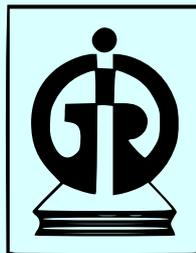


# Tackling India's jobs plight: Underutilised levers and lessons from China

Alicia García Herrero (Natixis Bank) and Rajeswari Sengupta (IGIDR, Mumbai)



**INDIRA GANDHI INSTITUTE OF DEVELOPMENT RESEARCH**

*March 2026*

# Tackling India's jobs plight: Underutilised levers and lessons from China

Alicia García Herrero (Natixis Bank) and Rajeswari Sengupta (IGIDR, Mumbai)

Email (corresponding author): [rajeswari@igidr.ac.in](mailto:rajeswari@igidr.ac.in)

## ABSTRACT

*Despite strong GDP growth and favourable demographics, India faces an impending jobs crisis. A large share of the workforce remains stuck in low-productivity agriculture, while new entrants are increasingly absorbed into the informal sector. By contrast, China's rapid growth was driven by manufacturing-led, export-oriented industrialisation, supported by substantial foreign direct investment and sustained technology transfer. India's manufacturing sector remains relatively small, and formal employment is concentrated in skill-intensive services. This paper compares the development trajectories of India and China and identifies four underutilised levers in India: manufacturing, goods exports, manufacturing-oriented foreign direct investment, and innovation. While each remains underdeveloped, together they offer a pathway to more labour-intensive and durable growth. Given the need to create 8–10 million jobs annually, job creation must become an explicit policy priority. We argue that this requires greater trade openness, particularly with Asia and Europe, to integrate India into global value chains; deeper labour market reforms, including effective implementation of the new labour codes; and stronger innovation and skills ecosystems aligned with industrialisation. Absent such structural shifts, India's current pattern of jobless growth risks turning its demographic dividend into a long-term liability.*

**Keywords:** GDP growth, Jobs, Exports, Foreign Direct Investment, Manufacturing, Innovation

**JEL Code:** E2, E6, F1, F4

# Tackling India's jobs plight: Underutilised levers and lessons from China

Alicia García Herrero (Natixis Bank)<sup>1</sup> and

Rajeswari Sengupta (IGIDR, Mumbai)<sup>2</sup>

## Abstract

Despite strong GDP growth and favourable demographics, India faces an impending jobs crisis. A large share of the workforce remains stuck in low-productivity agriculture, while new entrants are increasingly absorbed into the informal sector. By contrast, China's rapid growth was driven by manufacturing-led, export-oriented industrialisation, supported by substantial foreign direct investment and sustained technology transfer. India's manufacturing sector remains relatively small, and formal employment is concentrated in skill-intensive services. This paper compares the development trajectories of India and China and identifies four underutilised levers in India: manufacturing, goods exports, manufacturing-oriented foreign direct investment, and innovation. While each remains underdeveloped, together they offer a pathway to more labour-intensive and durable growth. Given the need to create 8–10 million jobs annually, job creation must become an explicit policy priority. We argue that this requires greater trade openness, particularly with Asia and Europe, to integrate India into global value chains; deeper labour market reforms, including effective implementation of the new labour codes; and stronger innovation and skills ecosystems aligned with industrialisation. Absent such structural shifts, India's current pattern of jobless growth risks turning its demographic dividend into a long-term liability.

**Key words:** GDP growth, Jobs, Exports, Foreign Direct Investment, Manufacturing, Innovation.

**JEL Codes:** E2, E6, F1, F4.

## 1 Introduction

India is the world's fastest-growing large economy. In nominal GDP terms, it is poised to overtake Japan to become the world's fourth-largest (Figure 1). Since the early 2000s, India's growth trajectory has been remarkable, with an average annual growth rate of about 6.5 percent<sup>3</sup>. China, by contrast, remains the world's second-largest economy (Figure 2), having

---

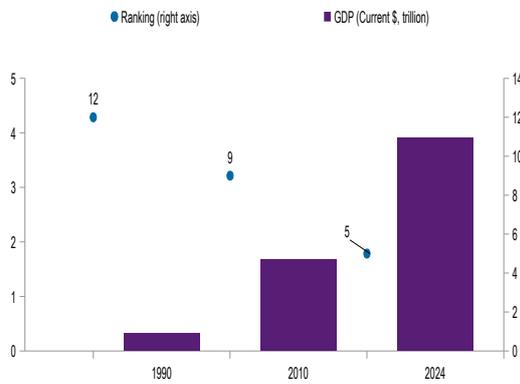
<sup>1</sup> Chief Economist for Asia-Pacific at French investment bank Natixis and adjunct Professor at Hong Kong University of Science and Technology (HKUST).

<sup>2</sup> Corresponding author, Associate Professor of Economics, Indira Gandhi Institute of Development Research (IGIDR), Film City Road, Goregaon East, Mumbai 400065. Email: [rajeswari@igidr.ac.in](mailto:rajeswari@igidr.ac.in). The authors thank Kevin Tong and Jeremy Ji for their help with the data, and Ignacio García Bercero and Jeromin Zettelmeyer for their valuable feedback. A previous version of the paper was published as a Natixis bank report.

<sup>3</sup> Data on India's GDP as well as data on various sectoral shares are from the 2011-12 base year series of the National Accounts because, at the time of writing, the new base year series (2022-23) was not released. The data cited in this paper is from multiple sources such as CEIC, IMF World Economic Outlook, Natixis, Reserve Bank of India and Centre for Monitoring Indian Economy (CMIE).

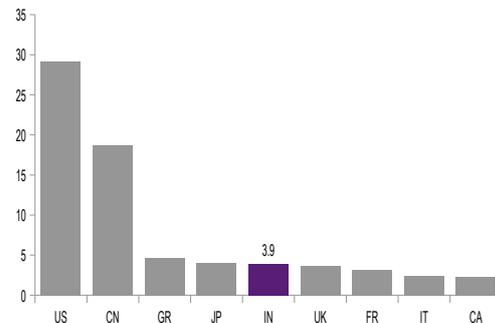
sustained average growth rates exceeding 8 percent since the 1990s. But in 2012, Chinese growth peaked and a period of deceleration followed. Since then, and especially since the COVID-19 pandemic, India’s growth has outstripped that of China.

**Figure 1: India: global ranking in GDP**



Source: Bruegel based on Natixis, World Bank.

**Figure 2: India: global ranking in GDP comparison (\$ trillion, 2024)**



Source: Bruegel based on Natixis, World Bank.

India’s impressive growth rate (Figure 3) has also surpassed that of countries with similar *per-capita* income levels. It stems from factors including population growth and urbanisation, but is also attributable to economic reforms since the early 1990s, which freed the economy from four decades of central planning. Furthermore, since 2014 and especially since the pandemic, India has reduced its previously large fiscal and current-account deficits, and has also succeeded in lowering inflation thanks to the Reserve Bank of India’s successful inflation-targeting strategy and benign food and energy prices.

However, India still has far to go. India’s GDP in 2023 was equivalent to that of the United States in the early 1980s, or China’s in 2007. In *per-capita* GDP, India ranks behind 108 countries, with average *per-capita* GDP of less than \$3,000 (Sengupta, 2024). Against this backdrop, the government of Narendra Modi in early 2024 launched a long-term vision for the Indian economy, ‘Viksit Bharat 2047’ (‘Developed India by 2047’)<sup>4</sup>. The goals for India by the centenary of its independence are high-income status, self-reliance and global leadership. This implies that India should aim at a nominal GDP of \$30 trillion (same as the US as of 2025) by 2047, up from \$4.2 trillion today, with *per-capita* income rising to \$26,000. These objectives require India’s growth to be much higher than today, at around 8 percent to 9 percent annually.

Achieving this rate of growth on a sustained basis will be difficult, if not impossible, without structural reforms. One persistent bottleneck is the creation of enough jobs in the formal economy. About 8 million to 10 million new jobs must be generated every year up to 2030 to

<sup>4</sup> See the Viksit India homepage: <https://viksitindia.com>.

absorb India's growing working-age population<sup>5</sup>. Under the current economic model, and despite a relatively high growth rate, India will not be able to create this level of jobs. India's biggest strength, from a demand perspective, has been consumption demand, coming from a vast, young population. However, without enough jobs, it will become difficult to sustain high consumption demand, which in turn will have an adverse impact on investment and hence growth.

It is often said that India is the next China, based on similar population sizes and economic dynamism. In policy and academic circles, discussions often take place to understand how India can achieve rapid growth and development like China. The reality is that there are fundamental differences in their underlying economic structures, even comparing India today to China 30 years ago. In particular, China's savings ratio has always been much higher, with savings used to finance a growth model based on a dynamic manufacturing sector and continuous innovation, while India has emphasised the services sector development. China's 'reform and opening-up' created good-quality jobs. While India has introduced significant reforms to move away from central planning, it has lagged in developing a manufacturing sector, which could have absorbed the still very-large share of unskilled workers who remain stuck in the low-productivity agricultural sector or the informal sector. Productivity improvements could have been obtained by faster opening up to both trade and inward foreign direct investment (FDI), which could have facilitated technology transfer, especially in manufacturing.

To better understand how India has found itself in a jobless growth situation, this paper compares China's and India's economic paths in section 2. Section 3 briefly reviews China's development model, while section 4 focuses on India's development model and its biggest challenge – the ongoing jobs crisis. Section 5 examines India's underutilised growth enablers, and section 6 offers recommendations for how India can address its jobs crisis, based on the levers it has. Section 7 concludes.

## **2 China's and India's economic paths**

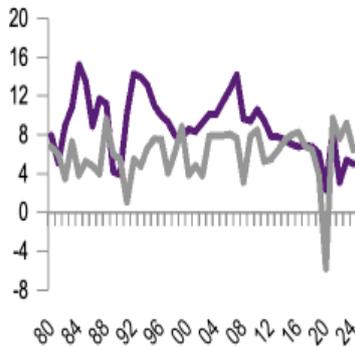
In the early 1980s, India and China stood at similar economic crossroads. Both were emerging from decades of inward-looking, state-dominated models (Figure 4). China's GDP was around \$303 billion with a *per-capita* income of about \$300 (Figure 5), while India's was \$186 billion with roughly similar GDP *per capita* of \$270 (Figure 6). This contrasted with 1950, when India's *per-capita* GDP was 2.3 times China's.

---

<sup>5</sup> See Ministry of Finance press release of 22 July 2024, 'Indian economy needs to generate nearly 78.5 lakh jobs annually in the non-farm sector until 2030 to cater to the rising workforce', <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2034952&reg=3&lang=2>.

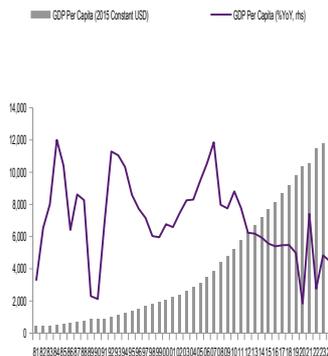
Both nations grappled with poverty, low growth, low productivity and isolation from global markets, with over 70 percent of their populations working in agriculture. But over the next four decades, their trajectories diverged dramatically, stemming from differences in their pursuits of openness and, to a lesser extent, the pace of economic reforms.

**Figure 4: India & China, real GDP growth rates**



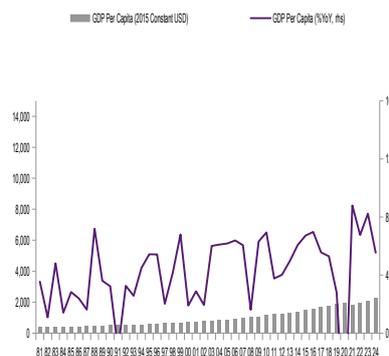
Source: Bruegel based on Natixis, World Bank. Note: real GDP is based on constant 2015 USD.

**Figure 5: China, GDP per capita**



Source: Bruegel based on Natixis, World Bank.

**Figure 6: India, GDP per capita**



Source: Bruegel based on Natixis, World Bank.

China's transformation began in 1978 under Chairman Deng Xiaoping, marking a pragmatic pivot from Maoist central planning to 'socialism with Chinese characteristics' (Vogel, 2011; Naughton, 2018). Reforms were incremental yet bold. De-collectivising agriculture via the Household Responsibility System boosted agricultural and rural productivity by about 50 percent in the early 1980s, freeing abundant, cheap labour for China's push into manufacturing (McMillan *et al*, 1989; Lin, 1992). Openness accelerated through Special Economic Zones (SEZs) in coastal areas such as Shenzhen (Ge, 1999), and by using tax incentives and lax regulation to attract FDI (Liu, 2002). By 1992, Deng's Southern Tour reaffirmed market orientation, leading to accession to the World Trade Organization in 2001 (Lardy, 2002; Ianchovichina and Martin, 2004). This flooded China with FDI but, importantly, this was always tied to technology transfer as market access was not fully guaranteed. Economic planning remained centralised through five-year plans focusing on infrastructure development to accompany China's industrialisation.

On paper, India's model was similar, with Nehruvian socialism<sup>6</sup> and centralised planning until 1991, when a balance-of-payments crisis forced the adoption of a slew of liberalisation, privatisation and deregulation under Prime Minister P.V. Narasimha Rao (Bhagwati and

<sup>6</sup> Nehruvian socialism refers to the democratic, evolutionary form of socialism promoted by Jawaharlal Nehru, India's first prime minister from 1947 to 1964, who emphasised a mixed economy with strong state control over key industries, equitable wealth distribution, social welfare and democratic means rather than revolutionary class struggle.

Desai, 1970; Joshi and Little, 1996; Byres, 1998; Cerra and Saxena, 2002). Reforms included dismantling the ‘license Raj’ – a web of industrial controls – reducing import tariffs from 300 percent to 50 percent, privatising state-owned firms and devaluing the rupee (Ahluwalia, 2002; Panagariya, 2008; Irwin, 2025). When China opened up and joined the WTO, it received massive amounts of FDI in manufacturing. When India opened up to globalisation, it mostly received FDI in services, especially information technology and communication (ICT) services, but not so much in manufacturing (Panagariya, 2008).

By the mid-2000s, while China was becoming the world’s manufacturing powerhouse, India emerged as a major hub for IT, financial and related services<sup>7</sup>. And yet, productivity improvements in India have been far less than in China. The World Competitiveness Yearbook 2025 ranks India 41st among 69 major economies, while China is placed significantly higher at 16th (Bris *et al*, 2025). Output per worker in India is half that in China, even when accounting for differences in purchasing power<sup>8</sup>.

Reforms diverged in sequencing as well as substance. China reformed more gradually but with a clear direction: opening up the manufacturing sector to FDI and accessing more markets through trade deals to become a major global exporter. India’s reforms were more of a ‘big bang’ after the 1991 balance-of-payments crisis, but were more uneven, lacking a specific direction and less focused on opening up or developing manufacturing. India’s 1991 reforms did not introduce a substantial opening of the economy to either international trade or to FDI in manufacturing, and also did not reform the factor markets such as land and labour. While import tariffs were lowered, FDI caps persisted until the 2000s, and SEZs (introduced in 2005) underperformed because of land-acquisition hurdles.

India’s five-year plans remained officially in place until 2014 but faltered in execution. In 2014, the Planning Commission was replaced by NITI Aayog, a more advisory body, and yet the push toward greater opening up of the economy did not take place (Batra, 2022). In fact, from 2014, the economy turned more inward-looking and protectionist, and undue emphasis was placed on building an ‘Atmanirbhar Bharat’, ie self-reliant India under the ‘Make in India’ slogan (Batra, 2022; Chatterjee and Subramanian, 2023). This ironically echoed the push for self-sufficiency and import-substitution that was the mainstay of the government’s centralised economic planning from the 1950s to the 1970s.

All in all, while India’s growth story has been impressive, convergence with China remains a long-term aspiration. The ‘Viksit Bharat 2047’ vision, which implicitly translates to bridging the gap between China and India, will require India to address deep-seated structural constraints that reflect the fundamental differences between the two countries’ growth

---

<sup>7</sup> See India Brand Equity Foundation website ‘Foreign Direct Investment (FDI)’ (2026), February 2026, <https://www.ibef.org/economy/foreign-direct-investment>.

