

Strategy

December 14, 2025

Growth beyond transfers

We hope the government can implement follow-up reforms in a few areas to move India's growth trajectory to a higher level. The recent interest rate and tax rate cuts may provide a short-term consumption boost to the economy, but structural reforms will be critical to push India's growth to a higher level and leverage India's favorable demographics.

Self-sustaining cycle critical

We believe that the central government and state governments may have to follow the recent fiscal stimulus and labor reforms through further structural reforms (administrative, fiscal, judicial/legal, policy) to put India's growth trajectory on a higher and sustainable path. Fiscal transfers from the government to households in the form of income tax rates and GST rates cuts can provide a short-term boost to consumption at best.

Demographics can help to a point only

We expect India's favorable demographics, with (1) 96 mn people reaching the working-age population between FY2025 and FY2035 and (2) the share of working-age population in total population rising from 68% in FY2025 to 69% FY2035, to provide the human capital for the next phase of India's growth. However, it would be crucial for India to (1) generate a sufficient number of quality jobs and (2) invest in human and physical capital for higher productivity (value-add/capita or GDP/capita).

Supply-side reforms key to higher investment rate and jobs

We stress the importance of further supply-side reforms for a step-up in India's investment rate, which is imperative for India to create a sufficient number of jobs to match the sharp increase in potential workers over the next decade or so. We do not see most basic factors of production (capital, labor, land) as impediments for investment. India's overall investment rate has declined to 31.4% in FY2024 from a high of 39% in FY2012.

Greater role of states and private sector critical going forward

We believe more aggressive investments by (1) states in infrastructure and (2) the private sector in manufacturing would be critical for a higher investment rate. We see a large investment opportunity for states in urban infrastructure (housing, transportation and water), but states face financial and institutional challenges to pursue the opportunity more aggressively. In our view, a higher share of government finances with greater accountability will be critical for states to invest. We see similar large opportunities for the private sector for investment in manufacturing, but (1) companies may need to accept lower RoICs given higher investment in capex and R&D to be competitive versus global players, and/or (2) the government may need to provide a judicious mix of 'incentives' and 'disincentives' for companies to invest.

Key estimates summary

	2026E	2027E	2028E
Nifty estimates			
Earnings growth (%)	7.7	17.9	14.7
Nifty EPS (Rs)	1,073	1,268	1,454
Nifty P/E (X)	24.2	20.5	17.9
Macro data			
Real GDP (%)	7.8	6.5	6.5
Avg CPI inflation (%)	2.1	4.1	4.0

Source: Company data, Kotak Institutional Equities estimates

Quick Numbers

India would require around 125 mn jobs over the next 10 years assuming (1) 60% LFPR for incremental working-age population and (2) 25% of extant agriculture workers moving to non-agriculture jobs

India's GFCF/GDP at around 30% in the past few years from a peak of 33-34% in FY2012-13 with private sector GFCF/GDP at around 10% in FY2024 from a peak of almost 12% in FY2013-16

Recent GST and income tax cuts amount to around 0.9% of GDP

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Overview: Growth beyond transfers

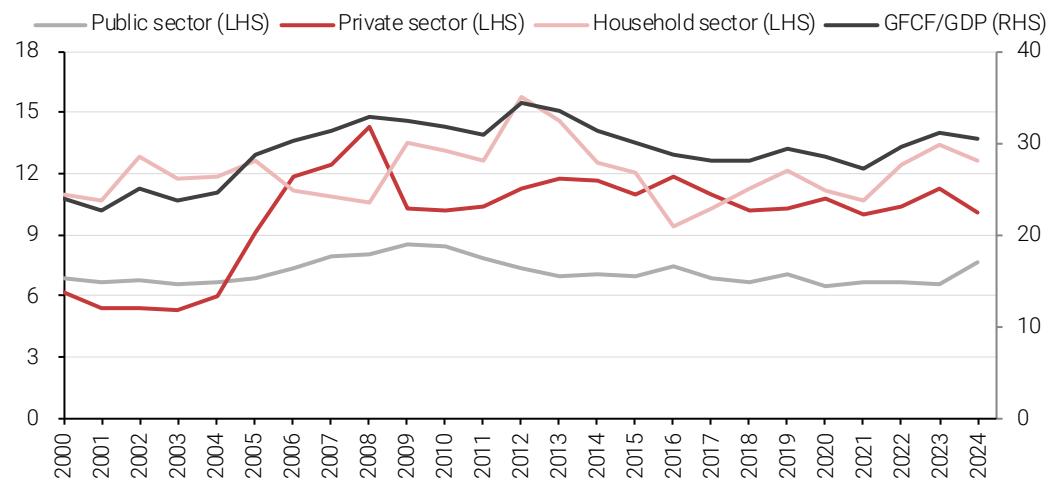
We hope the central and state governments can implement the next level of structural reforms that can push India's growth rate to a higher level. A higher investment rate would be critical for more jobs and higher income growth. In our view, state governments and the private sector both have meaningful scope to increase their investment rates. The recent cuts in income tax and GST rates will support consumption over the next few quarters.

Demographics, reforms, investment

We believe India's investment rate has to be substantially higher versus the current 30% (as % of GDP; see Exhibit 1 for investment rate and breakdown of the same over the past several years) for it to (1) grow at a higher GDP growth rate and (2) create adequate number of jobs for India's incremental workforce and improve the quality of jobs for extant workers in agriculture and informal services. India's investment rate has languished around 30% for the past several years with private sector investment rate being stuck in the 10-12% range.

India's investment rate has been around 30% over the last decade

Exhibit 1: Private sector gross fixed capital formation as a % of GDP, March fiscal year-ends, 2000-24 (%)



Notes:

(a) Data from 2012 onwards is based on new GDP series.

Source: RBI, Kotak Institutional Equities

We discuss a few areas and related reforms that can increase India's investment rate. We believe (1) states can increase spending on urban infrastructure (housing, transportation and water) with greater fiscal support from the central government; urban infrastructure is a vast opportunity and will also increase overall productivity meaningfully and (2) private sector can increase spending on manufacturing through a mix of incentives (linked to jobs or investment) and dis-incentives (lower tariff and non-tariff barriers in general over a period of time to ensure higher competitiveness for domestic manufacturers).

We believe the government can implement several follow-on reforms to accelerate investment and GDP growth rates. It had implemented several supply-side reforms over FY2015-20 (see Exhibit 2). However, we see a change in government priorities in the past few years with the Covid-19 pandemic perhaps forcing it to prioritize consumption over investment (see Exhibit 3 for various subsidy and tax benefits to households over FY2021-26). The focus on consumption has continued with the government implementing (1) income tax cuts in the FY2026 budget and (2) GST rate cuts in September 2025.



Indian government has carried out a number of supply-side reforms, most of which have achieved critical mass

Exhibit 2: Potential reforms and schedule

	Action	Schedule	Remarks
(A) Fiscal			
1	Auto fuel subsidies; LPG subsidy curtailment; kerosene and LPG monthly price increases	Limited progress	Government has reinstated price controls on retail prices of diesel and gasoline. Subsidies on LPG and kerosene have continued
2	Direct benefit transfer (DBT) schemes	Meaningful progress	The government implemented direct cash transfer subsidy for LPG from January 1, 2015 and for kerosene from April 1, 2016. Food and fertilizer subsidies go directly to FCI and companies
3	Divestment program, privatization and improved management of PSUs	Work-in-progress	The government consolidated 27 PSU banks into 12 PSU banks over FY2017-19 to improve their market position. It also reduced its stake in several CPSEs by selling to ETFs as well as through mergers (such as HPCL being acquired by ONGC). It had announced privatization of a few CPSEs but privatized Air India only so far. The New Public Sector Enterprise Policy of February 2021 has categorized several sectors as strategic, with the government to retain control of one or more PSUs in strategic sectors
4	Electricity subsidies, tariff increases	Work-in-progress	This is outside the central government's domain as power distribution is a state subject. However, several states have increased power tariffs over the past 3-4 years. Further power tariff increases will reduce states' subsidies and India's consolidated fiscal deficit
5	GST implementation	Complete	GST implemented on July 1, 2017. GST will likely result in higher tax-to-GDP ratio in the long term and reduce India's consolidated fiscal deficit
(B) Investment			
1	Approvals	Work-in-progress	This is an executive area and thus, implementation is more important. Center and states are working on single window clearing mechanism (most states on-board)
2	Auction of coal and other mineral ore blocks; private sector commercial mining allowed in the case of coal	Largely complete	The amendment to Coal Mines Act and Mines and Minerals (Development and Regulation) Act have enabled the central and state governments to allocate coal and other mineral ore blocks through transparent auctions
3	Electricity distribution	Work-in-progress	Government has introduced the Electricity (Amendment) Bill, 2025 to (1) ensure better enforceability of PPAs, (2) implement DBT of subsidies, (3) have a renewable energy policy, (4) faster adoption of changes in tariffs, etc.
4	Incentives	Meaningful progress	The government has announced Rs2.6 tn worth of incentives over five years to promote domestic manufacturing under Production Linked Incentive scheme (PLI)
5	Labor reforms	Largely complete	Central government has notified four labor codes to simplify earlier labor laws, easing compliance burden on firms and allow them flexibility on hiring and retrenchment of workers. Most states are aligned in bulk of the labor codes with the center.
6	Land reforms	Work-in-progress	Government let the Land Acquisition Ordinance lapse in August 2015 due to political opposition to its proposed amendments to the LARR Act, 2013
7	Market pricing of energy (oil & gas)	Limited progress	The government has (1) withdrawn pricing freedom on automobile fuels (retail diesel and gasoline) for the oil marketing companies, (2) imposed additional tax on crude oil, which limits pricing freedom for upstream oil & gas companies and (3) linked natural prices to crude oil prices with ceiling and floor, which limits pricing freedom for upstream oil & gas companies
8	Taxation	Meaningful progress	The government has implemented simpler taxation systems for both direct and indirect taxes. In the case of direct taxes, it reduced the corporate tax rate to 22% (effective from FY2020) from 30% subject to companies not availing exemptions. In the case of indirect taxes, GST has resulted in a simpler and transparent system; it rationalized GST rates on basic consumption items in September 2025
(C) Banking sector			
1	Financial inclusion	Largely complete	The government's 'Jan Dhan Yojna' was started in August 2014 with a target of financial inclusion for all. Over 500 mn new bank accounts have been opened under this scheme. The new accounts are already being used for saving and payments. The accounts can be used for DBT-related cash transfers
2	Restructuring of PSU banks	Largely complete	The government has completed the merger of (1) BOB, DBNK and VJBK, (2) CBK and SNDB, (3) PNB, OBC and UNTDB, (4) UNBK, ANDB and CRPBK and (5) INBK and ALBK. It has infused significant capital in the PSU banks
3	NPL situation	Largely complete	The parliament passed the insolvency and bankruptcy code (IBC) bill on May 11, 2016. Most large cases admitted to National Company Law Tribunal (NCLT) courts under IBC have seen satisfactory outcomes within reasonable time limits
4	Reduction in SLR over a period of time	Largely complete	SLR has been reduced and maintained at 18% from 25% in late-2000s; SLR used as part of LCR per Basel III guidelines
(D) Governance			
1	Administrative reforms	Work-in-progress	The government has focused on empowering bureaucracy and streamlining decision-making
2	Corruption/black money	Meaningful progress	The Undisclosed Foreign Income and Asset (Imposition of Tax) Act, 2015 implemented from September 2015. Government progressively reducing disclosure limit on high-value transactions. Indian government cancelled high-denomination notes from circulation from November 9, 2016 and replaced them with new ones
3	Judiciary reforms	No progress	New system for appointment of judges to the Supreme Court and High Courts; bill passed in the parliament but the new system has been rejected by the Supreme Court
4	Creation of new regulators, sector super-regulators	No progress	All regulators related to communication, energy and finance can come under a sector super-regulator given large overlaps across related sectors

Source: Kotak Institutional Equities estimates

Central government has been providing decent boost to consumption

Exhibit 3: Key measures to support consumption by central government and fiscal cost, March fiscal year-ends, 2021-26 (Rs bn)

	2021	2022	2023	2024	2025P	2026E
Food subsidy	5,413	2,890	2,728	2,118	1,999	2,034
Fertilizer subsidy	1,279	1,538	2,513	1,883	1,737	1,679
National Rural Employment Guarantee Program (NREGS)	1,112	985	908	892	860	860
Income support scheme for farmers (PM-KISAN)	610	668	583	614	635	635
Income tax rate cuts						971
GST rate cuts						1,118
Total	8,414	6,080	6,732	5,507	5,231	7,298
Total (% of GDP)	4.2	2.6	2.5	1.8	1.6	2.1

Notes:

(a) We have taken the annualized impact of center's share of estimated GST benefit.

Source: Union budget, PIB, Kotak Institutional Equities estimates

We would clarify that the government has continued its support for domestic manufacturing through its production-linked incentive (PLI) schemes for various sectors. However, we would note that the incentives under various PLI schemes are still relatively small (see Exhibit 4) compared to the income tax and GST benefits to households (see Exhibits 5-6). Lastly, we would note that the fiscal stimulus from income tax and GST rate cuts (around 0.75% of GDP) may provide a short-term boost to consumption but may not be sufficient to put India on a path of higher growth without a strong investment cycle. The next level of reforms will be critical for India to achieve the same.

Government had introduced production-linked incentive schemes, to incentivize domestic manufacturing in key sectors

Exhibit 4: Financial outlays on various PLI schemes

Sectors	Sub-sectors	Financial outlay (Rs bn)
Advance chemistry cell (ACC) battery	ACC battery	181
Automobile and automobile components	Clean energy vehicles, clean energy related components, advanced auto components	259
Electronic/technology products	Semiconductor fab, Display fab, Laptop/ notebooks, Servers, IoT Devices, Specified computer hardware	50
Food processing	Ready to Eat/Ready to Cook (RTE/ RTC), Marine products, Fruits & Vegetables, Honey, Desi Ghee, Mozzarella Cheese, Organic eggs and poultry meat	109
Pharmaceuticals	Category1: Biopharmaceuticals, Complex generic drugs, Patented drugs or drugs nearing patent expiry, Cell based or gene therapy products, Orphan drugs, Special empty capsules, Complex excipients Category 2: APIs/KSMS/DIs Category 3: Repurposed drugs, Auto-immune drugs, Anti-cancer drugs, Anti-diabetic drugs, Anti-infective drugs, Cardiovascular drugs, Psychotropic drugs and Anti-Retroviral drugs, In-vitro diagnostic devices (IVDs), Phytopharmaceuticals	150
Semi-conductor	Semiconductors and display manufacturing ecosystem including electronic components, sub-assemblies, and finished goods	760
Solar PV modules	Solar PV	240
Steel products	Coated steel, High strength steel, Steel rail, Alloy steel bars & rods	63
Telecom and networking products	Core transmission equipment, 4G/5G next generation radio access network and wireless equipment, Access & Customer Premises Equipment (CPE), Internet of Things (IoT) access devices and other wireless equipment, Enterprise equipment: switches, routers	122
Textiles	Man-made fibers, Technical textiles	107
White goods	Air-conditioners, LED	62
Umbrella PLI scheme		2,104
Electronics components 2.0	Display module sub-assembly, camera module sub-assembly, non-SMD passive components, electro-mechanicals, multi-layer PCB, Li-ion Cells for digital application, enclosures for mobile, IT hardware products, HDI/MSAP/flexible PCB	229
Medical devices		34
Mobile phones/electronic components		410
Pharmaceuticals (KSMS/DIs/APIs)		69
Total PLI schemes		2,846

Source: PIB, Kotak Institutional Equities

We estimate 20 mn tax filers to receive benefits from change in personal tax slabs

Exhibit 5: Estimate of benefits of income tax changes for individuals, March fiscal year-end, 2026

Tax slab	Average tax payable	Average benefit	Estimated filers	Estimated tax forgone
(Rs mn)	(Rs)	(Rs)	(mn)	(Rs bn)
Below 0.7	0	0	58	—
0.7-0.8	0	15,000	3	45
0.8-1	0	40,000	5	214
1-1.2	0	65,000	2	132
1.2-1.6	90,000	65,000	3	224
1.6-2	160,000	70,000	2	108
2-2.4	250,000	100,000	1	75
2.4-5	690,000	110,000	2	174
Total			18	971

Notes:

- (a) We project total 2026 salaried income tax filers, based on growth rates of FY2023-24.
- (b) We assume uniform distribution of filers among income tax slabs.
- (c) We assume that 80% of filers are in the new tax regime.
- (d) We have not assumed the impacts of standard deduction in our calculations.

Source: Income tax department, Union budget, Kotak Institutional Equities estimates

We estimate around 0.6% of GDP benefit for households from GST rate rationalization

Exhibit 6: Benefit to households from GST rationalization, March fiscal year-end, 2024 (Rs bn)

	2024
Net fiscal benefit from GST rate changes	480
Compensation cess elimination	1,414
Total benefit for households (Rs bn)	1,894
Total benefit for households (% of GDP)	0.6

Notes:

- (a) We assume complete pass-through of GST rate rationalization to households.
- (b) Rs480 bn benefit from GST rate changes is based on government estimate of GST impact on FY2024 basis.
- (c) We assume the revenue impact does not include compensation cess removal since it was fiscal neutral.
- (d) We do not assume impact of demand elasticity in this calculation.

Source: Ministry of Finance, media reports, Kotak Institutional Equities estimates

We discuss the relevant issues pertaining to jobs, investment and reforms below and in more detail in the next three sections.

► **Demographics—new jobs to match new and ‘old’ workers.** We estimate India would need to create 126 mn jobs over FY2025-35 assuming (1) 50% of incremental individuals in the working-age population would want to join the workforce and (2) 25% of the extant workforce in agriculture would want to move out of agriculture to formal jobs in manufacturing and services. Exhibit 7 shows the hypothetical number of new workers under various scenarios, based on various percentages of (1) incremental individuals in the working-age population seeking jobs and (2) extant workers in agriculture seeking jobs outside of agriculture.

India will need to create 120-140 mn new jobs over the next decade

Exhibit 7: New jobs required in India over FY2024-34 (mn)

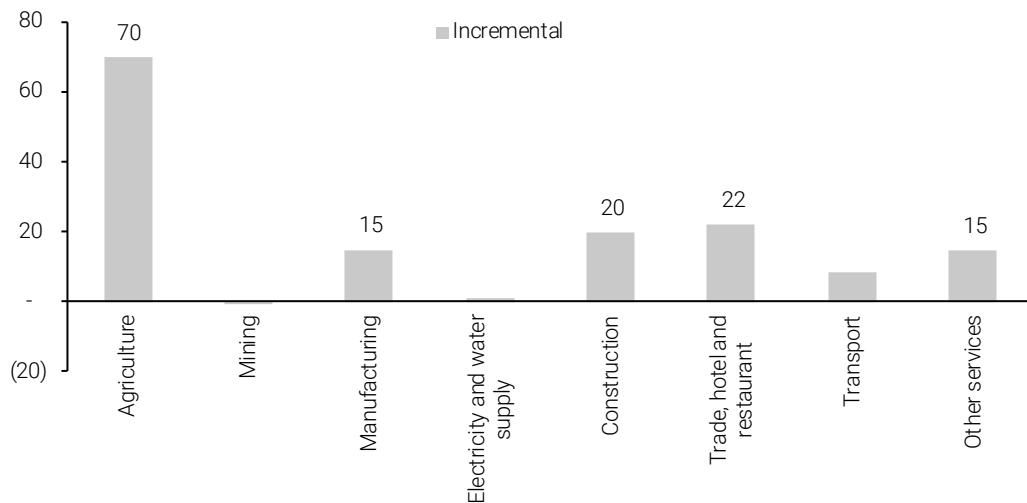
	LFPR of incremental workforce (%)		
	50	60	70
Incremental working age population	96	96	96
New jobs from flow of workers	48	57	67
Estimated stock of agriculture	274	274	274
New jobs to shift 25% of agriculture workers	69	69	69
Total non-farm jobs required	116	126	136

Source: PLFS, Kotak Institutional Equities estimates

We note that India would need to create sufficient number of jobs for both the 'flow' of new workers and 'stock' of 'old' workers. On the 'flow' part, we expect India to add 57 mn people to the working-age population over FY2025-35, which compares with 80 mn over FY2015-25. On the 'stock' part, we note that about half of India's current workforce is in agriculture. We would assume that a large part of the workforce is in agriculture entirely due to lack of jobs elsewhere. In fact, we would note that agriculture alone has accounted for 47% of new workers, 61% of rural workers and 80% of rural female workers in the past six years (see Exhibits 8-10).

Agriculture accounted for 47% of the incremental jobs over 2018-24 for India

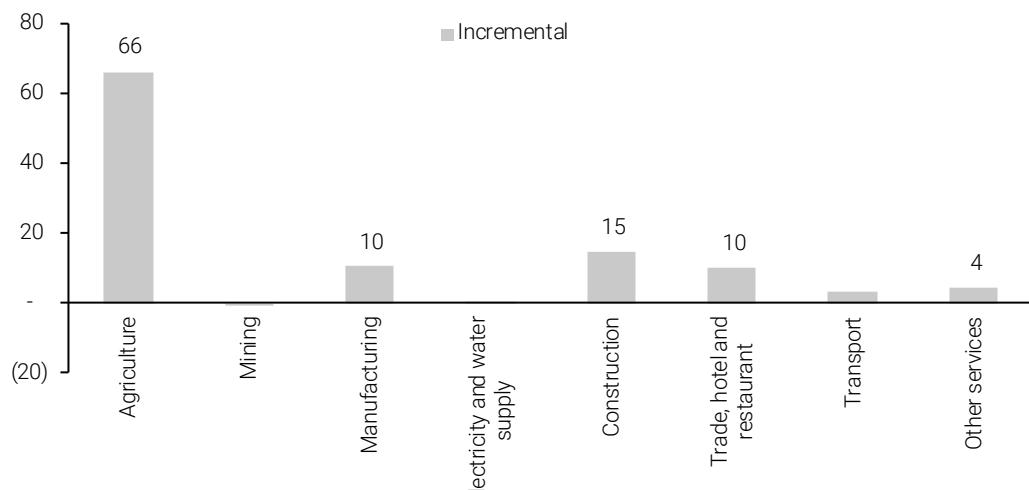
Exhibit 8: Estimated incremental jobs in key sectors, June year-ends, 2018-24E (mn)



Source: PLFS, Kotak Institutional Equities

Agriculture accounted for 61% of the incremental jobs over 2018-24 for rural India

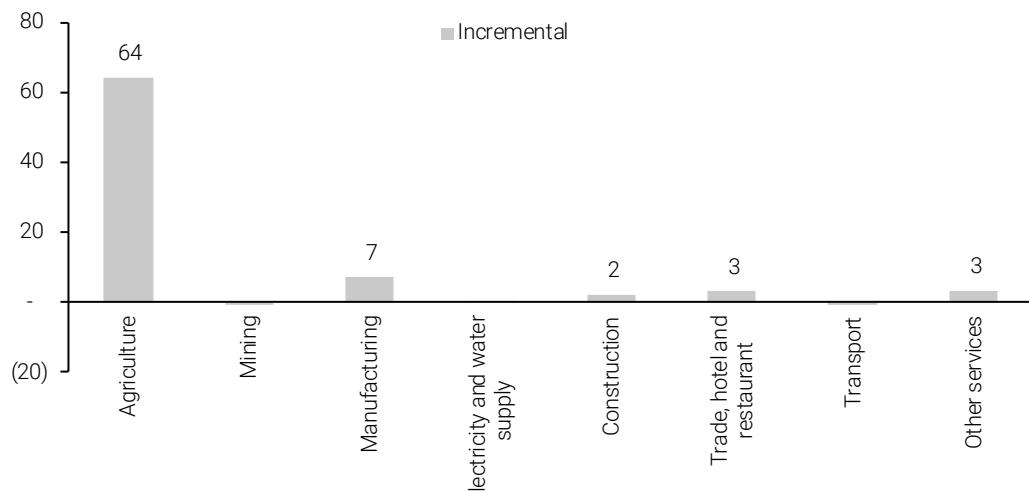
Exhibit 9: Estimated incremental rural jobs in key sectors, June year-ends, 2018-24E (mn)



Source: PLFS, Kotak Institutional Equities

Agriculture accounted for 80% of the incremental jobs over 2018-24 for rural women

Exhibit 10: Estimated incremental rural women in key sectors, June year-ends, 2018-24E (mn)



Source: PLFS, Kotak Institutional Equities

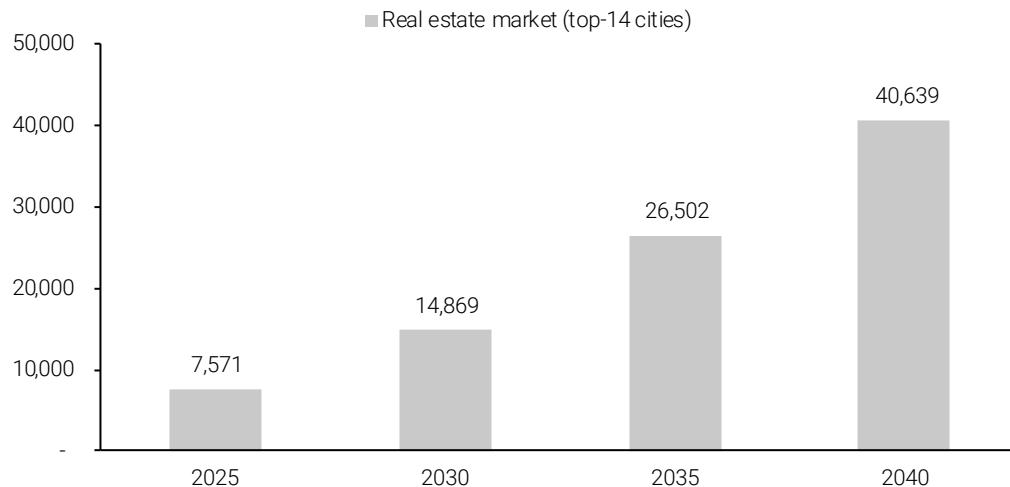
► **Reforms.** In our view, the next stage of reforms should focus on 'soft' factors that can further increase the ease of doing business for companies. We see administrative and judicial & legal reforms as the next areas of reforms. In our view, administrative reforms, especially at the level of states, will be important for companies, both domestic and foreign, to invest more aggressively. We see meaningful scope for improvement in the approval process of state government agencies for new investment or extant operations. A deemed approval system or a single-window clearance system in states can substantially improve the approval process for companies, resulting in expedited investments and lower project costs.

The central government has already implemented meaningful reforms in most factors of production. We do not see availability of capital, resources and land as being impediments to investment for companies and states have made decent progress in labor reforms, with many states implementing the model labor laws passed by the government in CY2019-20.

► **Greater role of states and the private sector.** We believe both state governments and the private sector would have to increase their investment rates for higher GDP growth rates and jobs. States can increase investment in urban infrastructure, which will result in a significant improvement in productivity. The private sector can increase investment in manufacturing, which can create a meaningful number of jobs. We note that both these areas offer huge investment opportunities given (1) the poor quality of urban infrastructure in most Indian cities and (2) large imports of manufactured items. We compute that housing in the top-14 cities alone can be a cumulative US\$3.7 tn opportunity on current USDINR (see Exhibit 11) over the next 15 years.

We expect urban real estate market to grow by 5X in value terms over the next 15 years

Exhibit 11: Value of annual residential real estate market in top-14 cities, March fiscal year-ends, 2025-40E (Rs bn)



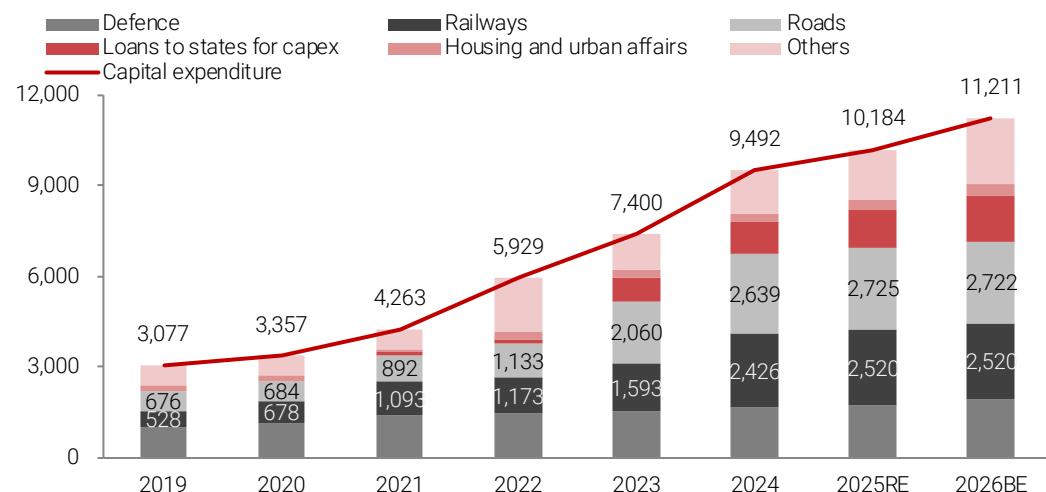
Source: PropEquity, Kotak Institutional Equities estimates

We note that the central government has laid the foundations of an integrated and strong economy through implementation of scalable and standard financial (UPI unified payment interface), physical (inter-state highways, dedicated railway freight corridors) and taxation (GST) networks that provide electronic, financial and physical connectivity to almost all the economic agents (companies, households, government) in the country. These integrated networks provide the states and the private sector the basic platforms to build on.

