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Article

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Chang Woon Nam

Lessons Learned from the Failure of “Make in India” Industrial Reform Policy

The “Make in India,” launched by Prime Minister Narendra Modi in 2014, is an industrial policy initiative designed to stimulate the production of multinational and domestic manufacturing firms in India, as the manufacturing sector’s contribution to the country’s economic growth was relatively weak and its export share continued to shrink (Singh and Ranjan 2015).¹ Under this initiative, the urgent revival and expansion of manufacturing was seen as critical to the country’s long-term development, and with the introduction of numerous reforms across a wide range of government policies (including simplifying the tax system, deregulating prices, and reducing foreign ownership – see Box below), the country sought not only to attract FDI but also to improve its global competitiveness, in particular by promoting innovation, creating more qualified workers, and providing modern infrastructure.²

Furthermore, all these heterogeneous promotion schemes, also required to enhance the production efficiency, are addressed not only to traditional, labor- and capital-intensive industries but also to high-tech manufacturing firms and modern services, *all at the same time*. The choice of twenty-five “eligible” branches³ is based on the following ambitious policy logic: “apart from safeguarding basic production inputs (such as power, minerals, and water) at competitive prices, the availability of modern transport, logistic and communication infrastructure is necessary in order to support the growth of industry and firms’ accessibility to the domestic and international markets. Enhancing productivity and firms’ R&D and

¹ “Compared to many other developing countries, India’s manufacturing sector has played an unusual role in the national growth experience. In 1950–51 [...] manufacturing [accounted for] approximately 9 percent of GDP. By 1979–80, this ratio had risen close to 15 percent, but thereafter [it] has hardly increased. The highest share of manufacturing in any year was in 1996–97, at 16.6 percent: since then the figure has hovered on either side of 16 percent, even in the years when India’s GDP grew at over 9 percent annually” (Singh 2014, 18).

² See <http://www.makeinindia.com/about>. To a certain extent, such policy measures are similar to the typical industrial development and growth convergence models of some East Asian nations (see also Wu 2002; Rodrik 2013b).

³ These selected branches include: (1) automobiles; (2) automobile components; (3) aviation; (4) biotechnology; (5) chemicals; (6) construction; (7) defense manufacturing; (8) electrical machinery; (9) electronic systems; (10) food processing; (11) information technology and business process management; (12) leather; (13) media and entertainment; (14) mining; (15) oil and gas; (16) pharmaceuticals; (17) ports and shipping; (18) railways; (19) renewable energy; (20) roads and highways; (21) space and astronomy; (22) textiles and garments; (23) thermal power; (24) tourism and hospitality; and (25) wellness.

ABSTRACT

Launched in 2014, the “Make in India” initiative aims to revitalize the manufacturing sector and includes heterogeneous measures that “simultaneously” support industries at different stages of development, from labor- and capital-intensive to high-tech industries and advanced services. Among others, issues such as uncertainty in the world market discouraging export activities, poverty alleviation-oriented support for labor-intensive industries versus overall productivity gains, and the complementary role of IT services in industrial modernization and growth appear to largely determine the success of India’s diversified industrial policy. After seven years of policy implementation, economic indicators show that the original goals have not been met. Moreover, course corrections and a reorientation of goals, plans, and strategies are now urgently needed.

innovation activities [as well as development of IT (and its application)], shaping India’s international competitiveness on the global market require also well-educated, skilled human capital which fully satisfies the labor market demand. Entrepreneurship and the ease of doing business should not only be supported by an easier access to venture capital but also be strengthened by licensing and deregulating the industry during the entire life cycle of a business” (Nam and Steinhoff 2018, 45).⁴

According to this policy approach, by creating an investment-friendly environment, developing modern and efficient infrastructure, and opening new sectors to foreign capital, three major quantitative goals can be achieved, including:

- a) increasing the growth rate of the manufacturing sector to 12–14 percent per year (to increase the sector’s share of the economy);

⁴ See more detail in http://www.pmindia.gov.in/en/major_initiatives/make-in-india/.



