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Assessment of 10 Years of "Make in India"

—Manufacturing Has Seen Significant Development But Goals Are Only Halfway to Being Achieved —

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<Summary≻

- The "Make in India" manufacturing promotion campaign launched by the Indian government in September 2014 marked its 10th anniversary. Although India's manufacturing industry has developed significantly over the past decade, the goals eyed through the development of manufacturing, such as reducing the country's trade deficit and creating jobs, are only halfway to being achieved.
- One positive is that the real value added of manufacturing has doubled in the past 10 years, driven by the pharmaceuticals, metals, and transportation machinery sectors, as the business environment has improved. Even in the electronics sector, which has lagged behind other countries, the production of smartphones is expanding rapidly, and the momentum for domestic production of semiconductors is increasing.
- On the other hand, given that 1) the share of manufacturing in the overall economy has been declining, 2) trade and current account deficits have continued, 3) India remains highly dependent on imports from China, and 4) India's share of imports in other countries has not changed significantly, it cannot be said that the manufacturing industry has achieved the development that the government initially hoped for in either qualitative or quantitative terms.
- Whether India will be able to reduce its trade deficit and create jobs through further development of its manufacturing industry will depend on the evolution of small and medium-sized enterprises (SMEs), which are key to raising domestic procurement ratios, and progress with creating the kind of business environment required to attract laborintensive export manufacturing.

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1. Make in India marking its 10th anniversary

The Indian government's "Make in India" initiative, which was launched on September 25, 2014, marked its 10th anniversary. Make in India is a campaign aimed at developing about 30 sectors, including transportation machinery and electronics, by improving the business environment¹ (Table 1). The target sectors include services such as IT, tourism, and media, so strictly speaking, it is an "industrial promotion campaign." However, it is widely perceived as a "manufacturing promotion campaign," because a declared objective is to increase manufacturing's share of the economy and create 100 million new jobs in the manufacturing industry.

	Sectors Initially Focused on			Sectors Presently Focused on	
	1	Defense Manufacturing			
	2	Aviation		Aerospace and Defense	
	3	Space			
	4	Automobiles		Automobiles and Auto Components	
	5	Automobile Components	2		
Manufacturing Sectors	6	Pharmaceuticals		Pharmaceuticals and Medical Devices	
	7	Biotechnology	4	Biotechnology	
			5	Capital Goods	
	8	Textiles and Garments	6	Textiles and Apparel	
	9	Oil and Gas	7	Chamicals and Patroshamicals	
	10	Chemicals	/	Chemicals and Petrochemicals	
	11	Electronic Systems	0	Electronic System Design and Manufacturing	
	12	Electrical Machinery	0	(ESDM)	
	13	Leather	9	Leather and Footwear	
	14	Food Processing	10	Food Processing	
			11	Gems and Jewelry	
	15	Ports and Shipping	12	Shipping	
	16	16 Roads and Highways		Shipping	
	17	Railways	13	Railways	
	18	Construction	14	Construction	
	19	Renewable Energy	15	New and Renewable Energy	
	20	Mining			
	21	Thermal Power			
	22	IT and BPM	16	Information Technology and Information	
	23	Tourism and Hospitality	17	Tourism and Hospitality Services	
	24	Wellness	18	Medical Value Travel	
			19	Transport and Logistics Services	
			20	Accounting and Finance Services	
Service	25	Media and Entertainment	21	Audiovisual Services	
Sectors			22	Legal Services	
			23	Communication Services	
			24	Construction and Related Engineering	
			25	Environmental Services	
			26	Financial Services	
			27	Education Services	

Table 1. Sectors under "Make in India" Initiative

Sources: Prepared by JRI based on information from the Make in India website and Press Information Bureau ("Make in India 2.0," February 3, 2021)

Note 1: The list of sectors on the Make in India official website has not been updated, so even now, some media reports state that there are 25 key sectors.

