

INDUSTRY: ALL ABOUT BUSINESS REFORMS

The global manufacturing landscape has undergone significant shifts over the past decade. India has been one of the dynamic economies that gained greater presence in the space gradually vacated by developed countries. A strategic emphasis on public capital formation and significant logistic improvements has underpinned this achievement. Lately, however, there have been serious challenges to global manufacturing in terms of persistent geopolitical tensions, aggressive industrial and trade policies, supply chain disruptions, and global trade slowdown. This has posed a challenge to export demand for India's manufactured products.

Industries such as steel, cement, chemicals, and petrochemicals have stabilised industrial growth, while consumer-focused sectors like automobiles, electronics, and pharmaceuticals have emerged as growth drivers. As we progress, fostering R&D investments, innovations, enhancing the growth and formalisation of smaller manufacturers will drive growth across various sectors.

State-level analysis indicates that business reforms in states are likely to foster industrial development. Achieving India's ambition of becoming a strong manufacturing power necessitates sustained and coordinated efforts from all tiers of government, the private sector, the skilling ecosystem, academia and R&D institutions.

GLOBAL BACKGROUND

7.1 In the global manufacturing space, high-income countries have lost a significant part of their share during the last decade¹. This was largely gained by the upper middle-income countries, mainly based on China's strength. The share of lower middle-income economies did not, in general, increase. Yet, India managed to improve its share in the pie and global presence.

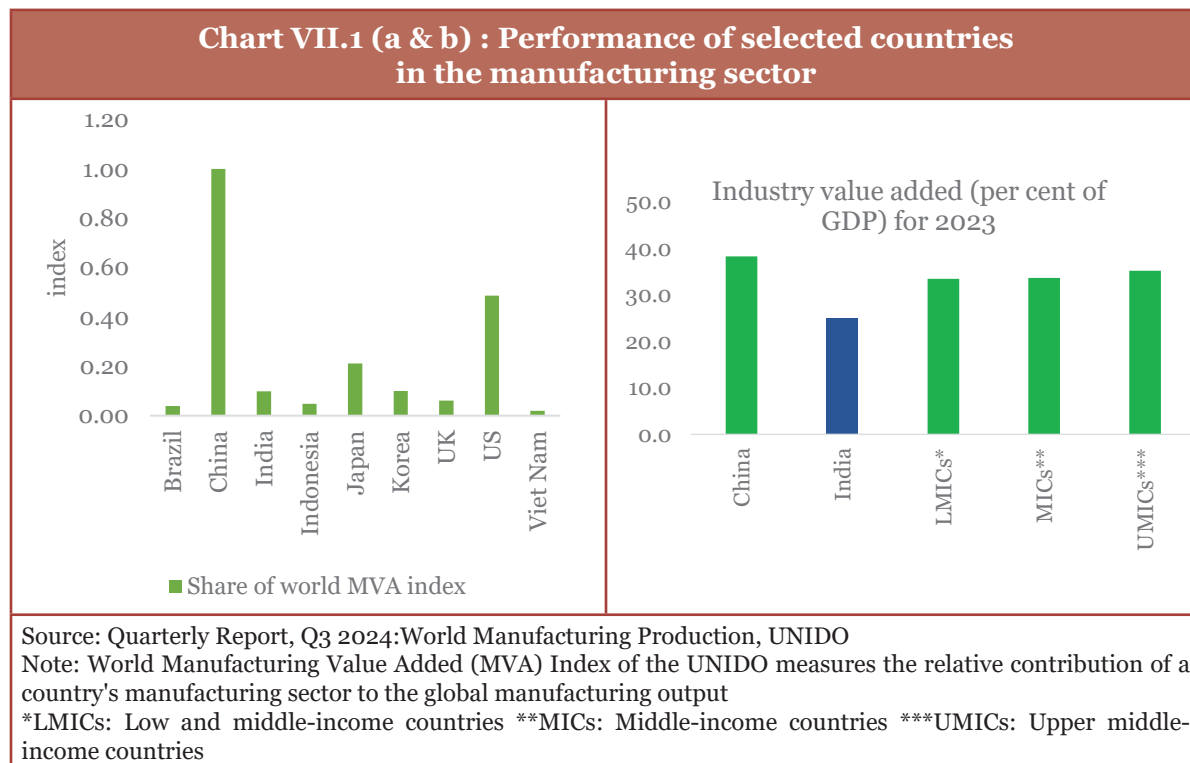
7.2 However, with 2.8 per cent of the global share in manufacturing, compared to China's 28.8 per cent, India has a large opportunity to climb up the ladder² (chart VII.1(a)). India also has a substantial scope to improve the contribution of the industrial sector in GDP in relation to its comparator countries (chart VII.2(b)). More so in the

¹ World Development Indicators, World Bank.

² United Nations Industrial Development Organisation (UNIDO).

light of the IMF's observation³ that manufacturing production is increasingly shifting towards emerging market economies, particularly China and India. India stands a good chance of benefitting from the trends in global industrial diversification⁴.

7.3 While this remains an upside of possibility, the downside stems partially from the increasing risks of industrial and trade policy measures by the countries faced with external competition and internal weaknesses. There are also early global indications that, given elevated commodity price trends, consumption is tilting away from manufactured items and more towards services.



7.4 Recently, the global manufacturing is facing a range of challenges, including persistent supply chain disruptions, political instability, pressure to reduce emissions and move towards renewables⁵, increased logistics costs and other effects of regional conflicts. As a result, the global manufacturing output rose modestly by 0.4 per cent only in the third quarter of 2024, compared to a stronger growth of nearly 1 per cent in the previous quarter⁶. Hence, in a rather unsupportive global environment, it calls for lasting, coordinated efforts from all tiers of government, the private sector, the skilling ecosystem, academia and R&D institutions, as well as financial stakeholders to enable India to realise its ambition as a manufacturing powerhouse.

³ World Economic Outlook, IMF, October 2024.

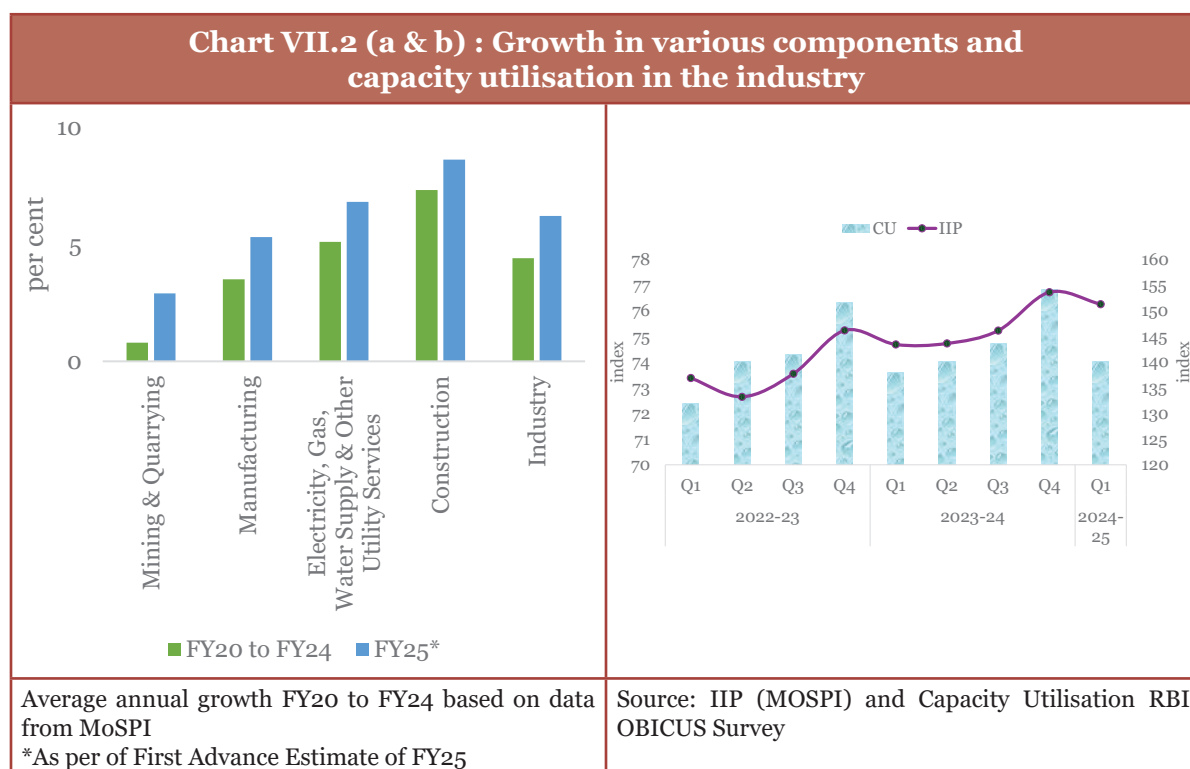
⁴ Ibid.

⁵ Bloomberg. (2024, October 21). Coal is powering the energy transition more than we'd like to admit. Bloomberg. <https://t.ly/R3s5A>.

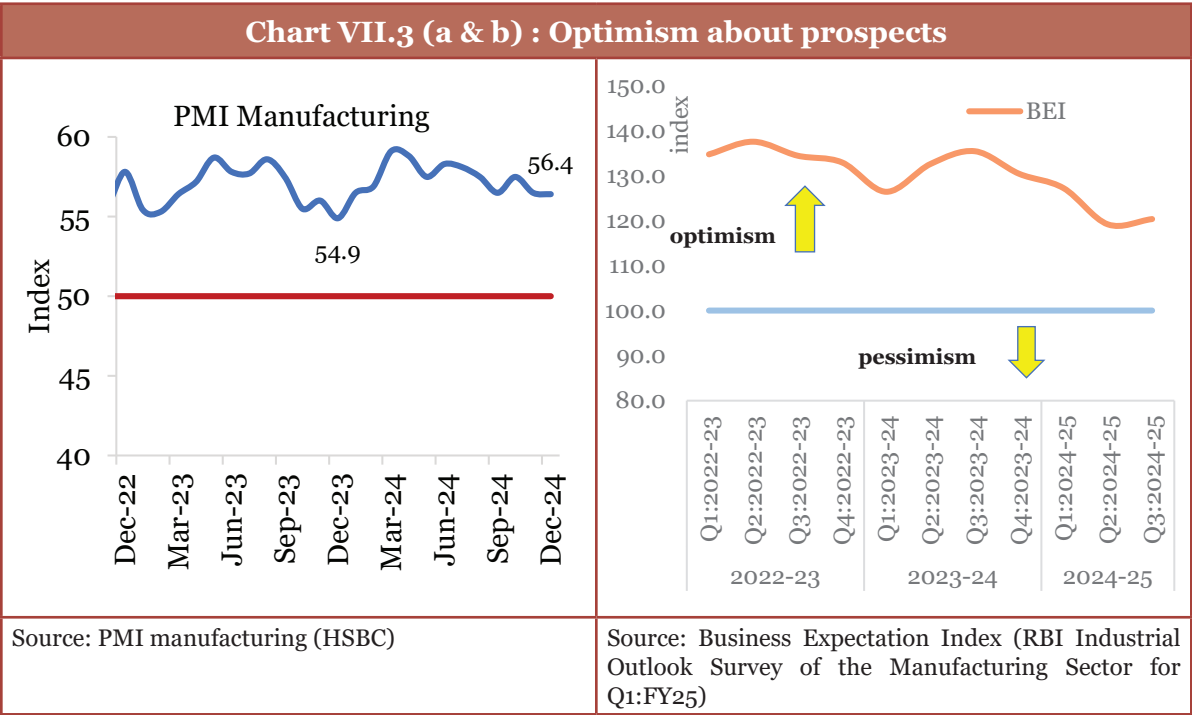
⁶ Quarterly Report, Q3 2024: World Manufacturing Production, UNIDO.

