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# Industrial Development in India under Liberalization

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***Abstract:** This paper first seeks to establish that no breakthrough in industrialization has coincided with the transition to a liberalized and open economic policy regime since 1991, and then examines the reasons behind this failure of India to break her industrialization impasse. It asserts that the real barrier to Indian industrialization is a severe demand constraint – and liberalization has only aggravated that, including by not eliminating the limitations of the industrial sector that would permit an export-led process of industrial development.*

## **Introduction**

When India embarked on a decisive process of greater integration into the world economy from 1991, the proponents of liberalization often cited the country's failures on the industrialization front as one of the key reasons why economic policy needed to move in the direction of liberalization (Bhagwati 1993, Joshi and Little 1996, Tendulkar and Bhavani 2007, Virmani 2004). Indeed, industrial policy itself was one of the major targets of 'reform' and the Statement on Industrial Policy 1991 (Government of India 1991) set out the agenda of 'freeing' the industrial sector from the system of internal and external controls it had been subjected and which was pejoratively described as the 'License-Permit Raj'. Three decades later, however, despite GDP growth being apparently better during this period than earlier, a degree of dissatisfaction about the performance of her manufacturing sector would still be found in virtually any recent assessment of India's economic performance since 1991<sup>1</sup>. Even official policy documents, otherwise inclined to adopt a self-congratulatory tone about India's post-liberalization economic record, have expressed disappointment at the manufacturing sector's performance (Government of India 2011).

That the country's industrialization effort has been unable to achieve great heights across very different economic policy regimes - making India stand out amongst the major economies of the world - points to the operation of deeper structural factors in producing a stunted industrialization. This paper first seeks to establish that no breakthrough in industrialization has coincided with the transition to a liberalized and open economic policy regime and then suggests possible reason why it has been so. A brief discussion of the pre-1991 history of industrial development serves as a background while the conclusion assesses the implications what has happened, or not happened, for the prospects of Indian industrialization.

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<sup>1</sup>Biswanath Goldar is a rare exception (Goldar 2011 and 2015)

## **The Background: Industrial Development before 1991**

The history of a modern industrial sector in India dates back to the middle of the 19<sup>th</sup> century. The initial growth of a mechanized production based factory sector happened alongside the construction of a railway network by the British rulers (Ray 1994). It also took place in the background of a temporally stretched out process of an import-induced destruction of India's traditional manufacturing industry, making de-industrialization rather than industrialization the dominant feature of that period of Indian economic history. Even after the destruction of traditional industry came to an end by the close of the 19<sup>th</sup> century, the general conditions prevailing under colonialism did not permit any comprehensive industrialization process. As a result, at independence, India was an extremely low-income economy which was still mainly agrarian - with three quarters of the population dependent on an agricultural sector which accounted for over half the GDP. The modern industrial sector was still a small enclave in the economy and the industrial structure was very narrow, still dominated by the light consumer goods industries like textile and food products.

Indian industrialization after independence had to be an integral part of a larger or global process. This was one in which newly independent countries sought to change the pattern of the international division of labour which had concentrated most of the world's manufacturing production in the Western world, with Japan being the solitary partial exception to that rule. This industrialization had to be, however, based on a diffusion of technology from that very same industrially advanced West who also were dominant in international markets. Such industrializations thus had a historically specific character distinguishing them from the earlier industrializations of the West which had taken place in a world which they were able to dominate. *Late industrialization* or industrialization by *pure learning* (Amsden 2001) produced an array of industrialization experiences - some spectacular in terms of the economic

transformations they achieved and others more restricted in nature. Asia, the poorest among the continents to begin with, and accounting for over half the world's population, itself exhibited this great diversity. It saw what was termed the East Asian 'miracle' (World Bank 1993), carrying some countries to the levels of the advanced economies in just a few decades. East and South-East Asia in general became a major manufacturing producing and exporting region of the world. The South Asian experience, and India's was the most important among them, proved to be quite different.