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THE MODI GOVERNMENT'S REFORM PROGRAM

The major individual reform measures include, for example:

- Create a unified national tax on goods and services
- End retrospective taxation of cross-border investments
- Deregulate diesel pricing
- Deregulate natural gas pricing
- Deregulate kerosene pricing
- Remove government-mandated minimum prices for agricultural goods
- Use direct benefit transfer to deliver cash subsidies
- Deregulate fertilizer pricing
- Allow more than 50% foreign investment in insurance
- Allow more than 50% foreign investment in defense production firms
- Allow more than 50% foreign investment in railways
- Allow foreign lawyers to practice in India
- Allow foreign investment in more construction projects
- Reduce restrictions on foreign investment in multi-brand retail
- Reduce restrictions on foreign investment in single-brand retail

- Allow more than 50% foreign investment in direct retail e-commerce
- Fully open the coal mining sector to private/foreign investment
- Relax government controls over corporate downsizing
- Stop forcing banks to lend to “priority sectors” including agriculture, small businesses, education, and housing
- Extend the expiration date of industrial licenses
- Make it quicker and easier for companies to go through bankruptcy
- Offer one-stop shopping for clearances for new businesses
- Institute a mandatory 30-day “Notice & Comment” period for proposed regulation
- Allow cities to issue municipal bonds to raise funds
- Raise the ceiling on foreign institutional investment in Indian companies
- Conduct transparent auctions of telecom spectrum

Source: Center for Strategic and International Studies (<http://indiareforms.csis.org/>).

- b) creating 100 million additional manufacturing jobs by 2022; and
- c) ensuring that the manufacturing sector’s contribution to GDP increases from ca 15 percent in 2014 to 25 percent in 2022 (revised to 2025).

where. Furthermore,] given the uncertainties of the global economy, and ever-rising trade protectionism [and external effects of pandemics], the initiative was spectacularly ill-timed.”

Regarding the target of raising the manufacturing growth rate to 12–14 percent per year, Table 1 shows that 2015 was the only year in which India was able to achieve this target, with an annual manufacturing value added (MVA)⁵ growth rate of 13.1 percent, while the country failed in all other years. In 2019, manufacturing output in India actually plunged to negative growth for the first time this century, due to a decline in exports and weaker domestic demand, as the negative impact of the decline in output (especially general machinery, electrical equipment, and automobiles) in major developed economies (such as Germany, Japan, and the US) quickly spread to other economies.⁶ Despite the pandemic, MVA growth reached 6.3 percent and 8.9 percent in 2020 and 2021, respectively.

⁵ <https://www.unido.org/researchers/statistical-databases>. Here the “manufacturing sector” comprises all the branches listed in the “International Standard Industrial Classification of All Economic Activities” (ISIC) Division D 15-37 (i.e., excluding branches in the fields of mining, construction, water supply and energy).

⁶ <https://www.unido.org/news/growth-world-manufacturing-has-continued-slow-throughout-2019-amid-rising-tensions-over-trade-india-hit-negative-growth-unido-report>.

Table 1

Selected Economic Indicators for India, 2014–2021

Year	Annual MVA growth (%)	MVA (% of GDP)	Gross fixed capital formation: private sector (% of GDP)	FDI total (million US dollars)
2014	7.9	14.9	23.1	34,582
2015	13.1	15.6	21.3	44,064
2016	7.9	15.5	21.3	44,481
2017	7.5	15.6	21.5	39,904
2018	5.3	15.5	22.1	42,156
2019	-2.4	14.5	21.8	59,558
2020	6.3	16.6		64,062
2021	8.9	16.6		

Source: UNIDO; World Bank.

The goal of increasing the manufacturing share of GDP from around 15 percent in 2014 to 25 percent in 2022 was also difficult to achieve, as annual growth in manufacturing output was much slower than expected (see above). Unfortunately, the increase in the MVA share of GDP was rather marginal and the share remained in a very narrow range between 14.9 percent and 16.6 percent over the 2014–2021 period (Table 1). It was clear that policy efforts to reach the 25 percent share in 2022 would be futile, which has already led the Indian government to postpone the same target to 2025.

The manufacturing accounts for nearly 17 percent of India's GDP in 2020 and also 2021, but employment in this sector has declined sharply over the past five years. While 51 million Indians were employed in the fiscal year 2016/17, employment in the sector declined by 46 percent and reached 27.3 million in 2020/21 (CEDA-CMIE 2021). This fact shows how severe the employment crisis in India was even before the pandemic. Year-on-year, the manufacturing sector employed 32 percent fewer people in the fiscal year 2020/21 than in 2019/20, compared with 1 percent growth (year-on-year) in 2019/20. This was despite the Indian government's efforts to improve manufacturing in the country through the Make in India project, under which India aimed to create 100 million additional manufacturing jobs by 2022.

On the other hand, India's agriculture employed 145.6 million people in the fiscal year 2016/17 (CEDA-CMIE 2021). This increased by 4 percent to reach 151.8 million in 2020/21. While it accounted for 36 percent of total employment in 2016/17, it rose to 40 percent by 2020/21, underscoring the importance of the sector to the country's economy. Even during the pandemic, agricultural employment has increased over the past two years, with annual growth rates of 1.7 percent in 2019/20 and 4.1 percent in 2020/21.