RECENT DOMESTIC DEVELOPMENTS

7.5 The industrial sector (including four sub-sectors, i.e., mining and quarrying; electricity, gas, water supply and utilities; manufacturing and construction) was affected significantly by the pandemic, leading to a contraction in FY21. This led to growth fluctuations in subsequent years. Hence, comparing FY25 with an average of the previous five years, including the pre-pandemic FY20, is appropriate. Chart VII.2(a) shows that the industrial growth in FY25 is expected higher than the previous five-year average. The industrial sector grew by 6.2 per cent in FY25, driven by robust growth in electricity and construction.



7.6 However, industrial growth has declined to 3.6 per cent in the second quarter (Q2) of FY25 on account of three major factors. Firstly, manufacturing exports experienced a sharp slowdown due to economic challenges in destination countries and intensified trade competition and industrial policies followed by many major trading nations. Secondly, the unprecedented levels of monsoon produced mixed impacts. While it helped replenish reservoirs and boost farming operations, it also slowed down activities like mining, construction and, to an extent, manufacturing. Thirdly, the variation in the timing of festivals between September and October in the previous and current years contributed to a slight statistical downward bias in the growth figures for Q2 as festivals drive higher consumer spending and economic activity. Festival sales of select consumer items, including automobiles, picked up in October.



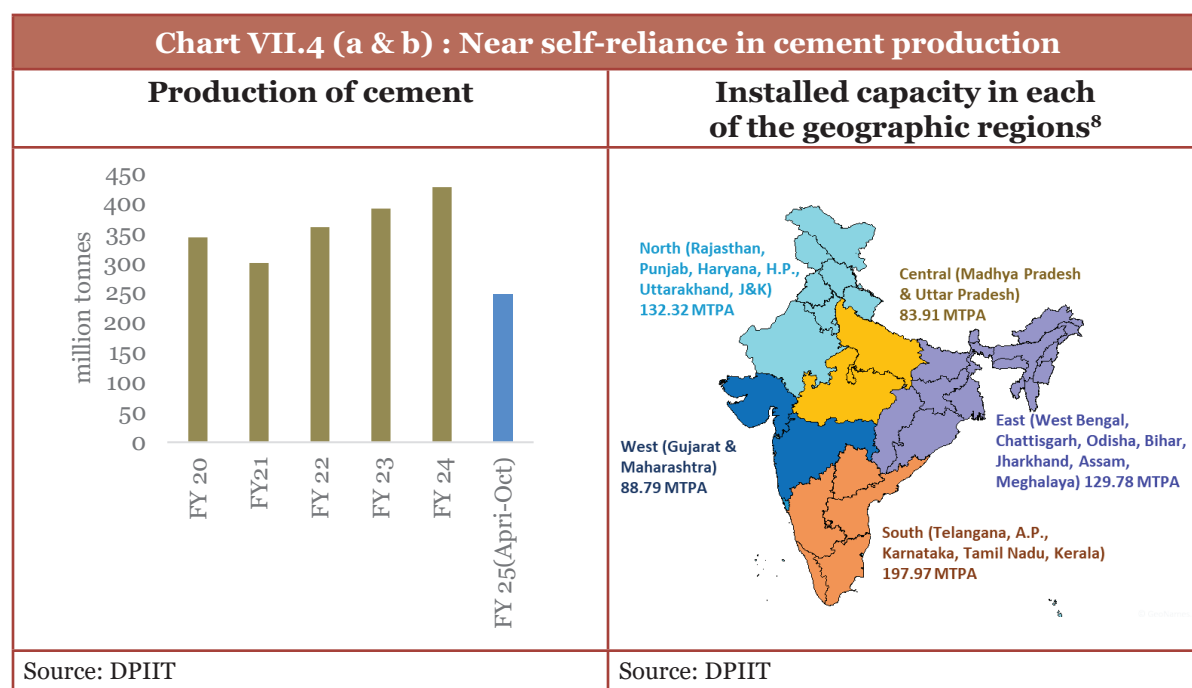
7.7 The remaining sections of the chapter are organised as follows. The next two sections review the progress, challenges, and policy measures across various industrial segments, including core industrial input industries and capital and consumer goods sectors. This is followed by a brief discussion on over-arching themes like research and development and micro, small and medium enterprises. The state-level variations in the degree of industrialisation and the scope for progress are examined in the following section. The last section concludes the discussions and presents a way ahead.

CORE INPUT INDUSTRIES

Cement

7.8 Currently, India is the second largest cement producer in the world after China⁷. The Indian cement industry comprises 159 integrated large cement plants, 128 grinding units, five clinkerization units and 62 mini cement plants. The current annual installed capacity of the cement industry is about 639 million tonnes, with cement production of around 427 million tonnes in FY24. Most of the cement plants in India are located in proximity to the raw material source. About 87 per cent of the cement industry is concentrated in the States of Rajasthan, Andhra Pradesh, Telangana, Karnataka, Madhya Pradesh, Gujarat, Tamil Nadu, Maharashtra, Uttar Pradesh, Chhattisgarh, Odisha, Meghalaya and West Bengal. The industry has adequate capacity to meet the domestic cement demand. Domestic cement consumption is around 290 kg per capita

against a global average of 540 kilograms per capita. The government's focus on mega projects like highways, railways, and housing schemes, coupled with rural development and industrial growth, is expected to fuel significant cement demand.



7.9 The cement industry carries an environmental footprint. The industry has been actively working to reduce its carbon emissions of cement by 2070.

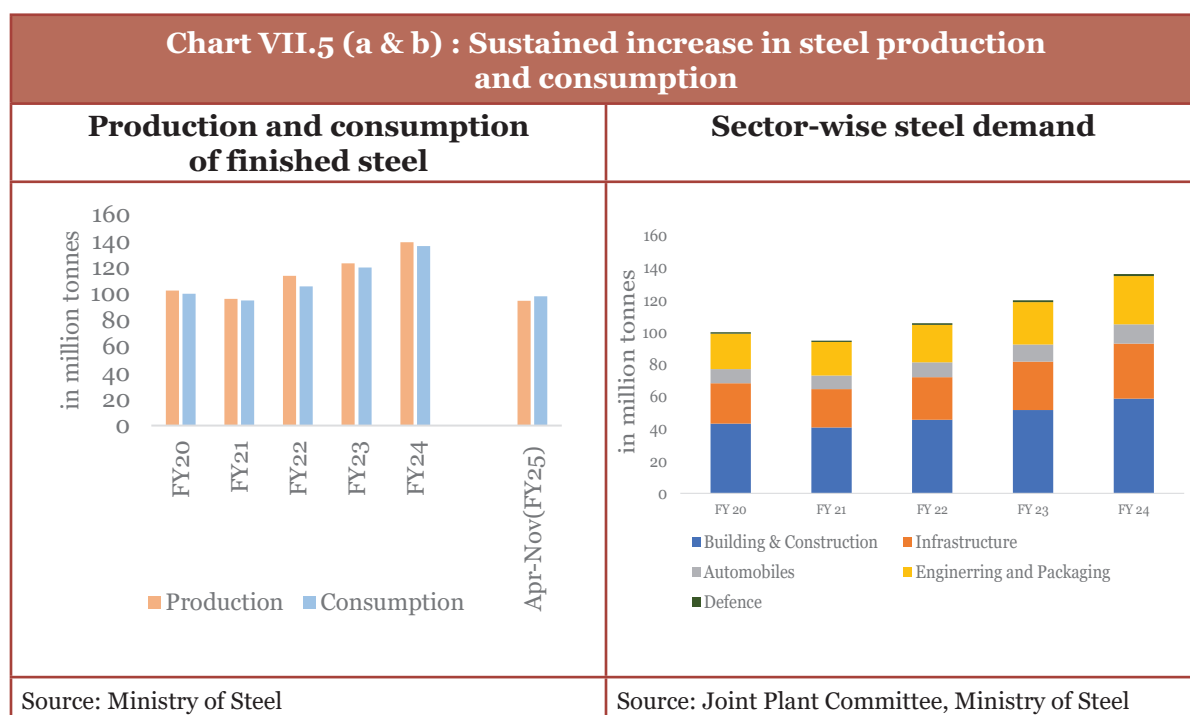
Steel Industry

7.10 In April-November of FY25, the country's crude steel and finished steel production registered a growth of 3.3 per cent and 4.6 per cent. There has been an overall upward trend in steel production and consumption during April-November FY25 despite some month-on-month fluctuations.

7.11 The sustained growth in steel sector was fuelled by ongoing development projects and increased public infrastructure spending. The primary drivers of steel demand included expansion in end-user sectors and the implementation of policies like the National Steel Policy and Production-Linked Incentive schemes. Government initiatives on housing, urban and rural infrastructure also contributed to the rising demand⁹.

⁸ MTPA (Million Tonnes Per Annum).

⁹ <https://t.ly/RoLzj>.



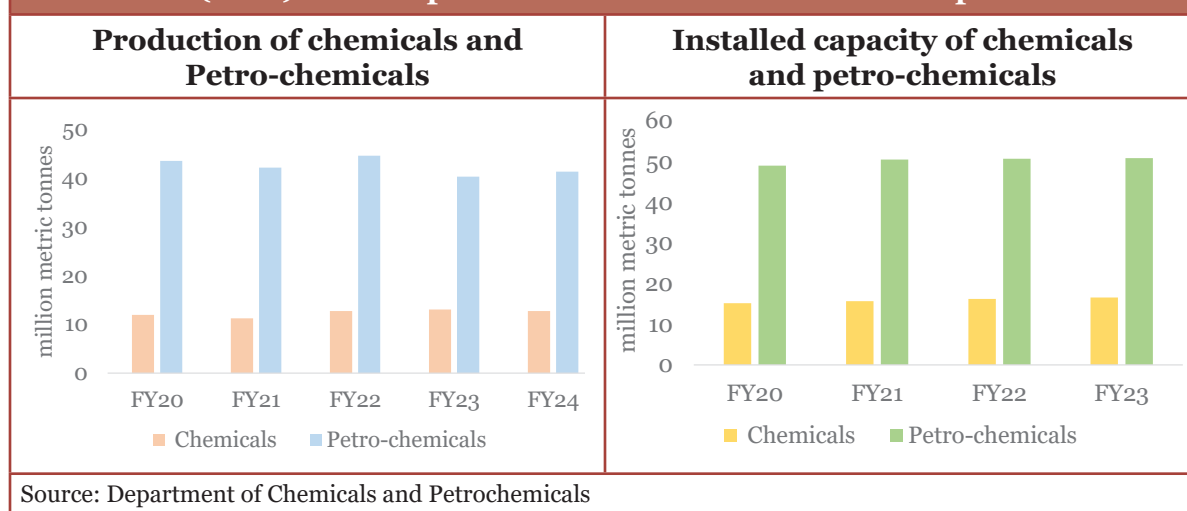
7.12 Driven by an infrastructure-focused growth strategy, steel demand in India is expanding at a strong pace. This growth is further bolstered by significant advancements in key user industries, particularly building & construction, and infrastructure. In FY24, construction, and infrastructure accounted for an estimated 68 per cent of total steel consumption, followed by engineering and packaging at 22 per cent and automobiles at nine per cent. India has been a net importer of steel from April to November FY25. The decline in India's export of finished steel during FY25 was mainly driven by gaps between international and domestic prices. The low price in the international market during this period resulted in a low margin on exports and cheaper imports.