From a capex perspective, the central government had stepped up investment in the areas of physical connectivity (railways and roadways) significantly over FY2020-26BE (see Exhibit 12). The central government's capex in these areas has started to plateau after a sharp jump over FY2020-24. As discussed in our March 29 report titled *Investment cycle: Wheels turning slower*, the central government may have lower opportunities to spend in its traditional areas of railways and roadways (defense expenditure will likely continue at a strong pace), which would make it imperative for states and the private sector to step in.

Marked slowdown in central government capex in the past two years

Exhibit 12: Trend in central government budgetary capital expenditure, March fiscal year-ends, 2019-26BE (Rs bn)



Source: Union Budgets, Kotak Institutional Equities

- **Greater fiscal space to states.** In our view, the central government can provide greater fiscal support to states to help fund their capex requirements. We see two options—(1) higher share of states in the consolidated fund of India over time and (2) higher loans for capex to states. We note that most state governments run fairly high fiscal deficits (% of GSDP) and have high debt, which constrains their ability to spend on infrastructure. We believe that the central government has several means to increase revenues to manage the consolidated fiscal deficit with disinvestment of stakes in PSUs or privatization of PSU assets as one feasible option.

As of now, the government has focused on providing loans to states under the SASCI (Special Assistance to States for Capital Investment) scheme. It has provided for Rs1.5 tn of loans for capex to states in the FY2026 union budget versus Rs1.51 tn in FY2025. The Sixteenth Finance Commission is due to submit its recommendations on the sharing of tax proceeds between the center and states for the next five years starting from April 1, 2026.

In our view, the government can easily increase the allocation of loans for capex to states through (1) higher disinvestment revenues and (2) greater transfer of disinvestment revenues to states for specific projects. A clear disinvestment plan with defined objectives of asset creation for rural and urban infrastructure is unlikely to meet with political opposition.

- **Right mix of incentives and disincentives for the private sector.** We believe the government can change the nature of incentives (corporate tax and PLI incentives) to encourage greater investment by the private sector. In the case of incentives, these could include (1) higher tax deduction for new assets and R&D and (2) PLI incentives for labor-intensive industries with the number of jobs as another criterion apart from investment or revenues. On the disincentives part, it can look at measures to increase competition across sectors to make Indian companies more competitive versus their global counterparts.

We have discussed the specific challenges, opportunities and threats in specific sectors and recommended certain measures for each of the sectors in the last chapter of the report. However, a few factors are common across industries for the private sector to scale up—(1) investment in innovation and technology to achieve global technological parity versus the current practice of import of technology for manufacturing for the domestic market, (2) integration into upstream manufacturing to reduce costs to achieve global competitiveness and reduce strategic dependencies on imports of several critical input items across industries, (3) combination of academia-government-industry to achieve well-defined national objectives and (4) increase in focus on long-term strategic imperatives and reduction in focus on short-term profit and profitability 'targets' expected by the market.

The role of capital markets

In our view, the role of capital markets and investors may also need a change if the private sector were to focus largely on its longer-term strategic objectives instead of being forced to 'comply' with short-term demands of the Street with respect to quarterly revenue and profit targets. We believe companies and investors may have to realign their investment approach with respect to investment in new businesses for companies and investment in companies (stocks) for investors.

It seems the market is overly focused on financial returns and cash flows of companies (apart from growth in EPS) while deciding on the appropriate multiples for stocks. Companies with high financial returns and free cash flows get premium multiples in the market apart from high-growth companies. This approach may be correct from a technical (DCF) perspective given the salience of free cash flows and valuation growth in cash flows in standard valuation models. However, it may have lower relevance in an age of large technological disruptions and threats. It is obvious that companies that are underinvesting in the business will be more susceptible to market and technological changes even if they were to meet (or even beat) the short-term revenue and profit assumptions of the market. In our view, the investment community will probably need to figure out means to penalize such companies through lower multiples, as the implied growth assumptions in the medium-to-long term or terminal value of such businesses may be at risk.

It would also appear that a section of companies are basing their investment and strategic decisions on (1) cues from the stock market; this is true for certain private companies that seem to be weighing potential stock market reaction while deciding on investment in a new business, project or technology and (2) cues from majority shareholders; this is true for several PSUs that are not showing any signs of using their extant cash flows from mature (and possibly sunset) businesses to invest in emerging businesses with better long-term prospects.

We make one final, perhaps controversial, point about the recent 'low-risk' behavior of Indian companies, which may explain their lack of investment in innovation and R&D despite (1) rising technological disruptions and (2) reducing relevance and salience of several Indian companies in both domestic and global markets. In our view, Indian companies (incumbents, in particular) may be deriving too much comfort from the high multiples being accorded by the market and taking the high multiples as an endorsement of their 'low-risk' strategy. There are other reasons for the high multiples of Indian companies, with the price-agnostic investment of retail investors (purchase stocks at all price points) through DILs being the primary one currently. In our view, companies should not confuse the current high multiples for their stocks for any sort of an approval from the stock market. The market can be notoriously fickle in terms of its likes and dislikes.

2

Quality of jobs needs to match up to quantity of labor

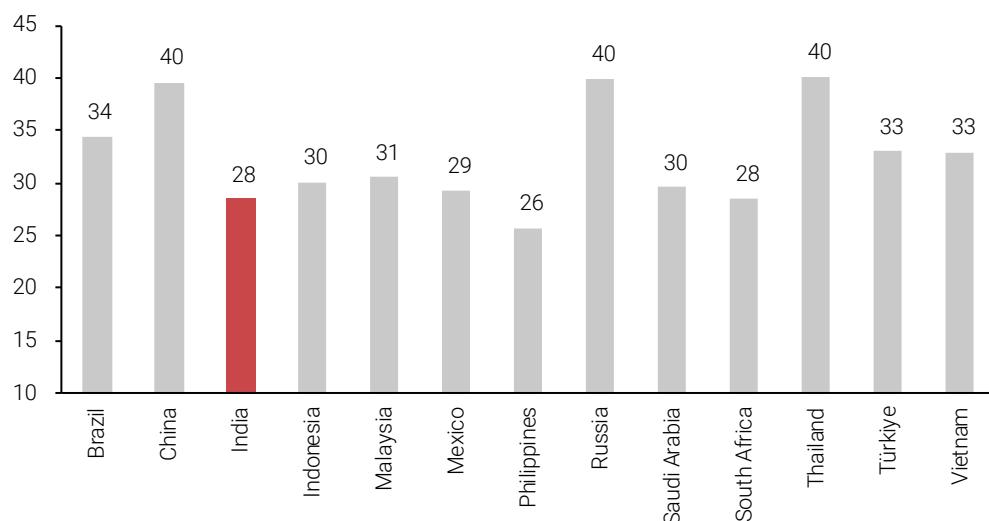
India will continue to enjoy favorable demographics over the next decade and will contribute 20% of the global incremental working age population. The translation of demographic potential into economic growth will require creation of 8-12 mn new jobs over the next decade, assuming (1) LFPR sees steady increase and (2) 3-10% of extant workforce shifts from agriculture to industry and services. Importantly, the quality of job creation will be key to determining the trajectory of GDP/capita over the long term.

India's burgeoning demographics offer the base for sustained growth

India has the best demographics among the major countries and will have favorable demographics for the next 2-3 decades based on current trends. The median age of India's population is currently 28 years and it is one of the younger economies among major EMs (see Exhibit 13). India's population is expected to increase from 1.5 bn in 2025 to 1.7 bn in 2055 even though India's fertility rates are around the replacement level and may reduce further in the future; yet India is likely to remain the most populous country in the world over the long term (see Exhibits 14-15). India's working-age population is expected to increase steadily from 0.86 bn in 2024 to 1.02 bn in 2054, with the share of working age population in overall population to likely peak at about 62% around 2040 (see Exhibits 16). As such, India's demographic dividend is likely to peak over the next 15-20 years.

India is among the youngest among major EMs

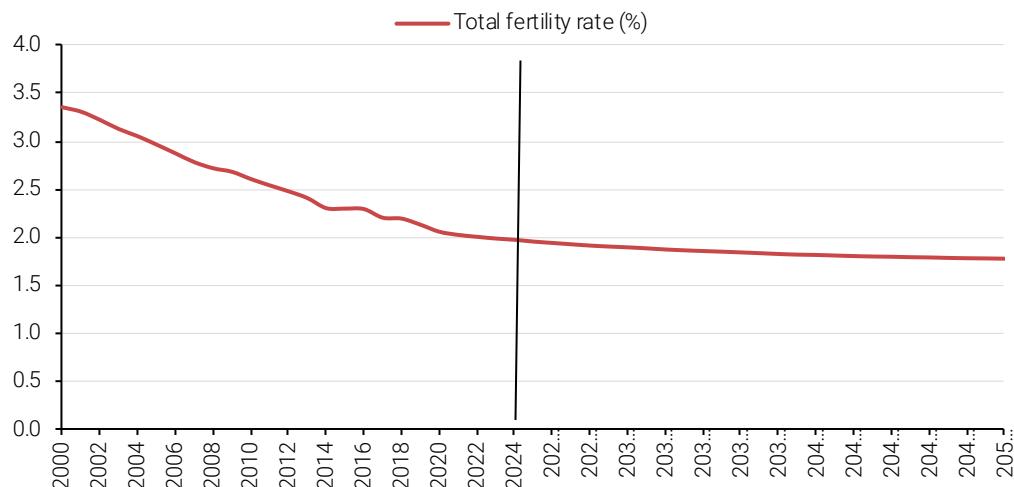
Exhibit 13: Median age in major EMs, calendar year-end, 2024 (years)



Source: UN populations division, Kotak Institutional Equities

Steady decline in India's TFR over the past 20 years; TFR is expected to stabilize over the next decade

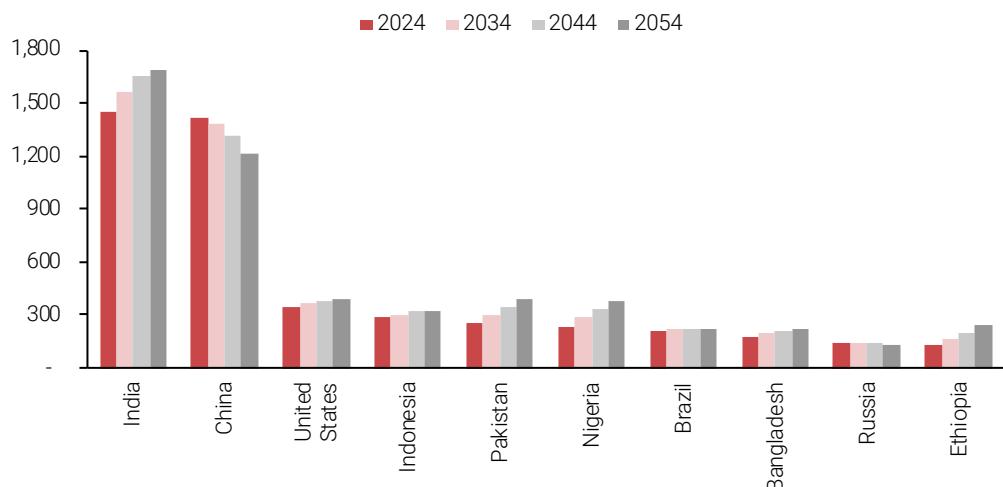
Exhibit 14: Total fertility rate of India, calendar year-ends, 2000-50E (%)



Source: UN Population Division, Kotak Institutional Equities

India is likely to remain the most populous country in the world over the long term

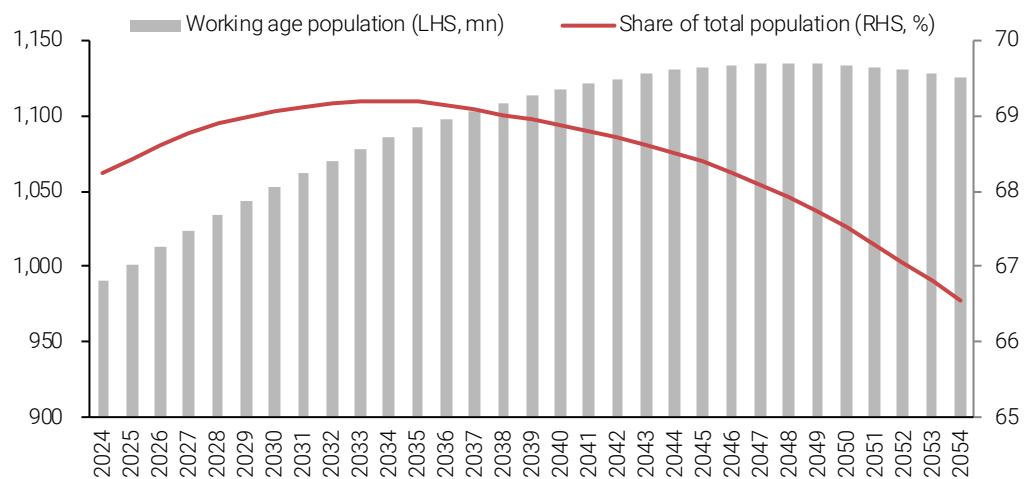
Exhibit 15: Population of major countries (sorted on most populous country as of 2024), calendar year-ends, 2024-54 (mn)



Source: UN Population Division, Kotak Institutional Equities

India's working age population is expected to grow rapidly over the next decade

Exhibit 16: Working age population of India, calendar year-ends, 2024-54E (mn)



Notes:

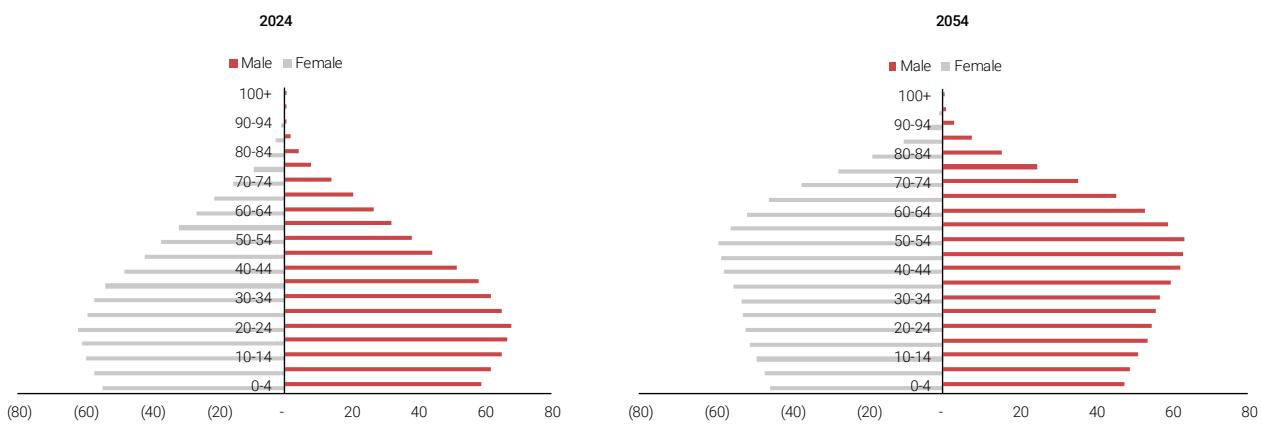
(a) We define working-age population as ages 15-64 years.

Source: UN Population Division, Kotak Institutional Equities

Exhibit 17 shows the comparative demographic profile of India in 2024 and 2054. We note that India's demographic profile is expected to remain supportive of its economic growth over a long period. The sharp increase in working-age population over the next two decades may help India become the major contributor of global workforce, as it will contribute 21% and 20% of the incremental working population of the world over 2024-34 and 2024-44 (see Exhibit 18).

Steady increase in working-age population of India over the next three decades

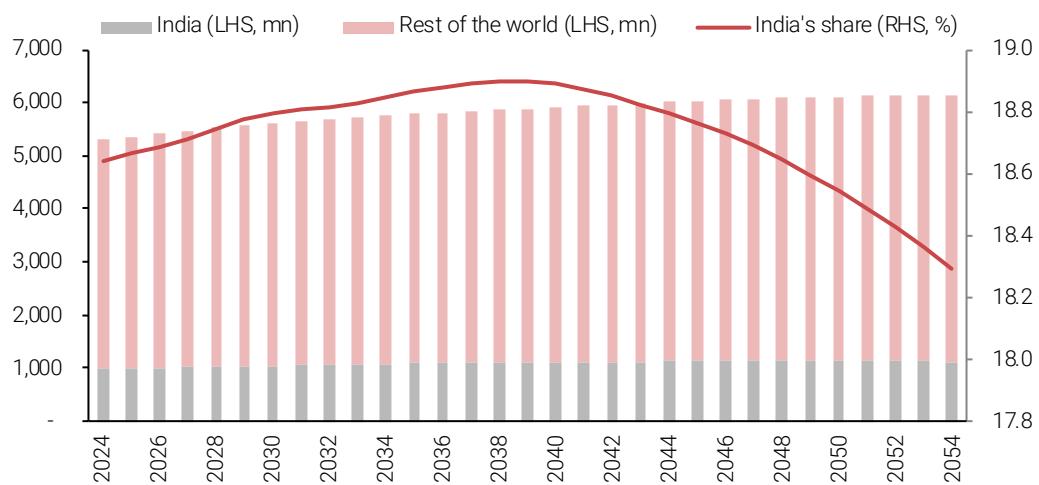
Exhibit 17: Population pyramid of India, calendar year-ends, 2024 and 2054 (mn)



Source: UN Population database, Kotak Institutional Equities

India is likely to contribute large share in global working-age population over 2024-54

Exhibit 18: Working-age population of India versus the world, calendar year-ends, 2024-54 (mn)



Notes:

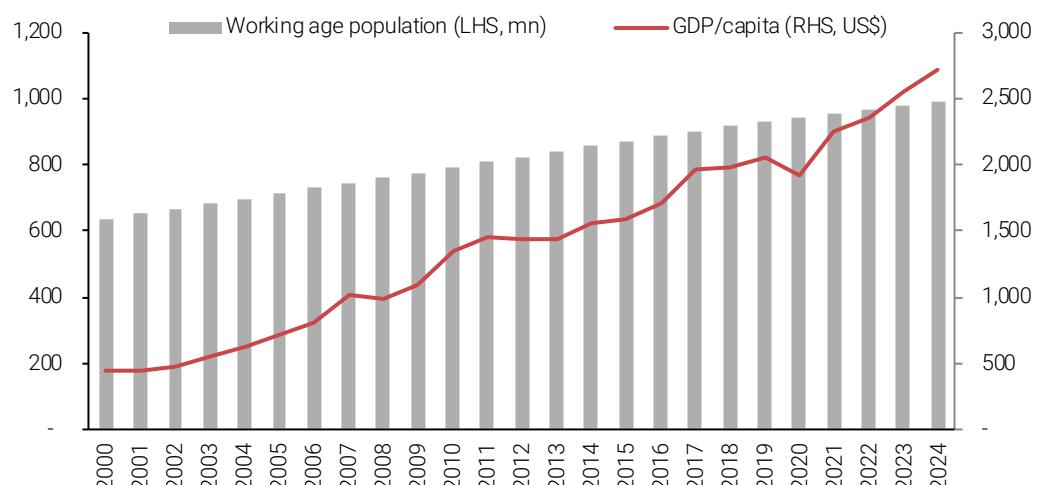
(a) We define working age population as ages 15-64 years.

Source: UN Population database, Kotak Institutional Equities

We note that India has seen decent success in tapping its favorable demographics over the past 25 years, with GDP/capita increasing at 7.9% CAGR on USD basis over this period, even as working-age population increased at 1.8% CAGR (see Exhibit 19). However, replicating the same success over the next 25 years will likely be more challenging, given the likely slowdown in growth rates during India's middle-income phase without commensurate increase in productivity, which in turn will depend (1) education, (2) skills and (3) technological advancement. Exhibit 20 shows the global experience over the past 30 years, when only a select minority of economies were able to traverse from middle-income to high-income countries. It is important to note that majority of these transitions happened through (1) integration with EU, or (2) becoming an export powerhouse.

India has seen decent success in harnessing its demographics over the past 25 years

Exhibit 19: Working-age population versus GDP/capita of India, calendar year-ends, 2000-25E



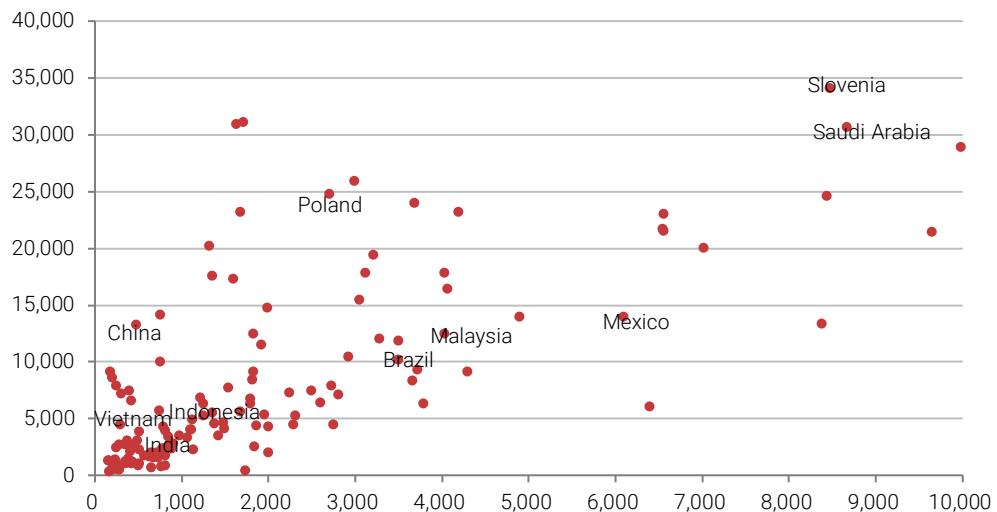
Notes:

(a) We define working-age population as ages 15-64 years.

Source: UN Population database, IMF, Kotak Institutional Equities

Only a select minority of economies reached high-income levels over the past 30 years

Exhibit 20: Movement in GDP/capita of economies below US\$10,000 in 1994 to 2024 (US\$)



Source: IMF, Kotak Institutional Equities

Both quality and quantity of job creation will determine India's growth curve

We believe that both the quality and quantity of job creation will be important to realize India's potential demographic dividend. We estimate that India will need to create 8-12 mn jobs annually over FY2025-35E for (1) 1.1 bn new workers reaching the working-age population and (2) moving a proportion of the labor force currently employed in agriculture to manufacturing and services (see Exhibit 21). The pace of high-quality job creation will also need to accelerate over this time-frame.

India will need to add 7-11 mn non-farm jobs annually over the next 30 years

Exhibit 21: Non-farm jobs required in the economy, March fiscal year-ends, 2024-54 (mn)

	2024	2034	2044	2054
Working age population	990	1,086	1,131	1,126
LFPR (%)	60	63	66	70
Jobs required in economy	595	684	746	788
Incremental jobs	89	62	42	
Slow pace of movement out of agriculture				
Share in agriculture (%)	46	43	40	35
Non-farm jobs	321	389	447	512
Incremental non-farm jobs	68	58	65	
Moderate pace of movement out of agriculture				
Share in agriculture (%)	46	40	33	25
Non-farm jobs	321	410	500	591
Incremental non-farm jobs	89	90	91	
High pace of movement out of agriculture				
Share in agriculture (%)	46	36	26	15
Non-farm jobs	321	437	551	670
Incremental non-farm jobs	116	114	119	

Notes:

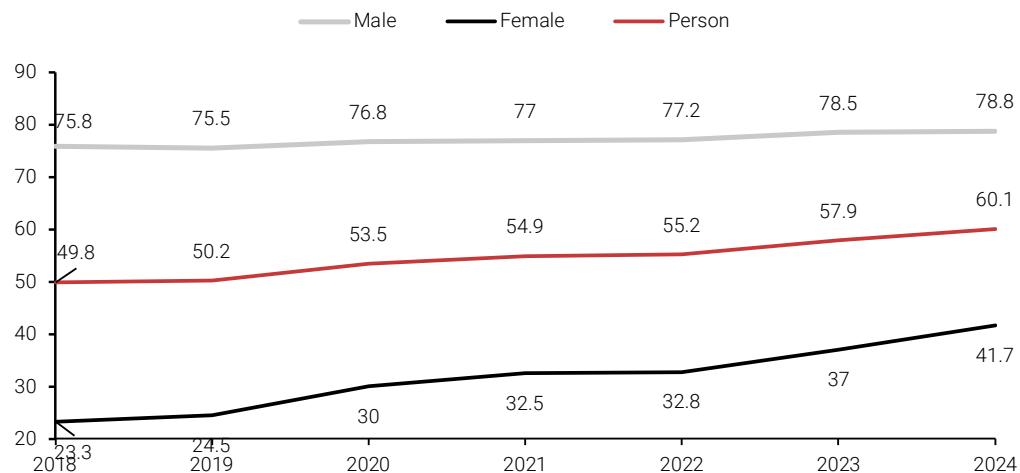
(a) We assume 2024 LFPR for working-age population same as LFPR for 15 years and above.

Source: PLFS 2024, Kotak Institutional Equities estimates

We note India has seen decent pace of labor force participation in recent years, driven by sharp increase in female participation (see Exhibit 22). However, bulk of the employment in India continues to be in (1) agriculture, (2) self-employed services (bulk of it as helper in household enterprises) and (3) informal set-ups (see Exhibits 23-25). ASUSE data suggests that India added around 11 mn informal jobs annually over 2022-24. Furthermore, a detailed analysis of PLFS data suggests that male workers found incremental employment in construction, trade and transport, while female workers did so in agriculture (see Exhibit 26).