<sup>8</sup> The World Competitiveness Yearbook 2025 reports China’s industrial sector labour productivity at ~\$60,670 PPP per worker, while India’s is ~\$32,205 (Bris *et al*, 2025).

models. In what follows, we dig into the main divergences and outline the policy priorities that will determine whether India can transform its current growth momentum into a sustained economic take-off. This discussion is especially timely as India navigates shifting geopolitical alignments and mounting global economic headwinds.

### **3 China's development model and future growth prospects**

For decades, China's economic performance was driven by a specific state-guided development model (Pilkington, 2025). The model integrated vast domestic labour and savings with global capital and markets. Its primary engine was a manufacturing-centric growth strategy. The goal was not merely exporting, but deep and rapid integration into global value chains (GVCs). Multinational enterprises (MNCs) initially led this initiative, thanks to Deng Xiaoping's push for opening up and the commitments China made to the WTO for its accession in 2001. MNCs relocated labour-intensive assembly processes to leverage China's core advantage: a massive elastic supply of low-cost labour migrating from rural to urban areas, pushed by rural reforms aimed at raising productivity in the agricultural sector, but also migrating an organised manner because of China's tight household registration system ('hukou'). The population dividend, coupled with the tight hukou, kept wages suppressed and allowed China to maintain its cost competitiveness for a long time. Furthermore, the exchange rate was long kept weak, arguably continuing today (Zhang and Wei, 2025).

One of the main levers for China's successful growth was the massive amount of FDI received from the rest of the world (Wei, 1995). In the early stages, Taiwan and Hong Kong were the main sources of funding, but with China's entry into the WTO, US and European companies jumped into China's market, first for re-exporting and later for China's large market. They profited from low wages in China and increasingly good logistical infrastructure. China, however, did not open up to FDI without conditions. Rather than granting full control, China opted for joint ventures, via which technological transfer was secured and an increasingly large share of the value added was localised. This model of MNCs flocking to China, where the country's policymakers wanted them to go, and China's industrial policy vision (with plans such as 'Made in China 2025') formed the basis for China's rapid and successful integration into GVCs.

The fact that, given its huge and repressed pool of savings, China did not need FDI for financing, allowed a more selective approach to inward FDI and also lowered the cost of funding for domestic investment. This architecture involved a structural transfer of income away from households toward production, which remains in place today (Zhibiao and Yonghui, 2022). An unintended but important consequence was suppressed domestic consumption, which resulted in an export-dependent growth model. Reliance on exports

came back with a vengeance after the COVID-19 pandemic, as the supercycle of China's real-estate sector, contributing to a third of fixed-asset investment, took a major hit with the collapse of China's largest real estate developer in mid-2021 and the subsequent non-recovery of real estate prices (Hofman, 2024).

The build-up of Chinese manufacturing power benefitted from massive government support, with subsidies as the tip of the iceberg. Such generous industrial policy, effective but clearly inefficient when it comes to the huge amount of funds needed, would not have been possible without the enormous and repressed savings of Chinese households. The effectiveness of China's industrial policy, measured by how far and how fast China has moved up the ladder in virtually all manufacturing sectors, has several enabling factors. Fierce competition between local governments has been important, in addition to the surge in high-quality vocational education and the push for STEM (science, technology, engineering, and mathematics) graduates. The irony is that what has served China well in moving up the ladder and becoming a global manufacturing power, is also behind China's current challenges: the lack of private domestic consumption and overcapacity from excessive investment and production (so-called 'involution') (García-Herrero and Xu, 2026).

Now, the so-called Chinese model of growth and development seems to have run out of steam, not because of the end of cheap labour – Chinese wages are still somewhat suppressed for the country's level of development (Liuyi *et al*, 2023) – but because of the increasingly low return on assets stemming from excessive investment. China's growth today is extremely reliant on exports, with a \$1.2 trillion trade surplus in 2025. The push for innovation to mitigate structural deceleration from ageing and a very low return on assets is clear in the coming five-year plan for 2026–2030. The innovation push is expected to further upgrade China's manufacturing sector, under the mantra of the 'New Production Forces'. But the lack of domestic demand makes this strategy too dependent on the rest of the world buying Chinese products. A boost in consumption is unlikely, as the government does not seem ready to introduce a strong welfare state to lower precautionary savings. Furthermore, the protracted real-estate crisis has shattered consumer confidence (Youvan, 2024) by eroding household wealth, and that crisis, combined with regulatory crackdowns on tech companies since late 2021 and the fast pace of automation the government is pushing for, has created headwinds in the job market, especially for young people.

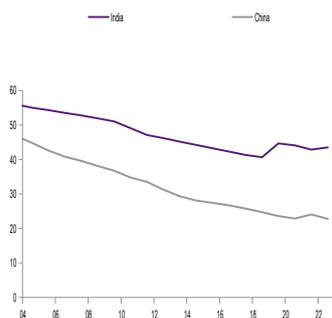
Finally, the most inexorable headwind is demographics. Its impact will be split across the next two decades. For the next 10 years, up to about 2035, the negative impact of an ageing population will be limited, given that China has not yet completed its urbanisation process (delayed by the strict hukou rules). While the total labour force is shrinking, constraints are concentrated in the less-productive rural areas, with urban areas still growing, mitigating the negative impact of depopulation on growth (García-Herrero and Xu, 2023). However, by 2035, as the urbanisation process completes, the labour force will start to shrink fast in the

cities, with a very large negative impact on growth. China’s growth rate is expected to hover around 2.3 percent by 2035, and to plummet to barely 1 percent thereafter because of depopulation hitting the labour supply in cities (García-Herrero, 2023; García-Herrero and Xu, 2023). Thus, from 2035, China will be the world’s largest hyper-mature economy; in growth terms similar to Japan today, but far larger.

#### 4 India’s growth model and challenges ahead

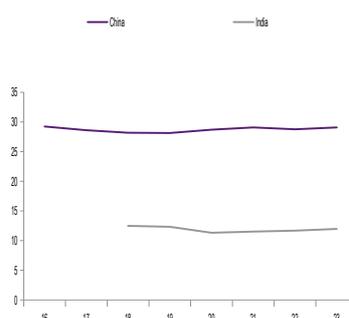
India’s economic ascent after the 1991 liberalisation was boosted by the initial surge of reforms that privatised and deregulated large portions of the economy. Since then – and on the back of a demographic dividend (a median age of only 28 years) – a services-led consumption boom and rapid urbanisation have ensued. And yet, the structure of the economy has changed in ways that may not be optimal, given India’s vast unemployed population. The agricultural sector continues to employ 42 percent of India's total working population, down from 60 percent in 1991 (Figure 7). The concentration of labour in this low-productivity sector, which contributes only 15 percent to 16 percent to GDP, underscores the major structural challenge for the Indian economy: the need for a transition from agriculture to more productive sectors, with the risk of increasing unemployment – or underemployment – if India cannot create enough formal, productive jobs for a growing labour force that will be heading to the cities.

**Figure 7: Employment in agriculture (% total employment)**



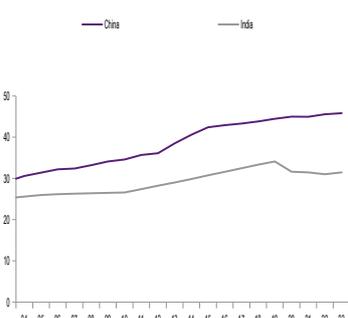
Source: Bruegel based on Natixis, CEIC.

**Figure 8: Employment in manufacturing (% of total employment)**



Source: Bruegel based on Natixis, United Nations Industrial Development Organization.

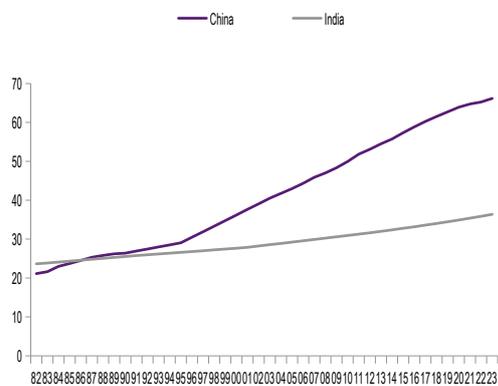
**Figure 9: Employment in services (% of total employment)**



Source: Bruegel based on Natixis, World Bank.

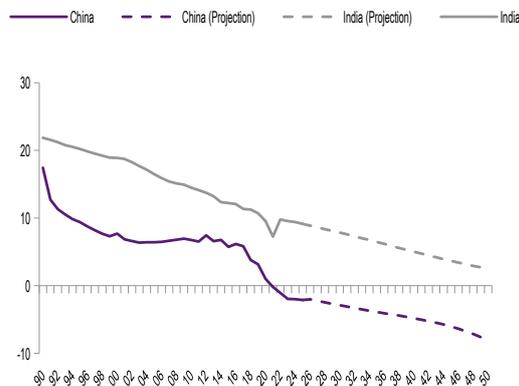
The still relatively large share of the agriculture sector is also reflected in a very slow urbanisation rate compared to China (Figure 10). This, coupled with India’s much more favourable demographics compared to China, offers an opportunity for India (Figure 11).

**Figure 10: China and India: urbanisation rate (%)**



Source: Bruegel based on Natixis, CEIC.

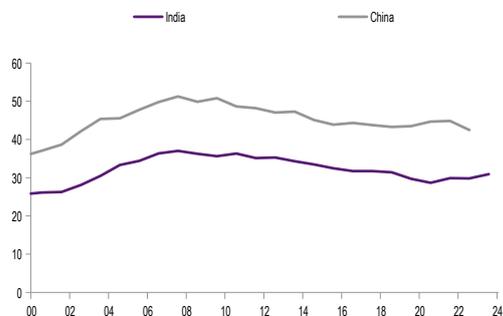
**Figure 11: China and India: rate of natural change of population**



Source: Bruegel based on Natixis, World Bank.

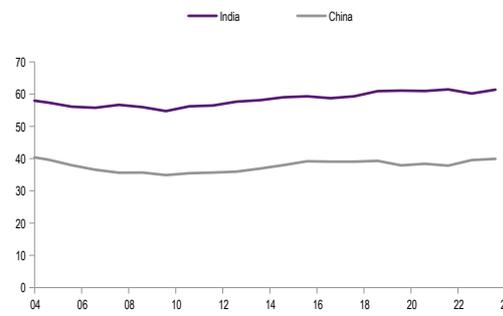
Past reforms have also done little to dent the regulatory red tape and bureaucratic hurdles from the pre-1991 central planning period that continue to characterise the Indian economy. These are a major burden for the development of a strong private-sector-led manufacturing industry. Furthermore, India's saving ratio, while high by international standards, is lower than China's, which has continued to increase even since COVID-19 and hovers at about 44 percent of GDP. China's saving level is excessive, reflecting too-low consumption, but India's savings ratio has fallen since a peak in 2008 of 38 percent to around 30 percent of GDP (Figure 12) (Nagaraj, 2025). While still at a relatively high level compared to many countries, India's investment needs have been growing while savings have not.

**Figure 12: India: gross savings (% GDP)**



Source: Bruegel based on Natixis, CEIC. Note: Data for China is only up to 2023.

**Figure 13: GDP by expenditure: private consumption (% GDP)**



Source: Bruegel based on Natixis, CEIC.

The most important India-China difference is households' behaviour. In India, households reduced their net financial savings from a peak of over 7 percent of GDP in 2021 to an estimated 5.1 percent of GDP in 2023 (Figure 14). This drop was driven by two main factors. First, households have been increasing their financial debt and taking on more loans – including mortgages, personal loans and credit-card debt – to meet consumption and essential expenditure (Yin *et al*, 2025). Second, while consumer price index (CPI) inflation has come down sharply, the high inflation environment of the immediate post-COVID-19 period eroded the real value of incomes for many, forcing households to dissave or draw on existing savings to maintain consumption levels (RBI, 2023; RBI, 2024).

**Figure 14: India households net financial savings (% of GDP)**



Source: Bruegel based on Natixis, World Bank.

India also consumes much more than China, with domestic private consumption accounting for nearly 60 percent of India's GDP. The engine driving this consumption is India's rapidly expanding middle class – estimated at 560 million people and projected to grow to more than 60 percent of the population, or over a billion people, by 2047. While the reliance on domestic consumption acts as a buffer against external shocks, the composition and sustainability of that consumption have become major concerns in recent years. In particular, since the end of the pandemic, urban consumption demand has exhibited a 'K-shaped' pattern, with spending increasingly concentrated among the affluent and those employed in India's booming services sector, rather than being broad-based (Acharya, 2025; Dev and Sengupta, 2023).

India has piled up global capability centres (GCCs), which currently employ close to 1.9 million people, a workforce larger than the IT sector of many developed nations. The GCCs, which are wholly-owned subsidiaries of foreign multinationals, provide several non-core services, including low-end R&D, product engineering, data analytics, artificial intelligence and specialised financial and legal services. GCCs are behind India's outstanding services exporting performance (60 percent growth since 2022), but the jobs created by these 'New India' sectors are not enough to change the structure of the Indian labour market (Ministry of

Finance, 2025a)<sup>9</sup>. The mirror of this success is the stagnant manufacturing sector, which does not absorb enough labour. This is at the core of the diverging consumption patterns in India. Digital service sector employees consume more – mostly imported goods. This creates a closed circuit because little is spilling over into ‘Old India’ (eg middle India and rural India, consisting of traditional manufacturing and micro, small and medium enterprises). This points to persistent income inequality and a lack of purchasing power across a wide swathe of the urban population.

In addition, private consumption has become increasingly credit-fuelled. In 2010-11, the share of retail credit in total bank credit was only 19 percent. By 2023-24, this increased to around 33 percent, leading to a ‘consumerisation of banking’ in India, with an average growth in retail credit of 20 percent<sup>10</sup>. Since the pandemic, the Reserve Bank of India (RBI) has grown increasingly vigilant about the rapid surge in retail credit – especially unsecured personal loans and credit-card borrowing by Indian households – which has outpaced all other loan segments and raised concerns about household repayment capacity. In response, the RBI further tightened prudential norms in late 2023. While demand for retail credit has increased beyond what was desirable for prudential and financial stability reasons, demand for credit needed to feed the real economy, and in particular private sector investment, has remained stagnant (Pelizzon *et al*, 2025).

Private investment hovers around 20 percent to 22 percent of GDP, well below the levels seen in the mid-2000s boom (28 percent to 30 percent)<sup>11</sup>. Firms defer large-scale capacity additions due to low-capacity utilisation in existing plants. This is partially related to lack of competitiveness in certain sectors, even if the level of protection has increased, with rising import tariffs on intermediate goods. For final goods, there is high competition from overseas, especially China, and the general perception is that domestic demand is not strong enough, given the K-shape of urban consumption (Wu and Li, 2026).

The lack of interest in manufacturing by India Inc. is clearly reflected in the declining share of industry in India’s bank credit – a fall from 44 percent in 2010-11 to 28 percent in 2023-24. To boost GDP growth, a substantial increase in private sector investment will be needed. In particular, the Ministry of Finance’s 2024-25 Annual Economic Survey (Ministry of Finance, 2025a) estimated that India must lift its investment rate to roughly 35 percent of GDP (Figure 15) to meet its development objectives.

---

<sup>9</sup> PIB Delhi, ‘From Policy to Prosperity: GCCs Leading India’s Growth Journey’, *Government of India’s Ministry of Information & Broadcasting*, 11 December 2025, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2202046&reg=3&lang=2xs>.