7.13 The government's Steel's Scrap Recycling Policy encourages efficient recycling of scrap. The total domestic consumption of steel scrap in India is approximately 30 Million Tonnes (MT), of which around 5 MT is imported. Ensuring the availability of high-quality scrap in sufficient quantities is crucial for transitioning to green steel and supporting the future growth of the steel industry. In addition, the use of scrap significantly reduces specific energy consumption. It also reduces the water consumption by 40 per cent, and greenhouse gas emissions by 58 per cent¹⁰.

Chemical and Petrochemical Sector

7.14 The share of chemicals and chemical products sector in the GVA of manufacturing sector (at 2011-12 prices) was 9.5 per cent during FY23. The country is a net importer of these products, with a dependence on imports of around 45 per cent of petrochemical intermediates¹¹. Reducing the gap between domestic demand and supply is a high priority.

Chart VII.6 (a & b) : Recent production trends in chemicals and petrochemicals

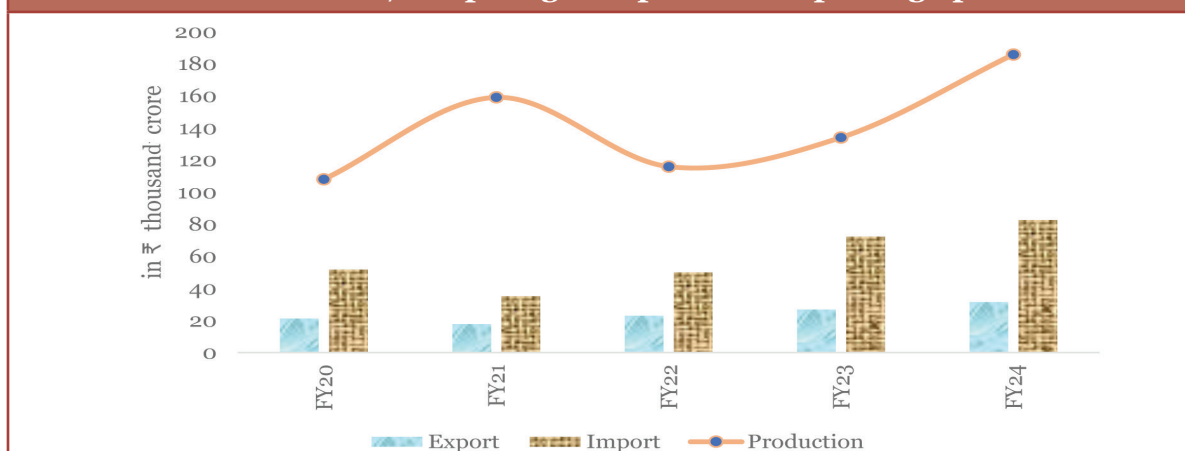


PERFORMANCE OF CAPITAL GOODS AND CONSUMER GOODS INDUSTRIES

Capital goods

7.15 The production of capital goods fluctuated between FY20 and FY23, before recording a robust growth in FY24. Yet, the growing reliance on the import of such goods poses a challenge. Due to technology gaps, this sector imports the high-end machines required for manufacturing. There is an urgent need to address the technology, skill and infrastructure gaps. The government has notified phase II of the Scheme for Enhancement of Competitiveness of the Capital Goods Sector. The objective of Phase II of the Scheme is to expand and enlarge the impact created by its Phase I. Phase II of the scheme promotes identification of technologies through technology innovation portals, setting up of new advanced centres of excellence and common engineering facility centres among others for enhancing the global competitiveness of capital goods sector.

¹¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=2066478>.

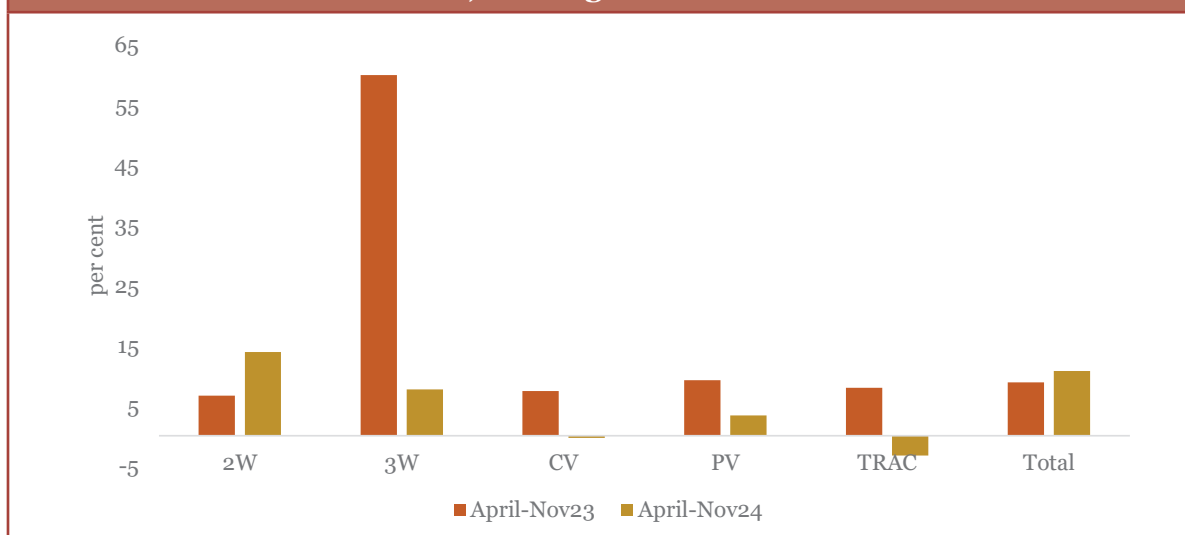
Chart VII.7 : Capital goods production picking up

Source: Industry Associations viz. IMTMA, TAGMA, AFTPAI, PMMAI, PPMAI, TMMA & IPAMA

7.16 The government has been actively promoting Smart Manufacturing and Industry 4.0, supporting the establishment of Smart Advanced Manufacturing and Rapid Transformation Hub (SAMARTH) Udyog centres at various institutions. These centres aim to foster an ecosystem where manufacturing industries, especially SMEs, can learn about and adopt new technologies.

Automobile Industry

7.17 The Indian automobile industry is a significant driver of economic growth, offering a diverse range of domestically produced vehicles. In FY24, the industry recorded automobile domestic sales growth of 12.5 per cent. Recognising the sector's potential, the government has extended the PLI Scheme by one year.

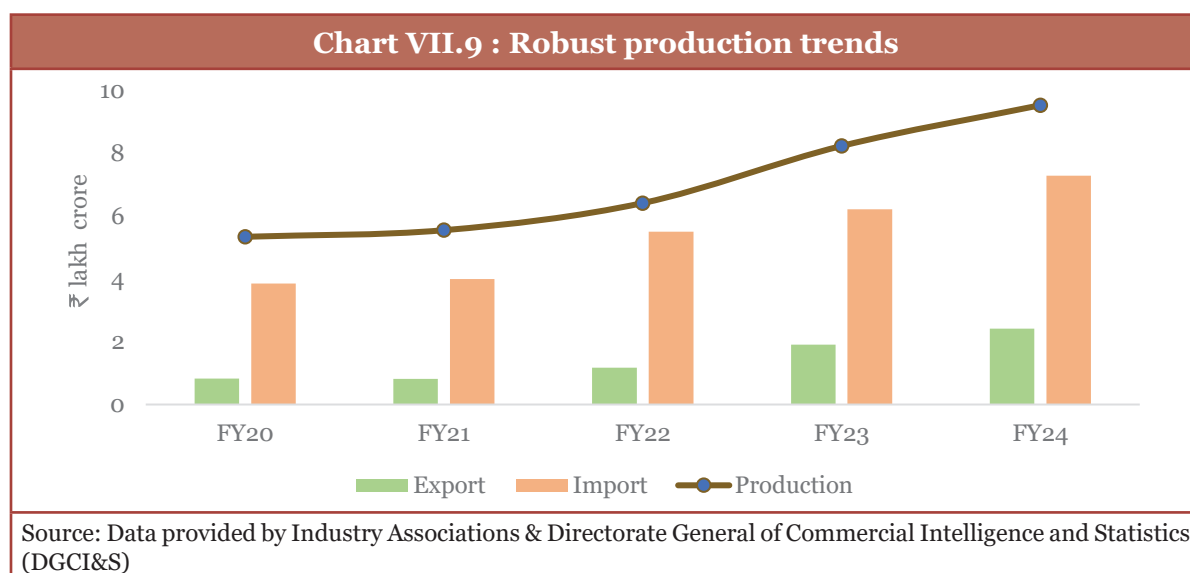
Chart VII.8 : Overall, mixed growth trends in automobiles*

Source: Federation of Automobiles Dealers Association (FADA)

Notes: *Two wheelers(2W), Three wheelers(3W), Commercial vehicles (CV) and Passenger vehicles (PV) and TRAC(tractor)

Electronics Industry

7.18 India's electronics sector has been dynamic regarding domestic production, exports and imports in the last decade. The domestic production of electronic goods has increased substantially from ₹1.90 lakh crore in FY15 to ₹9.52 lakh crore in FY24, growing at a CAGR of 17.5 per cent. The country has also drastically reduced its dependence on smartphone imports, with 99 per cent now manufactured domestically. In FY24, the country produced approximately 33 crore mobile phone units, with over 75 per cent of the models being 5G enabled. The key drivers of growth have been the large domestic market, the availability of skilled talent, and low-cost labour.



7.19 Programmes such as Make in India and Digital India, along with improved infrastructure, ease of doing business, and various incentives, have boosted domestic manufacturing and drawn foreign investments. However, India's electronics market represents 4 per cent of the global market. The industry has largely focused on assembly, with limited progress in design and component manufacturing.

BOX-VII.1: Empowering India's Domestic Manufacturing in Electronics Sector Through Production-linked Incentives

The PLI scheme has been introduced in 14 key sectors including electronics. The PLI scheme adopts a sector-specific approach, avoiding a "one size fits all" methodology. In the electronics sector, PLI aims to scale up assembly processes to encourage the existing domestic manufacturing ecosystem. The results are evident: in FY15, mobile phone imports accounted for 78 per cent of the market in value terms, whereas, by FY23 this figure had dropped to just 4 per cent. In terms of volume, only 0.8 per cent of mobile phones were imported in FY23. Exports tell a similar story. Mobile phone exports, valued at zero in FY16, soared to ₹88,726 crore in FY23. Similarly, in the white goods sector, the scheme seeks to boost domestic value addition, targeting an increase from 15-20 per cent to 75-80 per cent ¹².