Note 2: Classification as manufacturing or services depends on the reference material. Sectors such as construction and power are classified as manufacturing on the Make in India sectors list, but are not included in manufacturing in GDP statistics.

¹ For an overview of Make in India, see Kumagai [2021]. Make in India is a multifaceted campaign to support the development of industries that will support the growth of the Indian economy, but it does not in itself define development plans for each of the industries. For details of the development plans for each industry, it is necessary to refer to specific policies.



While India's global economic and political presence has grown significantly over the past decade, it needs to be noted that assessments of the success of Make in India vary greatly depending on the viewpoint adopted.

Below I will summarize the changes in India's manufacturing industry and the environment that has surrounded it over the past 10 years, and assess how successful Make in India has been.

2. Achievements of Make in India

One positive is that the real value added of manufacturing has doubled as the business environment has improved.

Regarding the business environment, under the first Modi government (May 2014 - May 2019), a number of initiatives were implemented, such as 1) simplification or digitalization of various administrative procedures, including those relating to construction permits and customs clearance, 2) simplification of the tax system and reduction of corporate taxes through the introduction of the GST (Goods and Services Tax) in 2017, and 3) expansion of fiscal expenditure for the development of logistics and energy infrastructure. As a result, in the World Bank's national rankings for business environment, India jumped from 142nd place in 2014 to 63rd in 2019 (Table 2)².

During the term of the second Modi government (May 2019 - June 2024), bold institutional reforms were limited compared to under the first government, partly because the country was busy grappling with the COVID-

Evaluation Areas		2014 Ranking (189 Countries/Ter ritories)	2019 Ranking (190 Countries/Ter ritories)	Five-year Change in Ranking	Action Taken to Improve Business Environment
Overall		142	63	79	
	Dealing with Construction Permits	184	27	157	Rapid issuance of construction permits in Delhi and Mumbai through the introduction of uniform construction ordinances based on building types and risks, standardization of application forms, and introduction of a high-speed approval system
	Getting Electricity	137	22	115	Supply of electricity within 15 days, simplified/online procedures for getting electricity Development of power infrastructure through UDAY (Ujwal Discom Assurance Yojana), a debt relief program for power distribution companies
	Resolving Insolvency	137	52	85	Introduction of Insolvency and Bankruptcy Code (2016) Insolvency resolution within 90 days through the introduction of a high-speed corporate bankruptcy procedure system for small and medium-sized enterprises
	Trading across Borders	126	68	58	Centralized/online customs procedures through the Indian Customs Single Window Project

 Table 2. Ranking of India's Business Environment in the World Bank's Doing Business Report and the First Modi Government's Action to Improve the Business Environment

² The World Bank has stopped publishing its Doing Business rankings, with the final edition being the 2020 rankings, which assessed the business environment in 2019.





Table 2. Ranking of India's Business Environment in the World Bank's Doing Business Report and the First Modi Government's Action to Improve the Business Environment(Continue)

Evaluation Areas		2014 Ranking (189 Countries/Ter ritories)	2019 Ranking (190 Countries/Ter ritories)	Five-year Change in Ranking	Action Taken to Improve Business Environment
	Paying Taxes	156	115	41	Reduction of the standard corporate tax rate (from 30% to 22%, or 15% for newly established manufacturing companies that meet certain conditions)
					Simplification of the tax system through the introduction of the GST (Goods and Services Tax) (2017)
					Online procedures for claiming tax refunds from the Employees' State Insurance Corporation (ESIC)
	Enforcing Contracts	186	163	23	Establishment of the Commercial Division and Commercial Appellate Division in the High Courts of Delhi and Mumbai
					Introduction of a judicial precedent search system (2015) Digitalization of court documents and procedures in
	Starting a Business	158	136	22	Delhi and Mumbai Integration of Permanent Account Number (PAN), Tax Deduction & Collection Account Number (TAN), and Director Identification Number (DIN)
					Online procedures related to employment insurance and pensions for employees through the integrated portal site "Shram Suvidha"
					Elimination of the requirement for pre-registration inspections of stores and establishments in Delhi and Mumbai (stores and establishments subject to the Shons & Establishment Act)
	Getting				Expansion of legislation related to financial assets through the revision of the SARFAESI Act (Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act)
	Credit	36	25	11	Improvement of financial system stability through the identification by the Reserve Bank of India of non-performing assets on the books of commercial banks, mergers of state-run banks, and injections of public funds
	Protecting	_		_	Mandatory filing of BRR (Business Responsibility Report) by the top 500 companies by market capitalization (2015)
	Minority Investors	7	13	-6	Expansion of the application of Ind-AS (Indian Accounting Standards) harmonized with IFAS (International Financial Reporting Standards) Stricter regulation of investment trusts
	Registering	121	154	22	Online property registration procedures and centralization of competent authorities in Delhi and Mumbai Implementation of the Digital India Land Records
	a Property	121	154	-33	Modernization Programme (DILRMP), an initiative to digitalize land transaction records Production of statistics on land disputes in Delhi and Mumbai