If we look at the record of Indian industrial development between independence and 1991, the most remarkable achievement of that was a steady diversification of the industrial sector - so that it came to produce a wide range of manufactured products. In a sense, import-substituting industrialization did manage to ensure a fairly high degree of self-sufficiency in this sphere, though technological levels were generally behind international standards and dependence on foreign sources for technological improvement remained very high. India did not become a major exporter of manufactured exports, and its share in world exports came down to 0.5 per cent. Manufactures, mainly low-tech labour-intensive products, came to account for almost three-quarters of Indian exports though. More importantly, manufactured imports were also limited. Therefore, it wasn't manufactured imports but the oil import bill that was the real source of balance of payments difficulties as India entered the decade of the 1980s. Import-liberalization in the 1980s and the increase in domestic oil production from Bombay High changed that for a few years as the non-oil trade deficit became larger. However, even this was coming down in the later years of the 1980s. The non-oil deficit was at its lowest level in a decade on the eve of the 1991 foreign exchange crisis and turned into a surplus thereafter.

Diversification notwithstanding, there can be no doubt that India's industrial development process before 1991 had been disappointing. The

spurt in growth of industry seen during the first three five-year plans didn't last long enough and gave way to the stagnation decade (or decade and a half) from the mid-1960s. Even while there was some revival of industrial growth in the 1980s, the overall acceleration in India's GDP growth in that decade was driven more by faster growth of services than of manufacturing. Indeed, the manufacturing share in GDP did not really grow beyond the still modest levels achieved by the mid-1970s. The industrial employment scenario was even worse, and the 1980s revival of industrial growth was accompanied by a slowing down of employment growth in the registered manufacturing sector even in comparison to the stagnation phase (Sivasubramonian 2000). The burden of generating manufacturing employment fell largely on the unorganized sector whose share in the manufacturing sector as well as in overall GDP moved firmly into a declining trend during that decade. One very significant consequence of this was that industrial development failed to contribute to a significant change in the economy's employment structure - while the share of agriculture in GDP steadily declined, more than 60 per cent of the workforce remained within that sector.

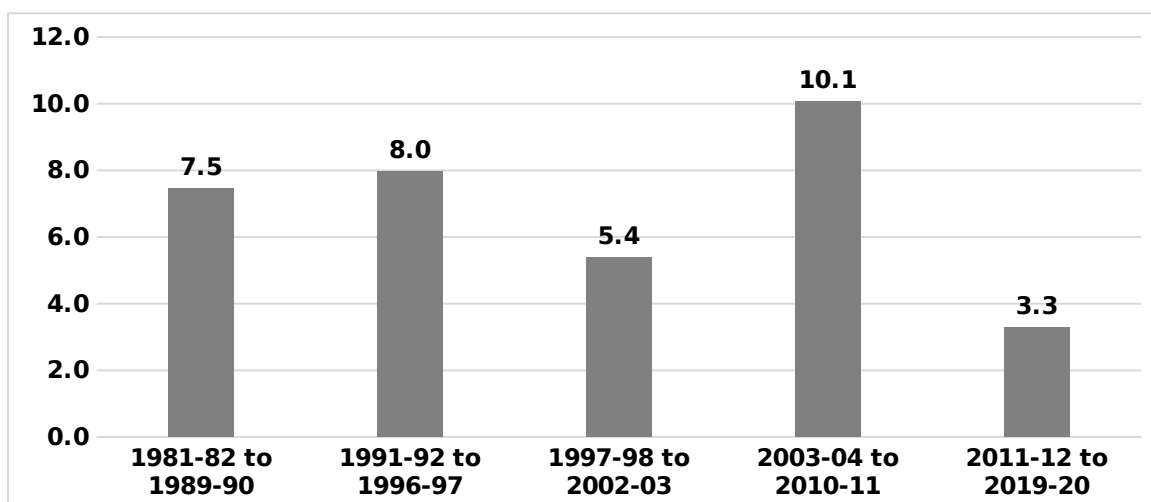
Measured in terms of either the maximum levels attained by the share of manufacturing in GDP and employment, the level of manufacturing value added per capita or that of exports, India's industrialization achievement till 1991 was poor when seen in a comparative perspective (Chandrasekhar 2015). Liberalization, however, has not proved to be the panacea for this problem.