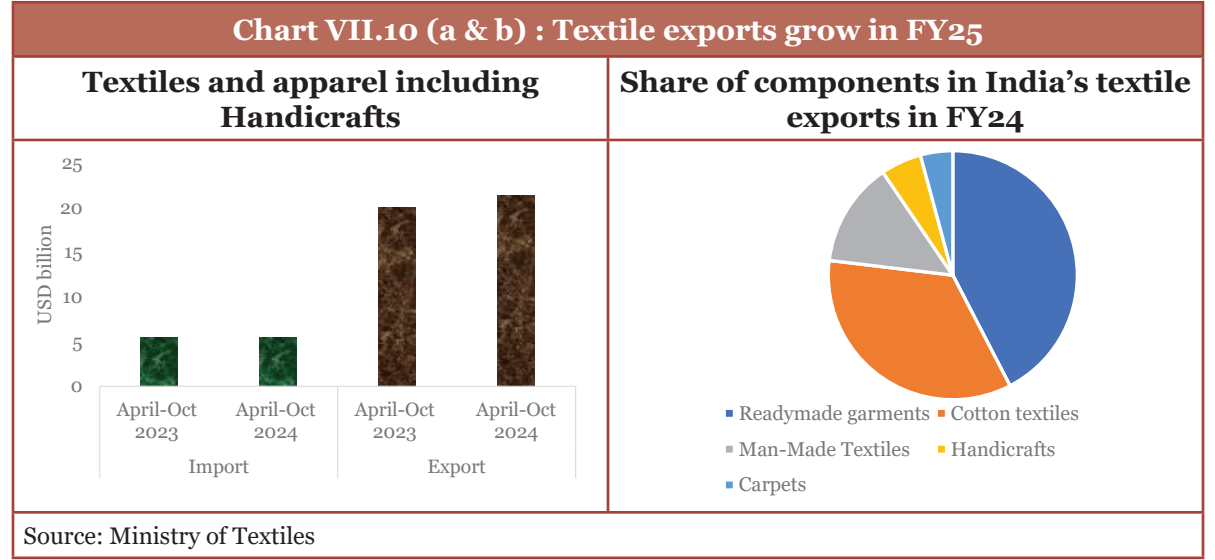
¹² Inputs for the paragraph are sourced from NITI Aayog.

The 3rd Round of on-line application window for PLI Scheme for White Goods (Air Conditioners and LED lights) attracted 38 responses. 43 per cent of the new applicants are in the MSME sector which shows the confidence among MSMEs to become part of the value chain of manufacturing of components of ACs and LED Lights.¹³

According to FICCI, the support of the PLI scheme, encouraging local production of the key components like compressor, heat exchangers, motors, controllers etc., triggered the development of a complete value chain for key AC components. As the annual size of room AC market has grown considerably in recent years, the import dependency for compressors has reduced. Local capacities for heat exchangers, cross flow fans and controller PCBAs also improved. The PLI scheme has fostered collaboration across various industry layers. Suppliers of raw materials, component manufacturers, and producers of finished goods, including multinational corporations and local brands, as well as MSMEs, have aligned their requirements.

Textiles

7.20 The textile industry is a major employment generator and it accounts for about 11 per cent of India’s manufacturing GVA. India is a leading producer of jute and ranks second globally in cotton, silk, and man-made fibre production. India is the sixth largest exporter of textiles and apparel and has a share of about 4 per cent of the global trade in this segment. The share of textiles and apparel, including handicrafts, in India’s total merchandise exports stood at about 8 per cent in FY24.



7.21 After having recorded a high of USD 44.44 billion in FY22, India’s export of textiles and apparel, including handicrafts, stood at USD 35.87 billion in the FY24, compared to export of USD 36.69 billion in FY23. India is looking to diversify its export market to other regions. India has traditionally focused on cotton textiles. Globally, manmade fibre (MMF) consumption is dominant. Hence, in order to move towards a higher global MMF share, it is essential to simultaneously focus on MMF along with cotton textiles.

13 <https://pib.gov.in/PressReleasePage.aspx?PRID=2064740>.

7.22 Technical textiles are another area of potential growth¹⁴. India's technical textile industry is rapidly growing, ranking fifth globally. Indian technical textiles market stands at US\$26.8 billion in FY24¹⁵. India is a net exporter of technical textiles, with exports valuing US\$2.58 billion in FY24. To assist the technical textiles manufacturing ecosystem, the government has introduced several initiatives, including the Production Linked Incentive (PLI) scheme. To ensure quality and standardisation of the technical textiles, 68 items have been brought under regulation through quality control order in various segments.

7.23 Despite possessing a complete value chain, textiles face several challenges. The dominance of MSMEs limits scale and efficiency, while its fragmented nature increases logistical costs. India's reliance on cotton, unlike the global shift towards MMF, limits its competitiveness in the worldwide market. The sector has attracted limited foreign direct investment, hindering technological advancements and reliance on imported textile machinery. A significant skill gap persists, hindering productivity and innovation. Addressing these challenges is crucial for India to realise its full potential as a global textile powerhouse.

Pharmaceuticals

7.24 The Indian pharmaceutical industry is the world's third-largest by volume. The industry boasts of a diverse product portfolio encompassing generic drugs, bulk drugs, over-the-counter medications, vaccines, biosimilars, and biologics, establishing a strong global presence. The total output of the pharmaceuticals, medicinal and botanical products industry in FY23, at constant prices, reached ₹4.56 lakh crore, with a value-added of ₹1.76 lakh crore¹⁶. The total annual turnover of pharmaceuticals in FY24 was ₹4.17 lakh crore, growing at an average rate of 10.1 per cent in the last five years. Exports account for 50 per cent of the total turnover, with its value at ₹2.19 lakh crore in FY24. The total import of pharmaceuticals was worth about ₹58,440.4 crore. The government has taken various measures to support the sector like PLI scheme and Strengthening of Pharmaceuticals Industry (SPI) among others. PLI scheme aims to attain self-reliance and reduce import dependence in critical Key Starting Materials (KSMs)/Drug Intermediates and Active Pharmaceutical Ingredients (APIs). SPI addresses the demand to support the existing pharma clusters and MSMEs across the country to improve their productivity, quality and sustainability.

7.25 The medical devices industry in India is experiencing rapid growth, with a CAGR of approximately 15 per cent. Currently, India holds an estimated 1.5 per cent share of the global medical devices market. Within Asia, India ranks fourth in terms of market size, following Japan, China, and South Korea. On a global scale, India is recognised as one of the top twenty medical device markets.

¹⁴ Technical textiles are specialized textile materials designed for specific functions rather than appearance.

¹⁵ Ministry of Textiles.

¹⁶ <https://pib.gov.in/PressReleaseDetail.aspx?PRID=2085345®=3&lang=1>.

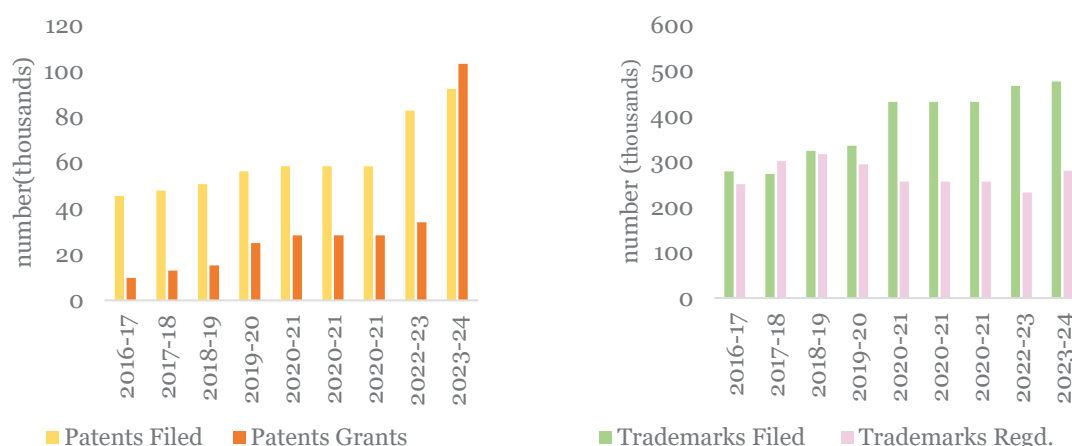
7.26 As noted by UNIDO, among the top 5 pharmaceutical producers, the United States led the way with a robust 4.7 per cent quarter-over-quarter growth in Q3 2024. Following the US were Japan at 1.4 per cent and China at 0.9 per cent. In contrast, Switzerland experienced a decline of -2.1 per cent, and India saw a slight decrease of -1.2 per cent.

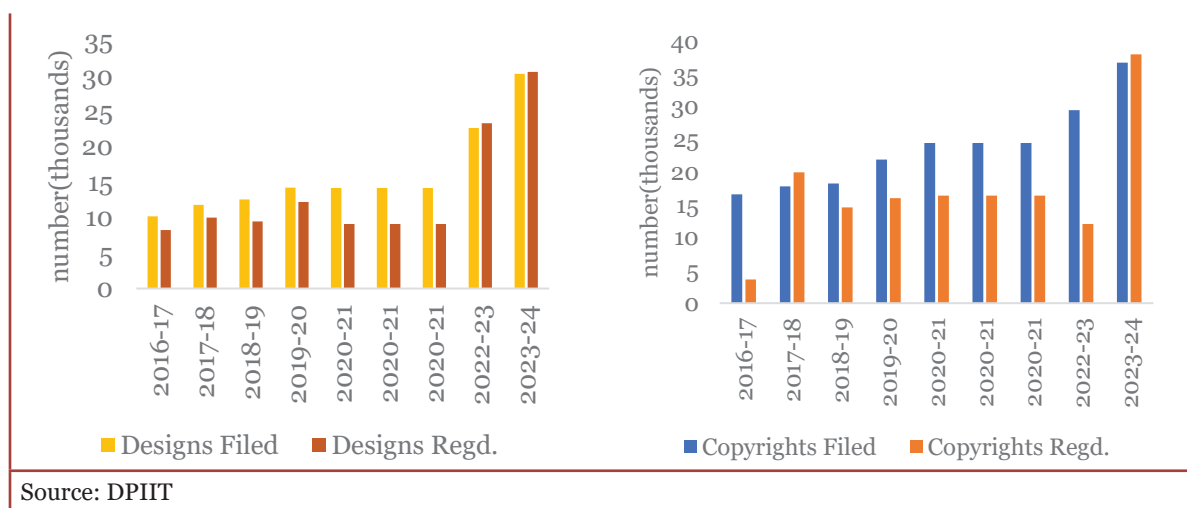
7.27 India is making significant strides in the area of cell and gene therapy. In October 2023, the Central Drugs Standard Control Organisation approved India's first indigenously developed CAR-T cell therapy. To expedite the availability of newer drugs, such as gene therapy products, orphan drugs, drugs representing significant therapeutic advantage, in the country, the Central Drugs Standard Control Organisation under the rule 101 of the New Drugs and Clinical Trials Rules, 2019, has notified the United States of America, United Kingdom, Japan, Australia, Canada and the European Union, enabling waiver of local clinical trial for new drugs that are already approved and marketed in the notified countries. The overall pharma landscape of India points towards a need to focus on innovation, new drug development and biopharmaceuticals, as R&D spending still lags behind global leaders.

FLOURISHING INNOVATIONS AMIDST ASPIRATIONS OF ENHANCED R&D

7.28 India has a robust intellectual property ecosystem. As per the WIPO Report 2022, India ranks sixth among the top 10 patent filing offices globally. Patent applications are largely in computer & electronics, mechanical & biomedical, and communication fields. Since the National IPR Policy 2016, amendments to rules governing patents, designs, copyrights, and trademarks have streamlined application processes and reduced compliance. The Patent (Amendment) Rules 2024 has further simplified patent processing, filing and maintenance.