Sources: Prepared by JRI based on information from the World Bank, Make in India website, various media reports, etc.

Note: Shadows indicate areas for which India was ranked 100th or lower in 2019.





19 pandemic³. Meanwhile, the government expanded industrial subsidies to attract global companies to India. These include 1) PLI (Production Linked Incentive) schemes, which provide subsidies to companies in various sectors based on how much they increase production value compared to the base year, 2) the India Semiconductor Mission (ISM), SPECS (Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors), and EMC 2.0 (Modified Electronics Manufacturing Clusters), which support the development of the electronics sector, and 3) FAME (Faster Adoption and Manufacturing of Electric Vehicles), which provides subsidies to promote the swift proliferation of electric vehicles (EVs). One of the reasons the government lavished particularly generous subsidies on the electronics sector is that the sector is becoming increasingly important as the provider of the physical infrastructure supporting the rapid digitalization of India's economy and society, and yet lags behind other countries. Furthermore, to encourage a pivot from business models centered on the sale of imported goods to ones based on local production, the government took such measures as raising import tariffs on certain items and switching to an import license system.

As a result of this series of initiatives, the real value added of the manufacturing industry, goods exports⁴, and the manufacturing output index (manufacturing component of the Index of Industrial Production) all increased significantly compared to 2014, when the Make in India policy was launched⁵ (Figure 1). By item, the percentage increases for pharmaceuticals, base metals (mainly steel), non-metallic mineral products such as cement, transportation machinery, and coke and refined petroleum

Figure 1. Real Value Added of Manufacturing Industry, Goods Exports, and Manufacturing Output Index





Sources: Prepared by JRI based on data from the Ministry of Statistics and Programme Implementation, Ministry of Commerce and Industry



Source: Prepared by JRI based on data from the Ministry of Statistics and Programme Implementation Note: Figures in parentheses are weights in manufacturing output index (total = 100).

products were particularly high (Figure 2), and these products have been driving the development of the manufacturing industry.

³ The passage of new labor legislation that combined around 30 labor laws into four laws can be viewed as an achievement of the second Modi government, but the legislation has yet to come into force.

⁴ Since India's exports of goods are greatly affected by fluctuations in the unit prices of petroleum products, Figure 3 shows changes in the value of exports with petroleum products excluded.

⁵ One of the reasons for the low growth rate of the manufacturing output index compared to real value added is that the manufacturing output index only captures changes in production volume, and thus does not reflect changes in real value added resulting from such factors as changes in quality and local procurement ratios.



Pharmaceuticals, which recorded an especially high percentage rise in the output index, benefited from the "2010 problem," namely the expiry of numerous patents for major drugs⁶ in various countries around the year 2010, as it provided a tailwind for the development of the Indian pharmaceutical industry. Generic drugs made in India, which are highly price-competitive, came to dominate the markets in countries/territories with low income levels, notably ones in Africa (Figure 3). In addition, through COVAX, an international vaccine-sharing framework established in response to the COVID pandemic, India has provided vaccines free of charge to many emerging countries, which has also served to raise its presence in the arena of international cooperation.