### **Indian Manufacturing since 1991: Major Trends**

Replicating the pattern seen in the past, the growth of manufacturing output since 1991 has fluctuated greatly. In the early 1990s, as the first round of changes in the economic policy regime kicked in, the economy witnessed the continuation of rapid industrial growth seen in the 1980s. However, as the end of the century approached and coinciding with the

East Asian Crisis, there was a downswing which lasted for over half a decade. Then, as part of the process of sharp acceleration in overall GDP growth, manufacturing growth rates again rose sharply from 2003-04 onward. The global crisis of 2008 appeared initially to have had only a temporary effect on this but 2011-12 saw a deceleration in manufacturing growth that has lasted the full decade. The extent of this deceleration is not the same if we compare indicators of the **volume** of industrial output with those of **value added** in manufacturing - a discrepancy that has been the source of one of the controversies related to the new GDP series with 2011-12 as base year (Mazumdar 2015). Measured in terms of the Index of Industrial Production (IIP), even the new one with 2011-12 as base year, the second decade of the twenty first century has not only the poorest record of industrial growth since 1991, but it in fact is also reminiscent of the stagnation decade that started from the mid-1960s. Figure 1 illustrates this pattern of fluctuations in industrial growth measured by the IIP.

**Figure 1: Simple Averages of the Annual Rate of Growth of the Index of Industrial Production (IIP) for Different Period, (Percentage per Annum)**



Source: Reserve Bank of India (RBI), Handbook of Statistics on Indian Economy (HOSIE) ([www.rbi.org](http://www.rbi.org))

Note: The above is derived from the IIPs with 1993-94, 2004-05 and 2011-12 base years

For the 2010s, even the National Accounts (NAS) data does show that the growth of value of output is different from that of value added and

significantly lower till 2017-18. This can be seen in Table 1 from the comparison of the movement of indices of real GVA and real Gross Output of the manufacturing sector. The table also, however, shows that the slowness of gross output in the NAS is not to the extent shown by the IIP, while the real trend emerging from Annual Survey of Industries (ASI) data comes quite close to that of the IIP. Now, ASI data does indicate that the current decade may have seen a temporary reversal of a previous declining trend of the share of value added in value of output (linked perhaps to cheapening of imported inputs) – so that the ratio of Gross Value Added to Value of Output increased from 15.87 to 18.83 between 2011-12 and 2016-17, before dipping again in the next two years to reach 16.54 percent by 2018-19. This may have for some years raised the rate of growth of value added above the value of output. However, when we look at the volume of output, there is compelling evidence supporting the proposition that a prolonged industrial slowdown set in from the beginning of the 2010s decade.

**Table 1: Alternative Indices of Manufacturing Production (2011-12 = 100), 2012-13 to 2019-20**

Indicator	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Manufacturing Real GVA (NAS)	105.5	110.7	119.4	135.0	145.7	156.7	165.0	161.0
Manufacturing Real Gross Output (NAS)	103.6	110.5	117.2	121.9	128.2	137.4	157.1	152.3
IIP Manufacturing	104.8	108.6	112.7	115.9	121.0	126.6	131.5	129.6
Nominal Value of Output (ASI)	105.7	114.9	120.7	120.3	127.4	141.5	162.8	
Real Value of Output (ASI)	100.3	105.9	108.5	110.2	115.1	124.4	138.1	

Source: RBI, HOSIE; Central Statistical Organization (CSO), National Accounts Statistics 2021; CSO, Annual Survey of Industries (ASI), 2018-19 (<http://www.csoisw.gov.in>)

The share of manufacturing in aggregate GDP of the economy (Figure 2) of course depends on the relative value added in the sector. The shift in