According to the main idea of Make in India, the country should better attract foreign capital and make domestic production process more efficient and, in particular, the country's industrial products should become more competitive in the world market. Dereg-

ulation and the reduction of red tape, as well as the simplification and streamlining of existing regulations under the Make in India program (see Box above), have steadily improved the World Bank's ranking for ease of doing business in the country from 134 in 2014 (over 100 in 2017) to 77 in 2018 and 63 in 2019. The creation of better and more favorable conditions for doing business and investing seems to have contributed to the gradual increase in FDI between 2014 and 2020 (see Table 1).⁷ However, to achieve the goal set by the Make in India initiative, the country certainly needs much stronger external stimulus, accompanied by stronger investment activity by domestic companies. In the five years following the announcement of the Make in India, there has been slow growth in investment in the economy. This is even more true when looking at capital investment in the manufacturing sector. Private sector gross fixed capital formation, a measure of total investment, declined from 23.1 percent in 2014 to 21.8 percent of GDP in 2019 (Table 1). According to the Annual Survey of Industries (ASI),⁸ annual growth in real fixed investment in manufacturing has averaged only 1.5 percent for the four consecutive fiscal years since 2014/15 (see also Nagaraj 2019).

DESIGNED TO FAIL?

Panagariya (2013, 25) suggests as the main reason for implementing the Make in India that, particularly given the high levels of poverty from which a large portion of the population has always suffered and the still-dominant low-productivity agricultural sector, "India has no choice but to follow the East Asian example" of achieving long-term economic growth by accelerating the production and export of manufactured goods. In examining what was wrong with the policy concepts of Make in India and whether the initiative is less well designed, it would therefore be

⁷ In 2015, India even emerged as the top destination for FDI, surpassing the US and China.

⁸ <http://www.csiosw.gov.in/cms/en/1023-annual-survey-of-industries.aspx>.

helpful to discuss the background and reasons why India, in contrast to the East Asian successes with smooth, “gradual” changes in industrial structure from labor-intensive (through capital-intensive) to R&D-oriented high-tech industries and advanced services in line with overall economic growth, requires a wide range of diversified industrial policies that also simultaneously target different types of industries and services at different stages of development. This appears to be an important India-specific policy practice, but one that to some extent goes against the conventional catch-up approach (the so-called “flying geese” model) used in East Asia, including China. Can India achieve all these goals “simultaneously” related to its export orientation and competitiveness in the world market, the promotion of labor-intensive industries, the stimulation of high-tech innovation and its complementarity with modern business services, and the importance of IT and its application for growth? Is there a trade-off or conflict between these different objectives? Will this Modi reform lead to a “productivity-enhancing structural transformation” for the Indian economy?

First, India has long been dominated by traditional capital- and labor-intensive products such as “food and beverages” and “textiles,” except for some natural-resource-based industries such as “coke, petroleum, and nuclear fuels” and “metal production,” which have limited labor absorption capacity. On the other hand, some high-technology industries such as “motor vehicles” and “electrical machinery” have achieved quite rapid real MVA growth in recent years.⁹ To some extent, this long-standing imbalanced industrial structure has forced India to adopt multiple, diversified industrial policies that simultaneously target different types of industries that are at different stages of development. Apart from productivity enhancement, which is widely recognized as the primary driver of economic growth, Modi’s policies may have aimed to better leverage the positive contributions to growth that come from capital accumulation and more effective use of the abundant labor force. However, such policy practice may further seriously conserve the existing industrial structure and prevent rapid structural change (see below).

World economic history shows that strong economic growth of countries has been led by rapid growth in manufacturing exports and efforts to exploit and realize comparative advantage and competitive strength in the world market, but rarely achieved in the domestic market (Johnson et al. 2010). In contrast, the Indian experience seems to hold true that a strong foreign market orientation pursued through the

⁹ See <https://stat.unido.org/country-profile/economics/IND>. This fact is also revealed in India’s export structure in 2020 with “mineral fuels including oil” (14.3 percent of total exports); “gems, precious metals” (9.7 percent); “machinery” (6.1 percent); “iron, steel (5.4 percent); “organic chemicals” (5.4 percent); “pharmaceuticals” (4.9 percent); “vehicles” (4.8 percent); “electrical machinery, equipment” (4.8 percent); “cereals” (3.1 percent); and “cotton” (2.5 percent), <https://www.worldstopexports.com/indiastop-10-exports/>.