Chart VII.11 (a to d) : Intellectual properties are growing fast in India





7.29 The government has also implemented several other initiatives to encourage IP protection. Some of them include:

- Expedited patent examination for start-ups, SMEs, women inventors, government departments, and academic institutions.
- Simplified patent procedures: The government has simplified the disclosure requirements for patent working and foreign filings, reduced the timeline for examination from 48 months to 31 months, introduced certificates of inventorship, and provided a grace period for prior disclosed inventions.
- Simplified trademark procedures: The number of trademark forms has been reduced from 74 to 8, streamlining the trademark registration.
- Fee reduction: Significant fee reductions have been implemented for start-ups, MSMEs, and educational institutions for patent, design, and trademark filings.
- Digitalization: The adoption of virtual hearings, AI/ML-based search systems, and secure VPN connections have improved efficiency, accuracy, and decision-making in IP processes.
- Start-Up Intellectual Property Protection Scheme: It provides financial and technical assistance to start-ups in filing and processing patent, design, and trademark applications, which has been extended till March 2026.
- IP Saarthi Chatbot: offers instant support and guidance to users regarding IP registration and grant processes.
- Technology Transfer Organizations for promoting R&D and IP commercialisation by providing services to innovators and entrepreneurs. The government has established 34 Technology and Innovation Support Centres across the country to facilitate these efforts.

7.30 These measures have made the IP eco-system more efficient and prolific, helping India emerge as a global IP leader (Box-VII.2), ranking in the top 10 for patents, trademarks, and industrial designs.

BOX-VII.2: India's Innovation Landscape: Major Milestones...

- There is a more than 2-fold increase in patent filing since 2014-15, and patent grants have increased by more than 17-fold from 2014-15.
- There is a marked growth in resident filings which increased to more than 50 per cent of the total filings in FY24 from 28 per cent in FY15.
- The patent filings by domestic educational institutes have tripled from 7405 in 2021-22 to 23306 in FY24.
- Patent filings by women applicants increased from 15 in FY15 to 5183 in FY24.
- India's rank in the Global Innovation Index has improved to 39th in 2024 among 133 economies from 81st position in 2015. It ranks 1st among the 38 lower middle-income group economies and 1st among the 10 economies in Central and Southern Asia¹⁷.
- India holds the 7th position in intangible asset intensity, surpassing the growth rates of many high-income economies and matching the intangible investment intensity of Germany and Japan (as a share of GDP).¹⁸
- India holds 4th position in Science and Technology Cluster Ranking 2024 by WIPO with 4 cities among the world's top 100 science and technology clusters¹⁹.

Nonetheless, the Global Innovation Report 2024 notes that India needs to enhance human capital, improve access to finance and, reduce regulatory burdens further and improve infrastructure for innovation ecosystem.

Innovation over performers, relative to their economic development

Source: Global Innovation Index Report (2024)

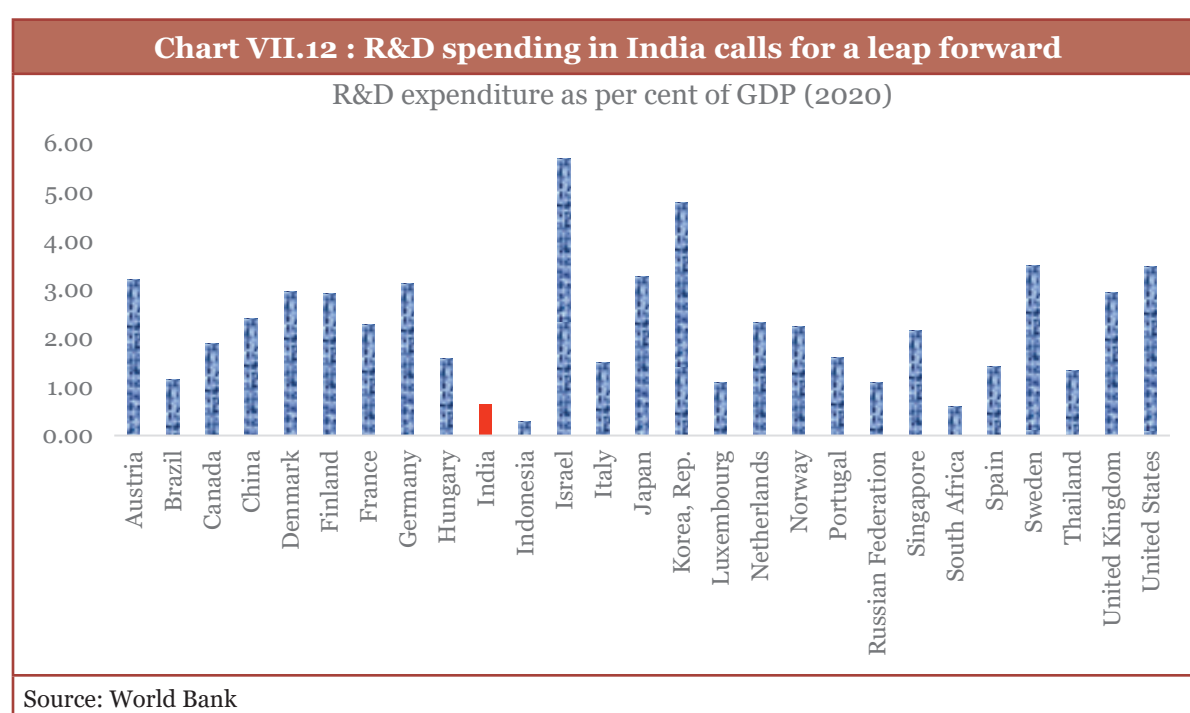
¹⁷ Source: Global Innovation Index 2024 published by WIPO.

¹⁸ Office of Controller General of Patents, Designs & Trade Marks.

¹⁹ Source: WIPO GII Report 2024.

7.31 While the focus on frugal innovations, abundance of scientific manpower, strength of IT, pharma industry, vibrant start-up eco-system, and policy support have fostered innovations, India lags in R&D, with a significant gap across major sectors. The gross expenditure on research & development (GERD) in India has increased from approximately ₹60,196 crore in FY11 to about ₹127,381 crore in FY21²⁰. However, this is 0.64 per cent of the GDP, which is insufficient and remains low compared to many countries that have forged ahead in R&D.

7.32 While government R&D policies and interventions have been making sustained efforts, there is a need for more contribution from the private sector. The funding for R&D in India is predominantly sourced from government entities.



7.33 In contrast, in most developed and emerging economies, business enterprises contribute over 50 per cent to the GERD. In countries like China, Japan, South Korea, and the USA, this share exceeds 70 per cent²¹. In the USA, the private sector leads, with companies like Google and Amazon accounting for about 70 per cent of R&D spending²². China, on the other hand, has a combination of major government funding with rising private sector involvement, leading to R&D spending of about 2.1 per cent of its GDP²³.

²⁰ Research and development Statistics at a glance 2022-23.

²¹ Ibid.

²² National Science Board, 2020.

²³ Ibid.

BOX-VII.3: R&D Incentives: A Global Comparison

R&D-related incentive systems vary across countries, yet there are common threads. China's strategy is characterised by significant government intervention. Key incentives include substantial tax breaks, such as super deductions and reduced corporate income tax rates. Preferential treatment is given for innovative products and services and various financial incentives and subsidies, especially in designated economic zones. South Korea focuses on targeted R&D investment with tax credits for investments in strategic technologies and new growth sectors and emphasising investment in tangible assets. The US approach relies more on market-based mechanisms and tax incentives. Key incentives include non-refundable tax credits and research credits with tax incentives for R&D investments in designated zones. In addition, there are no specific geographic requirements for IP location or designated innovation zones²⁴.

In India, incentives like grants, loans, tax exemptions, patent-related incentives etc. are given for R&D. In addition to these incentives, initiatives like Start-Up India, Digital India, and the Atal Innovation Mission have been introduced to foster entrepreneurship, research, and technological advancement. To provide financial support to industries, the government has also created the Technology Development Board. Many state governments provide stamp duty waivers and concessions, and soft loans²⁵.

R&D incentives ^{*26}	India	China	South Korea	United States	Japan
Grants	✓				
Loans	✓				
Patent related incentives	✓				
Tax credits			✓	✓	✓
Tax deductions		✓			
Tax exemption	✓	✓			
Tax holiday		✓			

24 EY Worldwide Research and Development Incentives Reference Guide 2024.

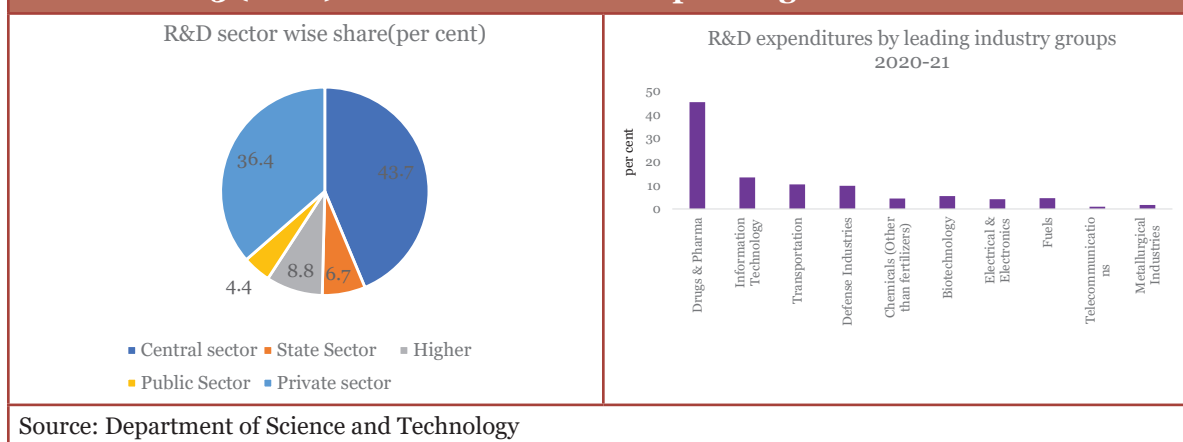
25 Reforming R&D incentives: Ushering in a New Era for Indian Innovation, Deloitte, June 2024.

26 EY Worldwide Research and Development Incentives Reference Guide 2024 (*note: Not the exhaustive list of R&D incentives).

7.34 In India, not only is the industrial R&D low, but it is also sectorally concentrated. Drugs and pharmaceuticals led the way, followed by information technology, transportation, defence, and biotechnology. Public sector R&D is primarily driven by the defence industry, followed by the fuels and metallurgical sectors.

7.35 Historically, India's R&D focus has been on basic research rather than applied research. This often lacks the practical applications needed to attract private investment (DST, 2020). This gap needs to be bridged to streamline and drive innovations and investment across multiple sectors. To bridge this gap, we need to foster industry-academia collaboration, enhance private-sector participation, and prioritise applied research. And the private sector needs to respond to the R&D challenge wholeheartedly.