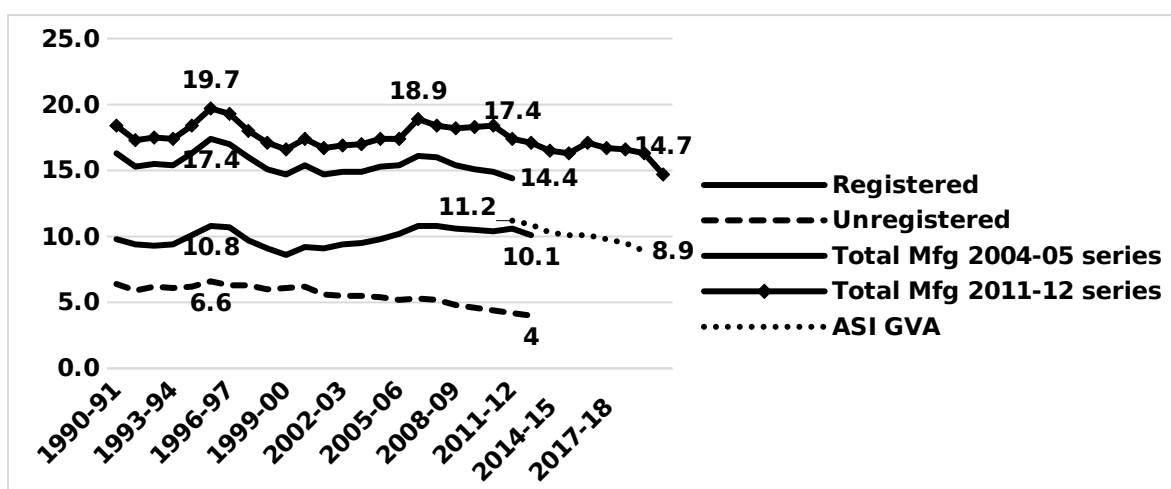


the new GDP series from the establishment-based method to the enterprise-based method has raised the **level** of this share compared to what the older method yielded. However, it has not still altered the **trend** of that share's movement over time - and this still confirms the persistence of a long-term trend of a declining relative significance of manufacturing in the economy. This trend was first indicated by the data from the older series available for the period from 1991 till 2012-13. This showed that both real and nominal shares of manufacturing in GDP had, in every subsequent year, stayed below the peak level attained in the mid-1990s. That mid-1990s peak level itself was not very much higher than that in 1980 or even the mid-1960s. Unorganized manufacturing, clearly has chiefly accounted for this as the manufacturing sector has also witnessed a structural change - in the sense balance between the organized and unorganized segments of the sector decisively moving in favour of the former. The institutional classifications of the new GDP series being different, we do not know how these two segments have fared relatively since 2012-13. However, despite value added growth being higher than of value of output, the share of aggregate manufacturing in GDP in the new series continues to exhibit a declining trend since 2011-12. This decline is even sharper in the share of the ASI Factory sector GVA in aggregate GDP indicating that even the organized manufacturing sector is, relatively speaking, a shrinking sector.

Fluctuations in manufacturing output have been paralleled by those in manufacturing investment, the degree of which has been even greater (Figure 3). The cycles of manufacturing investment have also reflected overall investment trends of the economy. A phase of rapid investment growth in the early part of the 1990s was the immediate aftermath of liberalization. This boom, however, completely collapsed towards the end of the decade before bouncing back with the initiation of the phase of rapid growth from 2003-04. This phase indeed was marked by a sharp rise in India's investment ratio and manufacturing investment growth was very