In the metals and





Source: Prepared by JRI based on data from the United NationsSource: Prepared by JRI based on data from the United Nations Note: Plots the top 50 countries for import value from among countries for which data for 2014 and 2023 is available from UN Comtrade.

transportation machinery industries, a contributing factor to the expansion in production was a rise in vehicle ownership in conjunction with increasing urbanization, the construction of road infrastructure, and higher income levels. India's domestic automobile sales jumped to third place in the world after China and the U.S. (Figure 4), and its crude steel production also surpassed that of Japan to make the country the world's second largest producer (Figure 5).









⁶ Refers to drugs with ground-breaking efficacy and overwhelmingly large sales compared to other medicines.



And in the electronics sector, which the Indian government is focusing on, smartphone production, mainly mobile handset assembly, expanded rapidly. Production of not only low-priced models for the domestic market, but also high-end devices such as iPhones, is being transferred from China to India, and exports to the West have risen sharply recently (Figure 6). Furthermore, several companies, including semiconductor giant Micron, are planning to manufacture chips in India, and the momentum for increasing the local procurement ratio is building at a fast pace⁷.

3. Challenges for Make in India

While it is true that India's manufacturing industry has developed significantly, it needs to be noted that changing one's viewpoint greatly alters one's assessment of that development.

First, with regard to the value added of the manufacturing industry, the share of manufacturing in the overall economy has been declining as economic growth led by the service sector continues (Figure 7), and achieving the target of raising the share to 25% by FY2025 is all but impossible.

In addition, India's current account deficit, which is chiefly the result of a trade deficit, has not been eliminated (Figure 8). The country remains highly dependent on imports from China, particularly electronics products and pharmaceutical raw materials (Figures 9 and 10), and the government's goal of a "Self-Reliant India" is only halfway to being achieved.



⁷ For a description of the current state of the semiconductor industry in India, see Kumagai [2024a].



Figure 6. India's Exports of Mobile Phones



Figure 7. Manufacturing Industry's Share





Figure 10. India's Main Import Items from China (2023)

Furthermore, the expansion of exports has been limited to certain sectors, such as pharmaceuticals and smartphones. India's share of imports in major countries is around 1-3%, which is largely unchanged from a decade ago (Figure 11). This is because while moves to shift production from China to Southeast and South Asia have been accelerating against the backdrop of the escalating US-China confrontation and rising labor costs in China, India has not been able to sufficiently leverage this to develop its own manufacturing industry.

For instance, in the case of apparel products, a prime example of labor-intensive manufacturing, it is ASEAN countries and Bangladesh that are replacing China as the main sources of imports for the Western countries, with India's share showing no noticeable change (Figure 12 on next page). Similarly, although India's exports of mobile phones have been increasing rapidly, its share of Western





Source: Prepared by JRI based on data from the United Nations Note: Plots the top 20 countries for import value from among countries for which data for 2014 and 2023 is available from UN Comtrade.

countries' imports remains low, hovering in the 10% range, with Western countries still relying to a large degree on imports from China (Figure 13 on next page).



Source: Prepared by JRI based on data from the United Nations Note: The figures in parentheses on the horizontal axis are the four-digit HS codes. The main applications of heterocyclic compounds include pharmaceuticals, pesticides, and solvents.





Figure 13. Shares of U.S. and EU Imports of Mobile Phones (HS code: 8517)



Source: Prepared by JRI based on data from the United Nations



Source: Prepared by JRI based on data from the United Nations

4. Reasons for the slow pace of development in the manufacturing industry

There are two reasons that manufacturing has not developed at the pace hoped for by the Indian government. The first is temporary economic and social disruption resulting from the drastic institutional changes. Economic and social turmoil caused by such events as 1) the abolition of high-denomination banknotes in 2016, 2) the hasty introduction of the GST in 2017⁸, 3) the imposition of the stringent "BS6" emission regulations in 2020, and 4) the strict lockdowns imposed in response to the COVID pandemic⁹ have hindered the expansion into India of global manufacturers. And similar temporary disruptions could occur again in the future when the new labor codes and the Digital Personal Data Protection Act take effect, or following a predicted aggressive revamp of environmental regulations and safety standards.