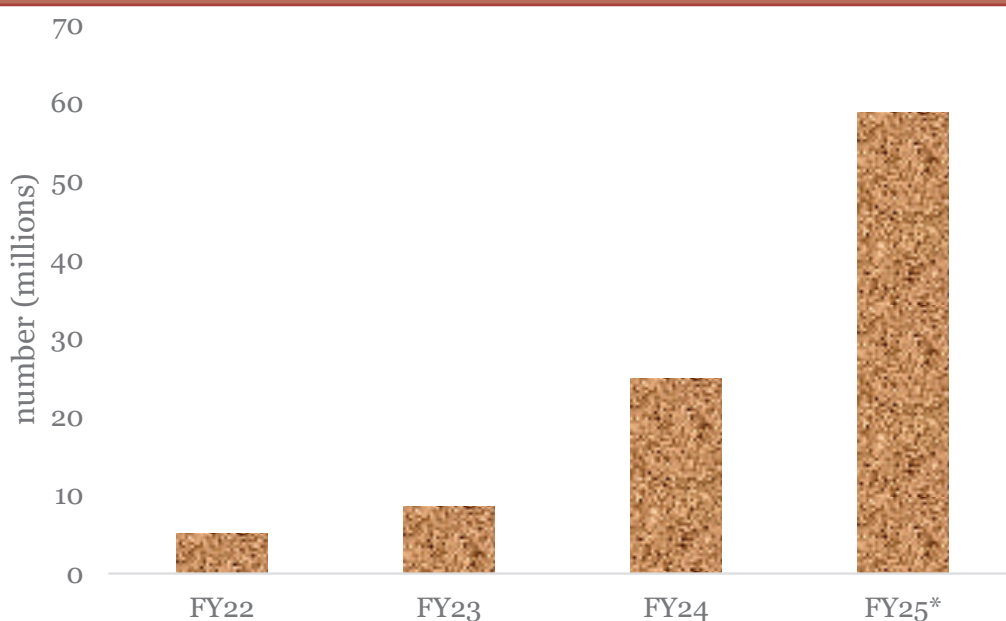
Chart VII.13 (a & b) : Private sector R&D spending is low and concentrated



MICRO SMALL AND MEDIUM ENTERPRISES (MSME)

7.36 The MSME sector is important to India's progress. By fostering entrepreneurship and creating a large number of jobs at relatively low capital costs, the sector plays a crucial role, second only to agriculture. As of November 26, 2024, MSMEs have reported employing 23.24 crore individuals.

7.37 In order to simplify the process of registering MSMEs and to enable ease of doing business the government launched the Udyam Registration Portal in July 2020. This online, self-declaration-based system requires a PAN card for registration. To formalize Informal Micro Enterprises (IMEs), the government in collaboration with SIDBI, introduced the Udyam Assist Platform (UAP) in January 2023. Over 2.39 crore informal micro enterprises have been formalized through the platform, making them eligible for priority sector lending benefits.

Chart VII.14: Increased Registration on Udyam

Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=2041686>

*data as on 25-01-2025

7.38 To facilitate credit to MSMEs, a revamp of the Credit Guarantee Scheme for Micro and Small Enterprises (CGTMSE) was undertaken with ₹9,000 crore in the corpus of the Credit Guarantee Fund Trust for MSEs. This aimed to facilitate an additional ₹2 lakh crore credit for MSEs at reduced interest rates. Consequent to this, the credit limit for guarantee coverage under the scheme was enhanced from ₹2 crore to ₹5 crore, and the annual guarantee fees across all segments were reduced by 50 per cent. In FY23, 11.65 lakh guarantees amounting to ₹1 lakh crore were given. The government also made special provisions for IMEs under the existing credit guarantee to avail credit easily.

BOX VII.4: TReDS: Transforming MSME Financing Through Timely Payments

The launch of TReDS has been an important step taken by Government of India for benefitting the MSMEs and helping them realize their receivables in a time-bound manner at a relatively lower financing cost. TReDS, regulated by the RBI, is a marketplace that enables buyers such as government departments, public sector undertakings, corporates etc. to honour timely payments to their MSME suppliers as per MSMED Act 2006.

TReDS²⁷ offers several notable benefits for MSMEs, including post-shipment financing without recourse, which is based on the buyer's creditworthiness. The platform employs an auction-based mechanism that ensures competitive rates from financiers. Further, the seamless digital financing and settlement process, enabled through the National Payments Corporation of India, enhances efficiency and transparency in transactions. The Governments of Goa and Tamil Nadu have set an example by adopting the TReDS platform to ensure timely

payments to their MSME suppliers. Goa, heavily reliant on tourism, leveraged TReDS during the COVID-19 disruption to enhance supplier liquidity, facilitating payments for over 250 MSMEs since October 2020, with invoice discounts. Tamil Nadu joined TReDS in 2022 under the Raising and Accelerating MSME Performance (RAMP) program, supporting MSMEs in significant numbers. Their proactive adoption has inspired other states to follow suit.

Several central public sector enterprises and government entities have been using the TReDS platform since its inception to facilitate timely payments to MSME suppliers. Active participants like BHEL, NTPC, ONGC, BPCL, HPCL, IOCL and others help MSMEs maintain their working capital cycles while enabling them to benefit from lower interest rates.

In addition to CPSEs, corporates with a turnover exceeding ₹500 crore have been utilising TReDS for prompt payments to their suppliers. With the Government of India's mandate for companies with a turnover above ₹250 crore to join the platform, more corporates are expected to onboard. TReDS also fosters strong relationships between corporates and their suppliers by ensuring swift payments, eliminating the need for MSMEs to chase their buyers for payments. If more government bodies, ministries, state governments, and corporates adopt receivables discounting on platforms like TReDS, it could significantly transform the MSME financing landscape.

7.39 To provide equity funding to MSMEs with the potential to scale up, the government launched the Self-Reliant India (SRI) Fund with a corpus of ₹50,000 crore. The fund has a provision of ₹10,000 crore from the government and ₹40,000 crore through private equity/venture capital funds. In addition to providing easy credit, the government is committed to addressing MSMEs' issues through measures like MSME Samadhan and the CHAMPIONS (Creation and Harmonious Application of Modern Processes for Increasing the Output and National Strength) portal.

7.40 To deal with the issues of delayed payments, MSE suppliers may approach the Micro and Small Enterprises Facilitation Council (MSEFC). The government also launched a portal that gives information about individual CPSEs, central ministries, state governments, and other buyers regarding the payments pending with them in respect of the MSEs. The portal also facilitates MSEs to file their delayed payment-related complaints online. From the date of launch of the MSME SAMADHAAN portal 2,20,704 applications have been filed by MSEs, out of which 20652 have been mutually settled, 53493 are yet to be viewed by MSEFC, 60714 have been rejected, 45952 cases have been disposed off and 39893 cases are under consideration.²⁸ As of date, the CHAMPIONS portal disseminates information in eleven regional languages.

7.41 The government is implementing the Micro and Small Enterprises-Cluster Development Programme (MSE-CDP) to develop clusters across the country. Under this, Common Facility Centres (CFCs) are channels to address common issues, such as improvement of technology, skills, quality, etc., for MSEs. As per the report of the evaluation study of MSE-CDP conducted by the National Productivity Council, the

²⁸ https://samadhaan.msme.gov.in/MyMsme/MSEFC/MSEFC_Welcome.aspx. Accessed on 27.01.2025.

scheme has been able to improve the efficiency of the value chain of the units in the cluster, resulting in overall productivity growth of around 10-15 per cent and growth in turnover in the range of 20-30 per cent²⁹.

APPROPRIATE POLICIES LIKELY TO BRING IN GREATER EQUITY IN STATE-WISE PATTERNS IN INDUSTRIAL PRODUCTION

7.42 Developmental disparities across States have always been a matter of keen attention, bringing convergence of per capita incomes and living standards to policy focus. However, convergence does not mean convergence in every sector, because different states will have comparative advantages in different sectors—be it dairying & farming, manufacturing, conventional or medical tourism, software, financial sector or any other activity. Coastal states can do better in industrialisation and exports.

7.43 Even while recognising this, the Survey presents inter-state differences in industrialisation in this Chapter. Disparities in service sector developments are presented in Chapter 8. As shown by the national account statistics, in FY23 about 84.7 per cent of GVA (at constant prices 2011-12) in the country is generated by industrial and service activities together, with an inter-state³⁰ variation (chart VII.16)³¹. And hence, sustained improvements in productivity and growth in one or more service or industrial sectors is inescapable for overall development of states. This is true of even states that have an advantage in agricultural activities. This is because, dynamic industrial and service sectors can help to move and productively employ the surplus manpower in agriculture, apart from generating additional intermediate and final demand for farm output.

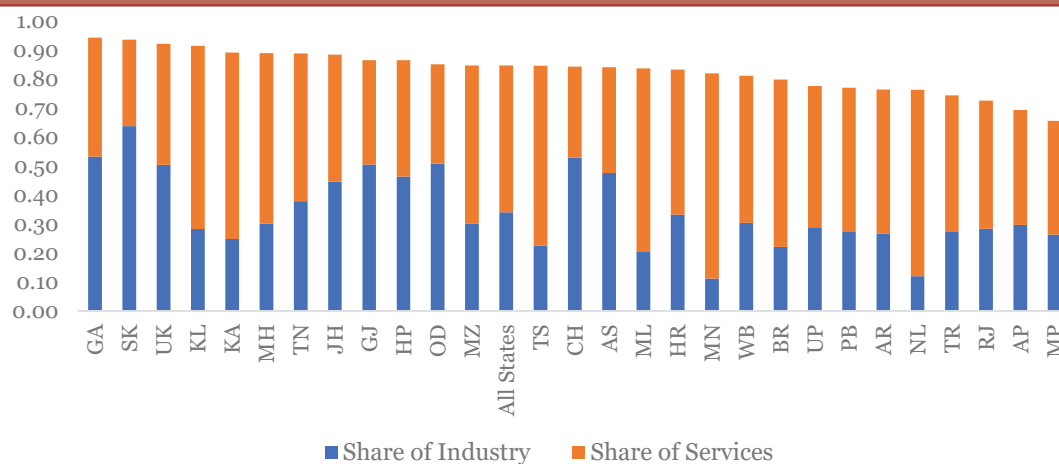
7.44 Four states—the western states of Gujarat and Maharashtra and the southern states of Karnataka and Tamil Nadu— account for about 43 per cent of the total industrial GSVA. (In this section, industrial GSVA refers to the year FY23 at constant 2011-12 prices; population refers to figures used by the respective State Directorates of Economics & Statistics for their GSDP calculations). In contrast, six states of the Northeast (excluding Sikkim and Assam), account for only 0.7 per cent of the industrial GVA. There is a need for focus on industrial strategies appropriate to unique geographies like the North East.

29 <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2038539>.

30 Andhra Pradesh (AP), Arunachal Pradesh (AR), Assam (AS), Bihar (BR), Chhattisgarh (CH), Goa (GA), Gujarat (GJ), Haryana (HR), Himachal Pradesh (HP), Jharkhand (JH), Karnataka (KA), Kerala (KL), Madhya Pradesh (MP), Maharashtra (MH), Manipur (MN), Meghalaya (ML), Mizoram (MZ), Nagaland (NL), Odisha (OD), Punjab (PB), Rajasthan (RJ), Sikkim (SK), Tamil Nadu (TN), Telangana (TS), Tripura (TR), Uttar Pradesh (UP), Uttarakhand (UK) and West Bengal (WB).