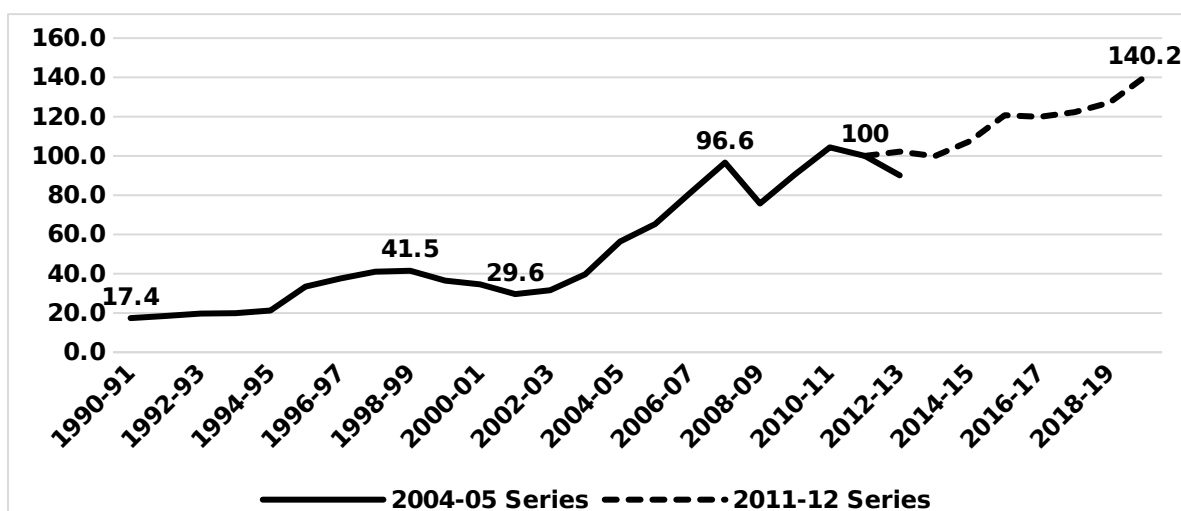
much part of that process. The collapse of this investment boom after the global crisis, unlike what happened with output, was not followed by any recovery as investment stagnated. The new GDP series shows some resumption of an upward trend in manufacturing investment in the second half of the decade, though not comparable with the pace seen before the global crisis. In the NAS, this is entirely attributed to investment by Private Corporations.

**Figure 2: Share of Manufacturing in Indian GDP/GVA (Percentage), 1990-91 to 2019-20**



Source: CSO, National Accounts Statistics (NAS) - 2014, 2004-05 Base Year Back Series, 2011-12 Base Year Back Series, 2021 - and CSO, Annual Survey of Industries (ASI), 2018-19.

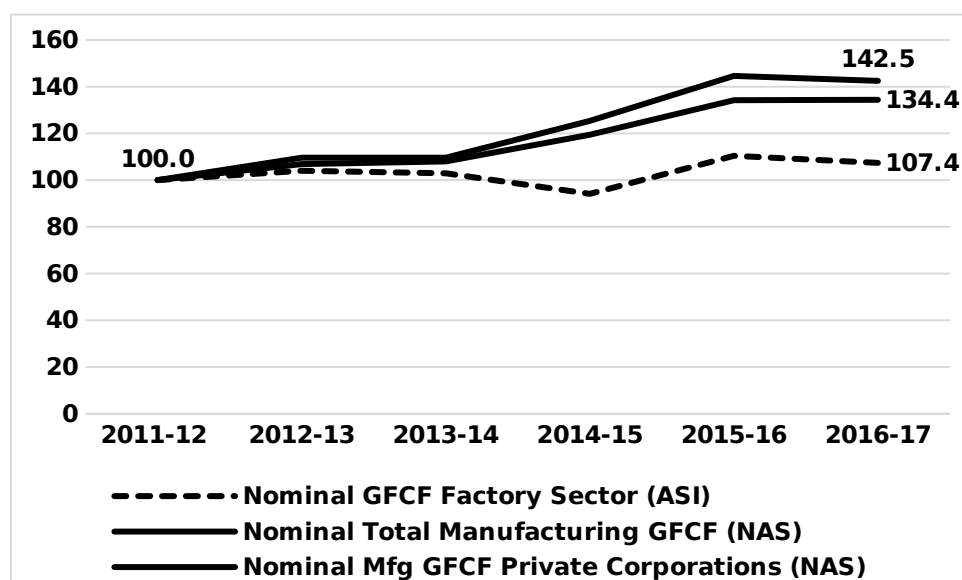
**Figure 3: Indices of Gross Fixed Capital Formation in Manufacturing at Constant Prices (2011-12 = 100), 1990-91 to 2019-20**