<sup>10</sup> Rajeswari Sengupta and Harsh Vardhan, ‘The silent reshaping of India’s credit landscape’, *Ideas for India*, 20 May 2024,

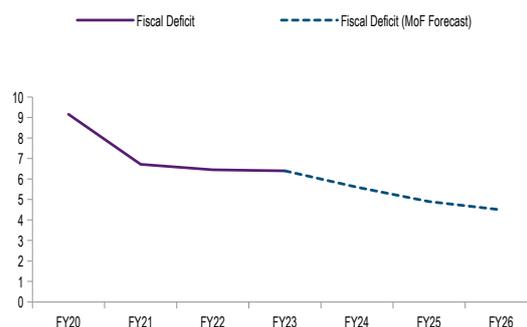
<https://www.ideasforindia.in/topics/money-finance/the-silent-reshaping-of-india-s-credit-landscape>.

<sup>11</sup>

**Figure 15: GDP by expenditure: investment (% GDP)**      **Figure 16: India fiscal deficit (%GDP)**



Source: Bruegel based on Natixis, CEIC.



Source: Bruegel based on India Ministry of Finance, Natixis. Note: FY26 data used MoF forecast.

The government has significantly increased capital expenditure on infrastructure investment. Public infrastructure spending has expanded at an annual average rate of over 30 percent, but this is not a sustainable option as the fiscal space is tightening. In fact, the public infrastructure investment effort has been made notwithstanding a reduction in the overall fiscal deficit since the end of the pandemic, from 9 percent of GDP in 2020 to 4.8 percent of GDP in 2024–25, and an expected 4.4 percent in 2025–26 (Figure 16). Continued fiscal consolidation will inevitably constrain further public investment, which has been an important contributor to overall capital expenditure.

The much lower investment rate than China may be read positively, as China faces over-investment and over-capacity, but the reality is that India’s current level of investment is too low. Uneven and slowing consumption, especially in urban India, does not justify a substantial pick-up in private investment, and low investment in turn fails to create enough jobs and support an improvement in consumption. Breaking this logjam is the central challenge for Indian policymakers. This is why the quest for FDI is so important for India.

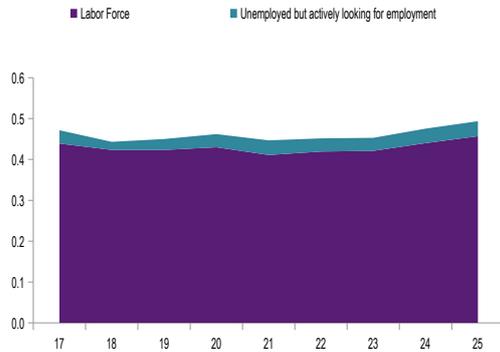
In summary, while India’s post-1991 liberalisation and subsequent demographic momentum have driven robust and resilient growth over the last few decades, the economy faces deep-seated structural bottlenecks. These threaten to impede India’s acceleration towards advanced-economy status. India’s current growth model will not be sufficient to ensure India’s journey toward Viksit Bharat 2047.

## 5 India’s biggest sustainable growth challenge: the impending job crisis

India’s labour market is trapped in a structural paradox. High GDP growth is failing to generate sufficient quality employment. According to data from the Centre for Monitoring Indian Economy (CMIE), out of a total workforce of 1.11 billion people aged 15 years and

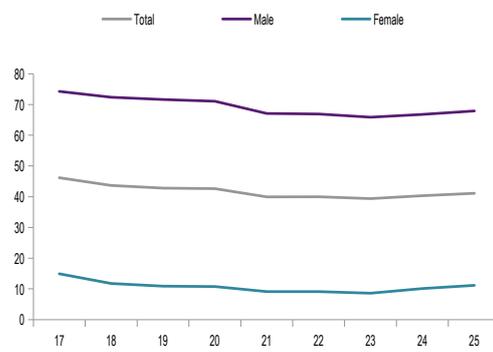
above in 2024–25, only around 456 million are either employed or are looking for a job (Figure 17)<sup>12</sup>. This equals an average labour-force participation rate (LFPR) of around 41 percent (Figure 18), compared to a global average of 60 percent to 65 percent, and well below the 75 percent LFPR in China and the rate of more than 60 percent in the United States.

**Figure 17: India: Workforce (billion people)**



Source: Bruegel based on Natixis, Centre for Monitoring Indian Economy (CMIE).

**Figure 18: India: Labour force participation rate**



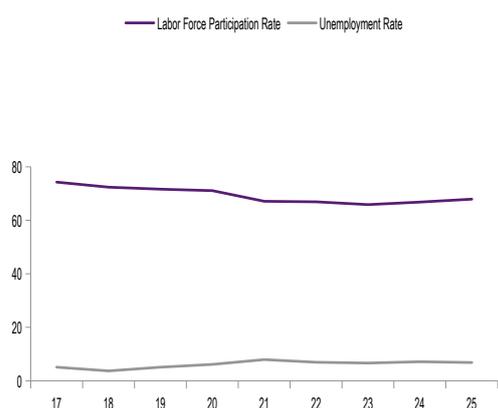
Source: Bruegel based on Natixis, Centre for Monitoring Indian Economy (CMIE).

The jobs crisis is most acute among the educated young. While the overall unemployment rate is around 8 percent, it is as high as 45 percent in the 15-24 age group, and around 13 percent in the 25-29 age group. Unemployment is highest among graduates (15 percent), followed by those with high school education (12 percent).

There are also massive gender disparities in India's labour force. While male LFPR is around 68 percent (Figure 19), female LFPR is abysmally low at barely 11 percent, among the lowest female LFPRs in the world. The female unemployment rate is close to 17 percent compared to a male unemployment rate of 7 percent (Figure 20).

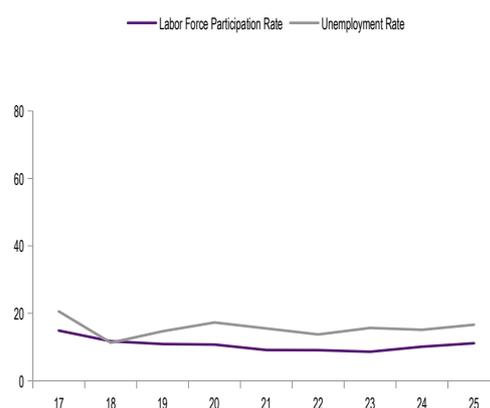
<sup>12</sup> There is a methodological divergence between the CMIE's data and the government's Periodic Labour Force Survey (PLFS) data. CMIE uses a 'Current Daily Status' equivalent approach but aggregates it differently (surveying households three times per year), compared to the PLFS 'Usual Status' (365 days) and 'Current Weekly Status' (seven days). CMIE is stricter on the definition of 'Employed', generally excluding those who are not paid (eg unpaid family work), whereas PLFS includes them. This explains why CMIE's employment rate is lower (38 percent) than PLFS (54 percent to 60 percent). See Centre for Monitoring of India's Economy website: <https://www.cmie.com>.

**Figure 19: India: Male workforce**



Source: Bruegel based on Natixis, Centre for Monitoring Indian Economy (CMIE).

**Figure 20: India: Female workforce**



Source: Bruegel based on Natixis, Centre for Monitoring Indian Economy (CMIE).

Another concern is the quality or composition of jobs as reflected in India's unconventional structural transformation. The share of employment in low-productivity sectors such as agriculture and allied activities remains stubbornly high, while high-end services which require skilled labour have grown rapidly and manufacturing remains under-developed. Agriculture accounts for about 42 percent of employment, while manufacturing, the traditional engine of labour-intensive industrialisation, accounts for only 25 percent, and the services sector accounts for around 31 percent. The fact that agriculture continues to provide employment to more than 40 percent of the workforce more than three decades after liberalisation and privatisation reforms highlights a structural retrogression or distressed employment. This has a significant implication: the non-farm sector, particularly manufacturing, is not able to create enough jobs to absorb the 8 million to 10 million new entrants joining the workforce annually.

This also implies that India's labour market has become increasingly split between 'new' India vs middle and rural India, perpetuating inequality and stifling inclusive growth. Unlike the classic East Asian model, in which rapid industrialisation absorbed the rural surplus labour before a pivot to services, India has leapfrogged into a services-dominated economy. The strong expansion of the services sector has been propelled by high-skill, capital-intensive subsectors such as IT, communications and finance, which demand specialised education and urban infrastructure but employ relatively few people. The GCCs and other high-end services subsectors (including AI and machine learning, data science, cyber security and cloud computing) have been growing at more than 20 percent per year, especially since the pandemic, and account for nearly 80 percent of all net new jobs in the technology sector, but this amounts to barely 200,000 jobs every year. On the other hand, employment in the

traditional IT services sector has been stagnant in recent years. Net hiring has plummeted as firms focus on utilisation and automation (Vyas and Arur, 2026)<sup>13</sup>.

The GCC workforce is expected to nearly double to roughly 3.4 million to 4 million by 2030. To hit these targets, the high-end sector needs to ramp up to roughly 300,000–350,000 net new jobs per year by 2027–28. But this is not enough to absorb the millions of engineering graduates India produces annually (about 1.5 million), creating a massive bottleneck with high-skill supply exceeding high-quality demand. And this, of course, falls far short of the 8 million to 10 million jobs needed annually to absorb the overall growing labour force.

Compounding this sectoral imbalance is the pervasive dominance of informal employment – employment without any social security benefits – regardless of the enterprise type or sector. According to the International Labour Organisation (ILO, 2024) and the Periodic Labour Force Survey (PLFS), the informal sector in India accounts for 88 percent to 90 percent of total employment, across agriculture, construction, manufacturing and services<sup>14</sup>. Excluding agriculture (which is almost entirely informal), the informal employment share is about 70 percent. Alongside this, a rapidly growing gig and platform economy employs about 10 million to 12 million workers, expected to rise to 23 million by 2030. In other words, the Indian economy generates livelihoods through informal employment or gig economy jobs, but regular, salaried employment is hard to find. Formalisation trends are nascent and progress is uneven, leaving a large share of the population without pensions, health insurance or minimum wages<sup>15 16</sup>.

Global shifts compound the strain on India’s labour market. More than 8 million to 10 million young people enter the Indian workforce each year, underscoring the need for labour-intensive growth. Yet worldwide trends, especially the proliferation of AI, are undermining precisely those opportunities. Automation and AI are eroding the routine, scalable tasks that once absorbed large workforces during industrialisation, from factory-floor assembly to back-office processing (Behera, 2026). India now accounts for about 16 percent of the world’s AI workforce, with more than 600,000 highly skilled professionals in the field, and this number may double by 2027 (Wheebox, 2025). However, in services, traditionally India’s strength,

---

<sup>13</sup> ET Online, ‘Techies hired and fired: TCS, Infosys, Wipro add 1,400 jobs, but trade turmoil keeps IT headcount in check’, *The Economic Times*, 19 April 2025,

<https://economictimes.indiatimes.com/jobs/hr-policies-trends/techies-hired-and-fired-tcs-infosys-wipro-add-1400-jobs-but-trade-turmoil-keeps-it-headcount-in-check/articleshow/120424294.cms?from=mdr>.

<sup>14</sup> See Ministry of Statistics & Programme Implementation press release of 10 November 2025, ‘Periodic Labour Force Survey (PLFS)’, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2188343&reg=3&lang=2>.

<sup>15</sup> See Basole (2018), Sen and Das (2014), Abraham (2017) and Mehrotra and Parida (2019) on various aspects of India’s jobs crisis.

<sup>16</sup> EOT Education, ‘India’s IT hiring in 2025: The boom is real, but not the one engineering students were waiting for’, *The Times of India*, 29 December 2025, <https://timesofindia.indiatimes.com/education/news/indias-it-hiring-in-2025-the-boom-is-real-but-not-the-one-engineering-students-were-waiting-for/articleshow/126228400.cms>.

rapid advances in AI are automating call-centre operations, basic IT tasks and standardised business-process work, threatening to displace entire streams of prospective employment.

These shifts in the employment landscape also threaten to aggravate inequalities. Large firms are able to adapt AI and related technological innovations much more rapidly than smaller firms. This may end up worsening the employment and income inequalities that already persist in the system. In the 1990s and 2000s, the emergence of a strong services sector marginalised unskilled, informal workers. This new wave of technology could do the same, beyond the already worsened income distribution in India because of the first wave.

Simultaneously, a distinct pivot toward protectionism – manifested through escalating tariffs and stringent local-content requirements – has constrained India's access to global export markets. This inward turn has limited the manufacturing sector's ability to absorb the country's vast surplus labour. Although the landmark Free Trade Agreements (FTAs) with the European Union (2026) and the United Kingdom (2025) signal a strategic recalibration, India's trade regime remains fundamentally restrictive. The persistence of high customs duties and a proliferation of non-tariff barriers continue to impede the realisation of a truly liberalised trade environment.

Against such a backdrop, India must prioritise reforms that create medium- to high-productivity jobs, in accordance with India's still-growing talent pool. This means boosting agricultural productivity while shifting rural employment to more productive sectors. The services sector cannot and should not absorb them all, since only a small share of those jobs is highly productive and well paid, while the rest are mostly informal and thus precarious. A confirmation of this reality is India's very low labour productivity, especially when compared to China (Economic and Political Weekly, 2025).

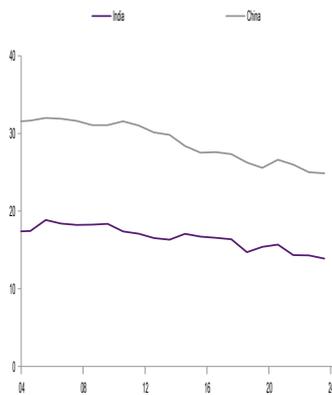
## **6 India's still-underutilised job-creation levers**

### **6.1 Sluggish manufacturing sector**

After the 1991 liberalisation reforms, the Indian economy experienced a rather unconventional structural transformation. Over 30 years, the share of manufacturing in India's GDP has remained stubbornly low, hovering around 17 percent (Figure 21), a figure that reflects premature de-industrialisation compared to the historical trajectory of successful East Asian economies, where manufacturing peaked at around 30 percent (Dasgupta and Singh, 2006; Nagaraj, 2025). This is in contrast to the services sector, which accounts for 55 percent of GDP (Figure 22).

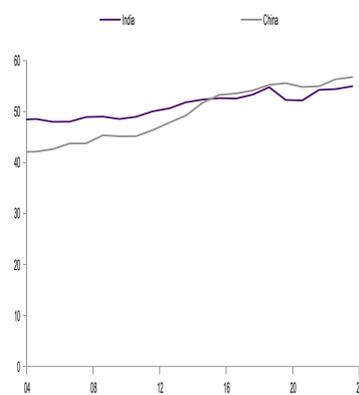
The root causes of this rapid tertiarisation include rigid labour laws, chronic infrastructure deficits, complex land acquisition hurdles and a failure to decisively reduce the bureaucratic red tape that is a legacy of the pre-1991 central planning era.

**Figure 21: GDP by sector: manufacturing (% GDP)**



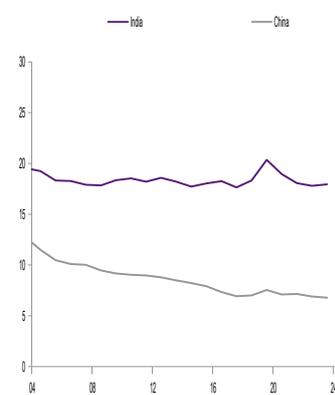
Source: Bruegel based on Natixis, CEIC.

**Figure 22: GDP by sector: services (% GDP)**



Source: Bruegel based on Natixis, CEIC.

**Figure 23: GDP by sector: agricultural (% GDP)**



Source: Bruegel based on Natixis, CEIC.