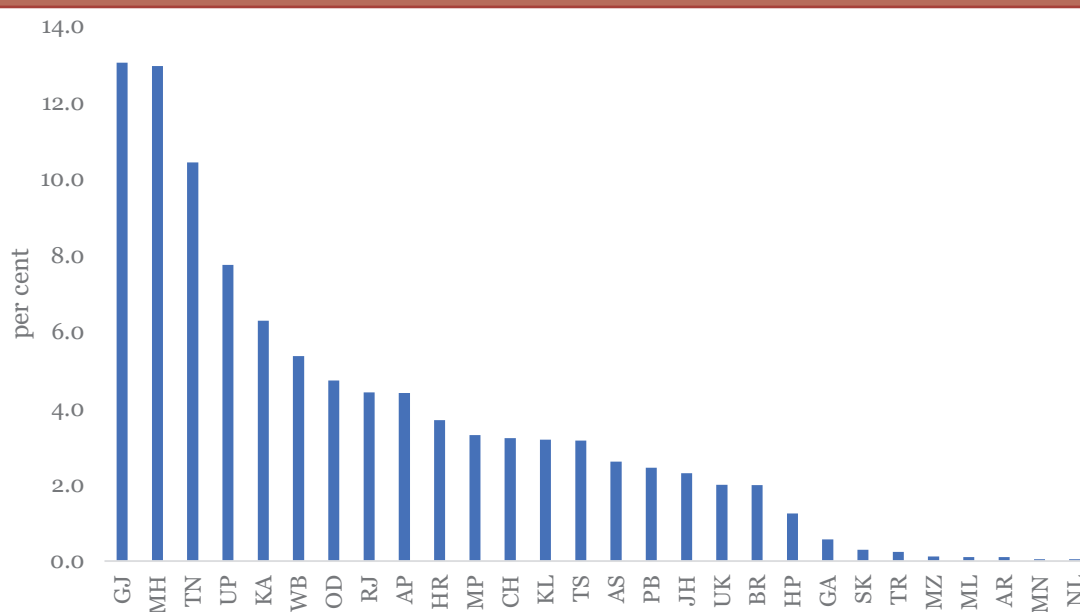
31 The values reflected in the state analysis in these section are based on the calculations of the respective Directorates of Economics and Statistics (hosted by MoSPI). The sum of all States may not match with the national GVA numbers published by the MoSPI.

Chart VII.15 : Share of industrial and services sectors in total GVA (FY23 at constant prices) (Per cent)



Source: Calculations based on estimates of State Governments, hosted by MoSPI

Chart VII.16 : State share in total industrial GSVA



Source: Calculations based on estimates of State Governments, hosted by MoSPI

7.45 In chart VII.17, states are placed and colour-coded in three categories based on their position relative to the overall average in the share of industrial and its component GVA (FY23 at constant prices). States with industrial share higher/lower by 25 per cent of the national average are 'Green' and 'Red' respectively. States around the overall average are yellow. The intent is to only understand whether there is a fairly balanced pattern in the share of industry and its components in the overall GSVA of each State. However, as observed in para 7.43, the observed patterns reflect, to a great extent, the

comparative advantages of States.³² There is no strong conspicuous regional pattern visible in terms of industrial dependence, except to an extent in the Eastern region.

Chart VII.17 : Share of industrial GSVA and its components in total GSVA of FY23 at constant prices (*)

Region	State code	Industry	Mining	Manufacturing	Electricity	Construction
Northern	HR					
	HP					
	MP					
	PB					
	UK					
	UP					
Eastern	BR					
	CH					
	JH					
	OD					
	WB					
Western	GA					
	GJ					
	MH					
	RJ					
North Eastern	AR					
	AS					
	MN					
	ML					
	MZ					
	NL					
	SK					
	TR					
Southern	AP					
	KA					
	KL					
	TN					
	TS					

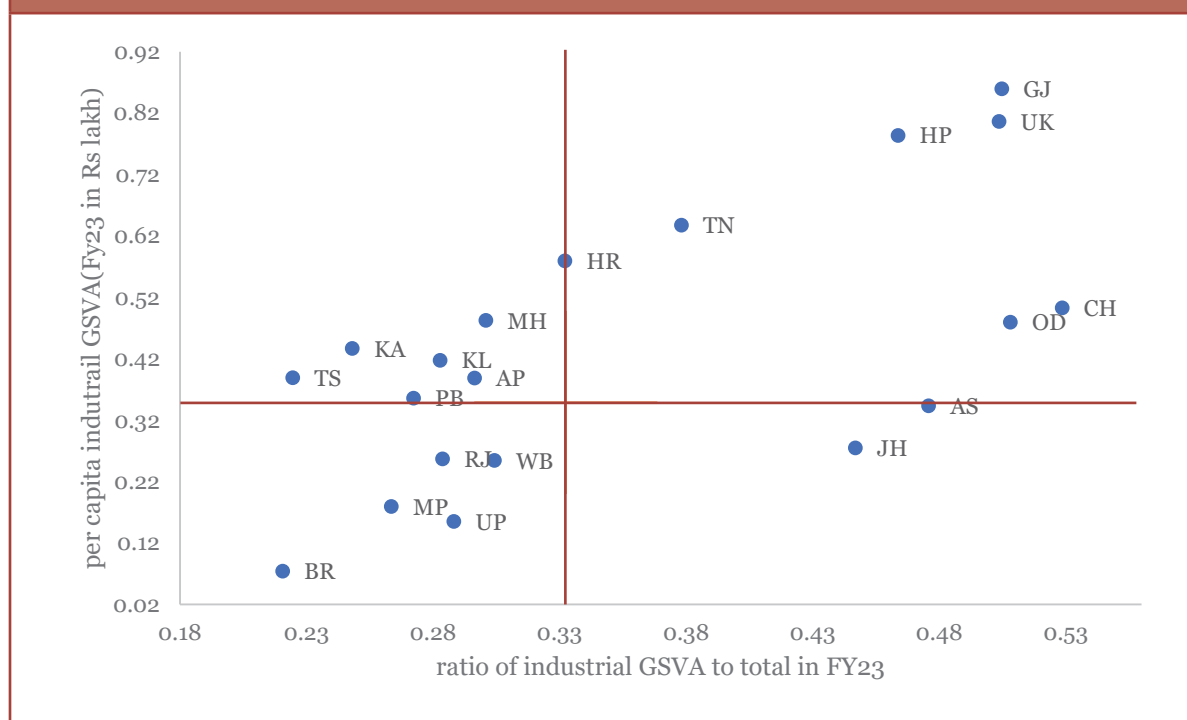
(*) Note: All State average of the share of industrial GVA is 33.2 per cent; mining: 2.8 per cent; manufacturing: 19 per cent; electricity: 2.5 per cent; and, construction: 8.9 per cent. The shares are in constant prices. The all-State average may not match with the national average.

Source: Calculations based on estimates of State Governments, hosted by MoSPI.

7.46 High level of dependence on industrial sectors does not necessarily reflect high level of industrial development. Thus, concealed within the state shares are the variations in per capita industrial GSVA. The chart VII.18 presents four quadrants demarcated by the all-state average in the share of industrial sector in State's total GVA and their

per capita industrial GSVA. There are clear patterns in the degree of industrialisation emerging from chart VII.18. Only a few States like Gujarat, Uttarakhand and Himachal Pradesh are able to cash on their high level of dependence on industrial sector to generate reasonable levels of incomes for their people. Chart VII.18 also shows that few states have high levels of dependence on industrial sector with low income generation while states in eastern and northern region are least industrialised.

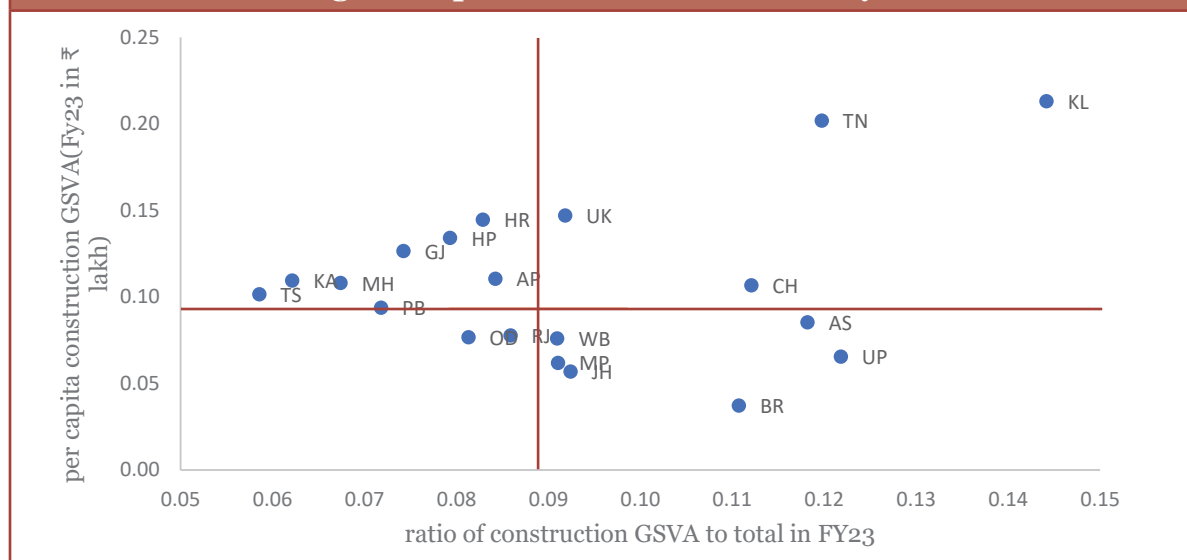
Chart VII.18 : Vast inter-State differences in the levels of industrialisation



Source: Calculations based on estimates of State Governments, hosted by MoSPI

7.47 Construction activity, closely linked with infrastructure development, urbanization and real estate trends, also shows inter-state differences. At one extreme, Kerala is comparatively less industrial than many other States (chart VII.18), but it is a positive outlier in construction activity (chart VII.19), with construction contributing about half of its industrial GVA.

7.48 The industrial patterns shown by many States reflect their comparative advantages. However, as shown by charts VII.18 & VII.19, in the case of many States, it signifies dependence on relatively low income generating industrial activities, hampering movement of surplus labour in agriculture and structural transformation.

Chart VII.19: Pattern of construction activity variant from general pattern of industrial activity

Source: Calculations based on estimates of State Governments, hosted by MoSPI

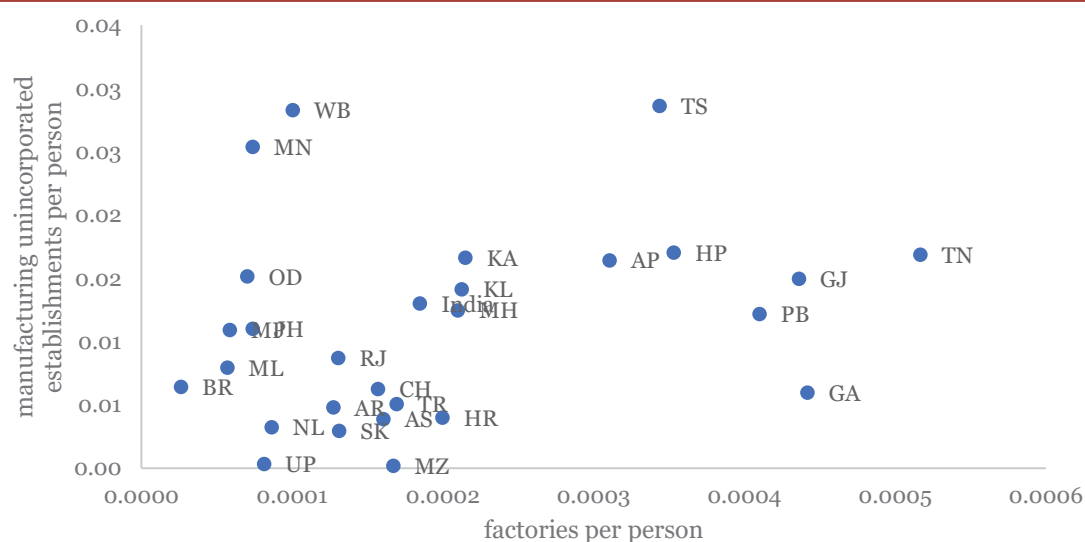
7.49 The mining sector contributes about 8 per cent to the total industrial output. On expected lines, the mining activity is highly concentrated with top five states that is Assam, Chhattisgarh, Gujarat, Maharashtra and Odisha, accounting for about 60 per cent of the all-State mining GSVA.