Source: Derived from CSO, NAS - 2014, 2004-05 Base Year Back Series, and 2021

Even this picture of a limited revival may not, however, be a very accurate picture of what is really happening in manufacturing. A comparison of the nominal manufacturing investment trends of the new GDP series with that of the ASI (Figure 4) indicates that the upward trajectory in the former, itself not sustained, may be attributed entirely to the method it uses for generating these estimates. As per the ASI figures, the investment stagnation continues to be extremely acute with there being virtually no growth in even nominal terms. This means that despite capital goods prices being characterized by very low inflation, real investment in organized manufacturing may be even contracting.

**Figure 4: Indices of Manufacturing GFCF at Current Prices (2011-12=100), 2011-12 to 2019-20**



Source: Derived from CSO, NAS - 2018 and CSO, ASI - 2016-17

As regards manufacturing employment, NSS data suggests that some 15 million jobs were added to manufacturing between 1993-94 and 2004-05 (Mehrotra et al 2014). The bulk of manufacturing employment in 2004-05 (almost 73%) was still in the unorganized component of the sector. However, of the 5.9 million additions to employment between 2004-05 and 2011-12, it was organized manufacturing which accounted for as much as 5.4 million (or 92.5 per cent). In other words, the phenomenon of

jobless growth which had for long been a feature of the organized sector (Kannan and Raveendran 2009), appeared to have migrated to the unorganized sector. Indeed, even from ASI data it appears that the trend of declining employment in organized manufacturing observed from the late 1990s was reversed in the early years of the century. This was despite a consistent and significant trend of decline in the labour intensity of Indian manufacturing, most sharply in the more labour-intensive sectors (Sen and Das 2015). However, the slowing down of industrial growth in the 2010s seems to have affected organized manufacturing employment growth too, and the rate of increase after 2011-12 has been much lower when compared with the previous decade (Table 2).

**Table 2: Point-to-Point increase in ASI Factory Sector Employment in Different Periods (in Millions)**

<b>Category</b>	<b>2011-12 over 2003-04 (8 Years)</b>	<b>2018-19 over 2011-02 (7 Years)</b>
<b>NUMBER OF WORKERS</b>	<b>4.35</b>	<b>2.36</b>
<b>NUMBER OF EMPLOYEES</b>	<b>5.55</b>	<b>2.86</b>
<b>TOTAL PERSON ENGAGED</b>	<b>5.56</b>	<b>2.85</b>

Source: CSO, ASI - 2018-19

NSS Survey Reports of unorganized sector had indicated that between 2010-11 and 2015-16, employment in unorganized manufacturing increased by just 3.3 per cent and hired employment declined in absolute terms (Kapoor, 2017). The collapse of manufacturing employment growth as a result of the output growth slowdown, was further confirmed by the initially withheld Periodic Labour Force Survey Report of 2017-18 that showed a decline in manufacturing's share in total employment (Jha, 2019). This has also happened in the background where worker to population ratios declined sharply (Rawal & Bansal 2019). Even otherwise, between 1993-94 and 2011-12, it was construction and services rather than manufacturing that absorbed the bulk of the 110 million increase in

the non-agricultural workforce resulting from both the increase in the population as well as a distress-driven movement out of agriculture.

These rather grim trends of the manufacturing sector share in GDP and in employment underlie the conclusion that India is in the category of developing countries experiencing what has been termed ‘premature de-industrialization’ (Rodrik 2015, Chaudhuri 2015). It is deemed to be premature because the relative decline of manufacturing starts at a lower level of income and a lower share of manufacturing in GDP/employment than is typical of the post-industrialization combination of tertiarization and relative decline of manufacturing seen in advanced economies. Even premature looks like an understatement in the Indian case as the level of industrialization it had attained was much less than even most others experiencing a similar premature decline of manufacturing.