Strong improvement in LFPR over 2018-24, driven by sharp improvement in female LFPR

Exhibit 22: Labor force participation rate for usual status (15 years and above), June year-ends, 2018-24 (%)



Source: PLFS, Kotak Institutional Equities

Employment generation was led by agriculture over 2019-24

Exhibit 23: Percentage distribution of workers in usual status (ps+ss) by broad industry division, June year-ends, 2018-24 (%)

	2018	2019	2020	2021	2022	2023	2024	Change (bps)
Agriculture	44.1	42.5	45.6	46.5	45.5	45.8	46.1	360
Mining	0.4	0.4	0.3	0.3	0.3	0.3	0.2	(20)
Manufacturing	12.1	12.1	11.2	10.9	11.6	11.4	11.4	(70)
Electricity and water supply	0.6	0.6	0.6	0.6	0.6	0.5	0.5	(10)
Construction	11.7	12.1	11.6	12.1	12.4	13.0	12.0	(10)
Trade, hotel and restaurant	12	12.6	13.2	12.2	12.1	12.1	12.2	(40)
Transport	5.9	5.9	5.6	5.4	5.6	5.4	5.6	(30)
Other services	13.2	13.8	11.9	12	11.9	11.4	11.9	(190)

Source: PLFS, Kotak Institutional Equities

Incremental jobs created in the form of helper in household enterprises

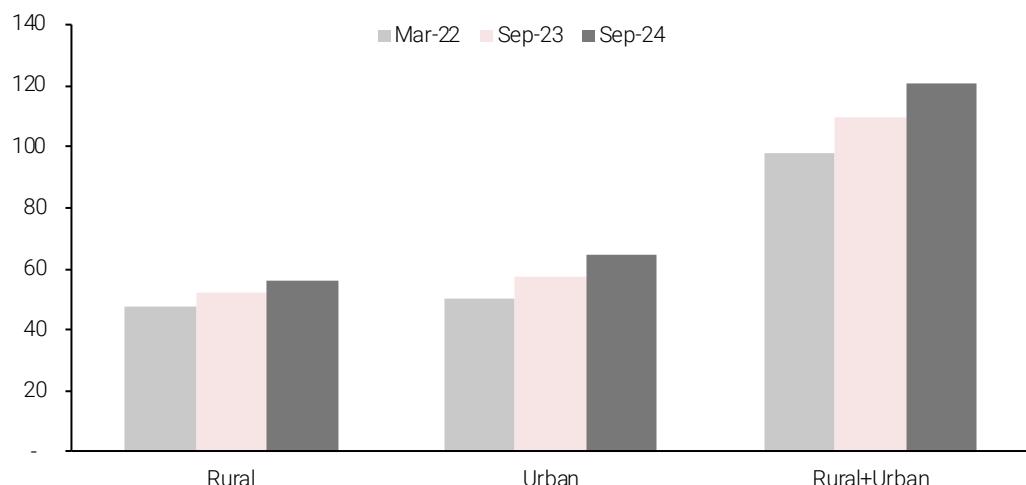
Exhibit 24: Distribution of workers in usual status by broad segments in India, June year-ends, 2018-24 (%)

	2018	2019	2020	2021	2022	2023	2024	Change (bps)
Casual labor	25	24	24	23	23	22	20	(430)
Regular wage/salaried	23	24	23	21	22	21	22	(210)
Self-employed (own account worker)	39	39	38	38	38	39	39	20
Self-employed (helper in household enterprise)	14	13	16	17	18	18	19	610

Source: PLFS, Kotak Institutional Equities

India created around 23 mn jobs over 2022-24 in unincorporated enterprises

Exhibit 25: Employees in unincorporated enterprises, 2022-24 (mn)



Source: ASUSE, Kotak Institutional Equities

Construction, trade and transport have seen rising share of male employment, while that in manufacturing and other services have declined over 2019-24

Exhibit 26: Percentage distribution of workers in usual status (ps+ss) by broad industry division in urban India, June year-ends, 2018-24 (%)

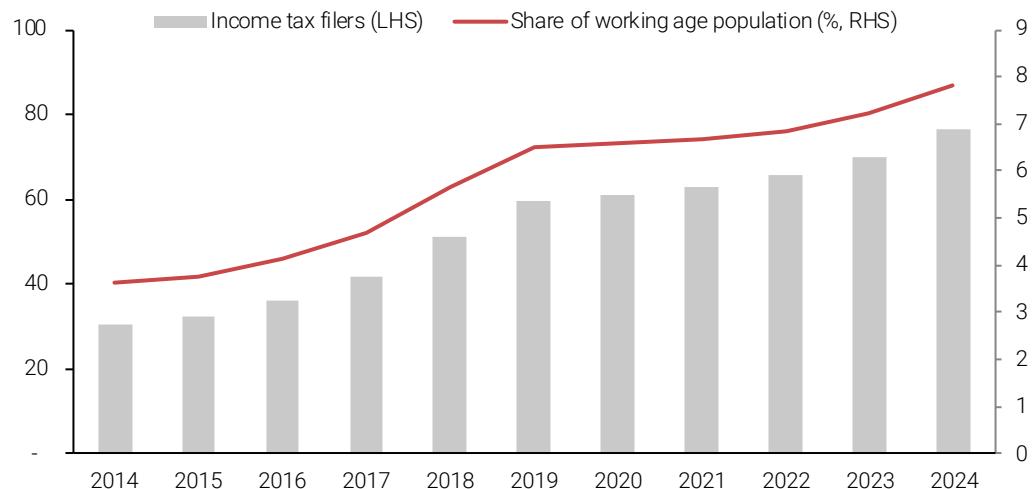
	Overall male							Overall female						
	2018	2019	2020	2021	2022	2023	2024	2018	2019	2020	2021	2022	2023	2024
Agriculture	40.2	38.3	40.0	39.8	38.1	37.1	36.3	57.0	55.3	59.9	62.2	62.9	64.3	64.4
Mining	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Manufacturing	12.0	11.8	11.3	11.1	11.8	11.6	11.4	12.5	12.8	10.9	10.6	11.2	11.1	11.6
Electricity and water suppl	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Construction	13.7	14.2	14.1	14.9	15.6	17.3	16.4	5.0	5.5	5.4	5.6	5.0	4.0	3.7
Trade, hotel and restaurar	13.7	14.5	15.3	14.8	14.7	14.8	15.5	6.3	6.7	8.0	6.1	5.9	6.2	6.1
Transport	7.4	7.5	7.4	7.3	7.5	7.4	8.1	1.1	1.0	1.0	1.0	1.2	1.2	1.1
Other services	11.7	12.4	10.9	11.0	11.2	10.7	11.3	17.8	18.2	14.4	14.4	13.6	13.0	13.0

Source: PLFS surveys, Kotak Institutional Equities

Nonetheless, India has seen a decent pace of formal and high-quality job creation, as seen from the 9.6% CAGR in individual income tax filers over FY2014-24 (see Exhibit 27), albeit the high rate of growth also reflects a low base. The income pyramid, as determined from income tax filing data over FY2013-23, suggests a steady increase in income levels (see Exhibit 28). Nonetheless, India may require further acceleration in the number of decent-to-high paying jobs, given that the share of income tax filers is still sub-10% of the current working age population.

India added 4.6 mn income tax filers annually (9.6% CAGR) over FY2014-24

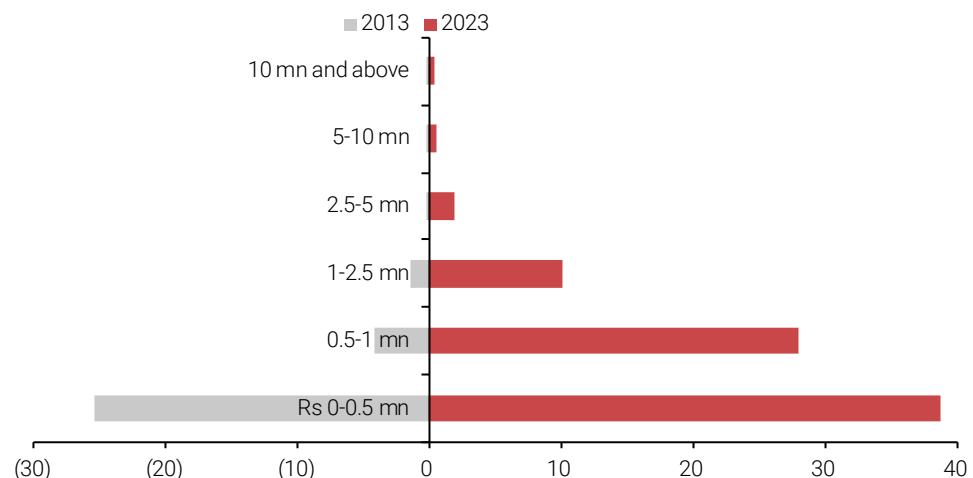
Exhibit 27: Income tax filers in India versus share of working age population, March fiscal year-ends, 2014-24 (mn)



Source: Income tax department, UN Population division, Kotak Institutional Equities

Steady increase in high-income jobs in India over the last decade

Exhibit 28: Number of individual income tax filers by income bucket (includes all income), March fiscal year-ends, 2013-23 (mn)

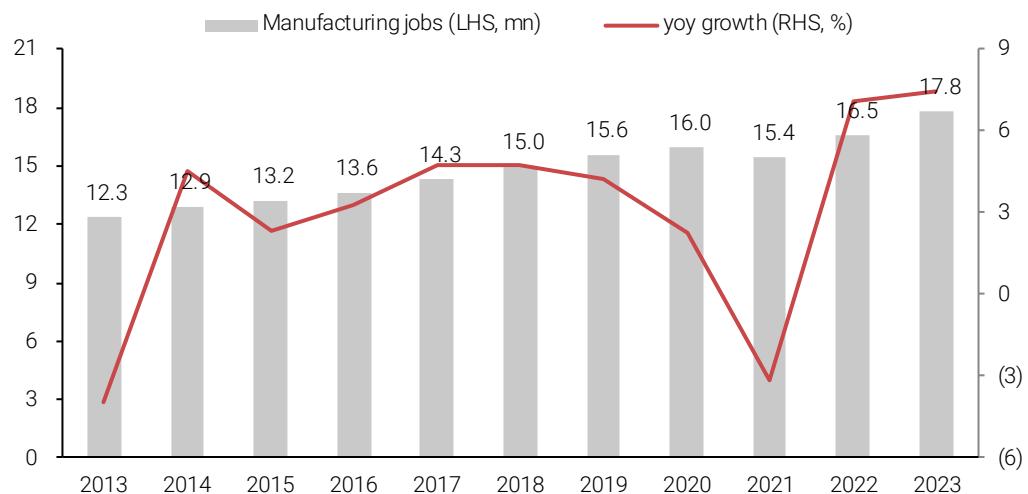


Source: Income tax department, Kotak Institutional Equities

Meanwhile, job creation in the manufacturing sector has been tepid over the past decade. Exhibits 29-30 show the trend in manufacturing GVA growth versus job creation in the manufacturing sector. Exhibit 31 shows key employment statistics for select manufacturing industries. Only certain industries such as automobiles & components, furniture, pharmaceuticals, plastic products and wiring & wiring devices reported strong employment generation over the past 15 years.

Tepid pace of manufacturing job creation in India over FY2013-23

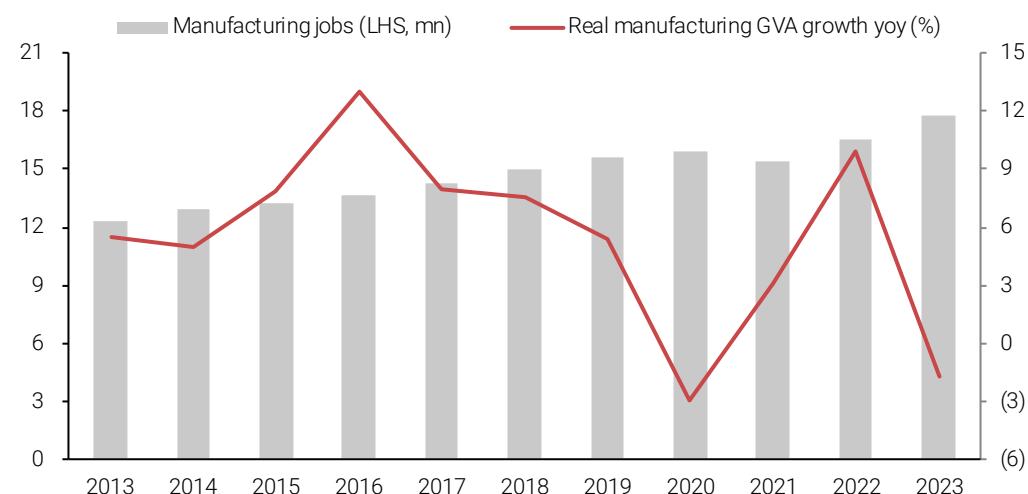
Exhibit 29: Average daily employees employed in manufacturing, March fiscal year-ends, 2013-23



Source: ASI, CEIC, Kotak Institutional Equities

Weakness in manufacturing sector resulted in limited job creation in the sector

Exhibit 30: Average daily employees employed in manufacturing versus manufacturing GVA growth, March fiscal year-ends, 2013-23



Source: ASI, CEIC, Kotak Institutional Equities

Only a select major sectors witnessed decent pace of employment creation over FY2013-23

Exhibit 31: Select manufacturing sectors by employment, March fiscal year-ends, 2013-23 (mn)

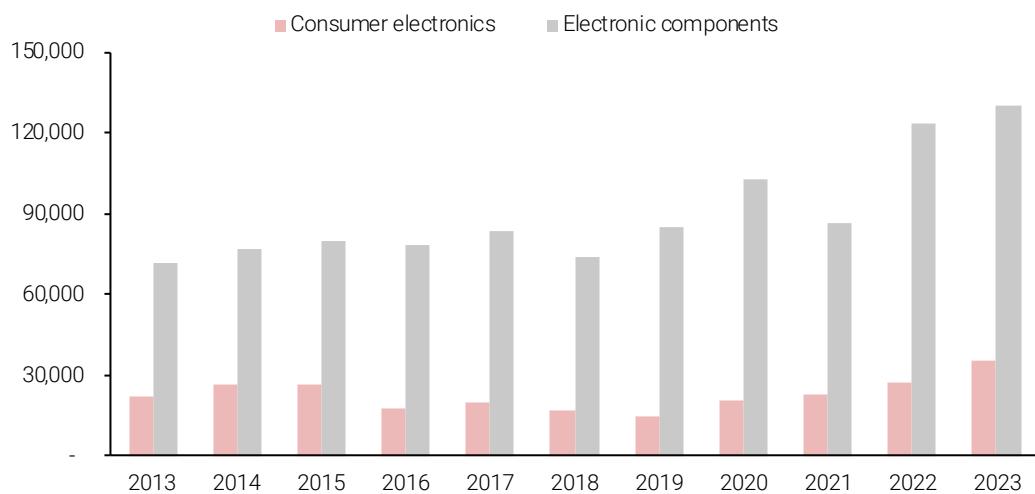
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	10-year CAGR (%)
Spinning, weaving and finishing of textile fibres	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.2	1.2	1.3	1.1
Non-metallic mineral products	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.5
Parts and accessories for motor vehicles	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	1.0	5.5
Basic iron and steel	0.7	0.7	0.7	0.6	0.6	0.7	0.8	0.8	0.8	0.9	0.9	3.3
Pharmaceuticals	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	5.7
Wearing apparel, except fur apparel	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.7	0.8	0.9	3.1
Plastic products	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	6.6
General purpose machinery	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	6.4
Grain mill products	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	4.0
Special purpose machinery	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	3.7
Jewelry	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	5.4
Motor vehicles	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.3
Wiring and wiring devices	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	7.6

Source: ASI, CEIC, Kotak Institutional Equities

We note that job creation in electronics and related manufacturing has been slow over the last decade, despite sharp improvement in recent years (see Exhibit 32). The industry has seen strong government support over the last decade, through a plethora of reforms and incentives, which has driven the strong growth in the sector in the past 5-6 years. However, the quantum of job creation seems to be on the lower side. We note that six listed EMS players created 40,000 incremental jobs over FY2021-25 (see Exhibit 33) but received PLI incentives of around Rs17.5 bn. This would suggest that companies received around Rs0.4 mn PLI per incremental employee over this period.

Electronics sector witnessed decent increase in job creation over FY2021-23

Exhibit 32: Employment in electronics sector, March fiscal year-ends, 2013-23 (#)



Source: ASI, CEIC, Kotak Institutional Equities

Listed EMS companies generated around 40,000 incremental jobs over FY2021-25

Exhibit 33: Employment creation by listed EMS companies and PLI received by the sector, March fiscal year-ends, 2021-25 (#)

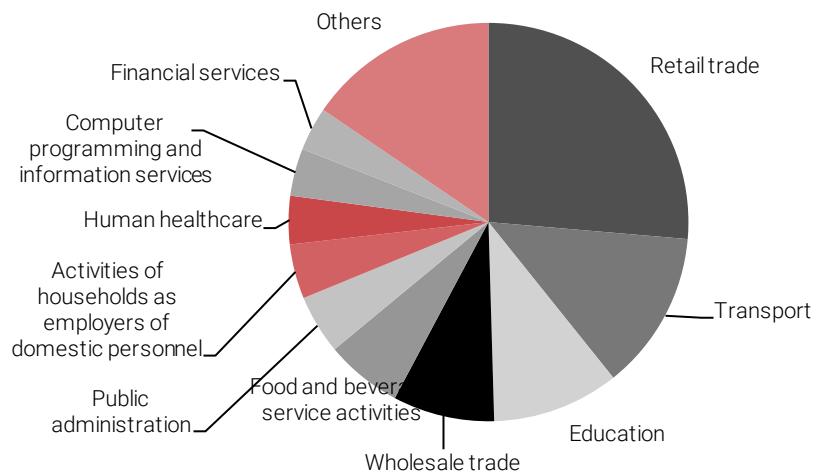
Company	PLI received (Rs mn)					Total	Total Employees					Job created
	2021	2022	2023	2024	2025		2021	2022	2023	2024	2025	
Amber	—	—	160	360	495	1,015	8,580	10,410	13,767	16,938	18,461	9,881
Avalon	—	—	—	—	—	—	1,851	1,857	2,041	2,096	2,702	851
Cyient DLM	—	—	—	—	—	—	NA	NA	1,017	1,609	1,632	615
Dixon	450	799	876	3,490	10,000	15,614	15,483	13,726	12,757	22,461	31,493	16,010
Kaynes	—	—	—	—	—	—	—	—	1,701	2,866	3,341	6,199
Syrma SGS	—	—	90	500	380	970	2,953	4,735	8,116	8,694	9,352	6,399
Total	450	799	1,126	4,350	10,875	17,599	28,867	32,429	40,564	55,139	69,839	39,955

Source: Company, BSE, Kotak Institutional Equities

Exhibit 34 gives the break-up of major sectors in services in terms of employment in India. We note that retail trade, transport and education account for the largest share of employment. Meanwhile, computer programming and information services, education, financial services, human healthcare and public administration can be categorized as large-scale creators of high-quality employment. In this regard, the ongoing slowdown in IT sector jobs in recent years appears to be putting higher stress in the job market (see Exhibit 35) although non-IT software services sectors seem to be doing extremely well based on the strong growth in exports (see Exhibit 36). Furthermore, a decent proportion of these jobs may face risks from advancement in AI in future job creation.

Trade, transport and education are the largest employment generators in the services sector

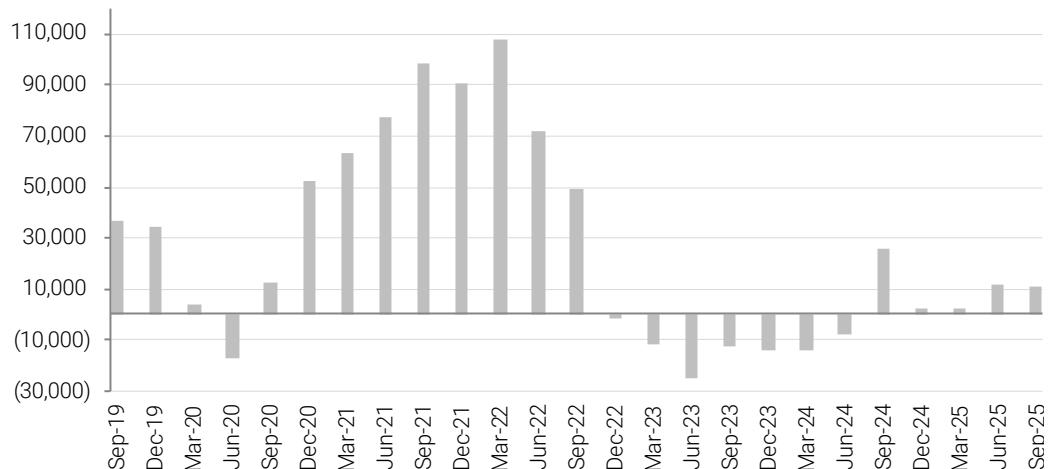
Exhibit 34: Share of employment by major services sector, March fiscal year-end, 2024 (%)



Source: PLFS, Kotak Institutional Equities

Weak job creation in the IT sector in recent quarters

Exhibit 35: Quarterly net headcount addition across prominent Indian IT companies, March fiscal year-ends, 2020-26 (#)



Source: Companies, Kotak Institutional Equities

Steady increase in employment in GCCs in India

Exhibit 36: Break-up of net exports in non-software services and interest income, March fiscal year-ends, 2023-26 (US\$ bn)

	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25
Services	39.1	35.1	39.9	45.0	42.7	39.9	44.5	51.2	53.3	47.9	50.9
- Software	34.5	34.2	35.6	36.4	36.4	37.3	39.4	40.9	41.4	41.5	44.0
- Non-software	4.6	0.9	4.4	8.6	6.3	2.5	5.0	10.3	11.9	6.4	6.9
- Transport	(0.1)	(0.3)	(0.2)	0.5	(0.1)	0.0	(0.5)	(0.6)	(0.2)	(0.7)	(1.0)
- Travel	0.7	(3.1)	(1.2)	2.4	1.9	(1.8)	(1.7)	1.7	1.2	(3.2)	(2.6)
- Construction	0.4	0.2	0.3	0.5	0.9	0.9	0.3	0.2	0.7	0.2	0.4
- Insurance and pension	0.4	0.2	0.0	(0.0)	0.3	0.3	0.1	(0.0)	0.1	0.3	0.2
- Financial	0.8	0.7	0.9	1.5	0.3	0.9	0.9	1.3	1.2	1.2	1.2
- IP charges	(2.4)	(3.3)	(2.9)	(4.2)	(3.0)	(4.1)	(3.4)	(4.0)	(4.0)	(4.9)	(4.1)
- Other business	5.9	6.6	7.8	8.6	6.2	6.4	9.6	11.4	13.2	13.6	13.3
R&D	1.8	1.6	1.6	1.7	1.5	1.5	1.6	2.2	2.5	2.9	2.4
Professional & management consulting	11.6	11.5	11.6	12.1	10.2	10.2	13.5	16.4	16.5	17.8	18.5
Technical, trade related, etc	(7.4)	(6.5)	(5.4)	(5.2)	(5.5)	(5.3)	(5.5)	(7.2)	(5.8)	(7.1)	(7.6)
- Others	(1.1)	(0.2)	(0.3)	(0.6)	(0.2)	(0.2)	(0.3)	0.3	(0.3)	(0.1)	(0.5)
Net primary income	(12.6)	(10.2)	(11.6)	(13.1)	(14.8)	(10.8)	(9.2)	(16.4)	(11.9)	(12.8)	(12.2)
- Direct investments	(8.5)	(7.6)	(10.0)	(11.6)	(11.4)	(9.3)	(10.0)	(14.5)	(10.4)	(11.3)	(12.1)
- Portfolio investments	(2.7)	(2.0)	(3.6)	(1.9)	(2.3)	(2.3)	(4.1)	(2.5)	(1.8)	(1.7)	(4.3)
- Other investments	0.5	1.0	0.8	1.2	1.1	1.3	1.0	1.3	1.6	0.9	0.9
- Others	(2.0)	(1.6)	1.1	(0.8)	(2.2)	(0.5)	3.8	(0.7)	(1.3)	(0.6)	3.3

Notes:

(a) Other investments include net interest on loans, credits, deposits, etc.

(b) Others include income on reserve assets, etc.

Source: CEIC, RBI, Kotak Institutional Equities

Higher investment in human capital required to improve demographic competitiveness

- India ranks better than major economies in demographics. We note that only India, Indonesia and Vietnam have fairly solid demographics among the major EMs, with (1) a relatively young population and (2) likely increase in working-age population for the next 2-3 decades. The increase in working-age population will provide adequate economic momentum to these economies to drive higher consumption and investment demand. Their favorable demographics are in sharp contrast to the ageing demographics of most DMs and China.

Exhibit 37 shows the change in population and working-age population of two sets of economies—select EMs and select DMs (including China; we include China in this category, given its demographics are more like that of DMs and its per capita income is almost at DM levels). The higher growth rates of these EMs and their higher share of global GDP will drive overall global GDP growth and offset the negatives of the likely slowdown in GDP growth in DMs and China due to worsening demographics. At the same time, Indonesia and Mexico may remain key challengers to India in certain areas of DM offshoring of manufacturing or services.

India is likely to have the dominant share of working-age population among major economies

Exhibit 37: Population and working-age population of select DMs and EMs, calendar year-ends, 2023-53 (mn)

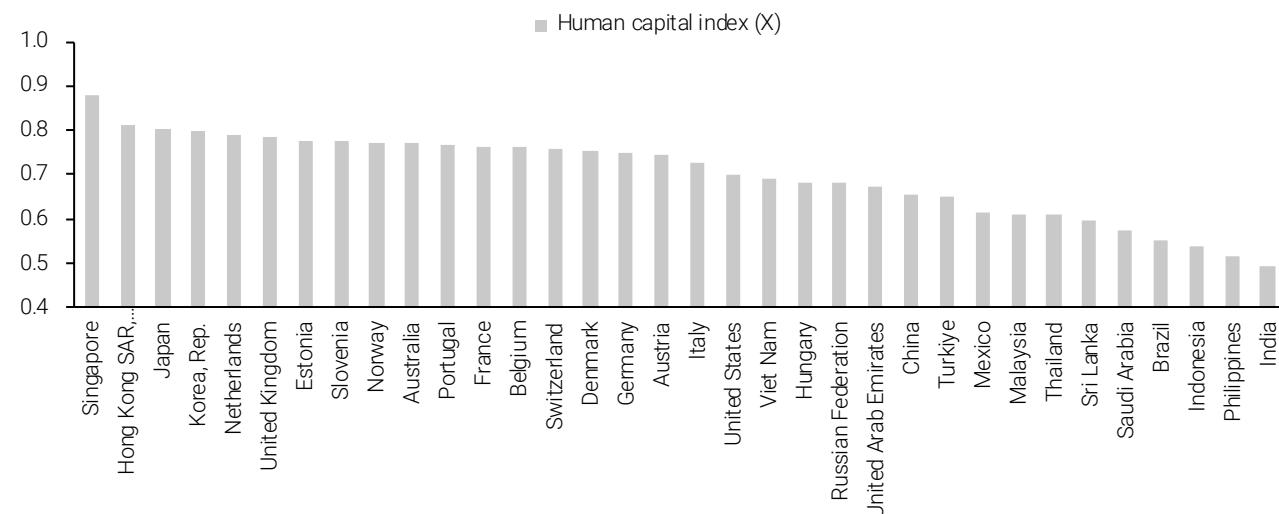
	Total population (mn)					Working-age population (mn)				
	2023	2033	2043	2053	Change (mn)	2023	2033	2043	2053	Change (mn)
					2023-43					2023-43
Developed economies										
Australia	26	29	32	34	6	17	18	19	21	3
Austria	9	9	9	9	—	6	5	5	5	(0)
Belgium	11	12	12	12	—	7	7	7	7	(0)
Canada	39	41	44	46	5	25	25	26	27	2
China	1,444	1,451	1,424	1,365	(21)	1,003	968	894	813	(109)
France	67	70	72	74	5	41	41	42	42	—
Germany	81	79	75	71	(6)	51	45	42	39	(9)
Italy	61	61	61	60	(1)	38	36	33	32	(6)
Japan	124	119	113	107	(12)	72	67	59	54	(13)
Netherlands	17	17	17	17	—	11	10	10	10	(1)
Portugal	11	10	10	10	(0)	7	6	6	5	(1)
Spain	48	48	49	48	1	31	30	27	25	(5)
UK	67	69	72	74	5	42	42	43	43	1
USA	346	369	389	406	43	218	224	235	244	17
Total	2,352	2,386	2,377	2,332	25	1,569	1,524	1,447	1,366	(122)
Emerging economies										
Brazil	215	225	230	231	15	149	152	150	141	1
India	1,393	1,507	1,585	1,630	192	939	1,028	1,083	1,097	144
Indonesia	277	300	315	323	38	190	204	209	211	19
Mexico	136	147	154	157	18	91	98	99	98	8
Thailand	68	67	65	60	(3)	48	44	39	34	(9)
Vietnam	99	103	104	103	6	69	71	68	63	(1)
Total	2,188	2,348	2,453	2,504	265	1,486	1,596	1,648	1,644	162

Source: UN, Kotak Institutional Equities

- **Quality of workforce in India versus EMs.** In our view, the quality of workforce will play a pivotal role in India achieving its potential apart from the quantity of workforce. India lags most economies on human capital Index (see Exhibit 38). Despite recent improvement, India's workforce has poor education levels (see Exhibits 39-40). Furthermore, India currently lags a number of major economies in future skills, with large scope of improvement in skills fit and economic transformation (see Exhibit 41). As such, India will have to upgrade the quality of workforce through substantial investment in education (see Exhibits 42-43), if it were to compete on the quality of human capital.

