenda*, <http://niti.gov.in/writereaddata/files/coop/IndiaActionPlan.pdf>. [21]
- Norges Bank (2018), *Government Pension Fund Global*, NBIM, <https://www.nbim.no/contentassets/49715a01ed684b1686ff3c017f1efa12/annual-report-2017---government-pension-fund-global.pdf>. [118]
- OECD (2019), *Jobs Strategy*. [113]
- OECD (2018), *A Broken Social Elevator? How to Promote Social Mobility*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264301085-en>. [3]
- OECD (2018), *Consumption Tax Trends: VAT/GST and excise rates, trends and policy issues*, OECD, <http://dx.doi.org/10.1787/cct-2016-en>. [81]
- OECD (2018), *Effective Carbon Rates 2018: Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264305304-en>. [124]
- OECD (2018), *Job Strategy*, OECD. [80]
- OECD (2018), *OECD Economic Surveys: Finland 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-fin-2018-en. [107]

- OECD (2018), *OECD Pensions Outlook 2018*, OECD Publishing, Paris, [41]
https://dx.doi.org/10.1787/pens_outlook-2018-en.
- OECD (2018), *Tax Policy Reforms 2018: OECD and Selected Partner Economies*, OECD Publishing, Paris, [102]
<https://dx.doi.org/10.1787/9789264304468-en>.
- OECD (2018), *Taxing Energy Use 2018: Companion to the Taxing Energy Use Database*, OECD Publishing, Paris, [69]
<https://dx.doi.org/10.1787/9789264289635-en>.
- OECD (2017), *OECD Economic Surveys: Iceland 2017*, OECD Publishing, Paris, [106]
https://dx.doi.org/10.1787/eco_surveys-isl-2017-en.
- OECD (2017), *OECD Economic Surveys: India 2017*, OECD Publishing, Paris, [1]
https://dx.doi.org/10.1787/eco_surveys-ind-2017-en.
- OECD (2017), *Pensions at a Glance 2017: OECD and G20 Indicators*, OECD Publishing, Paris, [40]
https://dx.doi.org/10.1787/pension_glance-2017-en.
- OECD (2017), *The Size and Sectoral Distribution of State-Owned Enterprises*, OECD Publishing, Paris, [99]
<https://dx.doi.org/10.1787/9789264280663-en>.
- OECD (2017), *Water Risk Hotspots for Agriculture*, OECD Studies on Water, OECD Publishing, Paris, [75]
<https://dx.doi.org/10.1787/9789264279551-en>.
- OECD (2016), *Innovating Education and Educating for Innovation: The Power of Digital Technologies and Skills*, Educational Research and Innovation, OECD Publishing, Paris, [60]
<https://dx.doi.org/10.1787/9789264265097-en>.
- OECD (2016), *The Economic Consequences of Outdoor Air Pollution*, [67]
<http://dx.doi.org/10.1787/9789264257474-en>.
- OECD (2014), *Environmental Performance Review Iceland*, OECD Publishing, [123]
- OECD (2014), *OECD Economic Surveys: India 2014*, OECD Publishing, Paris, [2]
https://dx.doi.org/10.1787/eco_surveys-ind-2014-en.
- OECD (2013), *OECD Economic Surveys: Switzerland*, OECD Publishing, [105]
<http://www.oecd.org/eco/surveys/Switzerland>.
- OECD (2012), *OECD Economic Surveys: Australia 2012*, OECD Publishing, Paris, [108]
https://dx.doi.org/10.1787/eco_surveys-aus-2012-en.
- OECD (2019, forthcoming), *Links Between Housing Markets and Economic Resilience*, Working Party No 1 on Macroeconomic and Structural Policy Analysis ECO/CPE/WP1(2019)2, [112]
- OECD Working Group on Bribery in International Business Transactions (2018), *Phase 3 Follow-Up: Additional Report by Iceland*, [104]

- OECD/ICRIER (2018), *Agricultural Policies in India*, OECD Food and Agricultural Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264302334-en>. [17]
- Patel, V. et al. (2015), “Assuring health coverage for all in India”, *The Lancet*, Vol. 386/10011, pp. 2422-2435, [http://dx.doi.org/10.1016/s0140-6736\(15\)00955-1](http://dx.doi.org/10.1016/s0140-6736(15)00955-1). [37]
- PWC-CII (2018), *Decoding the Code: Survey on Twenty One Months of IBC in India*, <https://www.pwc.in/assets/pdfs/publications/2018/decoding-the-code-survey-on-twenty-one-months-of-ibc-in-india.pdf>. [54]
- PwC-NASSCOM (2018), *Propelling India towards global leadership in e-commerce*. [58]
- Ray (2019), “Understanding the NBFC Conundrum”, *Economic and Political Weekly*, Vol. LIV No 14. [44]
- RBI (2017), *Report of the Internal Study Group to Review the Working of the Marginal Cost of Funds Based Lending Rate System*. [7]
- Reinhart, C. and K. Rogoff (2010), *Growth in a Time of Debt*, National Bureau of Economic Research, Cambridge, MA, <http://dx.doi.org/10.3386/w15639>. [8]
- Reserve Bank of India (2019), *Annual report 2018-19*. [20]
- Reserve Bank of India (2019), *Monetary Policy Report -- April 2019*. [16]
- Reserve Bank of India (2018), *Report on Trend and Progress of Banking in India 2017-18*. [47]
- Roy, R. and N. Braathen (2017), “The Rising Cost of Ambient Air Pollution thus far in the 21st Century: Results from the BRIICS and the OECD Countries”, *OECD Environment Working Papers*, No. 124, OECD Publishing, Paris, <https://dx.doi.org/10.1787/d1b2b844-en>. [64]
- SALEK (2016), *The Icelandic labour market, report commissioned by the SALEK group*. [100]
- Sharma, D. (2015), “India still struggles with rural doctor shortages”, *The Lancet*, Vol. 386/10011, pp. 2381-2382. [36]
- Subramanian, A. (2018), *Of Counsel -- the challenges of the Modi-Jaitley Economy*, Penguin. [19]
- World Bank (2019), *Beyond the gap-How countries can afford the infrastructure they need while protecting the planet*. [71]
- World Bank (2018), *Doing Business 2019*, The World Bank, <http://dx.doi.org/10.1596/978-1-4648-1326-9>. [48]
- World Bank (2016), *World Bank Indicators*. [98]
- World Economic Forum (2019), *The Global Competitiveness Report -- 2019*. [27]

- World Health Organization (2018), *Air pollution and child health. Prescribing clean air. Summary.*, World Health Organization, Geneva. [65]
- World Resources Institute (2019), *Thermal Power and Hydropower Plant Locations and Water Stress Level* | World Resources Institute, <https://www.wri.org/resources/maps/thermal-power-and-hydropower-plant-locations-and-water-stress-level> (accessed on 17 April 2019). [73]
- WorldBank (2019), *World Governance Indicators*, <http://www.govindicators.org>. [97]