**Table 3: Indicators of Industrialization Levels and Employment Structures of India and Selected Countries, 2019**

Country	UNIDO	UNHDR Based on ILOSTAT	UNHDR
	MVA per capita at constant 2015 prices in US\$	Services Share in Employment (%)	Employment to population ratio (ages 15 and older)
Singapore	10558	83.8	67.6
Germany	8980	71.7	59.0
South Korea	8252	70.0	60.4
Japan	7645	72.3	60.3
United States	6858	78.9	59.8
Italy	4635	70.4	44.7
France	4146	77.5	50.5
United Kingdom	3918	81.1	60.4
Spain	3613	75.6	49.5
China	2864	46.4	65.0
Malaysia	2541	62.6	62.2
Thailand	1772	45.8	66.8
Mexico	1650	61.2	58.6
Indonesia	808	48.9	64.3
Brazil	782	71.0	56.2
Viet Nam	433	35.0	75.9
India	315	32.0	46.7

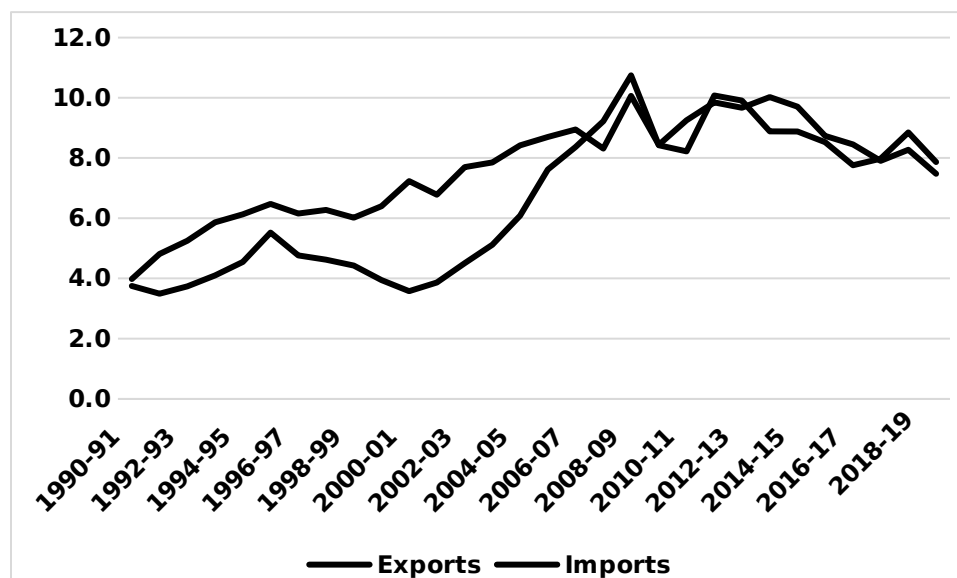
Source: United Nations (UN) (<http://www.sdg.org/datasets>) and United Nations Development Programme (UNDP), Human Development Report (HDR) (<http://hdr.undp.org/en/data>)

Moreover, the tertiarization of GDP in India has seen a much more than of employment – the share of services in Indian employment is very low when compared with a diverse set of countries, all of whom have succeeded in attaining higher levels of industrialization than India (Table 3). This is also the case despite the relatively lower share of the employed population in India when compared to these other countries – notwithstanding its younger population. In other words, neither industrialization nor complete tertiarization characterizes the trajectory of Indian development – with significant implications for the expansion of non-agricultural employment opportunities at a time when people are exiting agriculture in very large numbers.