India ranks significantly lower than major countries in human capital index

Exhibit 38: Score of major economies in human capital index-2020 (X)



Source: World Bank, Kotak Institutional Equities

Education levels in rural areas remain abysmal, despite recent improvement

Exhibit 39: Education levels of rural male and female (15 years and above), June year-ends, 2019-24 (%)

	2019		2024	
	Male	Female	Male	Female
Not literate	21	40	18	35
Until primary	19	18	18	17
Middle & secondary	39	29	39	30
Higher secondary	12	8	13	10
Diploma	1	1	2	1
Graduate	7	4	8	5
Post-graduate & above	2	1	2	1

Source: PLFS, Kotak Institutional Equities

Education levels are better among urban men and women; further improvement required

Exhibit 40: Education levels of urban male and female (15 years and above), June year-ends, 2019-24 (%)

	2019		2024	
	Male	Female	Male	Female
Not literate	9	20	8	17
Until primary	13	14	13	14
Middle & secondary	20	32	35	31
Higher secondary	32	13	16	14
Diploma	3.1	1.1	2.9	1.1
Graduate	17	14	20	16
Post-graduate & above	5.9	5.5	6.0	6.4

Source: PLFS, Kotak Institutional Equities

India has a lot of room to improve in skills fit and economic transformation

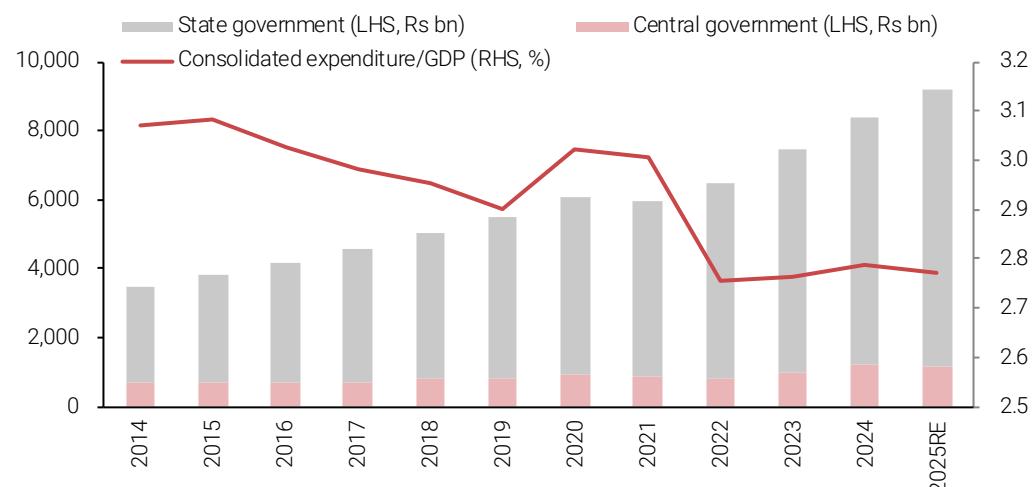
Exhibit 41: Future skills index score of major economies, calendar year-end, 2025 (#)

	Skills fit	Academic readiness	Future of work	Economic Transformation	Total score
United States	94	98	100	98	98
UK	100	100	96	93	97
Germany	89	100	95	95	95
Australia	87	99	97	91	93
Canada	91	98	97	78	91
Netherlands	89	99	90	81	90
Switzerland	81	97	83	97	89
France	85	93	91	84	88
Singapore	83	92	92	85	88
South Korea	84	88	77	100	87
China	79	94	88	89	87
Spain	76	96	93	71	84
Israel	71	93	73	99	84
Sweden	80	95	72	86	84
Japan	73	88	75	96	83
Belgium	72	96	71	92	83
Ireland	82	96	86	68	83
Denmark	73	97	66	94	82
Hong Kong	77	99	70	80	81
Italy	70	97	85	70	81
Finland	76	93	63	88	80
New Zealand	76	95	80	64	79
Norway		94	57	83	78
Poland	69	85	87	69	77
India	59	90	99	58	77
Portugal	71	92	67	76	77
Czech Republic	72	78	83	72	76

Source: QS world future skills index, Kotak Institutional Equities

Steady decline in consolidated government expenditure on education as a proportion of GDP

Exhibit 42: Central government expenditure on education and state government revenue expenditure on education, sports, arts & culture, March fiscal year-ends, 2014-25RE (Rs bn)



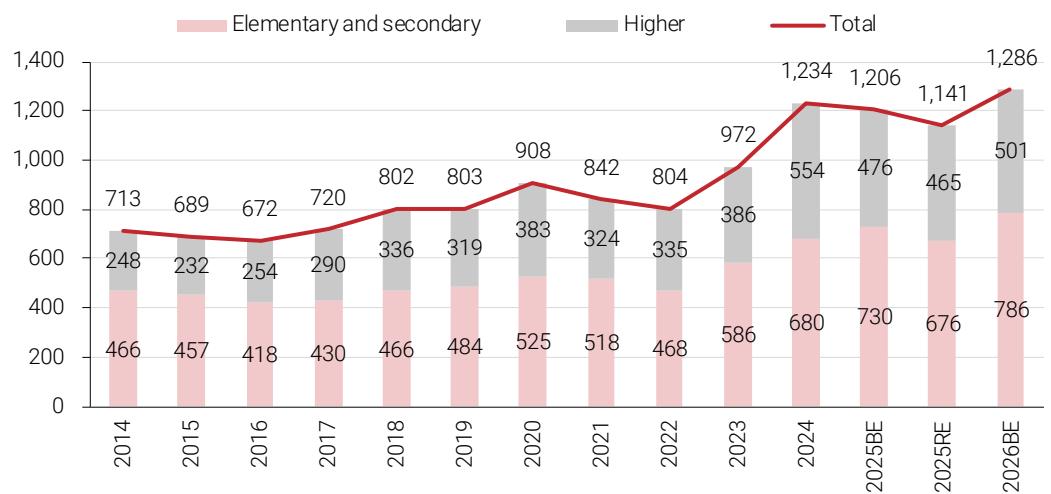
Notes:

(a) 2025 data is BE for state government expenditure on education.

Source: CEIC, Kotak Institutional Equities

Central government expenditure on education has grown at 5% CAGR over FY2014-26BE

Exhibit 43: Trend in central government expenditure in education, March fiscal year-ends, 2014-26BE (Rs bn)



Source: Union Budget documents, Kotak Institutional Equities

3

More push for micro reforms

The central government has implemented significant supply-side reforms across most factors of production in recent years, ensuring that access to capital, resources, and land is no longer the primary constraint for investment or business operations. However, the next phase of reforms must focus on removing administrative and judicial bottlenecks, which remain key impediments to ease of doing business, with greater focus at the state and local government levels.

Traditional areas of reforms have seen decent progress

Over the past years, the government has focused explicitly on supply-side reforms with the aim to improve ease of doing business (see Exhibit 44). These reforms have improved access to capital, labor, land and resources though space for improvement remains across the spectrum of factors of production.

Indian government has carried out a number of supply-side reforms, most of which have achieved critical mass
Exhibit 44: Potential reforms and schedule

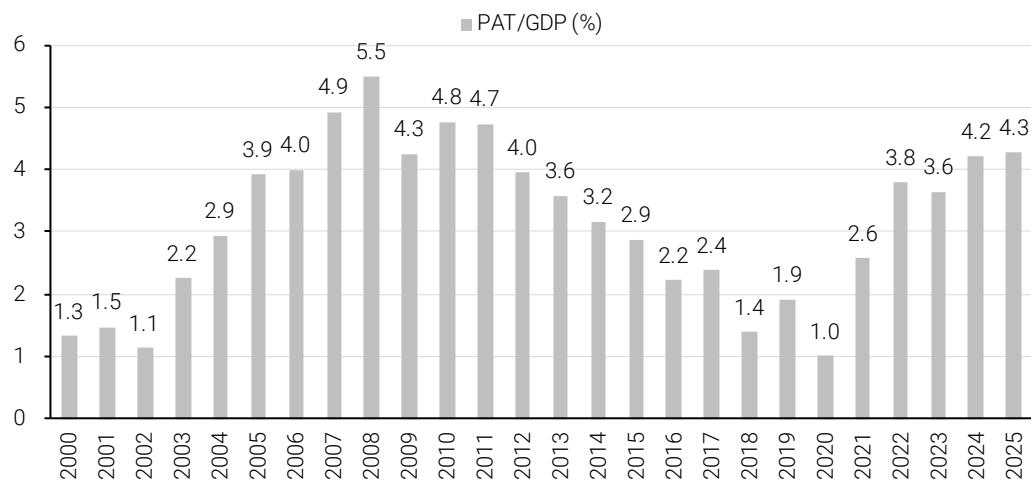
Action	Schedule	Remarks
(A) Fiscal		
1 Auto fuel subsidies; LPG subsidy curtailment; kerosene and LPG monthly price increases	Limited progress	Government has reinstated price controls on retail prices of diesel and gasoline. Subsidies on LPG and kerosene have continued
2 Direct benefit transfer (DBT) schemes	Meaningful progress	The government implemented direct cash transfer subsidy for LPG from January 1, 2015 and for kerosene from April 1, 2016. Food and fertilizer subsidies go directly to FCI and companies
3 Divestment program, privatization and improved management of PSUs	Work-in-progress	The government consolidated 27 PSU banks into 12 PSU banks over FY2017-19 to improve their market position. It also reduced its stake in several CPSEs by selling to ETFs as well as through mergers (such as Hpcl being acquired by ONGC). It had announced privatization of a few CPSEs but privatized Air India only so far. The New Public Sector Enterprise Policy of February 2021 has categorized several sectors as strategic, with the government to retain control of one or more PSUs in strategic sectors
4 Electricity subsidies, tariff increases	Work-in-progress	This is outside the central government's domain as power distribution is a state subject. However, several states have increased power tariffs over the past 3-4 years. Further power tariff increases will reduce states' subsidies and India's consolidated fiscal deficit
5 GST implementation	Complete	GST implemented on July 1, 2017. GST will likely result in higher tax-to-GDP ratio in the long term and reduce India's consolidated fiscal deficit
(B) Investment		
1 Approvals	Work-in-progress	This is an executive area and thus, implementation is more important. Center and states are working on single window clearing mechanism (most states on-board)
2 Auction of coal and other mineral ore blocks; private sector commercial mining allowed in the case of coal	Largely complete	The amendment to Coal Mines Act and Mines and Minerals (Development and Regulation) Act have enabled the central and state governments to allocate coal and other mineral ore blocks through transparent auctions
3 Electricity distribution	Work-in-progress	Government has introduced the Electricity (Amendment) Bill, 2025 to (1) ensure better enforceability of PPAs, (2) implement DBT of subsidies, (3) have a renewable energy policy, (4) faster adoption of changes in tariffs, etc.
4 Incentives	Meaningful progress	The government has announced Rs2.6 tn worth of incentives over five years to promote domestic manufacturing under Production Linked Incentive scheme (PLI)
5 Labor reforms	Largely complete	Central government has notified four labor codes to simplify earlier labor laws, easing compliance burden on firms and allow them flexibility on hiring and retrenchment of workers. Most states are aligned in bulk of the labor codes with the center.
6 Land reforms	Work-in-progress	Government let the Land Acquisition Ordinance lapse in August 2015 due to political opposition to its proposed amendments to the LARR Act, 2013
7 Market pricing of energy (oil & gas)	Limited progress	The government has (1) withdrawn pricing freedom on automobile fuels (retail diesel and gasoline) for the oil marketing companies, (2) imposed additional tax on crude oil, which limits pricing freedom for upstream oil & gas companies and (3) linked natural prices to crude oil prices with ceiling and floor, which limits pricing freedom for upstream oil & gas companies
8 Taxation	Meaningful progress	The government has implemented simpler taxation systems for both direct and indirect taxes. In the case of direct taxes, it reduced the corporate tax rate to 22% (effective from FY2020) from 30% subject to companies not availing exemptions. In the case of indirect taxes, GST has resulted in a simpler and transparent system; it rationalized GST rates on basic consumption items in September 2025
(C) Banking sector		
1 Financial inclusion	Largely complete	The government's 'Jan Dhan Yojna' was started in August 2014 with a target of financial inclusion for all. Over 500 mn new bank accounts have been opened under this scheme. The new accounts are already being used for saving and payments. The accounts can be used for DBT-related cash transfers
2 Restructuring of PSU banks	Largely complete	The government has completed the merger of (1) BOB, DBNK and VJBK, (2) CBK and SNDB, (3) PNB, OBC and UNTDB, (4) UNBK, ANDB and CRPBK and (5) INBK and ALBK. It has infused significant capital in the PSU banks
3 NPL situation	Largely complete	The parliament passed the insolvency and bankruptcy code (IBC) bill on May 11, 2016. Most large cases admitted to National Company Law Tribunal (NCLT) courts under IBC have seen satisfactory outcomes within reasonable time limits
4 Reduction in SLR over a period of time	Largely complete	SLR has been reduced and maintained at 18% from 25% in late-2000s; SLR used as part of LCR per Basel III guidelines
(D) Governance		
1 Administrative reforms	Work-in-progress	The government has focused on empowering bureaucracy and streamlining decision-making
2 Corruption/black money	Meaningful progress	The Undisclosed Foreign Income and Asset (Imposition of Tax) Act, 2015 implemented from September 2015. Government progressively reducing disclosure limit on high-value transactions. Indian government cancelled high-denomination notes from circulation from November 9, 2016 and replaced them with new ones
3 Judiciary reforms	No progress	New system for appointment of judges to the Supreme Court and High Courts; bill passed in the parliament but the new system has been rejected by the Supreme Court
4 Creation of new regulators, sector super-regulators	No progress	All regulators related to communication, energy and finance can come under a sector super-regulator given large overlaps across related sectors

Source: Kotak Institutional Equities estimates

► **Capital availability is not a binding constraint.** The internal accruals (profits) of companies have strengthened significantly following the corporate tax rate reduction in September 2019 (see Exhibit 45) and decent economic growth over FY2022-25. The utilization of corporate debt market and external commercial borrowings (ECBs) has also improved while bank credit to the industrial sector has remained subdued (see Exhibits 46-47). Both the corporate and financial sectors have maintained healthy balance sheets for the past few years, aided in part by the Insolvency and Bankruptcy Code (IBC) and the recapitalization of public sector banks. While there is room to (1) deepen corporate bond markets, (2) widen parts of equity markets and (3) improve access to long-term focused foreign capital, the cost of borrowing or access to capital is not a binding constraint for companies (see Exhibits 48-49).

Significant improvement in companies' profitability over past few years

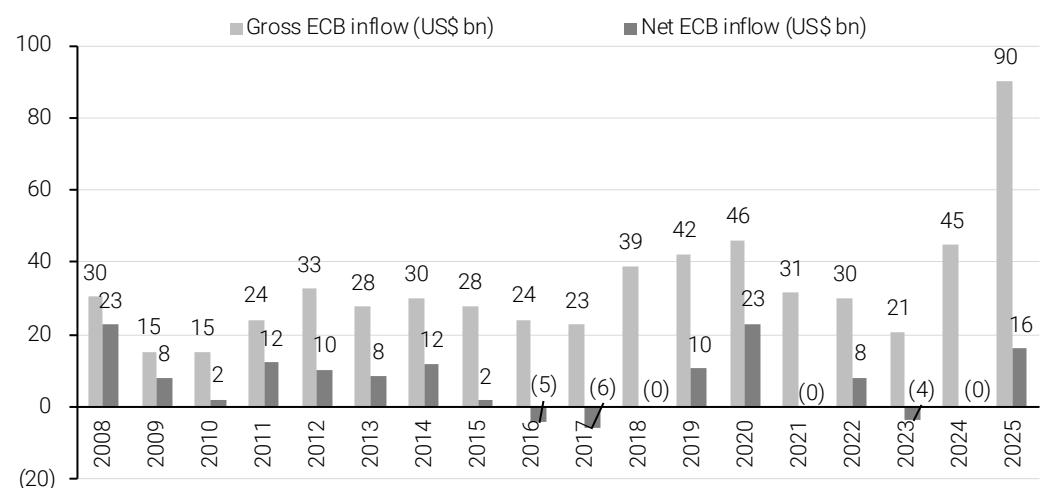
Exhibit 45: PAT to GDP ratio for listed companies, March fiscal year-ends, 2000-25 (%)



Source: CMIE, Kotak Institutional Equities

Financing through ECBs has been increasingly recently

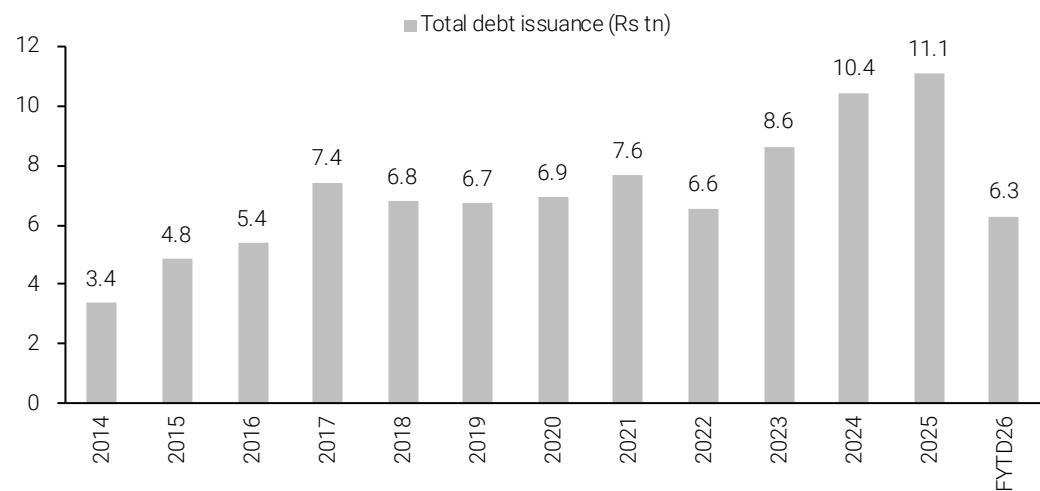
Exhibit 46: Gross and net ECB inflows, March fiscal year-ends, 2008-25 (US\$ bn)



Source: RBI, Kotak Institutional Equities

Corporate debt issuance has increased in the recent years

Exhibit 47: Corporate debt issuance, March fiscal year-ends (Rs tn)



Notes:

(a) Data for FY2026 is as of October 2025.

Source: Prime database, Kotak Institutional Equities

Corporate bond spreads have been relatively benign

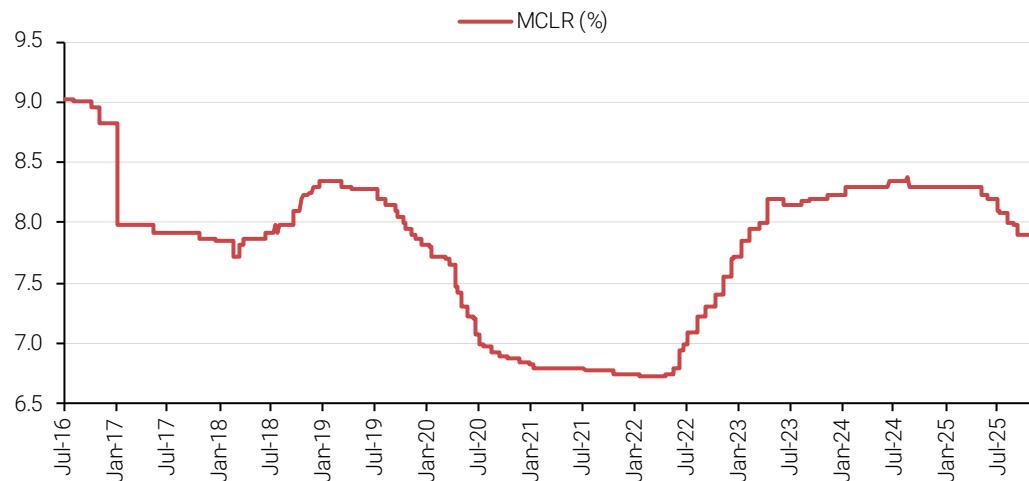
Exhibit 48: India's 5-year corporate spreads over 5-year G-Sec across ratings (%)



Source: Bloomberg, Kotak Institutional Equities

MCLR has been on a downtrend due to RBI's rate cut of 125 bps in CYTD25

Exhibit 49: Average MCLR rates in India (%)



Source: RBI, Kotak Institutional Equities

► **Labor reforms largely complete.** The central government had consolidated 29 archaic labor laws into four modern labor codes, covering wages, social security, occupational safety and industrial relations, during 2019-20 (see Exhibit 50). The codes have been notified recently. These codes aim to balance labor market flexibility with worker protection by (1) simplifying compliance through uniform definitions and single licensing, (2) decriminalizing minor offenses and (3) enabling businesses to adjust workforce based on business conditions and operate without fear of excessive penalties.

Labor reforms are largely complete

Exhibit 50: Details of four labor codes of the central government

	Comments	Impact
Code on Wages, 2019		
Replaces four laws related to wages; minimum wages decided by governments to be higher than the floor wage, which is to be fixed by the central government, taking into account living standards of workers, geography of operation	Aimed at improving compliance, defined jurisdictions for all employment generating organizations	Variable minimum wage depending on the geography, timely payment of wages, protecting employee interests
Code on Social Security, 2020		
To merge nine existing labor laws; to establish a social security fund; use the corporate social responsibility fund to offer unorganized sector workers medical, pension, death and disability benefits via the employee's state insurance corporation; to offer gratuity to fixed term employees after one year of service on a pro-rata basis	Aimed at improving compliance, providing social security for unorganized players	Code is aimed at providing better social security net for workers, better benefits for fixed-term employees and for those employed in the unorganized sector
Industrial Relations Code, 2020		
Replaces and simplifies three laws, which consolidates and amends the laws relating to Trade Unions, conditions of employment in industrial establishment or undertaking, investigation and settlement of industrial disputes	Introduced more conditions for workers to strike, alongside an increase in the threshold relating to layoffs and retrenchment in industrial establishments having 300 workers from 100 workers to provide more flexibility to employers for hiring and firing workers without government permission	Simplified laws to help firms to scale up, minimize friction between employees and employers, to provide for investigation and settlement of industrial disputes
The Occupational Safety, Health and Working Conditions Code, 2020		
It subsumes and replaces 13 labor laws relating to safety, health and working conditions.	Seeks to regulate health and safety conditions of workers in establishments with 10 or more workers, and in all mines and docks	Aimed at providing safer work environment for workers

Source: PRS India, Kotak Institutional Equities

Since labor is a concurrent subject under the Indian Constitution, both the center and states have the authority to frame rules under these codes. For a pan-India implementation, states will need to notify their respective rules (which can be same as the center's) as well as set up (or repurpose existing) administrative bodies to oversee implantation of the new laws. There has been significant progress, with all states and UTs (except West Bengal) pre-publishing draft rules under the four codes. Several states have already amended and eased existing labor laws (see Exhibit 51).

States have been proactive in implementing the labor reforms following the center's guidelines with some modifications

Exhibit 51: States implementation of the labor laws

Reform area	Description	States implementing	Impact	Alignment with central codes
Retrenchment threshold raised to 300	Raised threshold for layoffs/closures from 100 to 300 workers under Industrial Disputes Act	Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Meghalaya, Odisha, Rajasthan, Uttar Pradesh, etc. (19 total)	Empowers employers to restructure without prior approval; controversial among unions	Fully aligned – matches IR Code provision for 300-worker threshold
Factories act and contract labour thresholds	Increased coverage thresholds: Factories Act from 10 to 20 (with power), 20 to 40 (without); Contract Labour Act from 20 to 50 workers	Assam, Haryana, Gujarat, MP, Rajasthan, UP etc. (18-19 states)	Exempts small units from compliance; reduces regulatory burden for MSMEs	Fully aligned – matches OSH Code thresholds
Women allowed in night shifts	Permits women to work night shifts (7pm–6am) with safety conditions	31 out of 36 states/UTs including Andhra Pradesh, Bihar, Haryana, Karnataka, Maharashtra, Punjab, Tamil Nadu, UP, West Bengal (with safeguards), etc.	Broad adoption; includes mandatory transport, consent, restrooms, security, etc.	Fully aligned – OSH Code permits night shifts with safeguards
Fixed term employment (FTE)	Allows hiring for fixed durations with equal benefits as permanent employees	Assam, Gujarat, Haryana, Karnataka, Maharashtra, MP, Punjab, Tamil Nadu, UP etc. (25 states total)	Enables seasonal/project hiring; MP added safeguards against misuse	Fully aligned – IR Code legalizes FTE nationally
Compounding of offences	Allows minor labour law violations to be settled via fines instead of prosecution	Haryana, Himachal Pradesh, Karnataka, Maharashtra, Punjab, Rajasthan, Telangana, Tamil Nadu, UP, Uttarakhand, etc. (25 states total)	Reduces litigation; promotes cooperative compliance	Fully aligned – IR and OSH Codes allow compounding
Pre-prosecution compliance notice	Requires inspection notice or opportunity to rectify before legal action	All states and UTs	Universally adopted; prevents harassment for minor infractions	Fully aligned – OSH Code mandates opportunity to comply before prosecution
Advance notice for strikes/lockouts	Mandates 14-day notice for strikes/lockouts in all industries (previously only public utilities)	Gujarat, MP, UP, and 10-12 other states considering or partially implementing	Aims to prevent flash strikes; unions oppose; not yet uniformly legislated	Partially aligned – IR Code mandates this, but not yet uniformly adopted at state level

Source: State government announcements, media reports, Kotak Institutional Equities

► **Land for industrial use is not a constraint.** The process of land acquisition in India has traditionally been slow, costly and fraught with litigation risks. The central government's Land Acquisition, Rehabilitation and Resettlement Act provides the legal framework for land acquisition, while several states—such as Maharashtra, Gujarat, and Tamil Nadu—have enacted their own rules based on the LARR Act's principles, with exemptions for activities such as industrial corridors and infrastructure projects (see Exhibit 52). Over time, state industrial development authorities have also developed industrial parks with plug-and-play facilities, enabling faster setup of manufacturing units. Exhibit 53 highlights some of the larger industrial parks offering such ready-to-use infrastructure.

States have enacted their own land acquisition rules based on the center's framework

Exhibit 52: Select state-specific amendments to the central government's Land Acquisition, Rehabilitation and Resettlement Act

State	Amendment	Key changes	Current status
Andhra Pradesh	RFCTLARR (Andhra Pradesh Amendment) Act, 2018	Empowers govt. to skip SIA (social impact assessment) and consent for defence, rural infrastructure, affordable housing, industrial corridors, infrastructure/PPPs. Emphasizes use of direct purchase and land pooling for big projects (such as Amaravati); treating those as outside LARR's purview. Simplifies acquisition to an administrative process by Collector in many cases	In force: Presidential assent (2018). Used in capital region and other projects. Faced some local opposition but legally effective; part of 2018 PIL (no final verdict yet)
Gujarat	RFCTLARR (Gujarat Amendment) Act, 2016	Inserts Section 10A empowering state to exempt certain projects from SIA and consent. Covers defence, national security, rural infrastructure, affordable housing, industrial corridors, and infrastructure/PPP projects. Also dilutes requirement to return unused land (allowed to retain in land bank). Maintains central compensation formula (no reduction) but speeds up process by removing delays for listed purposes	In force: Presidential assent (2016). Implemented fully – Gujarat routinely waives SIA/consent for qualifying projects. No major legal invalidation; part of 2018 PIL (pending)
Jharkhand	RFCTLARR (Jharkhand Amendment) Act, 2017 (notified 2018)	Extensive dilution: Eliminates SIA and consent requirements for virtually all government infrastructure projects – education, health, roads, power, etc. – by allowing state to declare any such project as exempt "in public interest". Removes 70-80% consent clause entirely for private and PPP projects (no consent needed at all). Only advisory consultation with Gram Sabhas required. Keeps compensation at central levels	In force: Presidential assent (2018). Met with widespread protests by tribal and farmer groups. Subject of ongoing legal challenge (PIL in SC), but operative pending any court ruling. Government actively using direct purchase and land bank mechanisms alongside this law
Maharashtra	RFCTLARR (Maharashtra Amendment) Act, 2018	Waives consent and SIA for the standard categories (national security, rural infrastructure, housing for poor, industrial corridors, PPPs) plus adds irrigation projects and state industrial areas/estates to the exempt list. Removes restrictions on acquiring multi-crop land for these projects. Introduces option for negotiated settlement in lieu of compulsory acquisition. Compensation and R&R as per central Act otherwise	In force: Presidential assent (2018). Being applied, notably to fast-track irrigation scheme land acquisitions. Underpins Maharashtra's push for infrastructure. Included in debates on dilutions; no court overturn
Rajasthan	RFCTLARR (Rajasthan Amendment) Act, 2016	No consent or SIA needed for acquisitions under defence, rural infra, housing, industrial corridors, PPP). Facilitates easier acquisition for highways, etc. Streamlined rules/procedures to expedite acquisitions.	In force: Presidential assent (2016). Being used for state projects. No known court strike-down; part of broader critique of dilutions
Tamil Nadu	RFCTLARR (Tamil Nadu Amendment) Act, 2014 (+ Tamil Nadu Laws Revival Act, 2019)	Exempts land acquired under three state-specific Acts from LARR's SIA and consent requirements. Instead, acquisitions for Harijan welfare, industrial purposes, and highways proceed under those state laws (no SIA/consent) while paying LARR-level compensation. Effectively removes LARR's social safeguards for ~80% of acquisitions in TN	In force: Presidential assent obtained (2014). Upheld by Supreme Court in 2021 (validating the 2019 revival). LARR's consent/SIA provisions largely inapplicable in TN, except for acquisitions outside the three state laws.
Telangana	RFCTLARR (Telangana Amendment) Act, 2017	Exempts mandatory SIA and consent for acquisitions for defence, electricity and rural infrastructure, affordable housing, industrial corridors, and infrastructure/PPPs (identical to Gujarat's list). Greatly reduces procedural requirements for these projects. Through rules, Telangana also set the rural compensation multiplier at 1.25 (instead of up to 2)	In force: Presidential assent (2017). Actively used to speed up land procurement (e.g., for large irrigation schemes). Included in 2018 PIL on LARR dilutions; no stay on operations

Source: State government announcements, PRS, Media articles, Kotak Institutional Equities

State industrial development authorities have developed industrial parks with plug-and-play facilities, enabling faster setup of manufacturing units