Make in India was less prudent and timely as the stagnant economies of the major importers of potential Indian industrial products (Japan, the EU, and the US) continued to prevail (see the case of 2019 presented above and the subsequent global economic crisis during the pandemic). In addition, one should recognize China’s current role as the world leader in the export of manufactured goods and the fact that it will remain India’s most important competitor in the international market in the near future, especially in the “food and beverages,” “textiles,” “coke, oil products, nuclear fuels,” “basic metals,” and “chemicals” sectors, while India’s major exporters of manufactured goods also continue to face serious challenges from other fast-growing Asian countries such as Vietnam and Indonesia. In this context, Rajan (2015) suggests the introduction of a kind of “Make for India” program aimed at further promoting “import substitution,” especially taking into account that in recent times, on average, nearly 60 percent of India’s GDP has been driven by domestic private consumption, while the country’s consumer market is currently the sixth largest in the world and is expected to rise to third place by 2030 (World Economic Forum 2019). In the production of “mineral fuels, including petroleum,” “organic chemicals,” and “precious stones and metals,” India has recently engaged in a form of “intra-industry trade” with the rest of the world, meaning that these have recently been both the main export and import items for the country.¹⁰ Import substitution may also occur in the short term for “organic chemicals”; for example, if Indian producers in this area can make their production system more efficient while improving the quality of their products (Nam et al. 2017).

The promotion of labor-intensive industries aimed at “poverty reduction” and the creation of jobs for less-qualified people can hardly be reconciled with long-term industrial growth and structural change: such strategies combined with redistributive motives lead to trade-offs with improving the country’s overall productivity and competitiveness. This fact should be given special consideration, as some labor-intensive, less productive industries (e.g., food, leather, apparel) are also supported by Modi’s Make in India initiative.¹¹ The experiences in Korea and Taiwan show that the establishment of strong labor-intensive industries in the initial development phase was necessary to ena-

¹⁰ The ten important India’s import items in 2021 were “mineral fuels including oil” (29.9 percent of total imports); “gems, precious metals” (15.5 percent); “electrical machinery, equipment” (9.9 percent); “machinery including computers” (8.5 percent); “organic chemicals” (4.8 percent); “plastics, plastic articles” (3.4 percent); “animal/vegetable fats, oils, waxes” (3.1 percent); “iron, steel” (2 percent); “optical, technical, medical apparatus” (2 percent); and “inorganic chemicals” (1.7 percent), <https://www.worldstopexports.com/indiastop-10-imports/>.

¹¹ In part, this promotion can also be based on the Rodrik’s “unconditional convergence” hypothesis which empirically explains that “in general” (i.e., regardless of the quality of policies or institutions and other country-specific circumstances in their home economies) a faster labor productivity growth can be achieved in lower-productivity industrial fields. Consequently, growth can be triggered by the increased economy’s ability and also policy to pull resources into such “convergence industries” (Rodrik 2013a).

ble a smooth transition to a capital-intensive industrial structure. Moreover, such an explanation based on the typical East Asian flying geese model largely contradicts the fact that India's recent growth has been strongly triggered by "skilled labor-intensive" services and capital-intensive industries (see also Panagariya 2013).

India's comparative advantage in IT software services on the global market has been first led by the lower wage compared to that of their US and European counterparts, whereas the prevailing income difference between software professionals and those other industrial workers in this country has attracted the continued supply of them. In this context, it seems desirable that India's advanced software applications and other IT services be more widely and strongly promoted (see also Singh 2014). Nevertheless, it is questionable whether the service sector alone can generate a country's continuous long-term output or employment growth. Preferably, based on the "development interdependence logic" between modern IT services and high-tech industries (including also IT hardware production), the important role of information technology appears to be more seriously taken into account in the policy making for knowledge transfer and diffusion between modern industries and advanced services. More importantly, one should bear in mind that advanced IT is a crucial factor shaping the nation's innovation system (equipped with a highly skilled workforce), which not only easily establishes clusters of high-tech industrial firms with each other and also with other modern business services, but also intensifies and accelerates the technology transfer and diffusion process from research institutions to industries and services for the application (Nelson 1993; OECD 2002; Garcia and Vicente 2012).

CONCLUSION

The "Make in India" is here to stay. Nevertheless, a course correction and realignment of goals, plans, and strategies seems to be urgently needed. The original goals have hardly been achieved. To this end, the following aspects should be better considered and incorporated into the development of a modified policy program: (a) more systematic policy specifications based on a better understanding of India's specific economic structure (and situation) under global challenges, including the comparative advantages of

the country's major products and the strengths and weaknesses of its competitors in the world market; (b) the importance of rapid structural change in the manufacturing sector for the country's output, employment, and productivity growth; (3) the thorough assessment of the needs and scope of redistribution-oriented growth policies; (4) the development of interdependence between high-tech industries and modern services and the role of IT in this context; (5) the creation of a national innovation system (well-equipped with a highly skilled workforce) between modern industries and business services and research institutions that better enables not only R&D cooperation, knowledge dissemination and application but also the flexible exchange of skilled labor.

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