⁸ Since the GST was introduced a few months after the standard tax rate was determined, it caused confusion among SMEs and their business partners, as they had been slow to update their systems to handle the new tax.

⁹ Manufacturing activities were constrained by temporary closures of factories to curb the spread of the disease and a shortage of industrial oxygen due to it being diverted for use in medical care.



The second is the slow pace of improvement in India's business environment. As mentioned above, the business environment in India improved significantly in the late 2010s, but the country is still saddled with numerous issues compared to competing emerging Asian countries such as China, Thailand, and Malaysia¹⁰. Specific examples include 1) opaque application of the law, 2) delays in the development of logistics and energy infrastructure due to difficulty in expropriating land, 3) complex labor laws that vary from state to state and tough restrictions on dismissals for factories over a certain size, and 4) the absence of an FTA with China, a key supplier of raw materials. Looking at the business environment surrounding highly capitalized, knowledge-intensive manufacturing sectors such as semiconductors, a number of issues are evident, including 1) the lack of "high-quality" power infrastructure, 2) the high cost of producing the "ultrapure" water required for product cleaning due to the severe pollution of rivers and the risk of experiencing water shortages in the future, and 3) a dearth of experienced, work-ready engineers.

Against this backdrop, many assembly-type export manufacturers, for which final demand is in the West, have chosen ASEAN as an alternative manufacturing base to China, and this is one of the reasons for the stall in job creation in India. Even in the semiconductor field, U.S. companies, which are leading the restructuring of the industry, are reworking their supply chains to take in mainly countries/territories that share U.S. values and have more favorable business environments than India does, and they have maintained a cautious stance toward shifting high-value-added front-end processes to India¹¹.

While interest among Japanese companies in doing business in India has been increasing rapidly overall recently, the stances of firms vary greatly depending on the size of the firm. For example, interest among large enterprises with plenty of cash and global human resources is soaring (Figure 14¹²), while interest among small and medium-sized enterprises (SMEs) remains limited.

Considering the potential for greater urbanization and penetration of durable goods as income levels rise, it is certain that India's manufacturing industry will continue to develop into the future. However, the questions



Figure 14. Survey of Japanese Firms (Countries/Territories in Which They are Intending to Expand Operations in the Future, Multiple Answers)

Source: Prepared by JRI based on JETRO, "FY2023 Survey on the International Operations of Japanese Firms"

¹⁰ The World Bank's business environment rankings had problems such as 1) absence of issues such as corruption and difficulty in expropriating land in the evaluation criteria, and 2) the fact that only two cities (Delhi and Mumbai) were assessed for India.

¹¹ The Tata Group, a major Indian conglomerate, plans to embark on front-end production with technical support from a Taiwanese company.

¹² Since results by company size and sector are not published, the levels of interest shown in Figure 16 include non-manufacturing companies.



of whether success will be achieved in reducing the trade deficit or taking the place of China as the "world's factory" need to be treated as separate issues.

Looking ahead, it will be important not to be blinded by the Indian government's ambitious goals. Instead, attention will need to be paid to whether SMEs, which are key to raising local procurement ratios, can evolve, and on whether progress is made with creating the kind of business environment required to attract labor-intensive export manufacturing¹³.

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¹³ Given that Prime Minister Modi's Bharatiya Janata Party has failed to secure a majority on its own in the Lok Sabha (lower house), and the upper and lower houses are still controlled by different parties, it will not be easy to carry out controversial institutional reforms, such as changes to the rules on land expropriation and dismissals (see Kumagai [2024b] for a discussion of the economic and social issues surrounding the third Modi government).