Exhibit 53: Major industrial parks

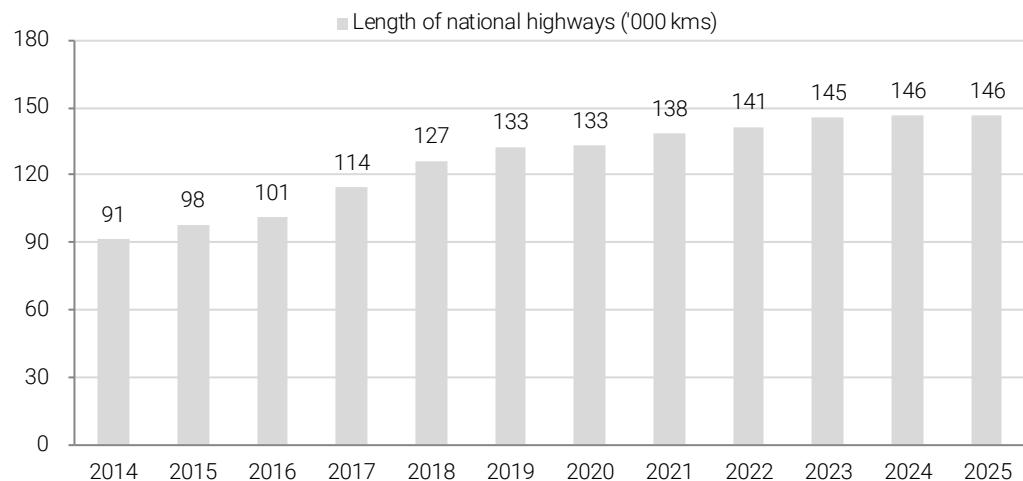
Industrial park	Location	State	Sector focus	Land area (ha)	Companies	Stylized facts
Dholera Special Investment Region	100 km from Ahmedabad (Dholera)	Gujarat	Multi-sector (Heavy Industry, High-Tech, Defence, Pharma)	91,970	Planned: Tata-PSMC semiconductor Fab, TATA Chemicals lithium battery plant, Grew energy solar plant, HPCL, Vedanta semiconductor plant, Polycab, Torrent Power, Micron, other sustainable manufacturing units	India's largest greenfield industrial city (first platinum-rated smart city) with the largest contiguous industrial land parcels in South East Asia. Trunk infrastructure is in place in a 22.5 ha activation area; features 6-lane expressway connectivity, its own utility company, and a focus on non-polluting industries
Aurangabad Industrial City (AURIC)	Shendra-Bidkin node, Aurangabad	Maharashtra	Multi-sector (Auto & EV, Electronics, Aerospace, Pharmaceuticals, etc.)	4,047	Hyosung (S. Korea – spandex fiber plant); Perkins (UK – engines) and dozens of SMEs)	Greenfield smart industrial city under DMIC. Around 60% of land for industry (rest for residential/commercial). "Plug-n-play" infrastructure with a single-window SPV (MITL) for permissions. Strategically near Aurangabad airport and upcoming Jaha dry port (for JNPT). First few factories (textiles, engineering) operational, with a total of around Rs710 bn in investment pipeline
MIHAN SEZ (Nagpur)	Nagpur (adjacent to airport)	Maharashtra	Multi-sector (Information Technology, Logistics, Aerospace MRO, Pharmaceuticals)	Overall: 4,025 SEZ: 2,086	Boeing-Air India MRO (aircraft maintenance), Lupin (pharma), TCS, HCL (IT services), Infosys (under construction)	India's largest multi-modal industrial project, integrating a cargo hub airport + multi-product SEZ. Developed by Maharashtra Airport Development Co. (state PSU) to leverage Nagpur's central location. Plug-and-play SEZ with 24x7 power, water, internal rail terminal, and an on-site logistics park. Has a dedicated 400-hectare IT park (TCS, Tech Mahindra operational) and a Health City (AIIMS hospital campus). Over 30 companies are operational, including a major aircraft maintenance-repair-overhaul facility.
Tumakuru Industrial Node (CBIC)	20 km from Tumakuru city, NH-48	Karnataka	Multi-sector (Food Processing, Textiles, Electronics, Auto & EV, Pharma, Chemicals)	3,435	Greenfield site – initial industries setting up, Wistron (Apple supplier) and others in first phase	Part of Chennai-Bengaluru Industrial Corridor. Foundation stone laid in February 2023. Planned as South India's first corridor-based industrial city, with a 1,736-acre Phase-1 in development. Adjacent to an existing industrial area (Vasantha Narasapuram) with some factories already running. Targeted to create around 88,000 jobs and Rs70 bn investment in 5-6 years. World-class trunk infrastructure construction is underway (tenders awarded).
Sri City (Satyavedu)	Tada area, on AP-Tamil Nadu border	Andhra Pradesh	Multi-product (Automotive, Electronics, FMCG Food & Beverages, Plastics, etc.)	3,035	Isuzu Motors (cars); Mondelez (Cadbury chocolate); PepsiCo (Varun Beverages); Kellogg's; Kobelco; Unicharm, etc.	A privately-developed integrated city (operational since 2010) spanning 22 villages. Offers a 99-year lease model for developed plots, with ready-built factory sheds and warehousing. Leverages strategic location on NH-16 just 55 km north of Chennai with access to Chennai & Ennore Ports. Hosts more than 200 companies from 28 countries, creating around 40,000 jobs. Notable for its seamless utilities, in-house customs (FTWZ), and co-located township (housing, school, university) supporting the "work-live-play" concept.
Dighi Port Industrial Area	Raigad district (near Dighi Port)	Maharashtra	Multi-sector (Heavy Engineering, Logistics, Electronics, Ancillaries)	2,451	Planned (greenfield) – no companies yet (port-adjacent land for future units)	New DMIC node in Maharashtra, 55 km from Dighi Port (Arabian Sea). Envisioned as a port proximate industrial city to decongest Mumbai/Pune. Infrastructure plan sanctioned in 2024; aims to attract Rs380 bn in investment and generate more than 0.1 mn jobs. Multi-modal connectivity via NH-66, Konkan Railway (linking to Dedicated Freight Corridor and JNPT). Will offer large contiguous plots (up to 56 acres) and mix industrial-residential zoning
Mahindra World City, Jaipur	15 km from Jaipur on NH-48 (Ajmer Rd)	Rajasthan	Multi-product (Engineering, Auto-Parts, IT/ITES, Handicrafts, Apparel, Logistics)	1,214	Infosys & Wipro (IT centers), JCB (UK – machinery), Perto (Brazil – ATMs) in DTA; Deutsche Bank (BPO)	Large PPP industrial township (operational from 2007) by Mahindra & RILCO. Includes a 1,500-acre multi-sector SEZ and 1,000-acre Domestic Area. Provides plug-and-play plots with utilities, and a mixed-use zone for residential & commercial needs. Home to more than 130 companies (as of 2023) across diverse sectors, supported by single-window clearance and state incentives
Krishnapatnam Industrial Area (KRIS City)	Near Krishnapatnam Port, Nellore district	Andhra Pradesh	Multi-sector (Automotive, Electronics, Food Processing, Pharma, Textiles)	1,012	(Greenfield – in development) Likely tenants in talks: Apache (Taiwan – footwear), etc.	Node under Chennai-Bengaluru Industrial Corridor, leveraging proximity to Krishnapatnam Port. Branded "KRIS City," it aims to be a port-driven industrial hub. Plug-and-play facilities with planned connectivity to NH-16, port, and Tirupati Airport. First phase approved in December 2020 with Rs2.2 bn infrastructure outlay. Expected to generate 98,000 jobs at full capacity. Focus sectors include auto, ESDM, agro-processing, pharma, apparel
Mahindra World City, Chennai	30 km S.W. of Chennai (Chengalpattu)	Tamil Nadu	Multi-product (Automotive & Auto-Parts, IT/Tech, Apparel & Fashion, Electronics)	627	Infosys (IT campus); BMW & Renault-Nissan (Auto assembly/R&D); BASF (chemicals); Capgemini (IT)	India's first integrated business city (est. 2002), a PPP by Mahindra & TIDCO. Contains three sector-specific SEZs (apparel, auto ancillary, IT) plus a Domestic Tariff Area (DTA). Fully plug-and-play infrastructure with on-site social amenities (housing, hospital, school). Hosts 60+ companies including global giants, employing 38,000 people. Consistently ranked among top industrial parks (DPIIT IPRIS leader category)
Kakatiya Mega Textile Park	Warangal (Shayampet & Chintalapalli)	Telangana	Textiles & Apparel (Spinning, Weaving, Garments, Technical Textiles)	Phase 1: 482	Youngone Corp (South Korea – sportswear), Kitex Garments (India) (factories under construction)	India's largest dedicated textile park (under development by state government). Envisioned as a "fiber-to-fashion" integrated park covering up to 2,000-3,000 acres. Phase-1 of 1,200 acres is developed with plug-and-play sheds, common effluent treatment plant, and worker housing. 22 firms have signed MoUs totaling Rs3.9 bn investment, and the park could generate 75,000 direct jobs. Notable incoming units include a mega apparel facility by Kitex (40,000 jobs). The park enjoys special incentives (capital subsidy, power tariff subsidy) under Telangana's textile policy
Integrated Industrial Township, Vikram Udyogpuri	Ujjain district (near Narwar village)	Madhya Pradesh	Manufacturing (Engineering, Auto Components, Medical Devices, Plastics, etc.)	442	Amul (India – food processing) and other anchor investors in medical devices	Developed under DMIC to boost manufacturing in MP. All trunk infrastructure (roads, 24x7 power, water, CETP) is completed. Includes a dedicated Medical Device Park (~360 acres) within the township. Strategically located on State Highway-18, it connects to the Delhi-Mumbai corridor. Operations have begun in food processing and pharma units.
Integrated Industrial Township, Greater Noida	Greater Noida (Dadri-Noida-Ghaziabad Region)	Uttar Pradesh	Multi-sector Manufacturing (Auto components, Electronics, Renewable energy, etc.)	303	Haier (China – appliances) and 20+ other units (SMEs in electronics, packaging)	Flagship DMIC township designed as a "safe, smart & green" industrial city. Developed via a 50:50 JV between NICDIT and UP government. Offers ready factory sheds, an on-site logistics hub, and proximity to Eastern & Western Dedicated Freight Corridors. Inaugurated in January 2024 as India's first operational DMIC.
Japanese Industrial Zone, Neemrana	Majrakath, Neemrana (Alwar district)	Rajasthan	Automotive & Auto Components, Engineering, Electronics (Japanese firms)	221	Daikin (Japan – AC manufacturing), Nissin Brakes, Mitsui Chemicals, Nippon Steel Pipes (Japan)	A dedicated enclave within RILCO's Neemrana Industrial Area, set up via MoU with JETRO in 2006 to host Japanese manufacturers. Offers ready industrial plots exclusively for Japanese companies with tailored facilities (Japanese helpdesk, signage, cuisine). The success of this industrial park has made Neemrana-Bhiwadi a thriving auto hub (part of the Gurgaon-Neemrana auto cluster). Close to the Dedicated Freight Corridor alignment and Delhi-Jaipur NH-48 for connectivity

Source: DPIIT, NICDC, PIB, Media reports

► **Resources allocation has improved significantly.** In our view, key input bottlenecks have eased considerably over the past decade. The availability of coal, electricity, gas and minerals has improved significantly, supported by transparent pricing and auction mechanisms that have reduced rent-seeking behavior. Better logistics, driven by more mature highway and railway networks, has further enhanced supply-chain efficiency (see Exhibit 54-55). Lastly, electricity generation capacity now exceeds peak demand, making India a electricity-surplus nation during several months of the year (see Exhibit 56).

India has a large national highway network, built over the past two decades

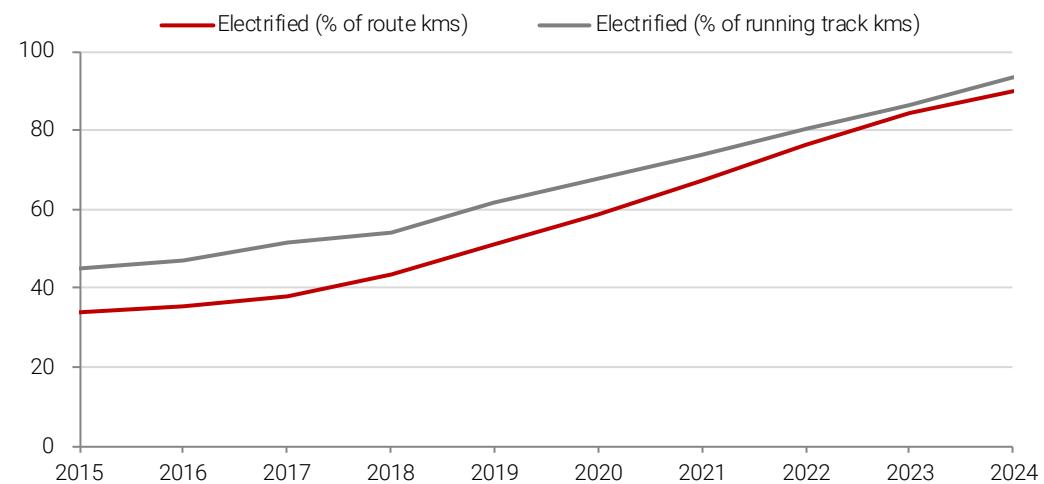
Exhibit 54: Trend in length of national highways, March fiscal year-ends, 2014-25 ('000 kms)



Source: MoRTH Annual Report, Kotak Institutional Equities

Substantial progress in electrification of railway tracks

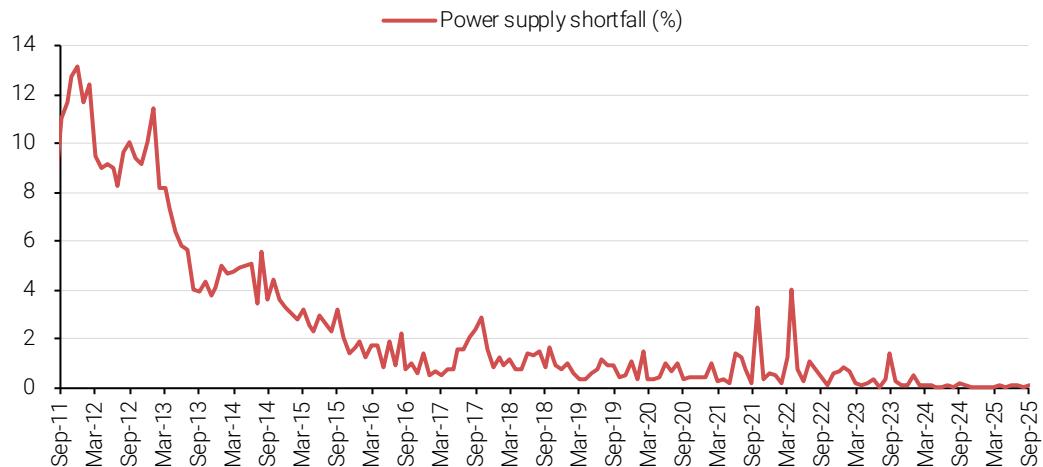
Exhibit 55: Trend in Indian Railways track electrification, March fiscal year-ends, 2015-24 (%)



Source: Indian Railways, Kotak Institutional Equities

India's power supply shortfall is almost negligible

Exhibit 56: Power supply shortfall as a % of peak power demand (%)



Source: CEA, Kotak Institutional Equities

Focusing on the softer but more complex aspects of business reforms

Markets have traditionally prioritized “big bang” reforms but we note that most of these have either been completed or are nearing conclusion. Going forward, the focus is expected to shift toward more granular yet equally complex reforms, particularly in two critical areas—administrative and judicial. Administrative reforms aim to improve the ease of doing business by streamlining approvals, reducing compliance burdens and simplifying regulations—ultimately lowering operational costs and complexity. Judicial reforms are essential for enhancing business confidence by addressing legal delays, ensuring more effective contract enforcement and dispute resolution and minimizing procedural hurdles. Together, these micro-level reforms will be instrumental in sustaining economic momentum and fostering a more efficient, investor-friendly and transparent business environment.

- ▶ **Administrative reforms.** These reforms are essential for easier business and operating conditions for businesses through their lifecycle. Large firms with capital, manpower and technology can navigate administrative hurdles relatively easily. Smaller firms, especially in the MSME segment, face more challenges and a disproportionate drain on their resources. Typically, it is estimated that a manufacturing plant requires around 70 licenses and permits from state and local government bodies to start operations.
- **Legal and compliance.** Compliance burden is quite large in India. After starting operations, even a small manufacturing company has to comply with an estimated 60 applicable acts/rules and more than 120 compliance filings annually (see Exhibit 57). Most sectors have a large number of acts, permits and regulations to contend with for starting and sustaining operations (see Exhibit 58). Additionally, a sizeable portion of compliance/regulatory requirements (40% of compliance requirements and 55% of acts with state governments contributing 70-80% of these) have imprisonment provisions (mostly between 1 and 3 years) in case of non-compliance (see Exhibits 59-60). These are potential disincentives for innovation and deterrent to risk-taking.

Even small firms face significant compliance challenges

Exhibit 57: Estimated compliance burden on firms (#)

	Small	Medium	Large
Licenses/Registrations	23	98	163
Applicable acts and rules	60	135+	210+
Applicable compliances	750+	5,500+	9,500+
Filings per year	120+	530+	940+

Notes

- (a) Small firm is defined as HO + one plant.
- (b) Medium firm is defined as HO + six plants.
- (c) Large firm is defined as HO + 11 plants.

Source: TeamLease RegTech Compliance report, Kotak Institutional Equities

Compliance requirements is the highest for labor-related issues

Exhibit 58: Regulatory requirements across sectors

	Acts	Compliances	Filings
Commercial	189	6,928	472
Environment, health and safety	107	2,922	231
Finance and taxation	116	3,284	990
General	109	2,065	122
Industry specific	484	17,966	1,262
Labour	463	32,542	3,048
Secretarial	68	3,526	493

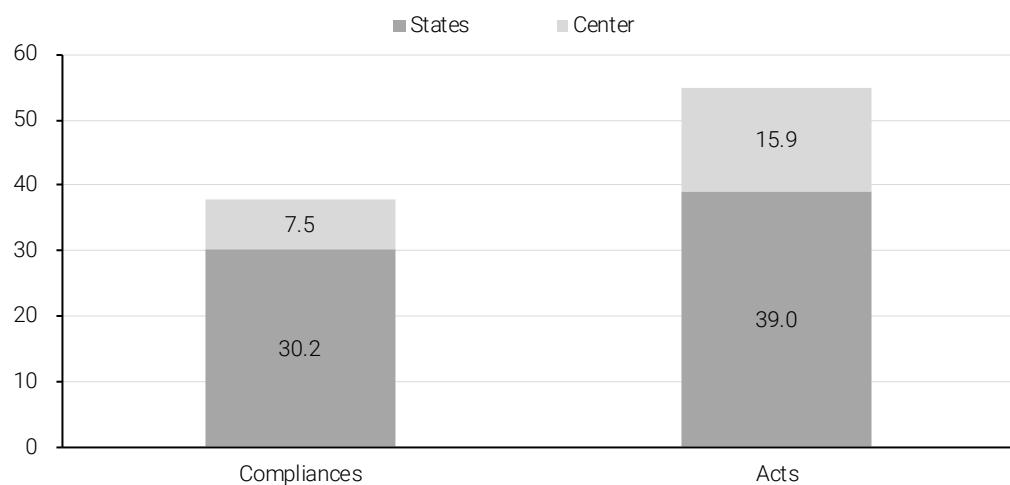
Notes:

- (a) Regulatory requirements for labor will reduce once states implement new labor laws.

Source: TeamLease RegTech Compliance report, Kotak Institutional Equities

A high share of compliance regulations have imprisonment clauses

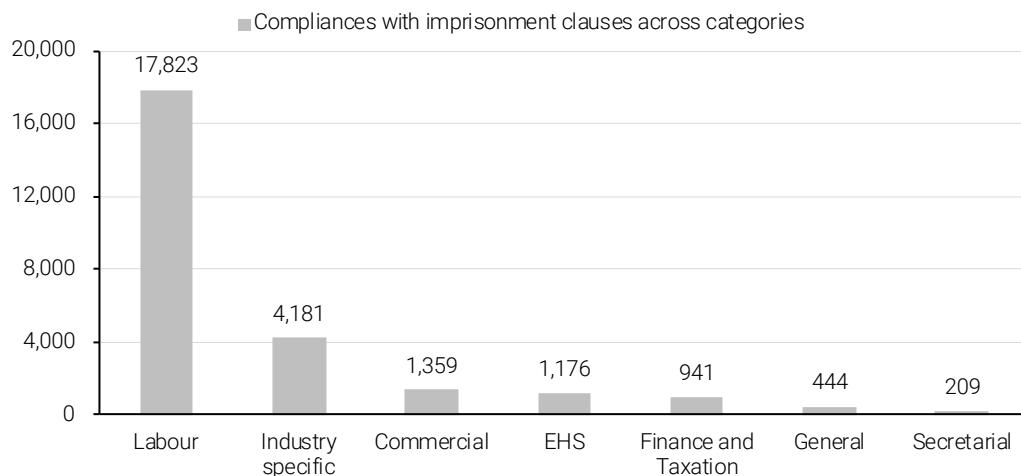
Exhibit 59: Compliances and acts with imprisonment clauses as a share of total (%)



Source: TeamLease RegTech Compliance report, Kotak Institutional Equities

Compliances pertaining to labor issues have the highest imprisonment clauses

Exhibit 60: Compliances and acts with imprisonment clauses across sectors (#)



Notes:

(a) Imprisonment clauses for labor will reduce once states implement new labor laws.

Source: TeamLease RegTech Compliance report, Kotak Institutional Equities

- **Central reforms.** In our view, deregulation will need to be pursued at both central and state governments' levels. We note that the center has implemented quite a few "traditional" reforms as we highlighted earlier. However, to enhance ease of doing business, the center could explore strengthening a few more administrative issues. These reforms should aim to (1) simplify regulations through a mix of executive and legislative regulations, (2) decriminalize minor lapses in processes and compliances, (3) reduce lags in approvals through deemed approvals and single-window clearances, (4) expand and strengthen dispute resolution mechanisms and (5) digitize and consolidate land banks, projects and records. Exhibit 61 summarizes select areas of process reforms that could improve administrative processes. We note that a high-level committee is due to propose deregulation measures across inspection, licensing, penalties, registration, etc.

Easing of administrative procedures key for ease of doing business

Exhibit 61: Areas of administrative reforms

Key reforms	Details of the reforms
Digitalization & transparency	Expand regulatory compliance portals, integrate approvals with PM Gati Shakti, and enable full online service delivery
Dispute resolution	Strengthen ADR mechanisms like arbitration and mediation to reduce court backlogs and speed up commercial dispute resolution
Environmental compliance	Consolidate Water Act, Air Act, and Environmental Protection Act into a unified framework for centralized pollution regulation
Investment friendliness index	Launch an index to rank states on investment friendliness and incentivize competitive federalism
Labor reforms	Implement four pending labor codes and expand Shram Suvidha Portal for unified compliance
Land reforms	Digitize land records and create a National Land Bank for simplified land acquisition
Regulatory simplification	Review and rationalize all non-financial sector regulations, licenses, and permissions; implement Jan Vishwas Bill 2.0 to decriminalize minor compliance lapses
Single-window clearance	Expand National Single Window System (NSWS) to integrate central, state, and local approvals for faster clearances
Time-bound approvals	Mandate statutory timelines for approvals; introduce deemed approval if deadlines are breached
Tax and financial reforms	Simplify transfer pricing using block-period approach; strengthen Advance Pricing Agreements and dispute resolution schemes

Source: Economic Survey 2025, PIB, media reports, Kotak Institutional Equities

- **States' reforms.** A larger burden of administrative reforms would lie with the state governments. Under the Indian Constitution, items under List II such as buildings, industries (except under central government and defense, etc.), land, local trade, water, etc. are solely under the state governments' purview while under List III items such as contracts, electricity, labor, property, etc. are under both the center and the states. As such, states can implement both executive and legislative measures in interest of business promotion. Exhibit 62 summarizes some of the key areas where states governments can have a substantial impact. We note that a high-level committee is working on formulating best practices of deregulation that states and local bodies can undertake to improve ease of doing business substantially.

State governments have multiple areas to ease regulatory hurdles

Exhibit 62: Areas of deregulation for state governments

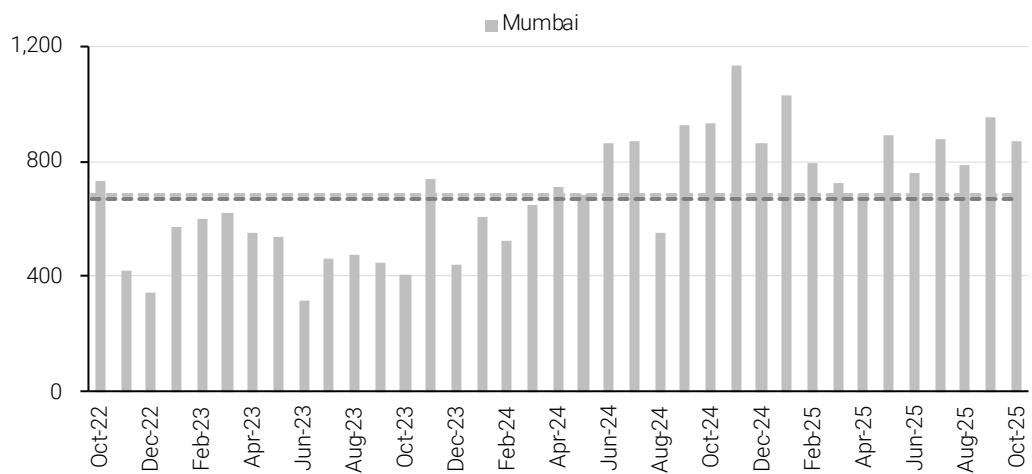
Focus area	Deregulations needed	Examples / Impacts
Agricultural markets	Reform APMC laws and other restrictions on buying/selling farm produce	Enable direct farmer-buyer transactions; reduce barriers to private investment in agri-marketing
Compliance	Streamline procedural requirements, reduce paperwork, and adopt digital tools	Punjab's grievance redressal sessions; PAN 2.0 digitization; shift to self-certification and third-party inspections
Environmental clearances	Rationalize land classification and pollution control permits	Protected forest classification delays access permits by 250+ days; calls for risk-based regulation
Labor and employment	Relax restrictive labor norms, especially for women and shift work	States like Andhra Pradesh, Karnataka, Haryana allowed night shifts for women in ITES; boosts employment flexibility
Logistics and infrastructure	Simplify land-use norms, building bye-laws, and industrial zoning regulations	Mandatory setbacks for factories reduce usable land and job creation; need to evaluate economic cost
Sector-specific regulations	Liberalize excise, food safety, legal metrology, and other industry-specific rules	Reduce licensing burdens and permit delays that hinder enterprise growth

Source: Economic Survey 2025, Kotak Institutional Equities

- ▶ **Judicial reforms.** A significantly broader and more nuanced set of challenges lies within India's judicial system. One of the key binding constraints to improving the country's business environment is the inefficiency in contract enforcement and dispute resolution. Prolonged resolution timelines, procedural complexities and a massive backlog of cases hinder timely settlements. While the entire legal and judicial apparatus, spanning both civil and criminal domains, requires systemic reform, targeted improvements for business and investment-related matters are especially critical. In this context, we see a compelling case for: (1) expanding the capacity of commercial courts, tribunals and the broader judicial infrastructure to enhance clearance rates and (2) eliminating any outdated and unnecessary procedures that delay resolution.
- **Capacity improvement.** We believe inadequate capacity acts as an impediment for faster dispute resolution. A study of the commercial courts of Delhi and Mumbai highlights the extent of the problem. The number of cases pending on a monthly basis is around 20,000 in Delhi and around 8,000 in Mumbai while there are around 50 judges in Delhi and around 70 judges in Mumbai. Consequently, trial and judgement take around 400 days in Delhi and 300 days in Mumbai on average though variability is significantly large (see Exhibit 63). We note that the entire process, filing of written statement to completion of trial, should be completed within less than a year (around 350 days) under the Commercial Courts Act. In this context, the need for expedited conclusion of commercial cases, as with civil and criminal cases, would imply a larger pool of judges. Globally, India stacks up quite poorly on judge-to-population ratio (see Exhibit 64).

Time taken for resolution of commercial cases remains quite high

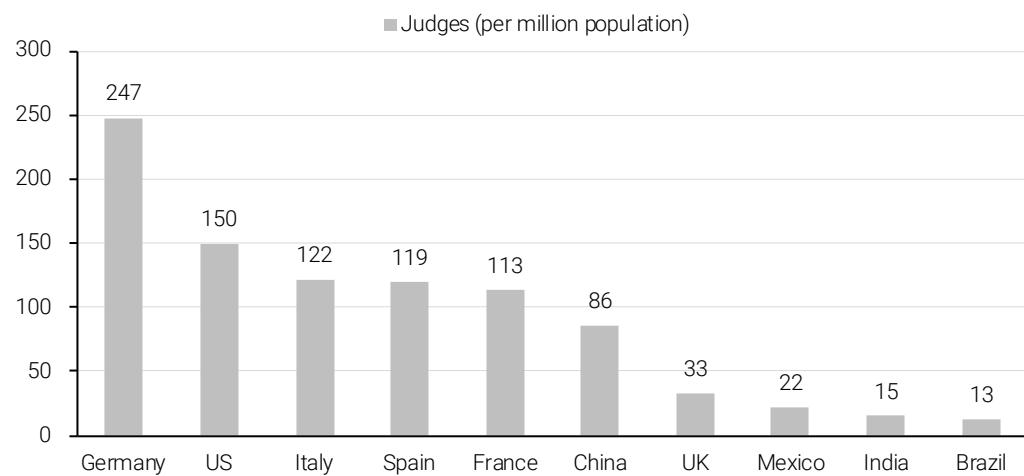
Exhibit 63: Average number of days taken for decision on resolved commercial cases (number of days)



Source: Bombay HC, Kotak Institutional Equities

India has one of the lowest judges-to-population ratios among major countries

Exhibit 64: Total number of judges per million people (X)



Source: CETA, Department of Justice, UNODC, Media reports, Kotak Institutional Equities

- **Streamlining processes.** We see a pressing need to address procedural redundancies in commercial litigation to reduce delays in decision-making. Several inefficiencies persist, such as (1) continued reliance on physical notices in many jurisdictions despite availability of e-filing and digital platforms, (2) underutilization of provisions that allow for swift disposal of cases with no real prospect of success, (3) the practice of filing multiple appeals under overlapping provisions, even though the Commercial Courts Act provides a streamlined appellate framework and (4) ineffective pre-mediation requirements, despite being mandatory, with most cases being “non-starters” and success rates remaining low, thereby unnecessarily prolonging the litigation process (see Exhibit 65).