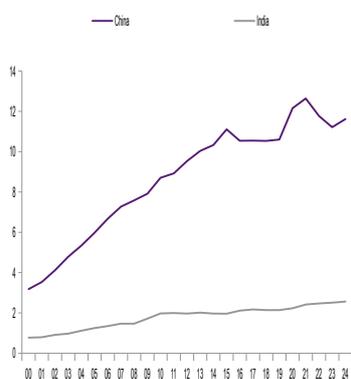
An under-performing manufacturing sector in terms of scale and contribution marks a big difference between India and China. India's share of global manufacturing is roughly 2.8 percent, compared to China's 28.8 percent. Manufacturing's share of India's GDP has also been drifting downward: from around 17 percent a decade ago to about 13 percent to 14 percent. In contrast, manufacturing contributes about 26 percent to 30 percent of China's GDP and remains a far more dominant force in its economy. Furthermore, India's manufacturing remains deeply reliant on Chinese components and supply chains. The contrast with China underscores how far India still must go to boost its manufacturing sector, and highlights that catching up will require more than incremental policy tweaks.

## 6.2 The exports conundrum

There is a clear disconnect between India's economic size and its integration into the global economy. While India's share of global GDP has reached 4 percent, its contribution to total world trade has remained stagnant at about 2.5 percent (Figure 24), suggesting below-par performance. In China, meanwhile, trade integration has moved in lockstep with economic growth. China's share of global exports surged from 3 percent in the early 2000s to over 11 percent by 2024, while India's share of global exports was only 1.8 percent in 2024, down from 2 percent in previous years.

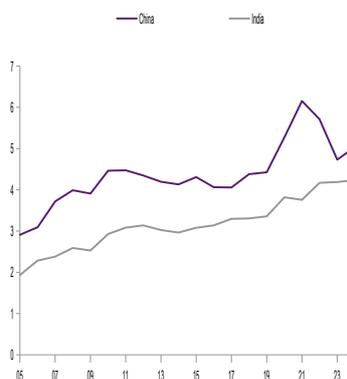
While generally disappointing, India’s export performance masks a dual reality. Services exports are over-performing (Figure 25), growing at over 8 percent annually. Services now make up 47 percent of India’s total exports, far higher than the global average of 27 percent. This sustained growth has made India the world’s seventh-largest services exporter, with its global market share rising from 2 percent in 2005 to 4.2 percent in 2024. On the other hand, goods exports have underperformed since the mid-2010s (Figure 26), a trend exacerbated by the policy shift to more trade protectionism<sup>17</sup>. The inability to scale up manufacturing exports highlights a critical structural bottleneck: despite an aim to become a global factory, India has yet to effectively integrate into global value chains (GVCs) or to leverage external demand to drive industrial competitiveness<sup>18</sup>.

**Figure 24: Share of world's goods and services exports (%)**



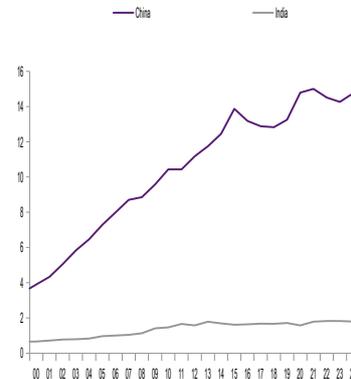
Source: Bruegel based on Natixis, World Bank.

**Figure 25: Shares of global service exports**



Source: Bruegel based on Natixis, UNCTAD.

**Figure 26: Share of world's goods exports (%)**



Source: Bruegel based on Natixis, UNCTAD.

The diverging performances of goods and services have reshaped the composition of India’s external balance sheet. Unlike China, where growth has been underpinned by massive current-account surpluses driven by manufactured goods, India’s external position is characterised by a structural merchandise deficit, primarily driven by heavy reliance on imports of oil, gold and essential inputs, which goods exports are insufficient to cover. While the services surplus provides a vital buffer, it does not always yield a net surplus.

China’s and India’s current account positions mirror each other beyond their net balances. While China has a surplus in goods, India has a deficit; the opposite is true for services. Their contrasting paths have not changed in the last three decades.

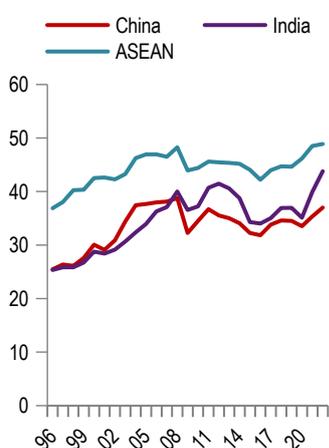
<sup>17</sup> Josh Felman and Arvind Subramanian, ‘Is India Really the Next China?’, *Analysis*, Foreign Policy, 8 April 2024, <https://foreignpolicy.com/2024/04/08/is-india-really-the-next-china/>.

<sup>18</sup> Somya Arora and Anindya Chakrabarti, ‘India’s opportune moment to break out of its global value chain conundrum’, *East Asia Forum*, 13 September 2025, <https://eastasiaforum.org/2025/09/13/indias-opportune-moment-to-break-out-of-its-global-value-chain-conundrum/>.

Unlike China or the ASEAN (Association of Southeast Asian Nations) economies, which have developed deep domestic ecosystems for producing parts and components, India has largely failed to industrialise intermediate stages of production. Instead, Indian manufacturing relies heavily on importing inputs – primarily from China – without effectively adding value for re-exports. Consequently, rather than deepening integration, India has become more detached from GVCs, especially since 2015.

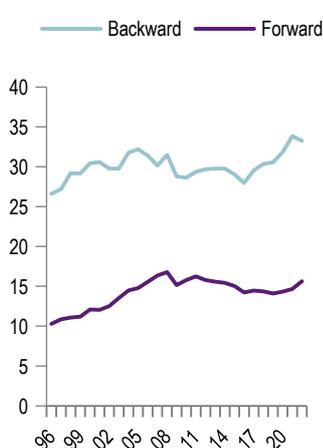
A good way to assess the extent to which India has fallen behind in GVC integration is to look at forward participation (share of domestic goods in other countries' exports) and backward participation (share of foreign goods embedded in domestic exports) and to compare India with other Asian economies. In particular, ASEAN economies employ a robust engagement model, with total participation in the GVCs (backward and forward) rising to about 50 percent (Figure 27), driven by the increased content of foreign goods in their exports. This confirms that ASEAN countries function effectively as global assembly hubs, importing intermediate goods to process and re-export efficiently (Figure 28). In contrast, India remains much less integrated, although there have been some recent improvements (Figure 29). The structural weakness in India's export model is most visible in its backward participation, which has declined since 2015, while it has increased for ASEAN.

**Figure 27: Total GVC participation with world (% of gross exports)**



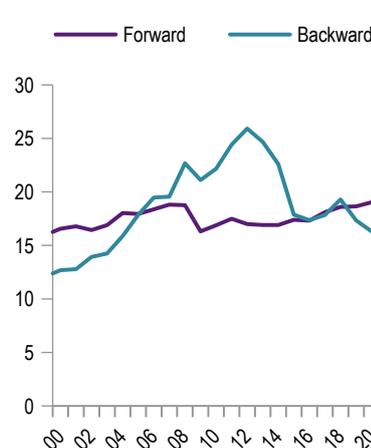
Source: Bruegel based on Natixis, OECD TiVA.

**Figure 28: ASEAN GVC participation with world (% of gross exports)**



Source: Bruegel based on Natixis, OECD TiVA.

**Figure 29: India: forward/backward participation (% of gross exports)**

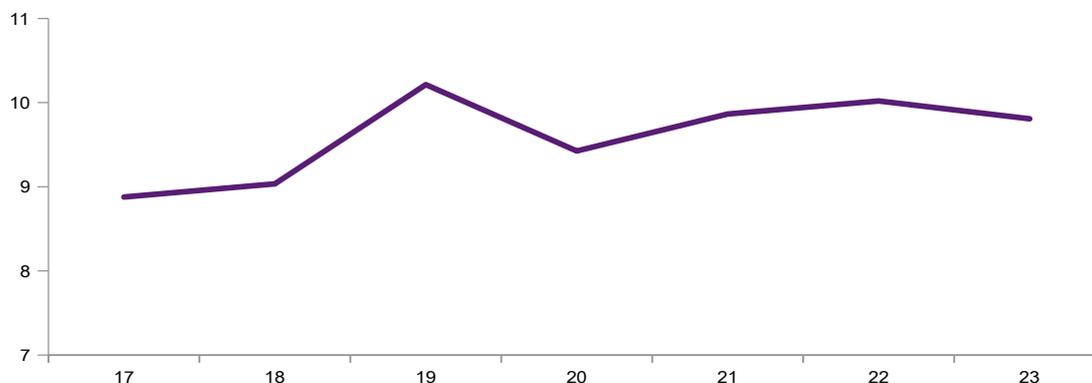


Source: Bruegel based on Natixis, CEIC.

The main reason India has fallen behind in backward integration is tariffs. Vietnam, for example, had an effectively applied tariff rate of approximately 3.4 percent in 2023 to facilitate the flow of components into the economy and to become more competitive. India's effective tariffs surged to nearly 10 percent over the same period (Figure 30). This

protectionist turn has created a prohibitive cost barrier for manufacturers, undermining India's ability to match the export efficiency of its East Asian neighbours.

**Figure 30: India effectively applied tariffs on imports (AHS simple average, %)**



Source: Bruegel based on Natixis, WITS.

India's shrinking share of global goods exports is even more striking when viewed against the backdrop of geopolitical realignments. Over the past decade, Western economies have actively pursued supply-chain diversification away from China under China+1 strategies. Several Asian economies, such as Vietnam and Malaysia, have benefitted substantially, as reflected in their rapidly rising export shares. A key differentiator has been trade policy.

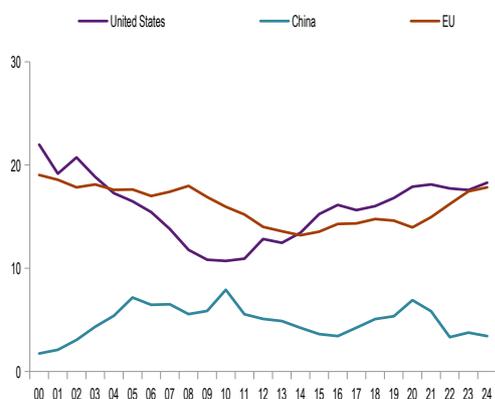
Vietnam, for example, has concluded 18 free trade agreements (FTAs), enjoys efficient logistics, and is embedded in major regional trade frameworks. By contrast, India continues to maintain high import tariffs (apart from the countries with whom it has recently entered into trade agreements or is negotiating trade deals, such as the EU, UK, US etc), and faces persistent infrastructure bottlenecks. Its absence from all major mega-regional trade agreements sharply distinguishes it from virtually all other Asian manufacturing competitors. The 2019 decision to withdraw from the Regional Comprehensive Economic Partnership (RCEP), mainly out of fear of a growing trade deficit, especially with China, is particularly significant in this context, as it further limited India's access to integrated Asian production networks.

The weak performance of India's goods exports translated into heightened trade vulnerability that got exacerbated by punitive trade measures imposed by its largest trading partner, the United States (Figure 31). Between August 2025 and February 2026, after US President Trump pushed India to stop buying Russian gas without success, Indian goods were subject to a 50 percent US tariff on a broad range of products, the highest applied to any major US trading partner<sup>19</sup>. These measures affected a market that accounted for about 18 percent of

<sup>19</sup> On 9 February 2026, US President Donald Trump announced a trade deal with India, lowering US tariffs on Indian goods to from 50 percent to 18 percent, in exchange for India halting Russian oil purchases and lowering

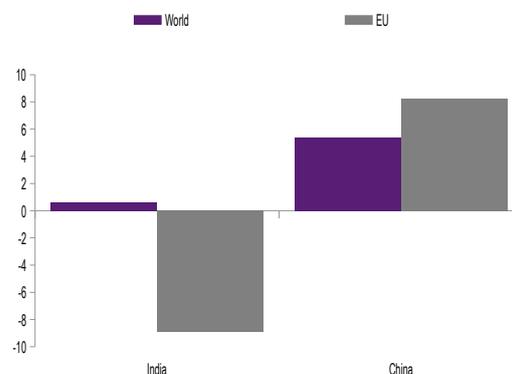
India's total goods exports saw very slow growth in 2025 compared to China (Figure 32), which has compensated for US tariffs by an increase in exports to the EU.

**Figure 31: India: exports share (%)**



Source: Bruegel based on Natixis, UN Comtrade.

**Figure 32: India and China: exports by destinations (% YoY YTD)**



Source: Bruegel based on Natixis, CEIC. Note: Data is as of December 2025.

All in all, the performance of manufactured goods is clearly an underutilised lever if India wants to improve job creation.

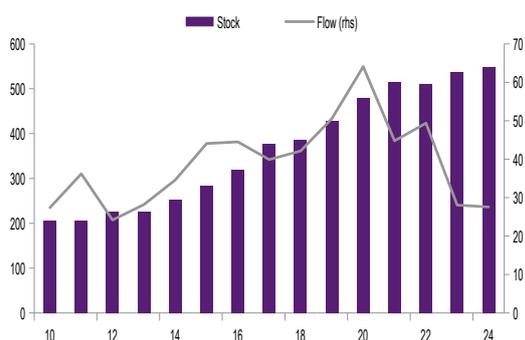
### 6.3 Lacklustre FDI inflows

In the last 15 years, India has attracted one seventh of the FDI that China managed to bring into its economy (\$500 billion compared to \$3.5 trillion for China; Figures 33 and 34). The current flow is decelerating in both countries, but faster in India: from \$60 billion at the peak in 2020 to \$30 billion in 2024, while China has moved from \$180 billion in 2021 to \$120 billion in 2024. This sharp deceleration in FDI flows into India is surprising given the global trend toward diversification away from China into other emerging economies. India, notwithstanding its attractiveness because of size and population, has attracted much less than smaller Southeast Asian countries.

---

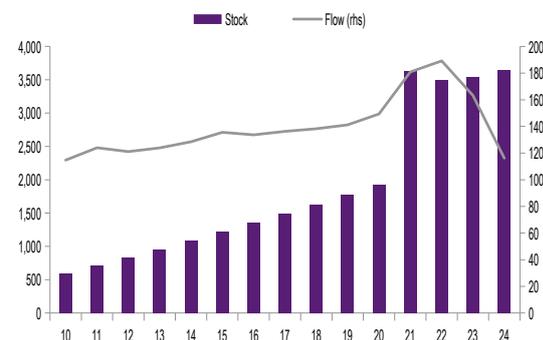
trade barriers. At the time of writing, with the US Supreme Court having struck down Trump's tariffs, the US President announced a blanket 10 percent levy for 150 days on goods imported into the US from around the world. Thus, as of end February 2026, India faces a tariff rate of 10 percent, down from 18 percent. See Ravi Dutta Mishra, 'India now faces lower tariff rate of 10 per cent as Trump announces temporary levy', *The Indian Express*, 21 February 2026, <https://indianexpress.com/article/business/us-supreme-court-strikes-down-trump-tariffs-india-trade-impact-explained-10544914/>.

**Figure 33: India: FDI (\$ bns)**



Source: Bruegel based on Natixis, CEIC.

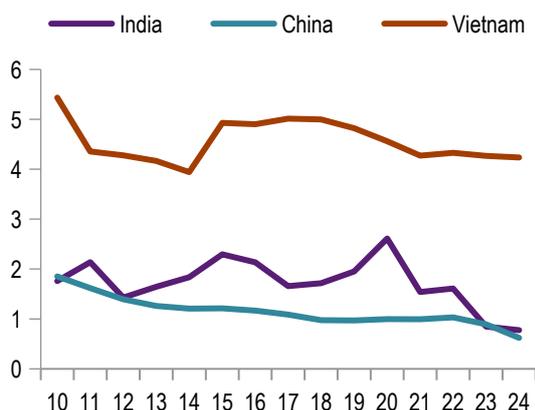
**Figure 34: China: FDI (\$ bns)**



Source: Bruegel based on Natixis, CEIC.