7.50 Ramaswamy (2019)³³, in his study on concentration of manufacturing units and workers across states, suggested that among States, there was no decline in concentration in the registered sector but there was a decline in concentration in the unregistered sector. Data from Annual Survey of Industries for FY23 for the factory sector and the data on unincorporated manufacturing enterprises (from ASUSE Survey for FY23) show vast inter-State disparities in the number of factories/enterprises per person in different states (chart VII.20). Among the bigger states, Tamil Nadu leads the pack with the highest concentration of factories per person, followed by Gujarat. Bihar hardly has any factories, while Uttar Pradesh hardly has any smaller enterprises.

7.51 The very weak relation between the state-wise patterns in factories per person and unincorporated manufacturing establishments per person indicates that some States low in the factory sector activity have considerable presence of unincorporated enterprises. It is an opportunity for those States to recognise, nurture and increase the durability and scales of their smaller enterprises, with appropriate policy facilitation and deregulation.

³³ Ramaswamy, Krishna. (2019). Where Have All the Factories Gone? Growth and Concentration of Sub-National Manufacturing Activity in India. SSRN Electronic Journal. 10.2139/ssrn.3403936.

Chart VII.20: Weak correlation between factories per person (horizontal axis) and Unincorporated manufacturing establishments per person (Vertical Axis)



Source: Survey calculation based on data from ASUSE

7.52 Research papers that examine the factors affecting industrial progress in States, highlighted that state-level policies play a crucial role in shaping the economic growth patterns across Indian states (IMF, 2006)³⁴. Another early study (Debnarayan et al., 2011)³⁵ suggested that Indian states that implemented significant economic and administrative reforms during the reform period reaped the benefits of industrial expansion. Factors like regulatory environment, infrastructure development, and state-level reforms are shown to significantly influence industrial growth patterns. Shiladitya Chatterjee (2022)³⁶ shows that the state level industrial growth drivers are infrastructure, human development and policy and institutional environment for industrial development.

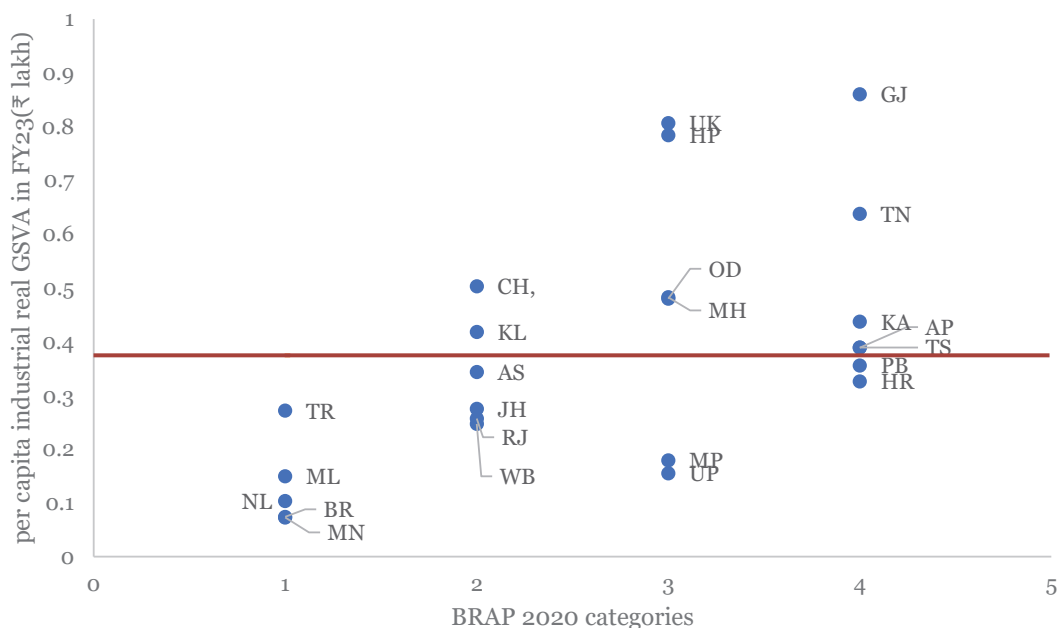
7.53 The Business Reform Action Plan (BRAP) formulated by the Department for Promotion of Industry and Internal Trade aims to assess and enhance the ease of doing business across states. As per the BRAP 2020, states are categorised into four groups in terms of ease of doing business, i.e., top achievers, achievers, aspirers and emerging business eco-systems. Chart VII.21 shows a positive correspondence between business reforms and the level of industrial activity, suggesting the need for deregulation and enterprise-friendly reforms in aspiring and emerging states³⁷.

³⁴ Is Economic Growth Leaving Some States Behind? Catriona Purfield and Jerald A Schiff, IMF, 2006.

³⁵ Sarker, Debnarayan & Das, Debraj, 2011. "Performance of manufacturing industry in Indian states: who loose and why?" MPRA Paper 33645, University Library of Munich, Germany.

³⁶ India's Unbalanced Industrial Development: Possible Explanations for Inter-State Variations Shiladitya Chatterjee 2022.

³⁷ Chapter 5 on the Medium-Term Outlook makes a strong case for deregulation as a driver of industrial and economic growth and presents several illustrative areas for action.

Chart VII.21: Ease of doing business has positively contributed to industrial activity

Note: In horizontal axis, States are denoted as top achievers (4), achievers (3), aspirers (2) and emerging business eco-systems (1).

Source: Calculations based on estimates of State Governments, hosted by MoSPI and BRAR 2020 hosted by DPIIT.

BOX-VII.5: Tamil Nadu's Strategic Initiatives to Foster Footwear Manufacturing Growth

Tamil Nadu is a leader in the traditional leather sector and now championing the growth of non-leather footwear. The state contributes to 38 per cent share in India's footwear and leather products output, contributing to about 47 per cent share in India's total leather export. This sector generates more than 2 lakh employment. Tamil Nadu (TN) also houses technical and academic institutions like Central Leather Research Institute, Council for Leather Exports, Footwear Design and Development Institute.

Some of the major initiatives taken by Tamil Nadu Government to attract large footwear manufacturers in the recent years are listed below:

- The State has focused on developing industrial estates in rural areas to ensure access to a ready workforce, particularly women. These efforts have attracted foreign investors, such as Feng Tey from Taiwan, who set up contract manufacturing for Nike.
- It has identified land in districts like Madurai and Sivagangai for future footwear investments, ensuring land availability for potential manufacturers.
- TN's investment promotion agency, namely, Guidance, has made concerted investment promotion activities. Guidance actively liaised with Taiwanese agencies to strengthen ties with potential investors in footwear sector. Guidance established contacts with major contract manufacturers of Nike like Pou Chen, Hong Fu, Taekwang and Changshin, positioning Tamil Nadu as an attractive destination for manufacturing.

- The External Engagement Cell in Guidance prepares publicity material in foreign languages like Mandarin, Japanese and Korean; it is now being prepared in German and French as well for smooth communication.
- A dedicated investment facilitator is assigned to each investor. The entire clearance process and operational issues after commencement of production are managed through this single point of contact. This has enhanced the reputation of TN as an investment friendly state.
- The agency has a division called WorkLabs which is a dedicated industry-academia coordination cell to actively engage industry in curriculum reform and familiarise new companies entering Tamil Nadu with the talent ecosystem of the State.
- It has also appointed regional officers for various parts of the State, who are based in Tier II towns like Madurai, Coimbatore and Tirunelveli.
- The incentive package system offered in Tamil Nadu is flexible and can be tailored to the needs of each investor. Tamil Nadu offers a range of incentives such as capital subsidies, payroll subsidies, and land cost subsidies. The state has launched a dedicated Footwear and Leather Products Policy 2022, which aims to develop a comprehensive ecosystem that supports both large manufacturers and smaller enterprises.

Source: Prepared based on inputs from Government of Tamil Nadu.

7.54 There is a close connection between industrial and service sectors, as indicated by the increasing ‘servicification’ of industrial output and exports.³⁸ Goldar et al. (2017) also indicated that services inputs contribute significantly to export intensity of Indian manufacturing firms. Hence, it is important that States focus on business reforms on a priority basis so as to achieve buoyancies in some industrial or service sectors where it has natural advantages. States should make it easier for businesses to commence operations, to grow and even be closed, if deemed inevitable by the entrepreneur. Allowing economic activity as far as possible and getting out of the way will foster faster convergence of living standards and per capita incomes. The route taken by different states will be different and will necessarily have to be so.

CONCLUSION AND OUTLOOK

7.55 Economic Survey 2023-24, released in July 2024, reported that:

- Over the last decade, output shares were realigned among industrial segments in favour of sectors like chemicals, wood products and furniture, pharmaceuticals, automobiles, steel and machinery and equipment.
- Import dependency in key sectors like coal, capital goods and chemicals continues. Global uncertainties may constrain export demand and affect the domestic cost of production by influencing the prices of import-intensive raw materials.

³⁸ Is Service Orientation Benefitting Manufacturing Exports from Low-Middle Income Countries? Firm-level Empirical Evidence from WBES Data Sonia Pant and Debashis Chakraborty, 2024.

- iii. The path to further industrialisation is paved with deregulation, R&D and, innovation and improving the skill levels of the workforce. Commitment to R&D must be in the DNA of the industry, independent of any fiscal incentive since it is about global competitiveness and profitability.
- iv. Sectors with widely scattered production units, like textiles, and the MSME sector in general, seek support systems to develop projects and ensure finance, easier compliance, and grassroots-level facilitation to ensure market access.

7.56 The foregoing analysis supports and reinforces these conclusions and suggestions, particularly strongly in the following respects.

- i. The first is the connection between the uncertain and unsupportive global environment and the Indian industry. There was a manufacturing growth deceleration in H1 FY25. A part of it was due to seasonal causes like the alignment of festivities and monsoon-related disturbances. Slackening global trade and aggressive trade and industrial policies of many major economies have affected manufacturing and investment by the private sector. However, business surveys and purchasing managers' index point to improving optimism. The way ahead lies in vigorous focus on deregulation, R&D, appropriate skilling and employment strategies, and targeted support for smaller enterprises. This will improve the competitiveness of the Indian industry and prepare it to weather global challenges.
- ii. The brief State-wise analysis presented in this Chapter reveals that they are vastly different in their industrial strengths, weaknesses and accomplishments. It also highlighted that the state of business regulations and reforms varied across States, and these differences are closely related to their industrial progress or the lack of it. This reiterates the need for appropriate business reforms at the grassroots level.

7.57 Hence, as noted in the Chapter, in a rather unsupportive global environment, it calls for lasting, synchronised efforts of all tiers of governments, the private sector, the skilling eco-system, academia and R&D institutions, as well, and financial stakeholders to enable India realise its ambition as a manufacturing powerhouse.