Limited success in pre-mediation processes

Exhibit 65: Details on pre-mediation process in commercial cases in Delhi (#)

Cases at start of month		Received	Settled	Non-starter	Failed	Pending
Jan-25	2,216	1,281	13	1,213	25	2,246
Feb-25	2,246	1,116	12	1,134	12	2,204
Mar-25	2,204	1,143	13	1,171	10	2,153
Apr-25	2,153	1,066	13	1,283	14	1,909
May-25	1,909	1,220	29	1,085	87	1,928
Jun-25	1,928	746	5	697	14	1,958
Jul-25	1,958	1,459	25	1,206	23	2,163
Aug-25	2,163	1,104	13	741	9	2,504
Sep-25	2,504	1,252	17	1,158	15	2,566
Oct-25	2,566	1,101	9	1,037	19	2,602

Source: Delhi High Court, Kotak Institutional Equities

4

Higher share of investment required from companies and states

In our view, states and private companies will need to increase their focus on investment and innovation, if India has to improve its global competitiveness. We believe that states have a large investment opportunity set in urban infrastructure, given the existing poor quality of urban infrastructure in most cities. Meanwhile, the private sector continues to have a large investment opportunity size in investing for innovation and scale.

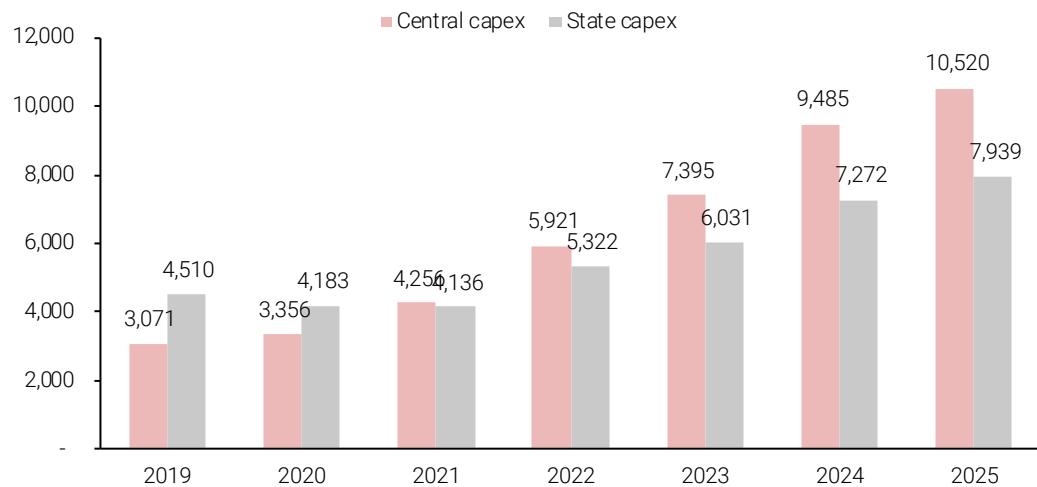
Large opportunities for state capex

States have ample opportunities to spend on capex, given the poor quality of rural and urban infrastructure. States' capex is focused on (1) intra-city roads and inter-city highways (state highways), (2) irrigation, (3) rural development and (4) water and sanitation. Some of the responsibilities are also with local governments (municipal corporations and village panchayats). For example, 95% of the 6.7 mn km road network in India is non-highway roads, which are constructed and maintained by state or local governments.

We note that state capex is a meaningful part of the government's overall capex, but it has lagged central government's capex over FY2021-25, with state capex moderating over FY2024-25 (see Exhibit 66). We note that only a select few major states have focused on capex in recent years (see Exhibit 67). States' capex spend is concentrated on (1) roads and bridges (21% of FY2025BE), (2) irrigation (16%), (3) water supply and sanitation (10%), (4) electricity and energy (6%) and (5) rural development (6%) (see Exhibit 68).

State government capex growth has been slower than central government capex; moderated over FY2024-25

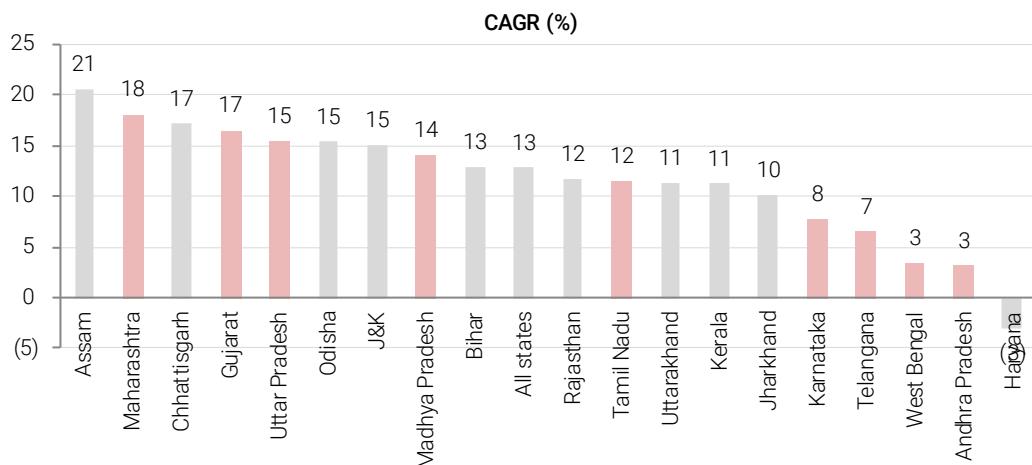
Exhibit 66: Central and state government capex, March fiscal year-ends, 2019-25 (Rs bn)



Source: CAG, CGA, Kotak Institutional Equities

Select large states have reported a strong capex growth over FY2019-25RE

Exhibit 67: Capex CAGR for select states, March fiscal year-ends, 2019-25RE (sorted on capex CAGR) (%)



Source: RBI, CEIC, Kotak Institutional Equities

States' capex is mostly in core infrastructure sectors

Exhibit 68: Key heads of capital expenditure, March fiscal year-end, 2025BE (Rs bn)

	2025BE
Transport (roads, etc.)	2,119
Irrigation	1,430
Water supply, sanitation	947
Rural development	613
Urban development	595
Energy	557
Education, sports, etc.	453
Health and family welfare	463
Agriculture, etc.	327
Welfare of SC/ST/OBCs	250
Industry, minerals	139
Housing	137
Special area programs	94
Social security and welfare	66
Others	984
Capital outlay	9,176

Source: RBI, Kotak Institutional Equities

However, the ability of states to accelerate spending on capex will depend on their fiscal position. States face fiscal challenges on three fronts: (1) limited fiscal space for capex, as fiscal deficits for most states are at or above the center-prescribed ceiling of 3% (see Exhibit 69), (2) consistent funding of capex by borrowings, given persistently high fiscal deficits and (3) steady shift toward populism/welfarism, particularly focused on women population.

Most states have large fiscal constraints

Exhibit 69: GFD/GSDP and debt/GSDP of major large states in India, March fiscal year-ends, 2020-26BE (%)

	GFD/GSDP (%)						Debt/GSDP (%)						Capex/GSDP (%)					
	2020	2021	2022	2023	2024	2025RE	2026BE	2020	2021	2022	2023	2024	2025BE	2023	2024	2025BE	2025RE	2026BE
Andhra Pradesh	4.3	5.6	2.2	4.0	4.4	4.6	4.4	33	36	34	33	34	35	0.7	1.7	2.1	1.6	2.6
Assam	4.3	3.3	4.4	5.9	3.7	NA	3.7	21	26	25	27	27	NA	3.4	3.8	4.1	5.3	4.0
Bihar	2.1	5.3	3.9	6.0	4.2	9.2	3.0	33	40	40	39	39	40	4.5	4.5	3.1	5.2	3.8
Chhattisgarh	5.2	4.5	1.5	1.0	4.6	4.1	3.0	25	28	26	24	24	23	2.9	2.7	3.3	3.2	4.2
Gujarat	1.5	2.5	1.2	0.8	1.0	1.9	2.0	20	23	20	19	18	19	1.7	2.4	2.8	2.8	3.4
Haryana	4.1	3.9	3.6	3.2	2.9	2.7	2.7	30	34	32	31	31	30	1.4	1.8	1.8	1.3	1.5
Himachal Pradesh	3.5	3.8	3.1	6.5	5.4	6.6	4.0	39	45	43	45	45	44	3.2	2.8	2.8	3.9	1.6
Jharkhand	2.6	5.0	0.7	1.1	1.4	2.3	2.0	30	37	30	28	27	27	4.4	5.4	6.1	4.7	4.7
Karnataka	2.4	4.1	3.3	2.1	2.6	2.9	2.9	21	26	25	25	25	25	2.7	2.2	2.0	2.0	2.3
Kerala	2.9	5.3	5.0	2.5	3.0	3.5	3.2	33	40	39	38	37	37	1.6	1.5	1.4	1.3	1.3
Madhya Pradesh	3.6	5.3	3.4	3.3	3.3	4.2	4.7	23	31	30	29	30	32	3.8	4.2	4.3	4.5	5.0
Maharashtra	2.0	2.7	2.0	1.9	2.8	2.9	2.8	18	21	19	18	18	18	1.8	1.9	2.2	2.7	2.1
Odisha	3.5	1.8	(3.0)	2.0	1.7	3.1	3.2	27	26	20	20	16	16	4.7	5.4	7.0	6.1	6.3
Punjab	3.1	4.2	4.4	5.0	4.4	4.5	3.8	43	48	45	47	47	47	1.2	0.7	1.0	1.1	1.2
Rajasthan	3.8	5.8	4.0	3.8	4.3	4.1	4.3	35	40	39	37	37	37	1.5	1.8	2.6	2.3	2.7
Tamil Nadu	3.5	5.3	3.9	3.4	3.3	3.3	3.0	27	32	32	32	31	31	2.0	1.8	2.0	1.9	1.9
Telangana	3.3	5.2	4.1	2.5	3.4	2.9	3.0	24	29	28	27	27	27	3.0	3.5	3.3	3.3	3.2
Uttar Pradesh	(0.7)	3.3	2.0	2.8	3.2	3.4	3.0	32	37	33	30	31	31	4.5	4.7	6.6	5.7	5.7
Uttarakhand	3.2	2.4	1.5	1.0	2.2	2.5	2.9	28	33	31	27	25	25	2.7	3.2	3.6	3.3	3.5
West Bengal	3.1	3.9	3.8	3.3	3.2	4.0	3.6	38	44	41	39	38	39	1.5	1.7	1.9	1.7	2.0

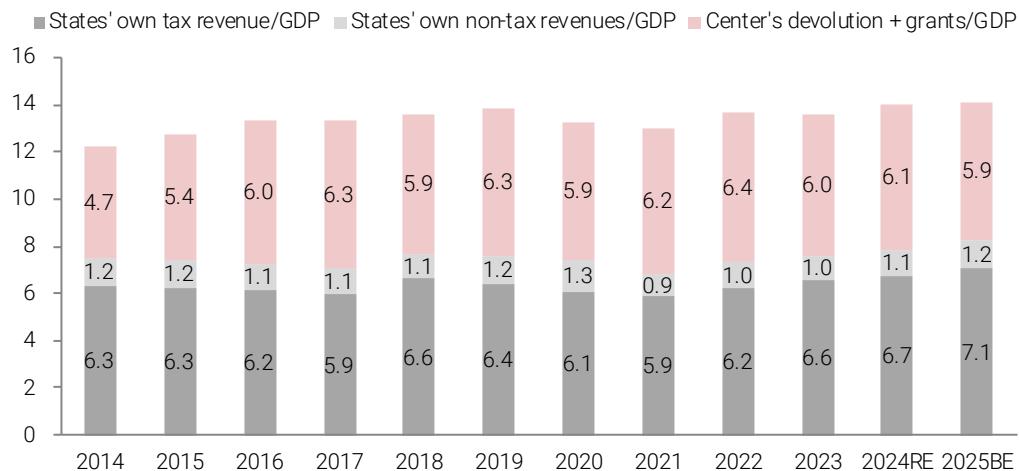
Source: State budgets, RBI, CEIC, Kotak Institutional Equities

The role of states in overall government capex will become more critical in the future given the vast requirement for capex in rural and urban infrastructure. In particular, city infrastructure has large scope for investment in the areas of housing (affordable), transportation (mass transportation system) and water (along with sanitation and sewage). In addition, we note that the central government may be running out of opportunities to spend in the areas of railways and roadways; see our March 25, 2025 report titled *Investment cycle: Wheels turning slower*.

- ▶ **Limited fiscal space to increase capex.** At an aggregate level, states' GFD/GDP has hovered around the 3% mark over the past few years. Revenue collections have been healthy, but the center's contribution to states' revenues has continued to shrink. In years of stress, states have preferred to be conservative given the ceiling of 3% (with some exceptions based on reforms, center's approvals, etc.), which has translated into states cutting back on capex. We note that the risks to capex have increased recently with states refocusing on cash handouts in the form of income support to women.
- ▶ **Borrowings fund capex.** It will be difficult for states to finance higher capex growth for the foreseeable future, unless they can reform their expenditure profile. States' capex is completely funded by borrowings given the mismatch between revenues and expenditure of states. States' receipts (own tax revenues and center's devolution and transfers) are completely utilized by states' revenue expenditure. States' revenues are dominated by SGST, taxes on alcohol and petroleum, land and property and non-tax revenues from electricity, mining and industries and others. States' own revenues are around 8% of GDP and have increased moderately over the years (see Exhibit 70). However, transfers from the center (as a share of GDP) have not improved significantly and in fact, the FY2025BE figure is lower than the FY2019 figure (pre-pandemic).

States' own revenues have increased in the past few years but transfer from center has stagnated

Exhibit 70: States' own tax and non-tax revenues as a share of GDP, March fiscal year-ends, 2014-25BE (%)



Source: RBI, CEIC, Kotak Institutional Equities

► **Populism on the rise again in states.** We do not expect a change in the revenue expenditure profile of states in the medium term, even though states need to transform their revenue expenditure profile meaningfully to boost capex. In fact, multiple states have moved toward populism over the past 1-2 years. Several large states have implemented cash transfer programs for select women groups of the population, apart from the usual welfare schemes, as part of election promises from political parties during state elections. If these recently announced schemes were to be implemented in full, the expenditure on such programs would amount to around 0.6% of aggregate GDP (though individual states' expenditure would be much higher as proportion of respective states' GSDP) with upside risks if more states were to implement similar programs or if states were to expand existing programs (see Exhibit 71).

Multiple state governments have launched women-focused schemes over the past few years

Exhibit 71: Cash transfer-based women schemes in select states

State	Annual transfer (Rs)	Estimated cost	
		(Rs bn)	(% of GSDP)
Mukhyamantri Mahila Rozgar Yojana	Bihar	10,000	75
Mahila Samridhi Yojana	Delhi	30,000	60
Lado Lakshmi Yojana	Haryana	25,200	200
Mukhyamantri Maiya Samman Yojana	Jharkhand	30,000	150
Gruh Lakshmi Scheme	Karnataka	24,000	310
Ladli Behna Yojana	Madhya Pradesh	15,000	195
Majhi Ladki Bahin Yojana	Maharashtra	18,000	460
Subhadra Yojana Kalaighar	Odisha	10,000	100
Magalir Urimai Scheme	Tamil Nadu	12,000	135
Lakshmi Bhandar Scheme	West Bengal	13,200	290
Total	18,012	1,974	

Notes:

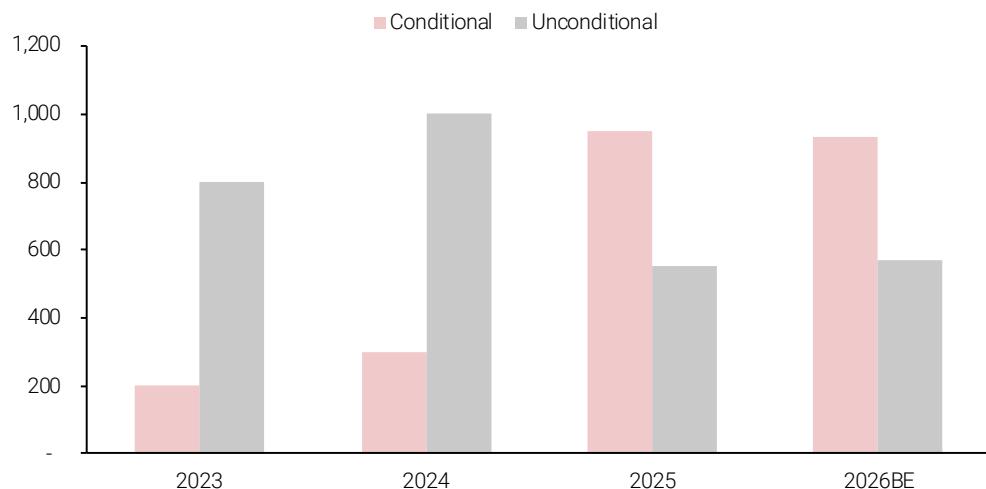
- (a) Budgeted costs likely to be lower than estimated costs.
- (b) Estimated costs based on number of beneficiaries as per media reports.
- (c) FY2025 GSDP is used.

Source: Media reports, Kotak Economics Research estimates

► **Greater need for center's assistance.** In our view, the central government may need to provide more support to states (with conditions for reforms, etc.) to cover the diminishing fiscal space for capex. This may be done through (1) increasing share of states in center's tax collections and (2) increase in loans for capex to states. We note that the central government already has a prudent framework for loan disbursal to states for capex (see Exhibits 72-73) through the SASCI (Special Assistance to States for Capital Investment) scheme (see Exhibit 74). Simultaneously, states will need to expedite various state-level reforms, to attract external/private sector capital, which can augment governments' efforts on infrastructure spending. Additionally, with a differentiated reforms agenda and implementation, states/local bodies may be able to access capital markets for funding opportunities.

Share of conditional loans have seen sharp increase under SASCI scheme

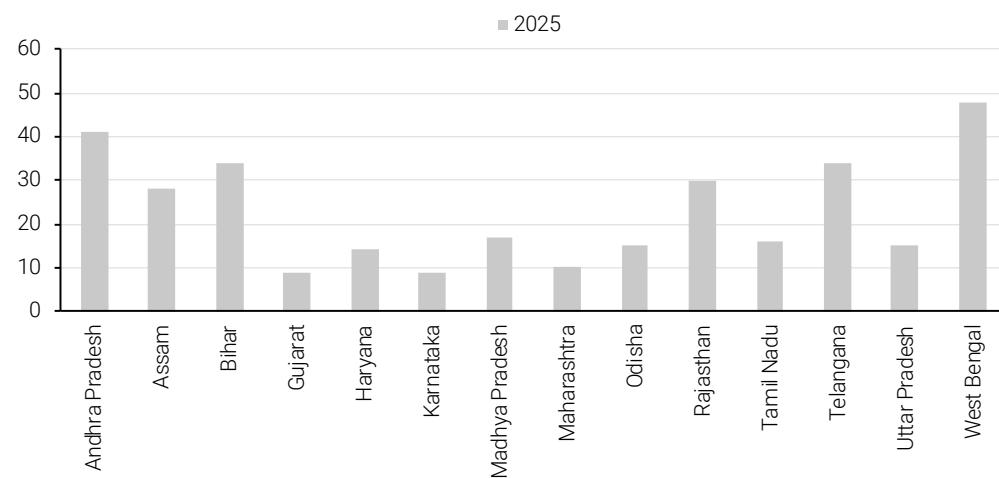
Exhibit 72: Conditional versus unconditional loans under the SASCI scheme, March fiscal year-ends, 2023-26BE (Rs bn)



Source: Various economic surveys, scheme guidelines for SASCI, Kotak Institutional Equities

Select large states have large dependence on SASCI loans for capex

Exhibit 73: SASCI loans as a % of capital outlay of states, March fiscal year-ends, 2025 (%)



Source: Various economic surveys, scheme guidelines for SASCI, Kotak Institutional Equities

We do not see availability of funds for the central government as being an impediment for higher allocation to states under the SASCI scheme. The government can monetize a portion of its holdings in PSUs in case it would require additional funds for the scheme. The central government has very high holding in several non-financial and financial PSUs (see Exhibit 74), which it can monetize periodically to raise additional funds. We do not see any major resistance for this funding model, as the funds will be used primarily for rural and urban infrastructure.

Government can raise around Rs21 tn if it was to sell its entire holding in non-financials PSUs
Exhibit 74: List of PSUs with more than 51% government holding (sorted on market cap.)

Company	Market Cap.		Govt holding (%)	Stake sale	
	(Rs bn)	(US\$ bn)		Entire	up to 51%
Non-financial PSUs					
NTPC	3,152	35	51.1	1,611	3
ONGC	2,994	33	58.9	1,763	236
Hindustan Aeronautics	2,877	32	71.6	2,061	594
Bharat Electronics	2,847	32	51.1	1,456	4
Power Grid Corp.	2,452	27	51.3	1,259	8
Coal India	2,362	26	63.1	1,491	287
IOCL	2,311	26	51.5	1,190	12
BPCL	1,584	18	53.0	839	31
GAIL (India)	1,122	12	51.5	578	6
Mazagon Dock	992	11	81.2	806	300
BHEL	993	11	63.2	627	121
NHPC	775	9	67.4	522	127
NMDC	685	8	60.8	417	67
Oil India	658	7	56.7	373	37
Rail Vikas Nigam	654	7	72.8	477	143
IRCTC	539	6	62.4	337	61
SAIL	545	6	65.0	354	76
Fertilizers & Chemicals Travancore	535	6	90.0	482	209
Bharat Dynamics	517	6	74.9	387	124
National Aluminium Co.	511	6	51.3	262	1
Cochin Shipyard	421	5	67.9	286	71
Container Corp.	385	4	54.8	211	15
Hindustan Copper	370	4	66.1	245	56
NLC India	338	4	72.2	244	72
ITI	293	3	90.0	264	114
NBCC	296	3	61.8	183	32
SJVN	284	3	81.9	233	88
Garden Reach Shipbuilders & Engineers	269	3	74.5	201	63
KIOCL	210	2	99.0	208	101
GMDC	165	2	74.0	122	38
IRCON International	148	2	65.2	96	21
BEML	141	2	54.0	76	4
CPCL	138	2	51.9	72	1
NMDC Steel	122	1	60.8	74	12
Engineers India	108	1	51.3	56	0
RITES	109	1	72.2	79	23
Shipping Corp.	105	1	63.8	67	13
Railtel Corp.	106	1	72.8	77	23
Total	33,672	374		20,506	3,334
Financial PSUs					
State Bank of India	8,890	99	55.0	4,892	358
LIC	5,488	61	96.5	5,296	2,497
Bank of Baroda	1,471	16	64.0	941	191
IRFC	1,487	17	86.4	1,285	526
Punjab National Bank	1,354	15	70.1	949	258
Canara Bank	1,330	15	62.9	837	159
Union Bank	1,166	13	74.8	872	277
PFC	1,136	13	56.0	636	57
Indian Bank	1,063	12	73.8	785	243
Indian Overseas Bank	713	8	94.6	675	311
GIC	671	7	82.4	553	211
Bank of India	642	7	73.4	471	144
Bank of Maharashtra	439	5	73.6	323	99
HUDCO	428	5	75.0	321	103
IREDA	383	4	71.8	275	79
UCO Bank	364	4	91.0	331	146
Central Bank of India	330	4	89.3	294	126
New India Assurance	283	3	85.4	242	98
Punjab & Sind Bank	197	2	93.9	185	84
IFCI	131	1	72.6	95	28
J&K Bank	113	1	59.4	67	9
Total	28,145	312		20,371	6,016
Total	61,817	686		40,877	9,350

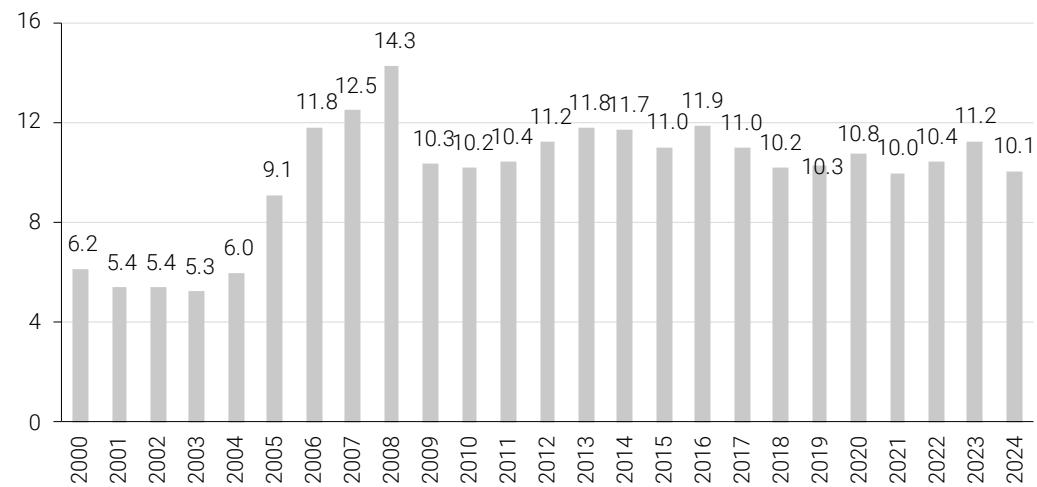
Source: Capitaline, Kotak Institutional Equities

Private sector investment rate needs improvement; incentives may need to be realigned

India's private capex rate weakened in FY2024, after witnessing steady improvement over FY2019-23, resulting in the headline private GFCF/GDP ratio falling to below FY2010 levels (see Exhibit 75). Furthermore, it would appear that the strong focus on corporate profitability has resulted in companies limiting their spending on R&D and innovation (see Exhibit 76). Meanwhile, Indian companies have seen steady improvement in government support through a plethora of supply-side reforms over the last decade, which we have discussed in previous sections. The production-linked incentive scheme is the most prominent example of direct support to companies (see Exhibit 77). However, despite the wide benefits provided, innovation and investment have remained limited to select business houses.

Private sector GFCF has remained muted over last few years

Exhibit 75: Private sector gross fixed capital formation as a % of GDP, March fiscal year-ends, 2000-24 (%)



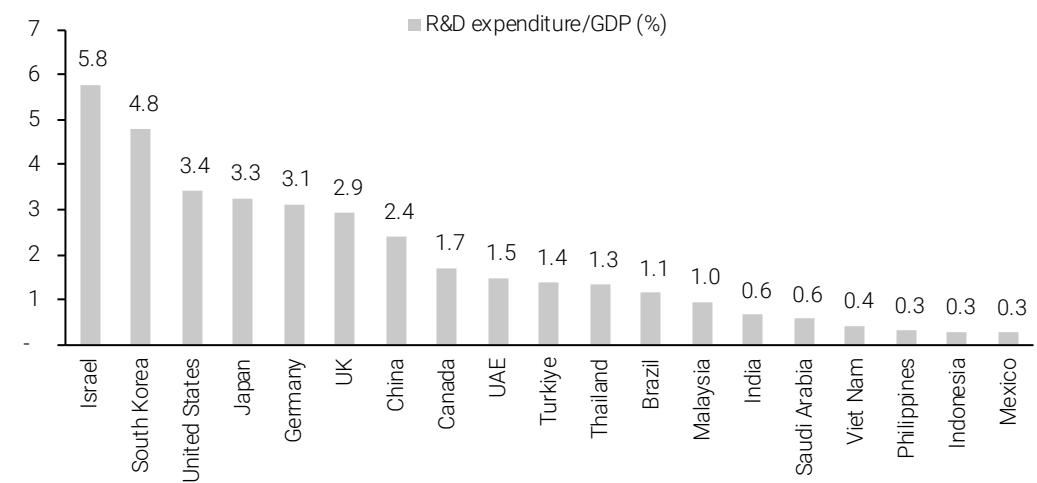
Notes:

(a) Data from 2012 onwards is based on new GDP series.