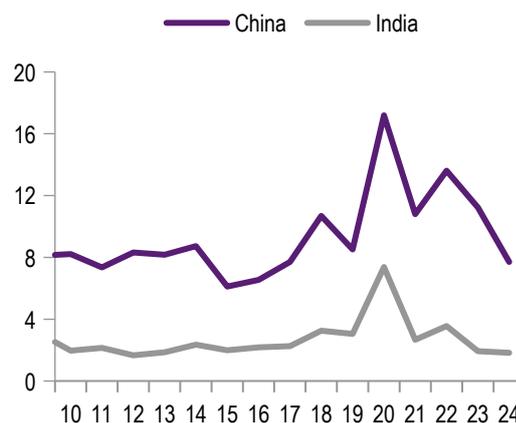
Beyond the comparison with China, India is an under-performer in terms of its share of global FDI, similar to its export share (Figure 35). For a global GDP share of 4 percent, India captures only 1.8 percent of global FDI inflows – the same as its global export share (Figure 36). Such a discrepancy indicates that MNCs seem to prefer other markets in which to operate. A clear example is Vietnam, which receives 4.2 percent of its GDP in FDI, while India receives less than 1 percent of its GDP. China’s ratio is also low now, similar to India’s, but China had double that ratio in the past and, thus, built up a massive stock of inward FDI over the years.

**Figure 35: FDI inflows (% of GDP)**



Source: Bruegel based on Natixis, CEIC, UNCTAD.

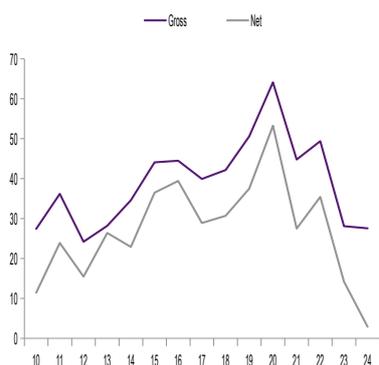
**Figure 36: FDI inflows (% of World's Total)**



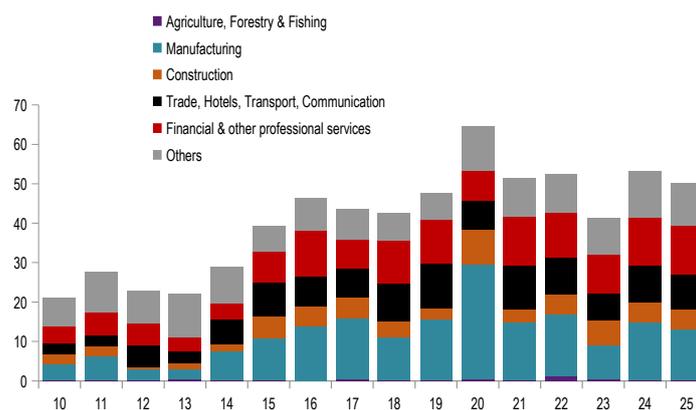
Source: Bruegel based on Natixis, UNCTAD.

More worryingly, net FDI into India, taking out repatriations and outward investment, plunged nearly 80 percent in 2024 (Figure 37), from \$14 billion to \$2.89 billion, leaving India with almost negligible net foreign investment. This is even more evident for manufacturing FDI. It is again services that attract the bulk of the flows (Figure 38).

**Figure 37: India: FDI flow (\$ bns)**      **Figure 38: India: FDI equity inflow by sector (\$ bns)**



Source: Bruegel based on Natixis, CEIC.



Source: Bruegel based on Natixis, CEIC. Note: Data is up to Q3 2025. 2025 data is the sum of past four quarters

MNCs focusing on manufacturing face a number of barriers when operating in India<sup>20</sup>. A first important constraint is the high import tariffs on intermediate goods, which inflate production costs and erode the margins needed for firms to integrate into GVCs. In effect, persistent protectionism discourages MNCs from establishing large-scale export hubs in India and instead diverts investment to jurisdictions with more open, predictable trade regimes.

Second, a common complaint from MNCs is unpredictability of rules and policy uncertainty<sup>21</sup>. That includes tax disputes, including retrospective taxation of MNCs. Two famous cases in point are Vodafone and Cairn Energy, which have created reputational risks for India<sup>22</sup>. MNCs often face high-stakes tax assessments that get stuck in litigation for ten to fifteen years. A second area of unpredictable rules is import licensing or e-commerce FDI rules. Two relevant cases are Amazon and Walmart-Flipkart<sup>23</sup>, which make long-term investment planning difficult<sup>24</sup>. More generally, any new business in India, or expansion, requires navigating complex webs of approvals and obtaining multiple no-objection

<sup>20</sup> Imran Khalid, 'India's Overbearing Regulators Are Choking Foreign Business', *Fair Observer*, 25 May 2024, <https://www.fairobserver.com/business/indias-overbearing-regulators-are-choking-foreign-business/>; Ike Brannon, 'India's Hostility To Foreign Investment Threatens Long-Term Growth', *Forbes*, 12 April 2021, <https://www.forbes.com/sites/ikebrannon/2021/04/12/indias-hostility-to-foreign-investment-threatens-long-term-growth/>; Mohammed Zeeshan, 'India Suffering a Quiet Decline in Foreign Direct Investment', *The Diplomat*, 18 March 2024, <https://thediplomat.com/2024/03/india-suffering-a-quiet-decline-in-foreign-direct-investment/>.

<sup>21</sup> See footnote 15.

<sup>22</sup> Josh White, 'Cairn and Vodafone pursue talks to settle Indian tax claims', *ITR*, 12 August 2021, <https://www.internationaltaxreview.com/article/2a68rfy5bw2ycq1ybhw5f/cairn-and-vodafone-pursue-talks-to-settle-indian-tax-claims>.

<sup>23</sup> Aditya Kalra, 'India plans tighter e-commerce rules amid complaints over Amazon, Flipkart', *Reuters*, 22 June 2021, <https://www.reuters.com/world/india/india-plans-tighter-e-commerce-rules-amid-complaints-over-amazon-flipkart-2021-06-21/>.

<sup>24</sup> Josh Felman and Arvind Subramanian, 'Why Modinomics has failed to attract foreign investment', *The Indian Express*, 7 July 2024, <https://indianexpress.com/article/opinion/columns/narendra-modi-modinomics-foreign-investment-make-in-india-foreign-direct-investment-9429419/>.

certificates from various government departments. A single manufacturing plant may require up to 100 distinct licenses across state and central levels<sup>25</sup>. These cumbersome and time-consuming procedures, often accompanied by delays and heightened risks of corruption, substantially increase compliance burdens and transaction costs for foreign investors.

Third, factor-market distortions play a crucial deterrent role for inward FDI. A major obstacle is land acquisition. Land titles in India are presumptive, not conclusive. MNCs such as Korea's POSCO<sup>26</sup> and ArcelorMittal<sup>27</sup> faced decade-long delays in acquiring land because of litigation and local protests. Even when land is available, the cost is artificially high because of poor urban planning and zoning restrictions.

Fourth, firms face significant labour rigidities (Anand *et al*, 2024). Labour laws in India, despite some recent modifications by the government, remain complex. For plants with more than 300 workers (previously 100), retrenchment requires government permission, which is politically difficult to obtain<sup>28</sup>. This incentivises MNCs to remain capital-intensive or to use contract labour rather than offering permanent employment.

Finally, contract enforcement and judicial delays are arguably the biggest institutional obstacles that discourage MNCs. India ranks very low globally (163rd) in contract enforcement<sup>29</sup>. A commercial dispute in India takes an average of 1,445 days (about four years) to resolve in court. Even when MNCs win arbitration awards, enforcing them in Indian courts can be a fresh legal battle (eg in Devas Multimedia Private Limited vs Antrix Corporation Limited; Ranjan, 2023). This forces MNCs to price a 'legal risk premium' into their investments.

India also ranks 136 in 'Starting a Business', according to the World Bank Group's 2020 Doing Business Report (World Bank, 2020).

Based on experiences from other countries, increasing the share of incoming FDI, especially in manufacturing, would help create more formal jobs in the Indian economy. The multiplier effect from FDI to jobs varies across studies. For example, a study of 29 Asia Pacific nations, including India, from 1990 to 2020, found that a 10 percent increase in FDI inflows resulted

---

<sup>25</sup> BW Online Bureau, 'Manufacturing MSMEs Bear Rs 13 Lakh Annual Compliance Burden: Report', *BusinessWorld*, 27 June 2025, <https://www.businessworld.in/article/manufacturing-msmes-bear-rs-13-lakh-annual-compliance-burden-report-561596>.

<sup>26</sup> Sameer Hashmi, 'South Korea's Posco scraps India steel project after delays', *BBC*, 16 July 2013, <https://www.bbc.com/news/world-asia-23327462>.

<sup>27</sup> Nandagopal J. Nair, 'How India lost \$14 billion worth of foreign investment in two days', *Quartz*, 21 July 2022, <https://qz.com/105683/how-india-lost-14-billion-worth-of-foreign-investment-in-two-days>.

<sup>28</sup> Snigdhendru Bhattacharya, 'Modi Government Strikes Hard on Indian Workers', *The Diplomat*, 23 February 2026, <https://thediplomat.com/2026/02/modi-government-strikes-hard-on-indian-workers>.

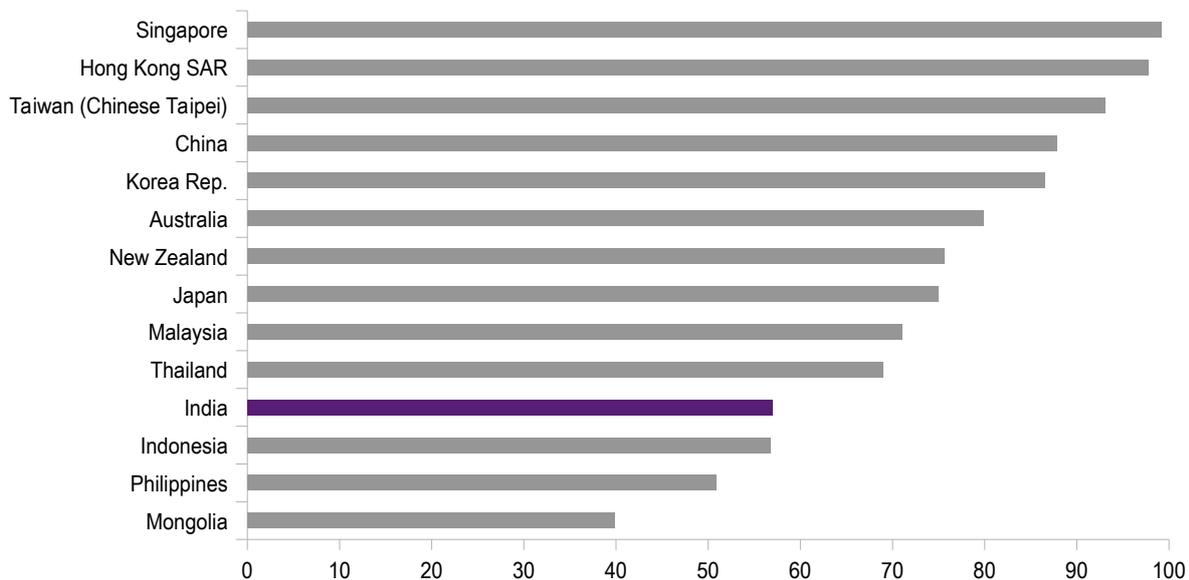
<sup>29</sup> See Indian Department of Justice website 'Enforcing Contracts', undated, <https://dashboard.doj.gov.in/eodb/>; and World Bank Group's website 'Doing Business archive', undated, <https://archive.doingbusiness.org/en/data/exploreconomies/india>.

in a 0.89 percent rise in overall employment (Nguyen *et al*, 2024). China’s experience also shows that FDI positively impacts employment, with a 1 percent increase in FDI linked to a 0.216 percent rise in overall employment (Rong *et al*, 2020). In manufacturing, this translates to more formal positions for both skilled and unskilled workers, driven by wage growth, human capital development and R&D investment. In Mexico, FDI in manufacturing from 1994-2006 increased demand for skilled labour and raised wage shares, contributing to overall job expansion in the sector (Estefan, 2026). This highlights how FDI can shift employment toward formal, higher-productivity roles.

#### 6.4 Limited resources for innovation

India’s spending on research and development (R&D) remains woefully inadequate at just 0.64 percent of GDP in 2020-21 (Figure 39 and Table 1). This is far below the global average and China’s rate, which were both 2.4 percent in 2020. What India does spend on R&D is dominated by public funds (64 percent of the spending total). The relatively low expenditure seems reflected in India’s innovation ability – India ranks 39th in the Global Innovation Index 2024 (WIPO, 2024), trailing even smaller economies such as Vietnam. Unlike China, India has not made any noteworthy progress in sunrise industries such as renewable energy, electric vehicles, biotechnology and AI.

**Figure 39: World Digital Competitiveness ranking: Asia Pacific**



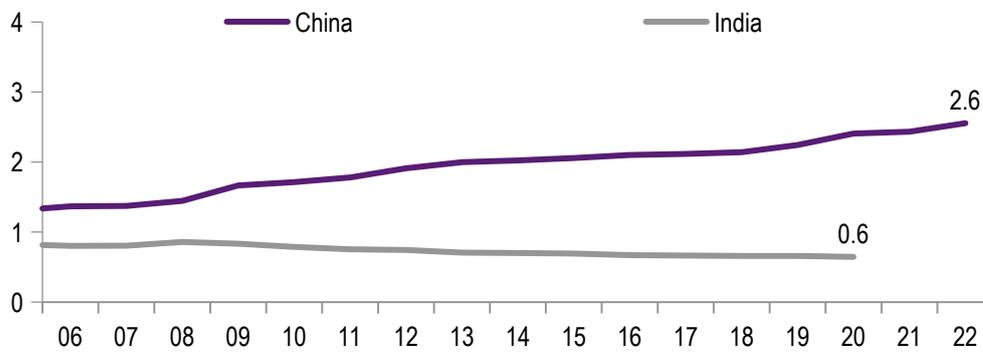
Source: Bruegel based on Natixis, IMD.

**Table 1: Global Innovation Index 2025**

Lower middle-income economies rank	Global Rank	Country
1	38	India
2	44	Viet Nam
3	50	Philippines
4	57	Morocco
5	65	Jordan
6	76	Tunisia
7	79	Uzbekistan
8	86	Egypt
9	89	Senegal
10	90	Lebanon

India’s very low R&D expenditure, especially in the private sector, underscores a key challenge (Figure 40): productivity. For China, heavy technology transfer from the rest of the world and a burst of indigenous innovation, especially since the 13th Five-Year Plan in 2015, has been instrumental in moving up the ladder in the manufacturing sector (Li and Xia, 2026). This offers a stark lesson for India. Innovation is another important investment need for which there is insufficient public or private funding.

**Figure 40: R&D expenditure (% GDP)**



Source: Natixis, World Bank.

China’s experience with technology transfer from MNCs is clearly important for India, especially given India’s limited resources for indigenous innovation. In particular, innovation-intensive industries could absorb 10 million to 15 million skilled workers, about one million of whom currently emigrate from India every year (Jain *et al*, 2025).

Moreover, in an era of geopolitical fragmentation, insufficient R&D makes India vulnerable to technological dependence and even to supply-chain shocks, as the global chip shortage in late 2021 demonstrated.

The Viksit Bharat 2047 focuses on innovation as a major source of growth. NITI Aayog's projections for India's low-innovation-growth model within the Viksit Bharat plan point to growth faltering to about 5 percent by 2030 (Puri *et al*, 2025). The question, given budget constraints and the limited role of the private sector in increasing R&D expenditure, is how foreign companies can be enticed to innovate more in India. Ruan and Chen (2025), in a meta-analysis synthesising 88 studies on China's inward FDI and the impact on innovation, pointed to a significant boost in innovation performance via knowledge diffusion, with stronger effects in advanced regions and for larger firms.

## **7 India's way forward to resolve the jobs crisis**

India needs to bring about a fundamental structural transformation to create enough high-quality, formal jobs for its growing population. The levers above clearly point to the need to rapidly ramp up the share of manufacturing in GDP to absorb the labour gap created by demographics and a rural exodus, while also boosting productivity.