Source: RBI, Kotak Institutional Equities

India lags major economies in R&D expenditure

Exhibit 76: R&D expenditure as a proportion of GDP, calendar year-end, 2023 (%)



Source: World Bank, Kotak Institutional Equities

Companies received Rs140 bn of PLI over FY2022-25RE

Exhibit 77: PLI and semiconductor manufacturing incentives, March fiscal year-ends, 2022-26BE (Rs bn)

	2022	2023	2024	2025RE	2026BE
Mobile + IT Hardware	22.0	42.8	57.8	90.0	
Semiconductors, etc.	2.0	6.8	38.2	70.0	
Auto Comps	0.0	0.0	3.5	28.2	
Pharma	17.0	16.0	21.5	24.4	
Food Processing	0.1	8.0	5.9	7.0	12.0
White goods			0.7	2.1	4.4
Speciality steel			0.0	0.6	3.1
Advanced chemistry cell			0.1	0.2	1.6
Drone		0.6	0.3	0.6	0.0
Textile			0.0	0.5	11.5
Telecom and Networking		1.0	8.0	0.0	0.0
Total	0	29	38	74	155

Source: Union budget, Kotak Institutional Equities

In our view, Indian companies may need to rethink their long-term strategy in developing globally competitive product/services, if they are to deliver on decent earnings growth over multiple decades, as is implied by their current valuations.

- ▶ **Automobiles & components.** Indian OEMs may need to pivot from the current low-cost manufacturing strategy to capability development in order to become competitive on a global scale. This may require (1) committing 5-7% of revenues to R&D, (2) investing in EV and hybrid architectures, (3) battery management systems, (4) connected vehicle software and (5) embedded electronics. Building modular, export-ready platforms can allow faster model launches across multiple powertrains (CNG, EV, hybrid, ICE). Collaborations with global technology firms and startups will be crucial for integrating AI, ADAS, over-the-air software systems and telematics. Tier-1 and Tier-2 suppliers, too, would need to upgrade toward precision manufacturing, lightweight materials and digital twins to match global benchmarks. Indian OEMs would also need to adopt digital product engineering, develop regional innovation hubs and establish R&D partnerships with academia to strengthen intellectual property pipelines.
- **Policy support.** In our view, policy support must evolve from incentives for scale to incentives for innovation to facilitate this transformation. The government can look to extend and deepen PLI schemes to include (1) R&D-linked disbursements, (2) tax credits for technology development and (3) green financing instruments for clean mobility projects. Import duty rationalization on advanced components such as battery cells, semiconductors and sensors will accelerate localization without penalizing innovation. Additionally, long-term regulatory clarity on EV subsidies, flex-fuel standards and hydrogen adoption may help in attracting global capital, which would require policy stability.
- **Indian manufacturing.** While Indian OEMs have demonstrated excellence in frugal engineering, compact vehicle platforms and supply-chain efficiency, the sector remains underinvested in core R&D, advanced electronics and software capabilities. Exhibit 78 shows the R&D expenditure as a proportion of major Indian auto OEMs versus global OEMs including Chinese OEMs. The opportunity for Indian OEMs lies in moving up the value chain such as (1) creating indigenous vehicle architectures, (2) high-efficiency powertrains and (3) smart connected platforms aligned with future mobility trends.

Indian auto OEMs spend significantly less on R&D than global peers

Exhibit 78: R&D/sales of major Indian OEMs versus major global OEMs, March fiscal year-ends, 2024-25 (%)

Company	R&D/sales (%)	
	2024	2025
Indian OEMs		
Ashok Leyland	0.3	0.4
Bajaj Auto	1.3	1.6
Eicher Motors	2.8	3.2
Escorts	1.6	1.7
Hero Motocorp	2.2	2.6
Hyundai Motor India	0.1	0.1
Mahindra & Mahindra	2.8	2.7
Maruti Suzuki	0.6	0.4
Ola Electric	1.6	2.8
Tata Motors		2.9
TVS Motor	2.0	2.8
Global OEMs		
Asia		
BYD	6.6	7.0
Chery	4.1	3.4
Geely	4.4	4.3
Honda	4.5	5.1
Hyundai	2.4	2.6
Kia Motors	2.6	3.0
Li Auto	8.5	7.7
Nissan	4.8	4.9
Suzuki	4.2	4.1
Toyota	2.7	2.8
Europe		
BMW	5.0	6.4
Daimler	6.6	6.7
Porsche	7.0	6.3
Renault	4.9	4.7
Stellantis	3.0	3.7
Volkswagen	6.8	6.5
North America		
Ford	4.7	4.3
General Motors	5.8	4.9
Rivian	45.0	32.5
Tesla	4.1	4.6

Notes:

- (1) Fiscal year 2024 and 2025 for India and Japan.
- (2) Calendar year 2023 and 2024 for rest of the world.
- (3) M&M R&D expense includes capex.

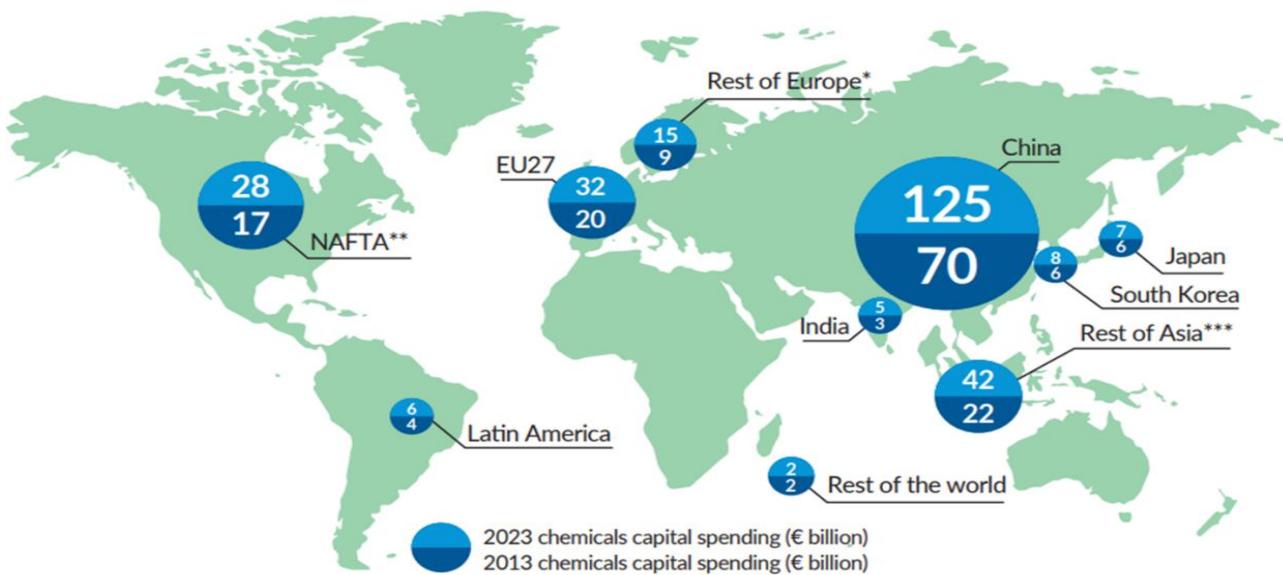
Source: Companies, Bloomberg, Kotak Institutional Equities

- **Global manufacturing.** Globally, the automotive landscape is transforming into a technology race, led most aggressively by China, which has rapidly developed full-stack capabilities across the EV value chain: (1) battery cell manufacturing and giga-factories, (2) semiconductor design, (3) autonomous driving systems and (4) connected vehicle ecosystems. Supported by strong industrial policy and long-term capital access, Chinese OEMs such as BYD, Geely and SAIC have evolved from imitators to technology leaders, capturing export markets in ASEAN, Europe and Latin America. Their edge lies in vertical integration, large-scale domestic demand and coordinated government-industry R&D programs. In contrast, Western OEMs (Ford, GM, Stellantis, Volkswagen) are retooling around software-defined vehicle platforms, hydrogen pilots and AI-based predictive analytics, while Korean and Japanese players continue to dominate hybrid and solid-state battery technologies.

- ▶ **Chemicals.** A recent report by NITI Aayog recommended various interventions, including (1) creation of chemical hubs, (2) fast-track provision of environmental clearances and (3) government support for innovation. Concerted action by the government on these fronts is essential for the Indian chemical industry to emerge out of the shadow of China's dominance. On the industry's part, the focus should be on (1) innovation to develop differentiation versus Chinese companies in terms of products and/or processes and (2) building scale and vertical integration in the relatively more commoditized segments where cost competitiveness is the main consideration. The Indian chemical industry has been demanding a Production Linked Incentive (PLI) scheme for the past several years.
- **Pricing headwinds due to China's aggressive pricing strategy.** The significant growth in the Indian domestic market over the past couple of decades has been an additional tailwind for the Indian chemical industry. However, it has been unable to match the scale of China's exports in global markets. The key reasons for this include: (1) capacity handicap of Indian companies relative to China (as well as limited backward integration), in turn reflecting limited balance sheet size relative to Chinese competitors, (2) inadequate government incentives and support to the local industry in contrast to the substantial support enjoyed by Chinese producers and (3) lack of access to technology, in some cases. Indian companies' ability to invest has increased considerably in the past few years, due to availability of equity capital from a buoyant capital market. However, Indian chemical companies lag their peers in major economies in capex as well as R&I spending significantly (see Exhibits 79-80). We believe that the industry may need government assistance, if India has to break the stranglehold of the Chinese in key segments.

China accounts for almost half of global chemical capex, whereas India's share remained a tiny 2% as of 2023

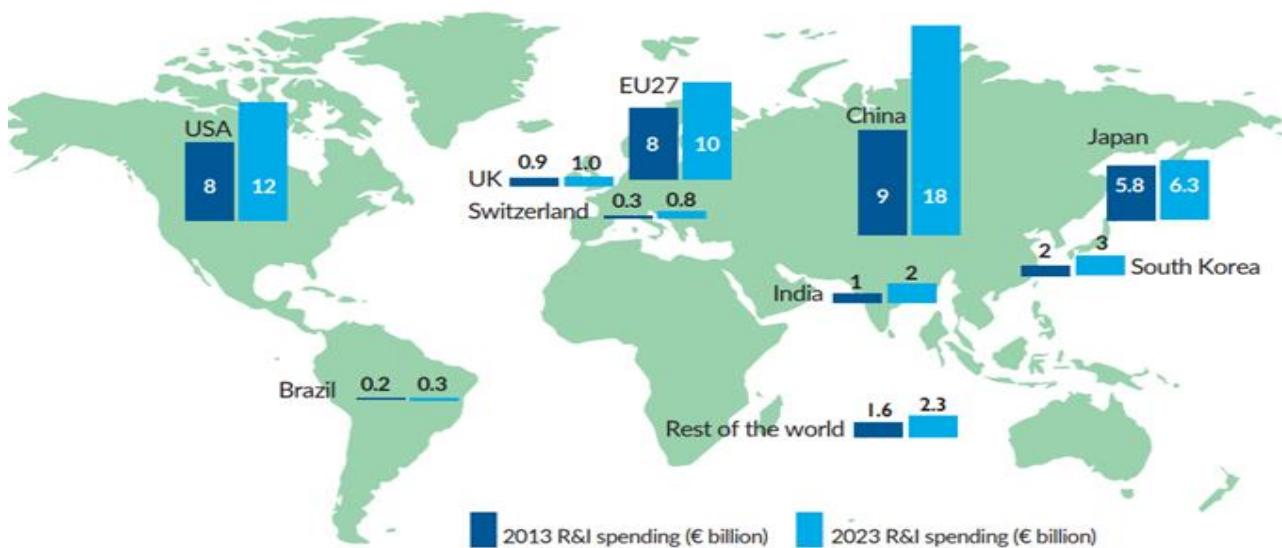
Exhibit 79: Capital spending by region (comparison between CY2023 and CY2013)



Source: Cefic Chemdata International, Kotak Institutional Equities

China leads in research & investment (R&I) spending followed by the US and Europe; India's R&I spend is still very low

Exhibit 80: Research & investment (R&I) spending in the chemical industry by region (comparison between CY2023 and CY2013)

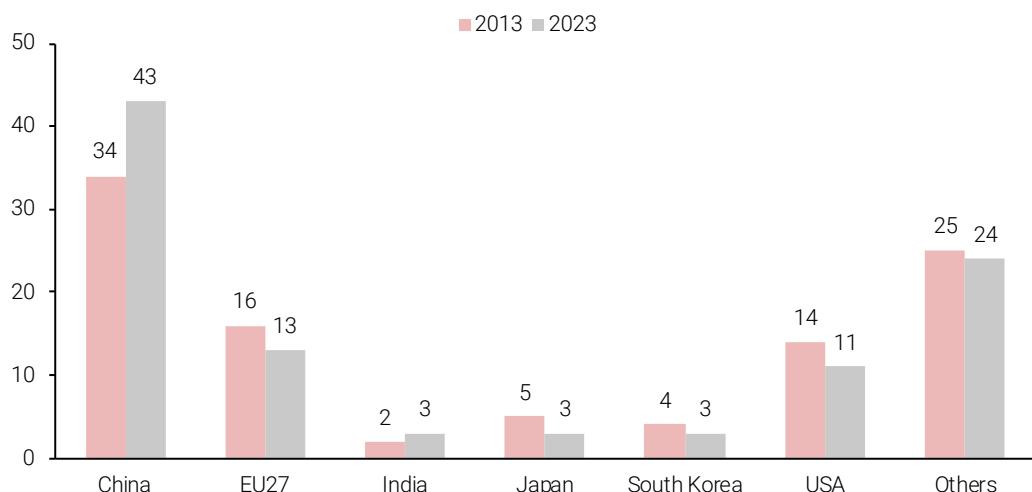


Source: Cefic Chemdata International, Kotak Institutional Equities

India accounts for only 3% of global chemical sales and remains dwarfed by China, which contributes 43% of global chemical sales (see Exhibit 81). India is the world's largest net importer of chemicals and is heavily dependent on China in several key value chains, with negligible local manufacturing in select segments. This remains the case even though China's manufacturing cost advantage versus India in terms of electricity costs or wage rates has largely disappeared over the past decade (see Exhibits 82-83). Despite the advantage of having a large and skilled workforce of chemists and engineers, Indian companies generally remain 'followers' rather than 'leaders' in terms of product development—companies copy products made in the developed economies rather than make the heavy investments required to innovate. This has exposed them to heavy competition from China.

India's share of world chemical sales remains minuscule at 3%; China's share has grown to nearly half of the world market

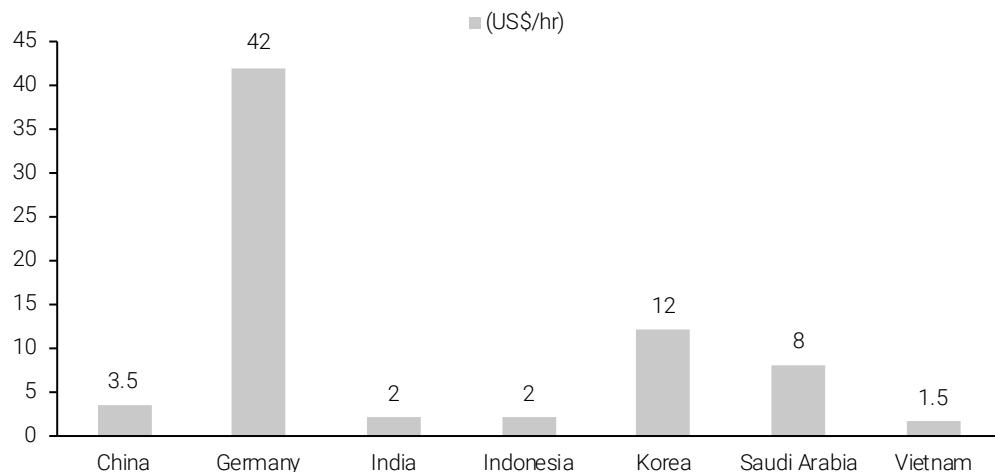
Exhibit 81: Breakdown of world chemical sales by major regions, calendar year-ends, 2013-23 (%)



Source: Cefic Chemdata International, Kotak Institutional Equities

India has one of the lowest labor costs in the world

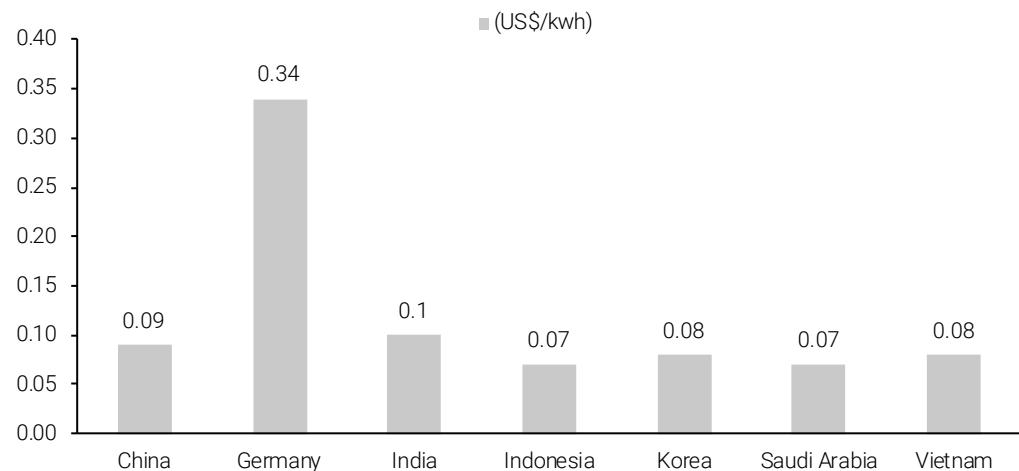
Exhibit 82: General labor costs in India versus other manufacturing economies, calendar year-end, 2020 (US\$/hr)



Source: McKinsey, Kotak Institutional Equities

India has reduced the gap in industrial electricity cost versus China

Exhibit 83: Electricity costs in India versus other manufacturing economies, calendar year-end, 2022 (US\$/kWh)



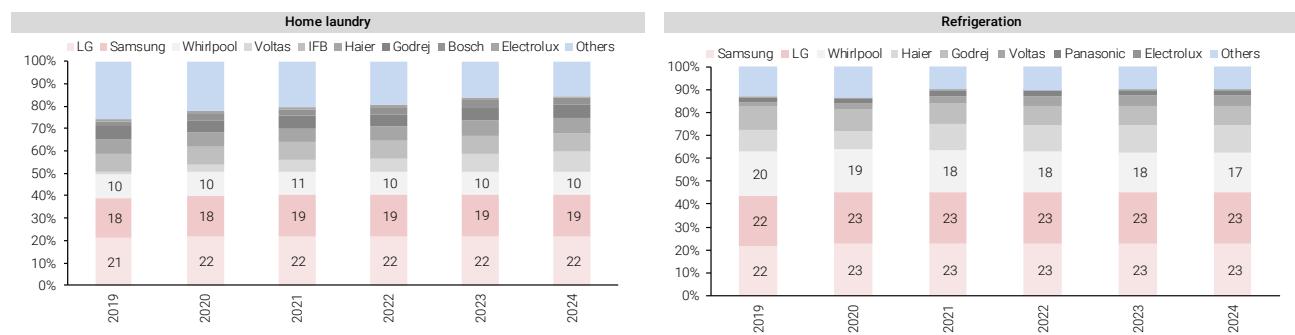
Source: McKinsey, Kotak Institutional Equities

- **Consumer durables.** In our view, Indian companies must (1) increase R&D investments significantly, even at the expense of short-term profitability and (2) move beyond components assembly to fundamental product R&D, which will enable India to deliver breakthrough innovations, in order to build a durable moat in a highly competitive domestic market and gain global presence. For instance, the entire RAC industry in India is dependent on a few foreign players for compressors. This needs to change if Indian players want to remain competitive in a market where (1) product differentiation is limited and (2) regulatory changes are frequent. Companies can improve cost competitiveness over time through automation (optimizing inventory, reducing manufacturing costs and streamlining processes) and scale-driven operating leverage.

- **Government support.** The Indian government can support the sector by prioritizing Free Trade Agreements (FTAs) with consumption-driven economies to open export markets for Indian-manufactured goods. This would enable companies to achieve economies of scale. Additionally, incentives for large-scale capacity building are critical. China, for instance, manufactures over 200 mn compressors annually, giving it a large cost advantage. While PLI schemes aid manufacturing, dedicated tax breaks or grants for R&D in AI, green technology and IoT would accelerate innovation. Consistent enforcement of energy-efficiency standards (BEE star ratings) and product quality norms will curb substandard imports and promote a culture of quality, benefiting domestic players investing in advanced technology. Finally, government-industry collaboration on skill development programs in advanced manufacturing, automation and electronics design will ensure a skilled workforce, addressing a key growth challenge.
- **Global presence within India.** The Indian consumer durables sector is currently dominated by the MNC brands (see Exhibit 84) led by companies from (1) Korea: LG/Samsung—integrated AI/IoT in devices), (2) Japan: Daikin/Hitachi/Panasonic—pioneers in highly efficient, sophisticated climate control systems), (3) Europe: BSH, (4) Chinese: Haier/Carrier—addressed key local pain points, and (5) US: Whirlpool—pioneered automatic washing machines. Most of these global brands have spent decades on R&D to come out with breakthrough innovation. Their R&D spends range from 2-12% of global sales (see Exhibit 85). In contrast, Indian companies (including MNC subsidiaries) allocate <1% of sales to R&D, focusing largely on incremental innovation (see Exhibit 86).

Indian consumer durables sector is currently dominated by MNCs

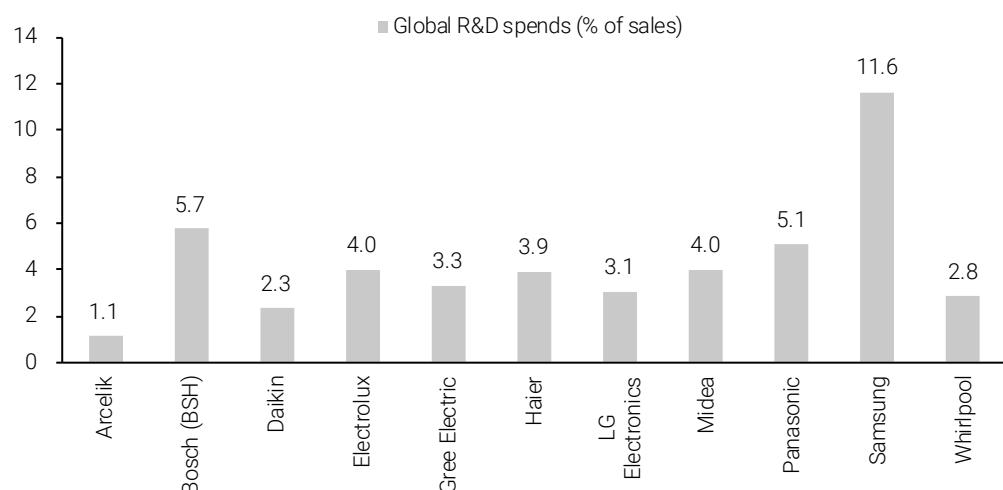
Exhibit 84: Volume market share in Indian home laundry and refrigeration appliances market, December year-ends (%)



Source: Euromonitor, Kotak Institutional Equities

Global home appliance manufacturers have high spending on R&D

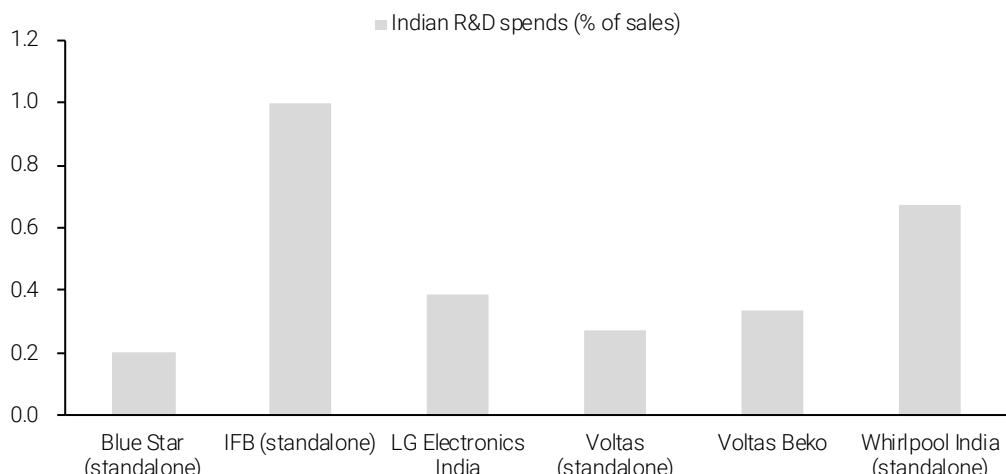
Exhibit 85: R&D budgets of leading home appliances manufacturers across the world, calendar year-end, 2024



Source: Companies, Bloomberg, Kotak Institutional Equities

Indian home appliance manufacturers have low R&D expenditure

Exhibit 86: R&D budgets of leading Indian home appliances manufacturers, March fiscal year-end, 2025 (%)



Source: Companies, Bloomberg, Kotak Institutional Equities

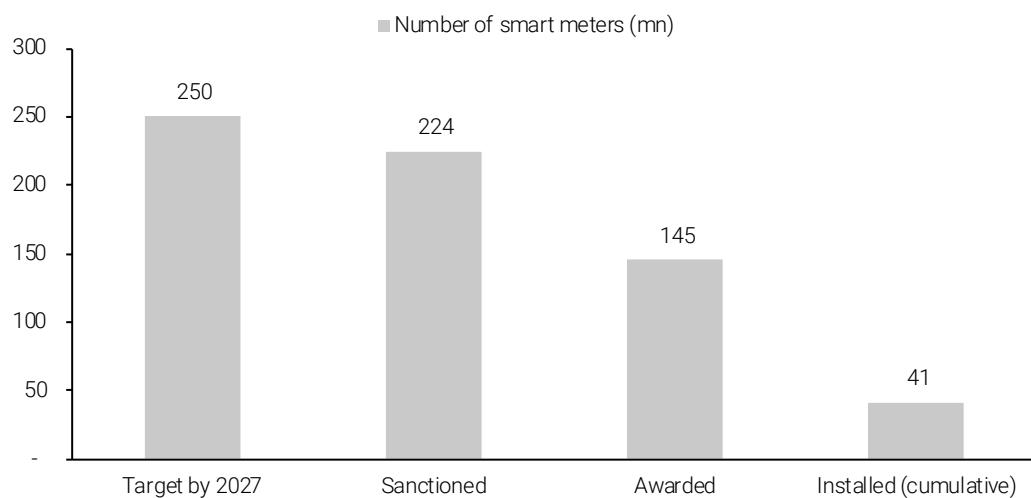
► **Defense.** India's defense sector has transformed over the past decade to an emerging exporter and innovator from a major importer of military hardware. Indigenous production hit a record Rs1.5 tn in FY2024, while exports surged to Rs230 bn, a 30X increase since FY2014. Despite this progress, the ecosystem remains in transition, with gaps in deep-tech capabilities, global competitiveness and R&D intensity. India's credibility has improved, with more than 100 countries importing Indian-origin platforms, but to become a true global defense hub, the country must move beyond incremental gains and adopt bold reforms in industrial policy, procurement and R&D.

- **Value addition and manufacturing depth.** India's defense manufacturing remains dominated by assembly and licensed production, with limited local value addition in critical subsystems such as avionics, propulsion and sensors. While platforms such as Akash (missile), Pinaka (multi-barrel rocket launcher) and Tejas (combat aircraft) highlight indigenous progress, many components are still imported under Transfer of Technology (ToT) agreements that restrict know-why access. To emulate global leaders such as the US, France and Israel, India must target 40-50% value addition across platforms and systems. This demands a shift from assembly-led production to full-stack manufacturing, underpinned by robust domestic supply chains and component ecosystems.
- **Innovation.** India continues to lag global peers in defense innovation, with R&D spending modest by international standards. While DRDO and initiatives such as iDEX (Innovation for Defence Excellence) have driven progress in areas such as counter-drone systems, electronic warfare and UAVs, most breakthroughs remain limited to prototypes or small-scale deployment. To scale up innovation, India must: (1) institutionalize co-development models with academia and industry, (2) expand funding for defense startups and (3) adopt spiral development frameworks for iterative upgrades (for example, Tejas Mk1A to Mk2).
- **Competition and global positioning:** India's defense exports have grown impressively, but remain a fraction of the global defense trade. China, Russia and the US dominate the global arms market, with deep backward integration and strategic subsidies. India's exports, though rising, are limited to allies and niche platforms. To compete globally, the country needs to (1) reduce import dependence on critical components through targeted indigenization lists, (2) support MSMEs with access to technology and capital, (3) expand defense corridors in Tamil Nadu and Uttar Pradesh to cluster innovation and scale and (4) offer export incentives and streamline compliance to meet global standards. The newly launched Defense Procurement Manual (DPM) 2025 is a positive step, which simplifies procurement, eases MSME entry and incentivizes timely delivery. However, sustained innovation will require deeper reforms in defense financing, export licensing and IP ownership.

- ▶ **Electric utilities.** India's electricity sector is focused on digital transformation, grid modernization and storage scale-up to integrate gigawatt-scale renewables and enhance distribution efficiency. By 2030, policy targets aim at (1) 500 GW non-fossil capacity, (2) 40-60 GWh storage (battery + pumped hydro), and (3) over 250 mn smart meters under Revamped Distribution Sector Scheme (RDSS). These goals depend on resolving transmission constraints and mainstreaming storage in procurement. Currently, transmission capacity build-out lags renewables capacity addition, leaving >50 GW of projects stranded, while smart-meter rollout is behind schedule, likely extending RDSS timelines. Unlocking the next wave of innovation in AI-driven grids, HVDC corridors and hybrid + storage solutions, requires coordinated generation, transmission and distribution planning and accelerated storage tenders.
- **Smart metering.** We note that the current smart meter installation stands at 41 mn, far behind the 250 mn household target, despite sanctions for 200+ mn meters under the RDSS; see Exhibit 87. In our view, allowing private players to participate in installations, even in areas licensed to public distribution companies, could significantly accelerate the rollout of smart meters.

Installation of smart meters necessary to implement ToD tariffs

Exhibit 87: Smart meters, targets and progress (mn)



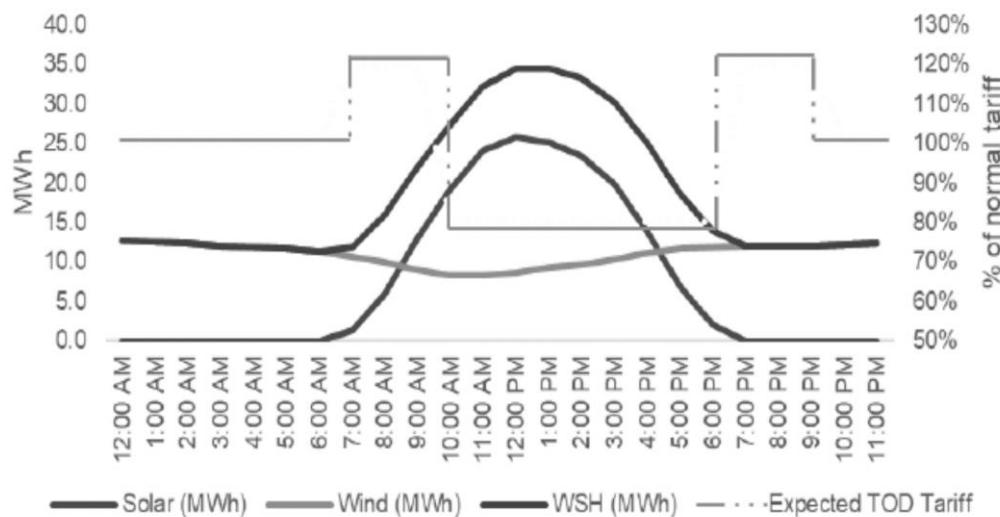
Source: NEP, Managed Transmission Portal

- **Time of day (ToD) tariffs.** We note that implementation of ToD, a demand-side management measure, is pending despite the original plan to implement ToD tariffs for commercial and industrial consumers with maximum demand of 10 KW and above by April 1, 2024, and for all other consumers (except agricultural consumers) by April 1, 2025. A pick-up in installation of smart meters, especially for commercial and industrial users, would help in implementing ToD tariffs, thereby reducing the pressure on the grid during peak hours.

Time of Day (ToD) tariffs can be used as a means to incentivize consumers to shift a portion of their loads from peak times to off-peak times, thereby improving the system load factor by reducing the demand on the system during peak periods. Under this system, peak-hour rates would be 20% higher for commercial consumers and 10% higher for others. In contrast, during off-peak hours (afternoon, when solar electricity generation is at peak), electricity would cost at least 20% lower. ToD pricing (see Exhibit 88) would affect the energy part of the electricity bill, not fixed or other charges. Each state's electricity regulatory body (state commission) would decide the exact timings and rates for peak and non-peak (period of high solar electricity generation) hours.

TOD tariffs can help effectively manage the demand load during peak hours

Exhibit 88: TOD tariff movement with respect to solar and generation profile

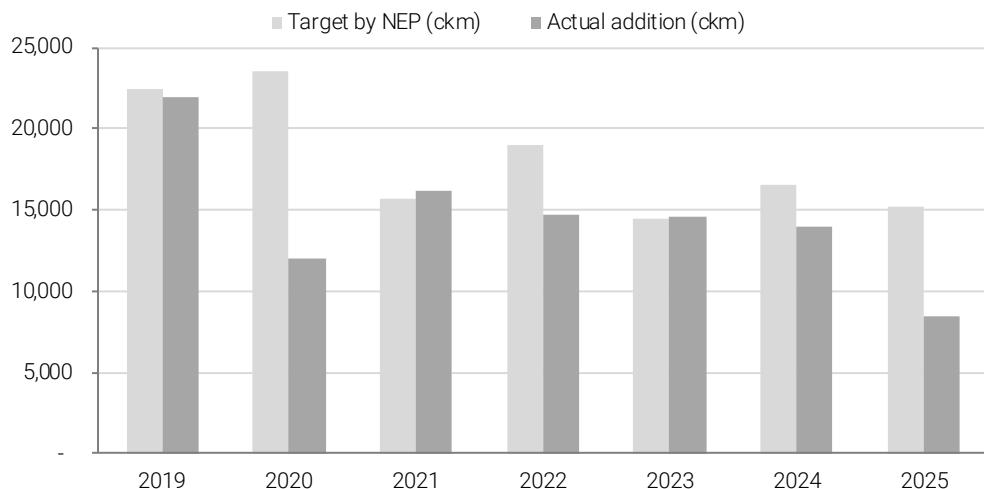


Source: NEP, Managed Transmission Portal

- **Investments in India's transmission infrastructure (Green Energy Corridor).** India's planned investments in transmission has lagged its NEP targets in terms of annual ckm addition over most of the past seven years (see Exhibit 89). It is obvious that investments in transmission need to precede renewable capacity addition. However, the tardy execution of transmission capacity coupled with modest growth in electricity demand had led to issues such as (1) curtailment of supply in parts of the country and (2) delays in signing of PPAs for new solar generation capacity. Higher investments in transmission should help in addressing these issues. Power Grid has also missed its asset capitalization targets in FY2025 (Rs90 bn actual versus Rs180 bn target), while also lowering its guidance for FY2026E to Rs220 bn from Rs300 bn. In our view, government support in securing right of way for transmission projects would help accelerate setting up of new transmission capacities in the country. Improved procurement of transmission equipment should also help improve execution.

Transmission capacity addition has lagged targets in most of the years

Exhibit 89: Transmission – NEP targets and actual additions, March fiscal year-ends, 2019-25 (ckm)

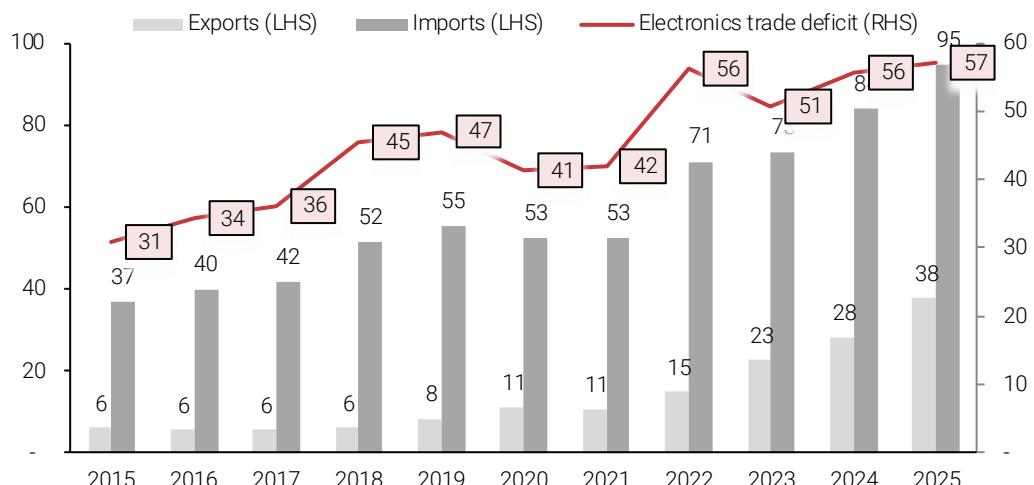


Source: NEP, Managed Transmission Portal

- **Investments in new hybrid/FDRE projects.** Despite rapid growth in renewable capacity, coal still accounts for around 75% of India's electricity demand. Renewables contribute only 14% of generation, despite a higher share in installed capacity, due to intermittency and low utilization (20-25% PLF versus 65-75% for coal). To make renewables mainstream, India must prioritize hybrid projects and FDRE (Firm and Dispatchable Renewable Energy) solutions. Battery costs have fallen to US\$110/kWh, improving storage viability, but accelerating execution of FDRE projects remains critical.
- **Storage solutions at the national/regional level.** Storage can help resolve intermittency issues associated with renewable generation but battery storage is expensive for now while pumped hydro storage is difficult in terms of execution. Even as individual players are setting up standalone storage/FDRE capacities, setting up storage capacity at the grid-level (national or state-wise) could help better manage the execution, while also saving on the capex due to larger procurement of batteries.
- ▶ **Electronic manufacturing services.** India has scaled its domestic electronics industry impressively, with production value reaching US\$120 bn in FY2024. However, the country remains largely an assembler, with only 15% local value addition and heavy reliance on component imports. Exhibit 90 shows the trend in annual electronic imports versus exports. The electronics value chain will always involve some global interdependence. Nonetheless, India should target 35-40% value addition, broadly in line with China. Achieving this would require significant investment in component manufacturing, which is capex-intensive (asset turns of 1-2X for components versus 5-7X for assembly). We note that the government has been supportive with PLI schemes for electronic components to strengthen the domestic ecosystem (see Exhibit 91 for details of the component manufacturing scheme announced in May 2025).

India's electronics trade deficit has stabilized over FY2022-25 at around US\$55-60 bn

Exhibit 90: Exports, imports and trade deficit in India's electronics items, March fiscal year-ends, 2015-25 (US\$ bn)



Source: CEIC, Kotak Institutional Equities

Government has been supportive of electronics manufacturing with PLI schemes to deepen electronics manufacturing in India

Exhibit 91: Details of the component manufacturing scheme announced in May 2025

Target segments	Cumulative investment (Rs bn)	incentive (%)	Capex incentive (%)
A Sub-assemblies			
1 Display module sub-assembly	2.5	4/4/3/2/2/1	NA
2 Camera module sub-assembly	2.5	5/4/4/3/2/2	NA
B Bare components			
3 Non-SMD passive components	0.5	8/7/7/6/5/4	NA
4 Electro-mechanicals	0.5	8/7/7/6/5/4	NA
5 Multi-layer PCB	0.5	≤ 6 layers 6/6/5/5/4/4 ≥ 8 layers 10/8/7/6/5/5	NA
6 Li-ion Cells for digital application (excluding storage and mobility)	5	6/6/5/5/4/4	NA
7 Enclosures for Mobile, IT Hardware products and related devices	5	7/6/5/4/4/3	NA
C Selected bare components			
8 HDI/MSAP/Flexible PCB	10	8/7/7/6/5/4	25%
9 SMD passive components	2.5	5/5/4/4/3/3	25%
D Supply chain ecosystem and capital equipment			
10 Supply chain of sub-assemblies (A) & bare components (B) & (C)	0.1	NA	25%
11 Capital goods used in electronics manufacturing including their subassemblies and components	0.1	NA	25%

Source: MEITY, Kotak Institutional Equities

- **Innovation.** India lags peers such as China, Japan and Korea in innovation in electronics, with its role largely confined to assembly. To move up the value chain, India must replicate existing technologies in critical areas such as OSAT, PCB and semiconductor manufacturing over the next 5-10 years. These segments require massive capex given <1X asset turns. The government's Rs760 bn Semicon India program and new Rs230 bn PLI for electronic components are steps in the right direction. However, sustained investment will require (1) attracting foreign players with advanced technologies, (2) offering PLI incentives to Indian firms willing to bet on high-capex ventures and (3) implementing selective tariff and non-tariff protections to shield new investments from dumping risks. Without these interventions, India could run the risk of remaining an assembly hub rather than evolving into an innovation engine.
- **Competition.** India is witnessing rising competitive intensity in domestic consumer and industrial electronics, with multiple EMS players entering high-margin segments. However, export capability remains limited compared to China, which dominates global electronics exports at over US\$1 tn annually, accounting for around 30% of global output. India exported mobile phones worth US\$24 bn in FY2025 (100X increase since FY2018) but broader electronics exports are still low. This gap reflects China's deep backward integration, scale and strategic subsidies. While domestic value addition in mobile phones has reached 17-18%, most other segments remain assembly-led.

To compete globally, India should (1) reduce import duties on components for products such as mobile phones where the domestic industry has reasonable scale, (2) support backward integration through targeted PLI schemes and (3) enforce selective tariff and non-tariff protections to prevent dumping for a period of time to enable the domestic industry to reach global competitiveness. However, these 'incentives' should have a preset finite period, which will compel the domestic industry to become globally competitive over the 'protection' period.

- ▶ **Pharmaceuticals.** Indian pharmaceutical companies have lagged global peers in new product innovation (see Exhibit 92), driven by factors such as (1) paucity of venture capital and government grants, that results in focus on short-term profitability over long-term R&D, (2) regulatory bottlenecks, including slow and inconsistent clinical trial approvals, (3) talent retention challenges, with skilled researchers migrating abroad due to limited career growth and inadequate infrastructure in India and (4) weak academic-industry collaboration compared to developed markets.

India lags across multiple factors of innovation versus global hubs

Exhibit 92: Comparison of key supply-side parameters for Indian pharma versus major global pharma innovation hubs

Parameter	China	EU	India	US
Academic-industry linkages	Improving, talent repatriation	Moderate to strong	Weak, siloed	Strong (e.g., MIT, Stanford)
Biotech clusters	Shanghai, Beijing, Shenzhen	Basel, Munich, Cambridge (UK)	Bengaluru, Hyderabad, Mumbai (emerging)	Boston, Bay Area, San Diego
Global partnerships	Increasing outbound M&A and out-licensing deals, JVs	Strong EU-US ties	Limited but growing slowly (e.g., out-licensing deals)	Frequent licensing, M&A, co-development
Government support	Massive state funding, Made in China 2025	Horizon Europe, EMA support	PLI scheme, BIRAC, limited scale	NIH, BARDA, tax credits
Innovation focus	Biologics, vaccines, AI-driven R&D	Biosimilars, rare diseases, digital health	Generics, biosimilars (emerging focus on NCEs)	Biologics, cell & gene therapy, AI in drug discovery
IP protection	Improving, still concerns	Strong, harmonized	Historically weak, improving slowly	Strong, well-enforced
R&D as % of sales	15–25% (rising rapidly)	12–18%	5–8%	15–20%
Regulatory environment	NMPA reforms, faster approvals	EMA: centralized, science-driven	CDSCO: improving, but slower and less predictable	FDA: fast-track, breakthrough designations
Talent availability	Large, growing domestic talent pool	High, but aging workforce	High, but brain drain persists	High, global magnet
VC & private funding	Growing rapidly, state + private	Moderate, more public-private	Limited, fragmented	Very strong, deep biotech VC ecosystem

Source: Industry, Kotak Institutional Equities

We highlight the key factors that may need to be resolved for India to become a more important player in global pharmaceutical drug development and innovation.

- **Patent protection concerns.** India's regulatory framework (see Exhibit 93) has historically been more geared toward generics. IP protection concerns have also made global innovators cautious about partnering or investing heavily. In comparison, innovation hubs such as the US and EU provide much better regulatory framework in terms of data exclusivity, enforcement mechanism and patent protection. Within the US and EU, there are strong patent systems with clear enforcement mechanisms. Patents are granted for 20 years and there are provisions for patent term extensions (e.g., Hatch-Waxman Act in the US), too. India has TRIPS-compliant patent laws but it also has unique provisions such as Section 3(d), which restricts patents on incremental innovations unless they are able to show enhanced efficacy. This has led to rejection of several pharma patents (e.g., Novartis's Glivec case).

Strengthening IP protection is essential if India wants to compete in global pharma innovation

Exhibit 93: IP protection and enforcement in India versus major global pharma hubs

Aspect	China	EU	India	US
Compulsory Licensing	Rare	Rare	Used	Rare
Data exclusivity	Partial	Yes	No	Yes
Enforcement	Strengthening	Robust	Weak	Robust
Patent linkage	Partial	Yes	No	Yes
Patent strength	Improving	Strong	Moderate	Strong

Source: Industry, Kotak Institutional Equities

- **Lack of data exclusivity.** The US and EU offer data exclusivity periods (for example, five years in the US, 10 years in the EU for NCEs), which protect clinical trial data from generic competition. Within India, there is no formal data exclusivity regime. Generic companies can rely on innovator data for regulatory approvals, which discourages investment in novel drug development.

- **Patent linkage and enforcement.** Even in terms of patent linkage, the US has a strong system via the US FDA's Orange Book. Generics must certify against existing patents before approval. However, there is no formal patent linkage in India. Regulatory approval and patent status are handled separately, which can lead to litigation and uncertainty. In terms of litigation and enforcement, the US and EU have specialized courts and well-established legal precedents. On the other hand, in India, IP litigation is slow and unpredictable as specialized IP benches exist but are overburdened.
- **Incentivize R&D.** To incentivize pharma R&D in India, the government could introduce targeted measures similar to the Production Linked Incentive (PLI) scheme. These could include R&D-specific tax credits, allowing companies to deduct a significant portion of their research expenses from taxable income.
- **Financial support.** We believe (1) grant funding for early-stage drug development, (2) a fast-track process for regulatory approvals for innovative therapies and (3) public-private partnerships with academic institutions could encourage innovation.
- **Creating innovation hubs.** Creating dedicated innovation zones with infrastructure support and relaxed compliance norms would also help pharma companies scale up high-risk, high-reward projects.

China's transition from a generics-centric model to an innovation-driven pharma industry offers valuable lessons for India. Government initiatives such as 'Made in China 2025' prioritized high-tech sectors, including biotech and pharma, while regulatory reforms, notably NMPA's streamlined drug approval processes and alignment with international standards, played a pivotal role.

- **Volume-Based Procurement (VBP).** A pivotal policy shift driving Chinese generic pharma companies toward innovation was the VBP program, launched in 2018 (see Exhibit 94). This government-led initiative centralized drug purchasing across provinces to lower prices and improve access. Winning bidders secured large volumes but had to offer steep discounts (60-90% below market rates), causing margin compression and intense competition. To qualify, firms had to meet strict quality standards, which triggered market consolidation and raised participation thresholds. Consequently, many companies began investing in R&D, pivoting toward biologics, complex generics and innovative drugs to sustain growth.

Timeline and average price reduction of the volume-based procurement (VBP) program launched in CY2018

Exhibit 94: Timeline and average price reduction of volume-based procurement programs in China, calendar year-ends, 2019-23
December 2019
First round of volume-based procurement
25 drugs Nationwide
Average price reduction: 60%
September 2019
4+7 pilot
25 drugs
11 pilot cities
Average price reduction: 60%
August 2020
Third round of volume-based procurement
55 drugs Nationwide
Average price reduction: 72%
January 2020
Second round of volume-based procurement
33 drugs Nationwide
Average price reduction: 60%
June 2021
Fifth round of volume-based procurement
57 drugs Nationwide
Average price reduction: 70%
February 2021
Fourth round of volume-based procurement
45 drugs Nationwide
Average price reduction: 70%
November 2021
Sixth round of volume-based procurement (Insulin Special Program)
45 drugs Nationwide
Average price reduction: 70%
July 2022
Seventh round of volume-based procurement
60 drugs Nationwide
Average price reduction: 50%
April 2023
Eighth round of volume-based procurement
40 drugs Nationwide
Average price reduction: 55%
November 2023
Ninth round of volume-based procurement
41 drugs Nationwide
Average price reduction: 60%

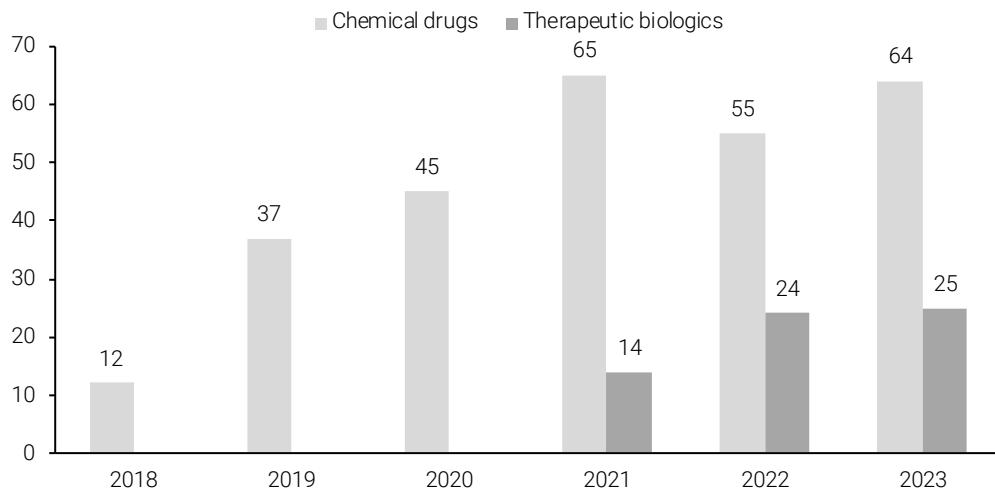
Source: National healthcare security administration, Kotak Institutional Equities

- **Agility in clinical trials.** China's drug registration process saw a steady rise in IND and NDA submissions CY2017 onwards, following the introduction of clinical trial data verification in CY2015 and the alignment of drug definitions with international standards in CY2016. The country's large patient pool and centralized hospital system enable faster clinical trial recruitment, often twice as fast as in the US, especially in areas such as obesity and oncology. This efficiency allows Chinese pharma companies to run multiple projects in parallel, pivot quickly based on emerging science and pursue innovation without major budget constraints.

- **Approval speed.** The reforms in drug review and approval have continued to yield benefits, accelerating the launch of innovative therapies across the country. Since CY2021, the pace of new drug approvals has picked up considerably, with dozens of innovative treatments reaching the market each year and expanding access for patients. In CY2023 alone, a total of 89 Class 1 and Class 2 new drugs were approved, more than sevenfold increase compared to the 12 approvals recorded in CY2018 (see Exhibit 95 for the increase in approvals). This surge highlights the impact of regulatory modernization in drug approval timelines and ease of innovation.

Sharp increase in new class 1 and 2 drug approvals in China over the past 5 years

Exhibit 95: New class 1 and 2 drugs approved in Mainland China, calendar year-ends, 2018-23 (#)



Source: Cortellis Regulatory Intelligence, Kotak Institutional Equities

- ▶ **Renewables.** Domestic solar PV manufacturing has seen a surge in investment post ALMM (Approved List of Models and Manufacturers) and BCD (basic customs duty) but the industry remains heavily dependent on Asian suppliers for technology and equipment. We outline the current state of Indian solar manufacturing and the steps needed to drive innovation, scale investment and achieve true vertical integration while staying at the cutting edge.

Government support has been pivotal in driving progress in domestic solar manufacturing. To move toward competitive parity, we believe a few additional steps are critical: (1) incentivize industry-led R&D centers focused on emerging technologies like Tandem and HJT, which can push cell efficiencies beyond 30%, (2) mandate domestically produced ingots and wafers in DCR modules to accelerate backward integration; India currently has only around 2 GW wafer capacity and negligible polysilicon production versus 120 GW of module and 27 GW of cell manufacturing and (3) introduce a dedicated policy for polysilicon and BESS component manufacturing, including ALMM-style procurement mandates, capital subsidies and priority lending.

- **Innovation.** India's solar manufacturing still relies on Chinese and European equipment and expertise, reflecting its early-stage development. Despite adding >120 GW of solar capacity, a majority of equipment is imported, with China's share at >60%. As global technologies—Back Contact, HJT, Tandem—push toward >30% efficiencies, India risks falling behind while operating primarily on PERC and TOPCon (22-24% efficiency, see Exhibit 96). To remain competitive and resilient, India must scale up domestic R&D, indigenize upstream components (polysilicon, ingots, wafers) and forge global collaborations with leading research institutes. Without this, the 500 GW renewables capacity target by 2030 faces risks from technological obsolescence and supply-chain vulnerabilities.

Currently, Indian manufacturers operate primarily on PERC and TopCON technologies with 22–24% efficiency

Exhibit 96: Comparison of major technologies in solar equipment manufacturing

Technology	Backcontact (IBC)	HJT	PERC	Tandem	TOPCon
Cell efficiency (%)	23–24	25–26	20–22	25–30	23–24
Bifaciality	Moderate (~75–85%)	Very High (~95%)	Low (~70%)	Moderate	High (80–90%)
Complexity & cost	High complexity	High complexity, ~1.5X TOPCon cost	Low complexity, low cost	Very high complexity	Moderate complexity, cost approaching PERC
Low light performance	Good	Excellent (low temp coeff., low LID)	Moderate	Excellent (broad spectrum capture)	Good (low LID, better temp coeff.)
Countries actively developing	China, USA	China, Japan, India, Switzerland	China, Germany, India	China, UK, USA	China, Germany, India, USA

Source: Industry, Kotak Institutional Equities

- **Investments.** The current domestic manufacturing capacity stands at around 120 GW modules, around 27 GW cells and around 2 GW wafers, with an estimated Rs400 bn cumulative investment. Announced expansions could lift capacity to >250 GW modules, >100 GW cells and >60 GW wafers over the next three years, requiring Rs800-900 bn additional investment driven by ALMM (Lists I-III) and DCR policies. Yet, polysilicon remains the critical missing piece, with no major domestic investments despite PLI. Globally, polysilicon and module manufacturing are often done separately due to high capex and technical complexity. However, it may not be in the interest of the country and industry to wait for wafer scale-up before introducing ALMM List IV. In our view, a simultaneous policy push for polysilicon would be essential to align India's ingot-wafer expansion with domestic polysilicon availability, which would enable true vertical integration and reduce strategic dependence.
- **Critical adjacencies.** The rise of solar necessitates rapid energy storage scale-up, with BESS at the core. While several BESS assembly announcements exist, the cell manufacturing ecosystem remains underdeveloped. India imports nearly all Li-ion cells (primarily from China). To sustainably scale solar, Indian policy makers must indigenize the BESS supply chain, from raw materials to giga factories and introduce ALMM-like instruments for storage to ensure quality and domestic sourcing. Otherwise, India risks replicating the dependency seen in the solar sector in storage too.
- **Competition.** The competitive intensity is rising domestically across the module value chain, but India still lags Chinese and Southeast Asian manufacturers: module costs are US\$0.14-0.15/watt versus China's US\$0.12/watt, driven by (1) limited backward integration, (2) lower incentives and (3) smaller scale. China's edge stems from deep integration, cheaper capital and strategic subsidies. While PLI and ALMM are catalyzing scale, it will take time for India to close the gap with China. India must accelerate integration and innovation to enhance competitiveness without compromising energy security.

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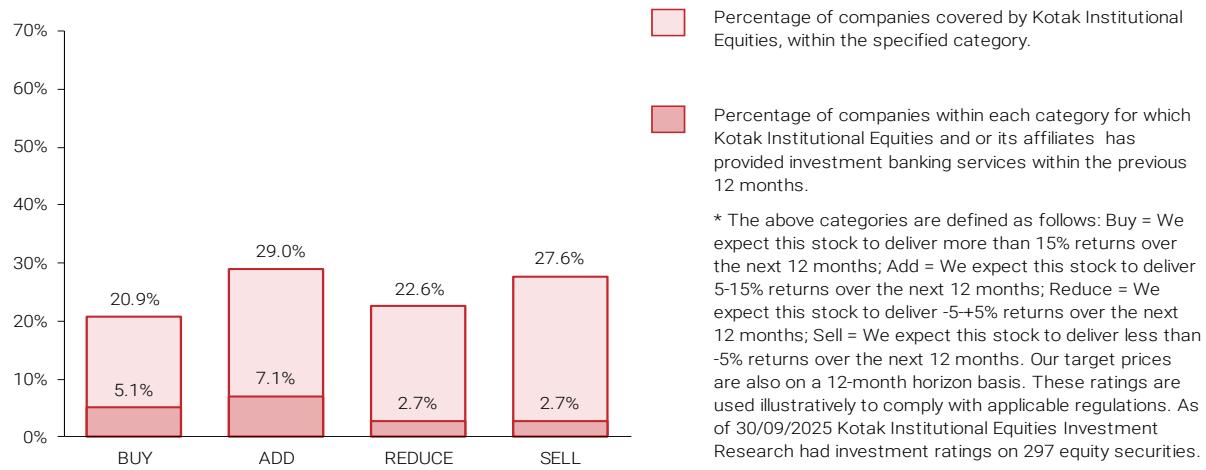
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