While India's and China's structural characteristics differ, one thing is clear: opening up the economy and attracting FDI in manufacturing helped China create millions of jobs in the formal sector, thereby boosting productivity during urbanisation. It also helped China increase exports while acquiring technology to upgrade its industry. Ironically, China's excess savings meant it did not need FDI to fund its investment. For China, FDI was thus less about funding and more about technology transfer, industrial upgrading and creating high-quality jobs, enabling its firms to compete globally. The training and upgrading of the labour force has clearly helped Chinese companies remain globally competitive.

All of these goals are relevant for India to attract FDI. Unlike China, India needs funding given its lower level of domestic savings and private investment. Attracting more FDI into manufacturing would help India finance its current account deficit while expanding exports and improving competitiveness. In other words, India's need for external funding needs to be taken into the equation when considering how much to ask of foreign investors in terms of induced/forced transfer and/or lack of control.

Trying to achieve rapid economic growth without a robust domestic manufacturing system will also cause very high levels of imports, which in turn may lead to structurally unsustainable current account deficits for India (Kumar, 2023). To avoid this and benefit from external demand, it is imperative that India takes steps to boost goods exports. To be specific, a 1 percent increase in India's global export market share from 2 percent to 4 percent (equivalent to its share in global GDP) would mean a 100 percent increase in India's export volumes. This would imply an 18 percent real increase in exported goods per year and 2 percent additional GDP growth every year. By boosting exports to match India's share of

the global economy, India could increase its annual GDP growth rate from the current 6 percent average to 8 percent, all else being equal. This would be enough to achieve the Viksit Bharat 2047 goal.

If India's growth aspirations hinge on stronger exports – and if manufacturing is essential to achieve this and to address the current employment crisis – the question is what policy actions are needed to make it happen.

As discussed in Section 6, India's consumption-led, service-oriented model might deliver growth, but it will need FDI to create more jobs and also to export more. However, the combination of increased manufacturing, FDI and more open trade is not easy to achieve given the current structure of the Indian economy. Some key reforms are needed.

## 7.1 Greater openness to trade

India needs to liberalise trade, both by opening new markets and by reducing the very high level of effective import tariffs (section 6.2). While unilateral liberalisation is possible, the current geopolitical environment of growing protectionism and an absence of incentives for multilateral liberalisation calls for a regional and/or bilateral approach. In this context, the announcement of an FTA between India and the European Union on 27 January 2026 is a landmark development, given how important the EU is for India's trade: 20 percent of India's exports, valued at \$80 billion, go to the EU – a similar amount as goes to the US.

The India-European Union Free Trade Agreement, once signed, will offer Indian exporters preferential access to 450 million consumers across 27 countries – one of the world's largest and richest markets<sup>30</sup>. This preferential access applies to 99 percent of its exports to the EU, including rapid duty elimination for labour intensive products. While most of India's agricultural products are excluded from the deal, both sides will eliminate duties in around 90 percent of tariff lines, with the EU also getting preferential access in highly protected sectors like cars and wines. The deal could boost India's exports by up to 50 percent in key labour-intensive sectors like textiles, leather and footwear, gems and jewellery and pharmaceuticals.

India also reached an interim trade agreement with the US on 2 February 2026<sup>31</sup> under which US tariffs on Indian exports have fallen from 50 percent to 18 percent. India will also substantially eliminate or reduce tariffs on US imports, although the details of the deal are not yet known. Indian authorities have agreed to increase their imports from the US by as much as \$500 billion over the next five years. India is concurrently discussing trade deals with

---

<sup>30</sup> See European Commission press release of 27 January 2026, 'EU and India conclude landmark Free Trade Agreement', [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_26\\_184](https://ec.europa.eu/commission/presscorner/detail/en/ip_26_184).

<sup>31</sup> See White House Briefings & Statements of 6 February 2026, 'United States-India Joint Statement', <https://www.whitehouse.gov/briefings-statements/2026/02/united-states-india-joint-statement/>.

Chile, Canada, Peru and the Eurasian Economic Union. In 2022, India entered into trade deals with the United Arab Emirates (UAE), which was reinforced with a Bilateral Investment Treaty<sup>32</sup> (BIT) in 2024. It signed deals with Australia<sup>33</sup> in 2022 and both the UK<sup>34</sup> and New Zealand<sup>35</sup> in 2025.

This slew of recent developments is significant because it signals a pivot in India's economic strategy. After several years of high tariffs and inward-looking policies, especially from 2014 onwards, this reflects a clear recognition by Indian policymakers that exports must play a bigger role in driving growth.

However, market access alone does not ensure higher exports or more jobs. To translate access into outcomes, India will need structural reforms that roll back protectionist barriers.

First, India's trade regime requires reform. Tariffs on intermediate goods must be reduced if exports are to become a genuine growth engine. Indian firms cannot compete globally if key inputs remain costly. They need reliable access to low-cost components, supported by streamlined customs procedures and simpler regulations to minimise delays. Policymakers should also rethink the extensive use of Quality Control Orders (QCOs), which function as *de facto* import barriers and have proliferated over the last five to six years<sup>36</sup>. This issue will also need to be addressed as part of the implementation of the agreements with the EU and US. Although a few QCOs have been withdrawn, more than 700 remain, disrupting supply chains and creating uncertainty for firms planning production and exports.

Secondly, the India-EU FTA should also attract European manufacturing and foster European companies' interest in the Indian market, facilitating technology transfer and aligning with India's 'Make in India' initiative. However, currently a comprehensive investor agreement is absent. The deal does not include commitments relating to investment in the manufacturing sector, and parallel negotiations on an investment protection agreement have made limited progress. This may limit the incentive for European companies to invest in India,

---

<sup>32</sup> A bilateral investment treaty (BIT) is an agreement between two countries establishing terms for the reciprocal promotion and protection of private investments made by individuals and companies from one country in the other's territory. BITs aim to boost foreign direct investment (FDI) by offering investors legal protections, such as fair and equitable treatment, protection from expropriation and mechanisms to settle disputes via international arbitration.

<sup>33</sup> See the Government of Australia's website, 'India-Australia Economic Cooperation and Trade Agreement', <https://www.dfat.gov.au/trade/agreements/in-force/australia-india-ecta>.

<sup>34</sup> See the Government of India's website, 'India – United Kingdom Comprehensive Economic and Trade Agreement (CETA)', <https://www.commerce.gov.in/international-trade/trade-agreements/india-united-kingdom-comprehensive-economic-and-trade-agreement/>.

<sup>35</sup> See the Government of India's website, 'India-New Zealand Comprehensive Economic Cooperation Agreement', <https://www.commerce.gov.in/international-trade-trade-agreements-indias-current-engagements-in-rtas/india-new-zealand-free-trade-agreement-comprehensive-economic-cooperation-agreement/>.

<sup>36</sup> Prerna Prabhakar, 'India's Quality Control Orders: Understanding Key Trends', Centre for Social and Economic Progress', 24 September 2025, <https://csep.org/blog/indias-quality-control-orders-understanding-key-trends/>.

particularly considering that other countries in the region have promised more ambitious commitments on both tariffs and investment.

Finally, beyond the bilateral deals with the EU and the US, India should seriously consider joining an existing, credible, rules-based multilateral framework such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)<sup>37</sup>. The CPTPP goes well beyond tariffs, requiring its members to strengthen domestic standards in labour laws, intellectual property, regulatory transparency and competition policy – areas where India needs reforms which it has found politically difficult to implement. However, for India to join the CPTPP, significant market-opening measures will be needed, starting with providing flexible tariff commitments similar to the agreements with the EU and the US.

Moreover, the CPTPP requires countries to direct state-owned enterprises (SOEs) to make purchase and sale decisions based on commercial considerations, enforce regulations for SOEs impartially and ensure subsidies and other non-commercial assistance to SOEs do not harm other member countries. This means that India will need to introduce reforms to its SOEs if it wants its membership to be taken seriously. While some exemptions may be obtained – as for Vietnam and Singapore in the run-up to their CPTPP membership (CPTPP, 2018a; CPTPP 2018b) – India is not a founding member so it is unclear whether it can obtain the same treatment for SOEs. China, followed by Taiwan, are in a similar situation. They are on the waiting list to become members, but cannot join without major reforms to SOE behaviour.

Beyond tariffs and SOEs, the CPTPP also sets strict rules on e-commerce and data flows, conflicting with India's current preferences for data localisation and policy flexibility in digital governance. It is worth noting that, as part of the ongoing discussions with the US to strike a favourable trade deal, India may end up negotiating a digital trade agreement (Banerjee and Mukherjee, 2025). This could provide a boost to future regional trade agreements where digital provisions will play a crucial role. Finally, market access to agricultural products is another difficult ask from India's point of view, as India has historically resisted concessions on dairy and agriculture<sup>38</sup>.

All of this clearly indicates that the road toward accession to the CPTPP is neither easy nor quick, yet India's job crisis requires immediate solutions.

---

<sup>37</sup> The CPTPP is a free trade agreement between 12 countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam, with the United Kingdom joining in December 2024 as the first new member. The agreement represents over 15 percent of global GDP and more than 580 million consumers, eliminating an estimated 99 percent of tariff lines between its members.

<sup>38</sup> Arpita Mukherjee and Nandini Gupta 'Indian agriculture and dairy sectors are strong enough to withstand US tariff vagaries', *Mint*, 8 August 2025, <https://icrier.org/indian-agriculture-and-dairy-sectors-are-strong-enough-to-withstand-us-tariff-vagaries/>.

It is worth noting that, while there has been a rapprochement between India and China since the second half of 2024, it is difficult to foresee a reduction in tariffs from both sides (Singh, 2025). In India's case, the massive trade deficit (over \$100 billion) with China has created anxiety about excessive dependence and the need to de-risk (Basu and García-Herrero, 2025). This, together with President Trump's sudden tariff increases on Indian goods in August 2025, could have played a role in the swift finalisation of the EU-India deal and the progress on the US-India deal in early 2026.

In summary, for a country whose share of global goods exports has languished at barely two percent, a substantial reorientation toward trade openness is of critical importance, even as the world is generally turning inward. The clear disconnect between India's economic size and its global integration leaves massive room for India to expand its global presence. While India's share of global GDP has reached 4 percent, its contribution to total world trade has remained stagnant near 2 percent, suggesting the country is punching below its weight. Even a two-percentage-point rise in market share would effectively double exports.

## **7.2 Attracting foreign direct investment**

India's underwhelming inward FDI, especially for manufacturing, needs immediate action. A quick fix to advance on this front would be for India to sign more bilateral investment treaties (BITs). These are not mere technical agreements; they are foundational instruments of international law that provide foreign investors with a crucial layer of legal protection against government overreach, and their presence is non-negotiable for attracting large-scale manufacturing FDI from major global players.

A BIT guarantees four core principles: fair and equitable treatment, protection against expropriation without prompt and adequate compensation, non-discrimination compared to domestic investors and, most importantly, access to an investor-state dispute settlement (ISDS) mechanism. The ISDS mechanism allows an MNC to bypass the host country's national courts –which, in India's case, are notoriously slow and unpredictable – and take the government directly to an international tribunal. For an MNC planning a multi-billion dollar factory with a 20–30-year lifespan, the BIT's promise of rapid, neutral, internationally enforceable protection against capricious regulatory or tax changes is the ultimate form of policy certainty that FDI needs.

India, unfortunately, triggered a major investment shock by unilaterally terminating nearly 60 of its existing BITs starting in 2016 and replacing them with a restrictive new 'Model BIT'. This termination was a response to several adverse ISDS rulings, most notably the White Industries case (Prabhash, 2012). However, the new Model BIT, basically designed to protect the Indian government (Cornford, 2016), has narrowed the scope of its protections, tightening

the definition of ‘investment’ and drastically limiting the grounds for claiming expropriation. The Model BIT also includes a mandatory five-year waiting period before a foreign investor can even initiate arbitration. The chilling effect that the Model BIT has had on FDI into India is hard to estimate, but the stubbornly low share of FDI received by India (Ministry of Finance, 2026) – even with geopolitical tailwinds – clearly points to a problem.

Given the above and India’s increasingly urgent need for FDI, on 1 February 2025 during the Union Budget 2025-26 speech, Finance Minister Nirmala Sitharaman announced plans to revise the Model BIT to be more investor-friendly<sup>39</sup>. In March 2025, Chief Economic Adviser V. Anantha Nageswaran elaborated that the revision would strengthen investor protections while preserving India's sovereignty and regulatory space, align with global standards and favour standalone BIT negotiations<sup>40</sup>. Yet no public draft has been released.

In the case of the India-EU FTA, re-engaging on investment protection is essential but complicated for both sides. Beyond India’s inaction on improving the protection of foreign investors – notwithstanding recent announcements – the EU has its own limitations. The inclusion of a procedure for investor-state arbitration in the deal with India would require ratification by individual EU countries, delaying the deal and causing uncertainty about the final outcome, which both sides would want to avoid. Future discussions between the EU and India should focus on combining investment market access – currently missing from the FTA – investment protection standards and cooperation to facilitate investments in key value chains. This means that a future agreement between the EU and India to improve investor protection would only include state to state dispute settlement, but with sufficient safeguards and possibly complemented with investor to state arbitration procedures at the member-state level.

India clearly needs to work offering better investor protection in its trade deals – the EU has the best chance to achieve this, given current negotiations. The reform of the current ‘New Model BIT’ is urgent and important for India to unlock the FDI needed to build its manufacturing value chains and create quality jobs. The rapid conclusion of negotiations with the EU provides an opportunity to modernise investment protection standards.

### **7.3 Incentivising job creation in manufacturing**

---

<sup>39</sup> Times of India, ‘Union Budget 2025: Nirmala flips BIT coin to catch global investors’, 2 February 2025, <https://timesofindia.indiatimes.com/business/india-business/union-budget-2025-nirmala-flips-bit-coin-to-catch-global-investors/articleshow/117843536.cms>.

<sup>40</sup> The Hindu, ‘New model bilateral investment treaty to be attuned to demands of global investment environment: CEA’, 4 March 2025, <https://www.thehindu.com/business/Economy/chief-economic-adviser-anantha-nageswaran-addresses-post-budget-webinar-2025/article69289030.ece#>.

To achieve a more sustainable, higher growth path, India needs to create more jobs. This is a huge task, given how many new jobs the transition away from ‘rural India’ will require, as well as the still-relevant demographic dividend<sup>41</sup>. Creating more jobs for ‘middle India’ requires a much larger industrial/manufacturing sector, as high-end services – regardless of how they’ve boomed in India – cannot absorb such a large part of the labour force.

This requires a comprehensive approach that goes beyond industrial policy to include factor-market reforms, education system overhaul, stronger links between innovation and employment generation and efforts to rejuvenate private domestic and foreign direct investment and merchandise exports. The Modi government has taken a number of steps in this regard, in particular the Production Linked Incentives (PLI)<sup>42</sup> initiative launched in 2020 and new labour codes. While important, these steps are only partial, and more is needed for India to achieve such an important goal.

### **7.3.1 The Production-Linked Incentive (PLI) initiative: progress, but not enough**

Launched in 2020 to revive manufacturing and take advantage of the global ‘China + 1’ shift (Vedapathak, 2024), the PLI initiative was intended to attract investment and reposition India within GVCs. Yet the programme has struggled to deliver broad-based gains in the labour-intensive sectors that are essential for absorbing the country’s vast workforce. Its uniform incentive structure and high minimum investment and output thresholds have tended to privilege capital-intensive operations reliant on imported components, rather than encouraging the development of domestic supply chains or the creation of large-scale employment. As a result, the scheme has not aligned with the pressing need to move 50–60 million surplus workers out of agriculture into more productive, formal-sector jobs.

Instead, the PLI framework has disproportionately benefited large firms in sectors such as electronics, batteries and steel – areas with strong investment potential but limited capacity to generate mass employment or integrate micro, small and medium-sized companies (MSMEs), which form the backbone of India’s manufacturing base. The absence of a robust components ecosystem has further constrained the spillovers that the scheme sought to catalyse, with MSMEs often unable to meet eligibility requirements or compete at scale. Bureaucratic hurdles have added another layer of difficulty. Cumbersome audits, rigid verification processes and delays in disbursing approved incentives have created an environment

---

<sup>41</sup> In India, the ratio of dependents (0-14 and 65+ years old) to the working-age population (15–64 years old) is at its most favourable point – 47 percent – which is historically its lowest. It is projected to dip to around 31 percent by 2030 before rising again.

<sup>42</sup> See Government of India Press Information Bureau press release of 24 August 2025, ‘PLI Scheme: Powering India’s Industrial Renaissance’, <https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=155082&ModuleId=3&reg=3&lang=2>.

reminiscent of the pre-1991 Licence Raj (section 2), reinforcing risk aversion among implementing agencies and dampening participation from smaller firms.

By March 2025, PLI schemes had attracted barely 0.5 percent of GDP in committed investment and generated around 1.2 million jobs, mostly in capital-intensive sectors such as electronics, pharmaceuticals and food processing. However, key labour-intensive sectors such as textiles continued to lag. Hence, a reorientation of the scheme toward job-linked incentives and ecosystem-building is essential. Without such recalibration, PLI risks reinforcing existing structural biases rather than driving labour-absorbing job growth.

### **7.3.2 The new labour codes: what to expect**

To address India's employment challenges and make the country more attractive for manufacturing investment, the Ministry of Labour and Employment announced four new labour codes replacing 29 existing central laws, starting 21 November 2025 (CGS, 2025). This marks the most significant legislative transition in India's labour-law framework in decades. The four codes – the Code on Wages 2019, the Industrial Relations Code 2020, the Code on Social Security 2020 and the Occupational Safety, Health and Working Conditions Code 2020 – aim to reduce the compliance burden on employers while strengthening worker protection through provisions<sup>43</sup>. According to the government, the flexibility given by the codes to firms to hire, fire and grow will encourage employers to expand operations without the fear of lengthy bureaucratic delays<sup>44</sup>.

One positive aspect of this reform is that, for the first time, the codes define gig and platform work, offering legal recognition and expanding social protection to a fast-growing segment of the labour force. In fact, government estimates suggest that the gig economy could reach more than 23.5 million workers by 2030, up sharply from about 10 million in 2024–25<sup>45</sup>.

A big challenge to the success of the codes is posed by the fact that labour sits on the Concurrent List of the Indian Constitution<sup>46</sup>, meaning that the states must now come up with their own rules and enforcement within the framework of the codes. Depending on the pace and manner by which the states implement the Codes, workers may face different working conditions in different states. The codes also assume that worker registration through digital systems will happen smoothly, inspections can be carried out based on the availability of

---

<sup>43</sup> See PRS Legislative Research website, 'Overview of Labour Law Reforms', <https://prsindia.org/billtrack/overview-of-labour-law-reforms>.

<sup>44</sup> See PIB Headquarters press release of 21 November 2025, 'India's Labour Reforms: Simplification, Security, and Sustainable Growth', <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2192524&reg=3&lang=2>.

<sup>45</sup> Tanvi Mehta and Manoj Kumar, 'India enforces four new labour codes in major overhaul of worker rules', *Reuters*, 21 November 2025, <https://www.reuters.com/business/world-at-work/india-announces-implementation-new-codes-reform-labour-laws-2025-11-21>.

<sup>46</sup> See Constitution of India website, 'List III-Concurrent List', [http://constitutionofindia.etal.in/schedule\\_7\\_3/](http://constitutionofindia.etal.in/schedule_7_3/).

huge amounts of data and administrators will be able to handle millions of online compliance filings. This kind of massive overhaul requires substantial capacity from the state to carry out, which is not a given<sup>47</sup>.

Finally, expectations about job creation impacts also remain mixed. The changes may end up straining smaller, unorganised firms and benefiting only the large firms that are able to implement the provisions of the Codes. The actual employment impact of the new labour code reforms will depend heavily on how states implement their corresponding rules and how effectively the codes balance worker protection with business flexibility.

#### **7.4 Education reform and innovation to reduce the skill mismatch**

Even with world-class incentives, India's manufacturing growth will be limited if it does not urgently address its human capital and innovation gaps. While an improved and more comprehensive PLI scheme supported by labour code reforms are necessary steps, India must fundamentally overhaul its education system to match modern industrial demands.

India faces a severe paradox where its massive youth bulge – with a median age of 28 and 65 percent of the population under 35 – is hampered by a stark disconnect between academic credentials and employability. Despite producing millions of graduates annually, the education system remains rooted in rote learning and theoretical knowledge, failing to impart the practical skills, technical competencies and soft skills, like critical thinking and communication, that modern manufacturing and services require. This results in an alarming data point: only 42.6 percent of Indian graduates were considered employable in 2024–25, according to a Mercer-Mettl report (Swami and Rakheja, 2025)<sup>48</sup>. The resulting mismatch is evident across the economy: only an estimated 8.3 percent of graduates secure jobs that actually match their educational qualifications, with over half the graduate pool forced into low-skilled or semi-skilled roles, according to the Economic Survey 2025-26 (Ministry of Finance, 2026)<sup>49</sup>. Furthermore, the formal vocational training system captures only a tiny fraction of the workforce, with a mere 4.4 percent of young workers holding formal vocational skills (Ministry of Finance, 2025b). This low capacity to create job-ready youth directly undermines the country's aspiration to become a global manufacturing hub, as foreign investors demand a skilled, plug-and-play workforce.

---

<sup>47</sup> Debashis Basu, 'India's New Labour Codes: Policy Vs Execution', *Moneylife*, 5 December 2025, <https://www.moneylife.in/article/indias-new-labour-codes-policy-vs-execution/79005.html>.

<sup>48</sup> SkillLabs, 'India's Employability Challenge: Why Skill-Based Learning Is the Missing Link', 4 November 2025, <https://skilllabs.net/indias-employability-challenge-why-skill-based-learning-is-the-missing-link/>.

<sup>49</sup> TOI Education, 'Economic Survey reveals only 8.25% of graduates have jobs matching their qualifications', *Times of India*, 1 February 2025, <https://timesofindia.indiatimes.com/business/india-business/economic-survey-reveals-only-8-25-of-graduates-have-jobs-matching-their-qualifications/articleshow/117818374.cms>.

To effectively monetise its demographic dividend, India must pursue industry-relevant learning as a national priority. Vocational training programmes must be dramatically expanded and directly aligned with industry needs. It is critical to institutionalise hands-on experience by accelerating the integration of vocational education and structured apprenticeships and internships, making them mandatory across all higher education and technical institutes. Simultaneously, universities need to forge stronger, mandatory partnerships with businesses to ensure curriculum relevance and provide necessary practical exposure.

Furthermore, India needs to actively cultivate a robust innovation ecosystem that effectively translates research into commercial applications and job creation. This requires a significant increase in public and private investment in R&D, stronger and more predictable intellectual property (IP) protection and the creation of effective technology transfer mechanisms between academia and industry. By supporting startups and entrepreneurs who can transform innovative ideas into employment-generating enterprises, India can move up the value chain. Without addressing these critical gaps in human capital development and innovation capacity, even the best-designed industrial policies will fall short of creating the high-quality, sustainable jobs that India's growing youth population desperately needs.

## **7.5 Reducing policy uncertainty**

Beyond more market-friendly legislation for hiring and a more educated and skilled workforce, firms, both domestic and foreign, require assurance that the tax, trade and regulatory policies under which they invest will remain stable and predictable. However, in India, policy uncertainty and sudden regulatory shifts pose a fundamental threat to investor confidence and have become a serious constraint on business optimism, especially in recent years. The lack of policy predictability has been a major deterrent to both foreign and domestic firms making the long-term, irreversible capital commitments required for expanding the manufacturing sector.

Policy flip-flops often manifest in the form of changes to the external trade regime, directly impacting the cost structure of manufacturing. For instance, the government has frequently adjusted the tariff structure and introduced a proliferation of non-tariff barriers – notably QCOs<sup>50</sup> – over the last five to six years. While QCOs are ostensibly aimed at enhancing

---

<sup>50</sup> QCOs are government regulations (issued under the the Bureau of Indian Standards in 2016) that make compliance with specific Indian Standards mandatory for certain products – covering aspects like quality, safety, performance, and reliability – before they can be manufactured, imported, sold, or distributed in the country.

product standards, protecting consumers, and building a robust quality ecosystems, the reality is that they often act as effective import restrictions.

This also directly conflicts with the government's PLI scheme. For a manufacturer committed to meeting their PLI scheme's required production/sales targets (to earn government incentives), a sudden increase in import duties on a key imported component – or inability to import/source it due to a new QCO mandating BIS-certified standards – can sharply raise costs, disrupt supply chains, and make it economically impossible to hit those PLI targets. This policy unpredictability (eg abrupt changes in duties or QCOs) erodes business confidence in stable rules, leading companies to delay or halt major investments in expanding production capacity

Beyond trade policy, inconsistency in areas like taxation and contract enforcement further weakens the investment environment. The spectre of retroactive taxation, though officially curtailed, remains a powerful cautionary tale for foreign investors. Furthermore, the slow pace and uncertainty of commercial dispute resolution in the Indian legal system mean that policy changes often get amplified. When an investor cannot rely on the judiciary to quickly enforce a contract or provide timely relief against policy overreach, the perceived risk of all investments skyrockets. Since manufacturing requires significant sunk costs (eg factories, machinery, land), the absence of swift, reliable and predictable rule of law makes corporate boards default to caution, preferring to import finished goods or engage only in low-value assembly rather than investing in deep, integrated supply chains.

To truly attract transformative FDI into manufacturing, policymakers must move beyond production subsidies and embrace policy certainty as the paramount reform. This requires three critical actions:

1. Institutionalise regulatory stability by committing to fixed terms for major tax and trade policies (eg locking in tariff rates for PLI-related inputs for the scheme's duration).
2. Radically simplify the business environment by eliminating bureaucratic discretion and ensuring that central policy decisions are seamlessly and uniformly implemented across state and local levels.
3. Prioritise judicial and administrative efficiency to ensure that commercial disputes and policy enforcement mechanisms are resolved within a predictable, short timeframe.

Ultimately, a world-class manufacturing base is built not on handouts, but on the trust that the rules of the market are fair, stable and consistently applied.

## 8 Conclusion

In the early 1980s, China and India exhibited broadly similar economic characteristics. Both nations were characterised by large populations, low *per-capita* incomes and agrarian economies emerging from decades of state-led planning and limited integration with the global economy. However, their subsequent development trajectories diverged sharply due to distinct reform strategies.

China placed manufacturing at the centre of its growth strategy and pursued export-oriented industrialisation. Reforms liberalised agriculture, released surplus rural labour and directed it toward manufacturing. Special economic zones attracted foreign investment linked to technology transfers, while high domestic savings – mobilised by the state – financed large-scale infrastructure and industrial expansion. This strategy facilitated deep integration into GVCs, rapid technological catch-up and significant productivity growth. Although the Chinese model now faces constraints from real estate imbalances, regulatory uncertainty, demographic headwinds and labour market pressures, China has already attained high levels of per capita income – an outcome India has yet to achieve.

In contrast, India's 1991 liberalisation was significant but incomplete. It removed many regulatory barriers, but the reforms disproportionately favoured skill-intensive services rather than labour-intensive manufacturing. As a result, India experienced 'premature de-industrialisation' instead of manufacturing-led job creation. Long-standing constraints, including structural rigidities in labour and land markets, infrastructure deficits and bureaucratic inefficiencies, have limited industrial expansion. More recent shifts toward protectionism and self-reliance have further weakened manufacturing performance. Growth has instead relied heavily on private consumption and services, alongside lower and declining domestic savings.

Despite relatively strong aggregate growth, India faces a persistent employment challenge. Growth has been largely jobless. Agriculture continues to employ a large share of low-productivity workers. The manufacturing sector lacks the scale to facilitate a true structural transformation. Meanwhile, service-sector growth has been dualistic, generating a narrow set of high-skill formal jobs with limited spillovers, alongside a vast proliferation of precarious informal work.

Several growth levers remain underutilised. Weak institutions and policy unpredictability deter long-term capital commitment. Difficulties in land acquisition and labour market rigidities hinder firm scalability. Low public and private expenditure on R&D limits productivity gains. Limited free trade agreements and high tariffs on intermediate goods have caused stagnation in goods exports, in contrast to stronger services exports. Foreign investment remains constrained by weak investor protections and policy instability.

To escape the current low-equilibrium trap and to achieve sustained growth and job creation, we advocate a decisive pivot toward manufacturing, anchored in global integration. This calls for a more open trade regime, including ambitious free trade agreements. India has already taken major steps in the right direction with the recent trade deal struck with the EU and the interim agreement with the US<sup>51</sup>, even if these required difficult concessions. It is worth exploring joining regional trade agreements like the CPTPP, too. In addition, reducing tariffs on intermediate inputs is essential to enhance competitiveness and GVC participation.

Attracting foreign direct investment in manufacturing should also be a central policy objective, both to generate employment and to facilitate technology transfer and innovation. This will require revising restrictive BITs to strengthen investor protections.

PLI schemes should be refocused on labour-intensive sectors, with an explicit emphasis on job creation and minimal administrative complexity. Effective implementation of new labour codes is essential and will depend on consistent enforcement at the state level. Education and skill formation require a fundamental reorientation toward industry-relevant vocational training, practical skills, and stronger university-industry linkages. Innovation capacity must be expanded through higher public and private research spending, with incentives aligned to domestic efforts and foreign technology inflows. Finally, policy credibility must be institutionalised through predictable regulatory frameworks and faster judicial processes to effectively enforce contracts and encourage long-term investment.

The urgency of these reforms is dictated by demographics. Unlike China or South Korea, which attained high-income status prior to population aging, India risks confronting a ‘demographic cliff’ around 2045-50 while remaining stuck in the ‘lower-middle income trap’. Without an outward-oriented shift that boosts FDI and exports, the ‘jobless growth’ paradox will likely become entrenched. Policy inaction risks converting India’s demographic dividend into a permanent liability.

---

<sup>51</sup> See Office of the U.S. Trade Representative fact sheet of April 2025, ‘Fact Sheet: U.S.-India Establish Terms of Reference on Bilateral Trade Agreement’, <https://ustr.gov/about/policy-offices/press-office/fact-sheets/2025/april/fact-sheet-us-india-establish-terms-reference-bilateral-trade-agreement>.

## References:

- Abraham, V. (2017) 'Stagnant Employment Growth: The Last Three Years May Have Been the Worst', *Economic and Political Weekly* 52(38): 13-17, available at <https://www.jstor.org/stable/26697743>
- Acharya, S. (2025) 'Macroeconomic developments and policies since 2000', *Working Paper* 428, Indian Council for Research on International Economic Relations, available at <https://icrier.org/publications/macroeconomic-developments-and-policies-since-2000/>
- Ahluwalia, M.S. (2002) 'Economic Reforms in India since 1991: Has Gradualism Worked?' *Journal of Economic Perspectives* 16(3) 67–88, available at <https://doi.org/10.1257/089533002760278721>
- Anand, A., A. Subramanian and N. Thomas (2024) 'Multiplying Multi-Plants and Large Plant Size Consequences, Costs and Rationale', *Working Paper* 244, Madras Institute of Development Studies, available at <https://doi.org/10.13140/RG.2.2.32562.21447>
- Banerjee, P. and A. Mukherjee (2025) 'E-commerce in trade agreements: India's strategies and options', *Working Paper* 426, Indian Council for Research on International Economic Relations, available at [https://icrier.org/pdf/Working\\_Paper\\_426.pdf](https://icrier.org/pdf/Working_Paper_426.pdf)
- Basole, A. (2018) 'Understanding India's Jobs Crisis', *NHRD Network Journal* 11(1): 20–24, available at <https://doi.org/10.1177/0974173920180107>
- Basu, N. and A. García-Herrero (2025) 'India-China rapprochement: what are the long-term prospects?', *Working Paper* 09/2025, Bruegel, available at <https://www.bruegel.org/working-paper/india-china-rapprochement-what-are-long-term-prospects>
- Batra, A. (2022) *India's Trade Policy in the 21st Century*, Routledge
- Behera, M. (2026) 'Indian Labour Market in the Era of Automation and Artificial Intelligence: Challenges and Opportunities', in Jha, P., P. Pal and B. Majumder (eds) *India's Political Economy @75*, Springer, available at [https://doi.org/10.1007/978-981-96-7882-2\\_11](https://doi.org/10.1007/978-981-96-7882-2_11)
- Bhagwati, J.N. and P. Desai (1970) *India: Planning for Industrialization*, Oxford University Press
- Bris, A., Caballero, J., Cabolis, C., Grimm, F., Hediger, M., Milner, W., Sharma, C. and Tozer, A. (2025) *IMD World Competitiveness Booklet 2025*, International Institute for Management Development, available at <https://www.scribd.com/document/893397458/IMD-World-Competitiveness-Booklet-2025-1750238081>

Byres, T.J. (ed) (1998) *The State, Development Planning and Liberalisation in India*, Oxford University Press

Cerra, V. and S.C. Saxena (2002) 'What Caused the 1991 Currency Crisis in India?' *IMF Staff Papers* 49(3): 395–425, International Monetary Fund, available at <https://www.imf.org/external/pubs/ft/staffp/2002/03/pdf/cerra.pdf>

CGS (2025) *A Compendium on New Labour Laws*, Ministry of Labour and Employment, CGS Publication India, available at <http://www.cgspublicationindia.com/PDFOM/A%20Compendium%20on%20new%20Four%20Labour%20Codes.pdf>

Chatterjee, S. and A. Subramanian (2023) 'India's inward (re)turn: is it warranted? Will it work?' *Indian Economic Review* 58: 35–59, available at <https://doi.org/10.1007/s41775-023-00156-1>

Cornford, A. (2016) *Disputer settlement in international investment agreements and the rules of and Indian model bilateral investment treaty*, UN Conference on Trade and Development, available at [https://unctad.org/system/files/non-official-document/c1mem4\\_2016\\_p207\\_Paper\\_A%20Cornford\\_en.pdf](https://unctad.org/system/files/non-official-document/c1mem4_2016_p207_Paper_A%20Cornford_en.pdf)

CPTPP (2018a) 'Annex IV: Vietnam – Non-Conforming Measures for State-Owned Enterprises and Designated Monopolies', Government of Vietnam Portal, available at <https://wtocenter.vn/upload/files/fta/174-ftas-concluded/175-cptpp-tpp11/177-full-text/Annex-IV.-Viet-Nam.pdf>

CPTPP (2018b) 'Annex 17-E: Singapore. Enterprise Singapore Legal Text', available at <https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/tpp-ptp/text-texte/17.aspx?lang=eng>

Dasgupta, S. and A. Singh (2006) 'Manufacturing, Services and Premature Deindustrialization in Developing Countries: A Kaldorian Analysis', in: G. Mavrotas and A. Shorrocks (eds), *Advancing Development. Studies in Development Economics and Policy*, Palgrave Macmillan, available at [https://doi.org/10.1057/9780230801462\\_23](https://doi.org/10.1057/9780230801462_23)

Dev, M.S. and R. Sengupta (2023) 'The Indian Economy in the Post-pandemic World: Opportunities and Challenges', *Mumbai Working Papers* 2023-06, Indira Gandhi Institute of Development Research, available at [https://doi.org/10.1007/978-981-99-5728-6\\_2](https://doi.org/10.1007/978-981-99-5728-6_2)

Economic and Political Weekly (2025) 'On Competing with China', *Economic and Political Weekly* 60(52), available at <https://doi.org/10.71279/epw.v60i52.47747>

- Estefan, A. (2026) 'US manufacturing reallocation: Impacts on Mexican labor markets', *World Development Perspectives* 41(100768), available at <https://doi.org/10.1016/j.wdp.2026.100768>
- García-Herrero, A. (2023) 'Can Chinese Growth Defy Gravity?' *Policy Brief* 14/23, Bruegel, available at <https://www.bruegel.org/policy-brief/can-chinese-growth-defy-gravity>
- García-Herrero, A. and J. Xu (2023) 'To what extent can urbanisation mitigate the negative impact of population ageing in China?' *Working Paper* 17/2023, Bruegel, available at <https://www.bruegel.org/working-paper/what-extent-can-urbanisation-mitigate-negative-impact-population-ageing-china>
- García-Herrero, A. and J. Xu (2026) 'Growth without profits: how will 'involution' in China end?' *Working Paper* 1/2026, Bruegel, available at <https://doi.org/10.64153/DFXY6313>
- Ge, W. (1999) 'Special Economic Zones and the Opening of the Chinese Economy: Some Lessons for Economic Liberalization', *World Development* 27(7): 1267-1285, available at [https://doi.org/10.1016/S0305-750X\(99\)00056-X](https://doi.org/10.1016/S0305-750X(99)00056-X)
- Hofman, B. (2024) 'China's economy after Covid-19', in: Song, L. and Y. Zhao (eds), *China: Regaining Growth Momentum after the Pandemic*, ANU Press, available at <http://doi.org/10.22459/CRGMP.2024>
- Ianchovichina, E. and W. Martin (2004) 'Impacts of China's Accession to the World Trade Organization' *World Bank Economic Review* 18(1): 3–27, available at <https://doi.org/10.1596/17152>
- IBEF (2026) *Foreign Direct Investment (FDI)*, India Brand Equity Foundation, available at <https://www.ibef.org/economy/foreign-direct-investment>
- ILO (2024) *India Employment Report 2024*, International Labour Organisation, available at [https://www.ilo.org/sites/default/files/2024-08/India%20Employment%20-%20web\\_8%20April.pdf](https://www.ilo.org/sites/default/files/2024-08/India%20Employment%20-%20web_8%20April.pdf)
- Irwin, D. (2025) 'Dismantling the license raj: The long road to India's 1991 trade reforms', *Working Paper* 25-2, Peterson Institute for International Economics, available at <https://www.piie.com/publications/working-papers/2025/dismantling-license-raj-long-road-indias-1991-trade-reforms>
- Jain, S., S. Gupta and N. Jain (2025) 'Roadmap for Job Creation in the AI Economy', NITI Aayog, available at [https://niti.gov.in/sites/default/files/2025-10/Roadmap\\_for\\_Job\\_Creation\\_in\\_the\\_AI\\_Economy.pdf](https://niti.gov.in/sites/default/files/2025-10/Roadmap_for_Job_Creation_in_the_AI_Economy.pdf)

- Joshi, V. and I.M.D. Little (1996) *India's Economic Reforms, 1991–2001*, Clarendon Press
- Kumar, N. (2023) 'Competitive manufacturing as a driver of India's next economic transformation: Opportunities, potential, and policies', *Working Paper 259*, Institute for Studies in Industrial Development, available at <https://isid.org.in/wp-content/uploads/2023/02/WP259.pdf>
- Lardy, N. R. (2002) *Integrating China into the Global Economy*, Brookings Institution Press
- Li, T.F. and K. Xia (2026) 'Re-examine China's grain security and system construction during the 13th five-year plan', *Research of Agricultural Modernization* 37(4): 657-662, available at <https://dx.doi.org/10.13872/j.1000-0275.2016.0072>
- Lin, J.Y. (1992) 'Rural Reforms and Agricultural Growth in China', *American Economic Review* 82(1): 34–51, available at <https://www.jstor.org/stable/2117601>
- Liu, Z. (2002) 'Foreign Direct Investment and Technology Spillover: Evidence from China', *Journal of Comparative Economics* 30(3): 579–602, available at <https://doi.org/10.1006/jcec.2002.1789>
- Liuyi, Y., Z. Yunchan and R. Feirong (2023) 'Does government investment push up manufacturing labor costs? Evidence from China' *Humanities and Social Sciences Communications* 10(1): 694, available at <https://doi.org/10.1057/s41599-023-02180-1>
- McMillan, J., J. Whalley and L. Zhu (1989) 'The Impact of China's Economic Reforms on Agricultural Productivity Growth', *Journal of Political Economy* 97(4): 781–807, available at <https://www.jstor.org/stable/1832191>
- Mehrotra, S. and J.K. Parida (2019) '*India's employment crisis: rising education levels and falling non-agricultural job growth*', *Working Paper*, Azim Premji University, available at <https://publications.azimpremjiuniversity.edu.in/2119/>
- Ministry of Finance (2025a) *Economic Survey, 2024–25*, Government of India, available at [https://www.eoiparis.gov.in/pdf/isreal\\_11feb2024\\_1.pdf](https://www.eoiparis.gov.in/pdf/isreal_11feb2024_1.pdf)
- Ministry of Finance (2025b) *Chapter 8: Employment and skill development: towards quality*, in 'Economic Survey 2023-2024', Government of India, available at <https://www.indiabudget.gov.in/budget2024-25/economicsurvey/doc/eschapter/echap08.pdf>
- Ministry of Finance (2026), *Economic Survey 2025-26: Prices and Macroeconomic Management*, Government of India, available at <https://www.indiabudget.gov.in/economicsurvey/doc/eschapter/echap01.pdf>

- Nagaraj, R. (2025) 'India's premature deindustrialization and Falling investment rate in the 2010s', *World Development* 191(106954), available at <https://doi.org/10.1016/j.worlddev.2025.106954>
- Naughton, B. (2018) *The Chinese Economy: Adaptation and Growth (2nd Ed)*, MIT Press
- Nguyen, H.T., A.N.N. Le, H.V. Le and K.D. Duong (2024) 'Foreign direct investment and employments in Asia Pacific nations: The moderating role of labor quality', *Heliyon* 10(9): e30133–e30133, available at <https://doi.org/10.1016/j.heliyon.2024.e30133>
- Panagariya, A. (2008) *India: The Emerging Giant*, Oxford University Press
- Pelizzon, L., R. Mattiello and J. Schlegel (2025) 'Growth of Non-Bank Financial Intermediaries, Financial Stability, and Monetary Policy', *Working Paper* 458, Leibniz Institute for Financial Research, available at <https://dx.doi.org/10.2139/ssrn.5603370>
- Pilkington, P. (2025) 'Six Stages of Chinese Economic Development' *Eurázsia Szemle* 5(2), available at <https://eurazsiaszemle.com/eurazsia-szemle-volume-v-issue-2/>
- Prabhash, R. (2012) 'The White Industries Arbitration: Implications for India's Investment Treaty Program', *Analysis*, Investment Treaty News, available at <https://www.iisd.org/itn/2012/04/13/the-white-industries-arbitration-implications-for-indias-investment-treaty-program/>
- Puri, A., K. Jaiswal and Y. Mehrotra (2025) *AI for Viksit Bharat: The opportunity for accelerated economic growth*, Government of India, available at <https://niti.gov.in/sites/default/files/2025-09/AI-for-Viksit-Bharat-the-opportunity-for-accelerated-economic-growth.pdf>
- Ranjan, P. (2023) 'Devas v. Antrix: Lessons for India in Navigating Bilateral Investment Treaty Disputes', *Issue Brief* 537, Observer Research Foundation, available at <https://www.orfonline.org/research/devas-v-antrix-lessons-for-india-in-navigating-bilateral-investment-treaty-disputes>
- RBI (2023) 'State of the Economy - Household Financial Savings', RBI Bulletin, September, Reserve Bank of India, available at <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/01AR20092024FFB54EA9C9F04CAC9347867B6195B0C7.PDF>
- RBI (2024) *Annual Report 2024-2024*, Reserve Bank of India, available at <https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx?year=2024>

- Rong, S., K. Liu, S. Huang and Q. Zhang (2020) 'FDI, Labor Market Flexibility and Employment in China', *China Economic Review* 61(1): 101449, available at <https://doi.org/10.1016/j.chieco.2020.101449>
- Ruan, R. and W. Chen (2025) 'Research on the impact of foreign direct investment on innovation performance: evidence from meta-analysis', *Business Process Management Journal* 1(26), available at <https://doi.org/10.1108/BPMJ-01-2025-0013>
- Sen, K. and D.K. Das (2014) 'Where Have All the Workers Gone. The Puzzle of Declining Labour Intensity in Organized Indian Manufacturing', *Development Economics and Public Policy Working Paper* 35, Institute for Development Policy and Management, available at <https://hummedia.manchester.ac.uk/institutes/gdi/publications/workingpapers/depp/depp-wp36.pdf>
- Sengupta, R. (2024) 'The silent reshaping of India's credit landscape', *Ideas for India*, 20 May, available at <https://www.ideasforindia.in/topics/money-finance/the-silent-reshaping-of-india-s-credit-landscape>
- Singh, A.G. (2025) 'China-India Rapprochement: A Reality Check', *Issue Brief*, Observer Research Foundation, available at <https://www.orfonline.org/research/china-india-rapprochement-a-reality-check>
- Swami, N. and V. Rakheja (2025) 'India's Graduate Skill Index 2025', *Mercer Mettl*, available at <https://resources.mettl.com/research/india-graduate-skill-index-2025/>
- Vedapathak, M. (2024) 'China Plus One Strategy; India's Opportunity to Bridget Trade Gap with China', *Journal of Management* 11(3): 29-36, available at <https://iaeme.com/Home/issue/JOM?Volume=11&Issue=3>
- Vogel, E.F. (2011) *Deng Xiaoping and the Transformation of China*, The Belknap Press of Harvard University Press, available at <https://doi.org/10.4000/chinaperspectives.6543>
- Vyas, L.S. and V. Arur (2026) 'GenAI for Business: Insights from India', *White Paper*, Desai Sethi School of Entrepreneurship, available at <https://rnd.iitb.ac.in/sites/default/files/2026-01/Sonne%20Vyas%20Arur%20GenAI%20for%20Business%20WP%20Jan%202026.pdf>
- Wheebox (2025) *India Skills Report 2025*, available at [https://wheebox.com/assets/pdf/ISR\\_Report\\_2025.pdf](https://wheebox.com/assets/pdf/ISR_Report_2025.pdf)
- Wei, S.J. (1995) 'Attracting foreign direct investment: has China reached its potential?', *China Economic Review* 6(2): 187-199, available at [https://doi.org/10.1016/1043-951X\(95\)90003-9](https://doi.org/10.1016/1043-951X(95)90003-9)

WIPO (2024) *Global Innovation Index 2024*, World Intellectual Property Organization, available at <https://www.wipo.int/web-publications/global-innovation-index-2024/en/gii-2024-at-a-glance.html>

World Bank (2020) *Doing Business in 2020*, World Bank Group, available at <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

Wu, M. and Z. Li (2026) 'Inequality and the driving forces of carbon emissions from urban and rural household consumption in China', *Environmental and Sustainability Indicators* 30(101176), available at <https://doi.org/10.1016/j.indic.2026.101176>

Yin, Z., J. Liu and F. He (2025) 'Economic Risk of Chinese Households: Measurement, Trends, and Implications', *Journal of Economic Surveys*, 40(1): 3-19, available at <https://doi.org/10.1111/joes.12695>

Youvan, D.C. (2024) 'China's Banking and Real Estate Crisis: Unraveling the Economic Turmoil', mimeo, available at <https://doi.org/10.13140/RG.2.2.31400.38403>

Zhang, W. and H. Wei (2025) 'The impact of RMB exchange rate changes on the prices of imported products by Chinese firms', *Economic Analysis and Policy* 85: 464-478, available at <https://doi.org/10.1016/j.eap.2024.12.014>

Zhibiao, L. and L. Yonghui (2022) 'Structural Transformation, TFP and High-Quality Development', *China Economist* 17(1): 70-82, available at <http://chinaeconomist.com/index.php/2022/02/11/structural-transformation-tfp-and-high-quality-development/>