Even if the manufacturing share in GDP didn't increase after liberalization, the trade in manufactures as a proportion of GDP did see a significant jump (Figure 5). In the 1990s, this expansion was more on the export rather than import side, and Indian exports during this period continued to be dominated by her traditional labour-intensive products– textiles, leather manufactures or gems and jewellery. However, the 21<sup>st</sup> century saw major changes as India's manufacturing sector become more rapidly integrated with global production networks during the boom of the first decade. The rise in India's share in world exports was accompanied by a significant shift - with the more capital-intensive chemical and engineering industries as well as petroleum products leading the process (Veeramani 2012, Chaudhuri 2013, Chakravarty 2015). Indian rather than FDI firms were at the centre of this process. Parallel to this was a shift in the direction of exports – an increasing importance of developing and emerging economies at the expense of the advanced OECD countries. There was also, however, during this period, a steep rise in the levels of manufactured imports and in India's share in world imports. This was an indication of manufacturing production itself becoming more intensive in the use of imported materials and capital goods (Chaudhuri 2013, Mazumdar 2014, Mohanty 2015, Goldar 2015, Chakravarty 2015). As a

result, India's net position in manufacturing trade deteriorated and the surplus was lost by the time the global crisis erupted. This was an indication of the fact that Indian production was not competitive in several sectors, and those that were could only maintain that position by importing inputs.

**Figure 5: India's Manufactured Exports and Imports as a Percentage of GDP, 1990-91 to 2019-20**

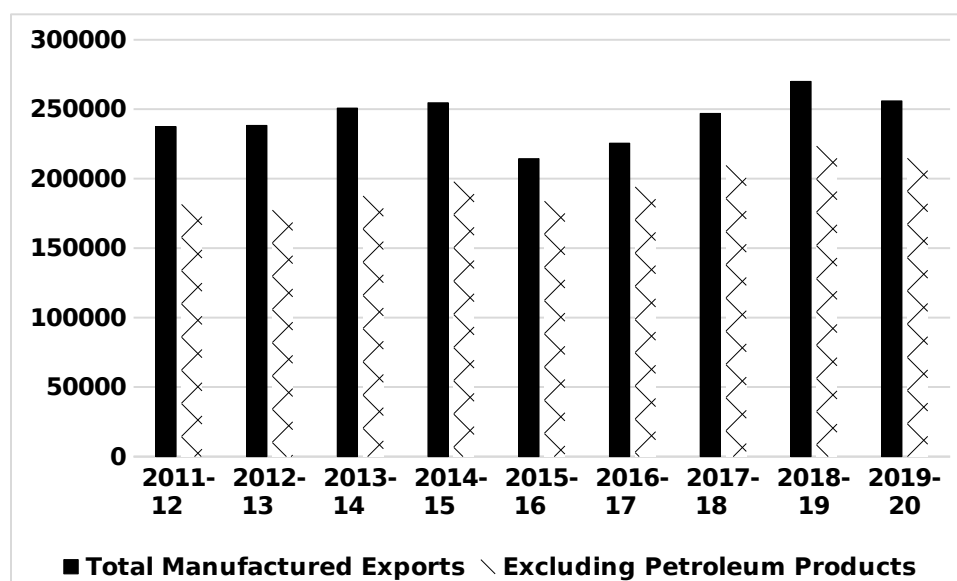


Source: RBI, HOSIE

With global demand conditions turning adverse in the post-crisis and post-stimulus world, manufactured exports have also stagnated in the second decade of the century (Figure 6). This has happened despite the effect of the change in the direction of movement of the exchange rate after 2007-08. Before the global crisis, capital flows into India were steadily pushing up the value of the rupee. This changed thereafter - and this has meant a lowering of the dollar prices of Indian manufactures as depreciation of the rupee has outpaced the extremely low level of manufacturing inflation. Thus, between 2011-12 and 2019-20, the annual average rupee price of the US dollar increased by just under 48 per cent even as the manufacturing annual average Wholesale Price Index (WPI) for manufactured products increased by just 18.3 per cent. Manufactured

imports have also been affected adversely by the slowing down of investment and output growth – which have checked the demand for imports. Yet, the structural changes in Indian exports and increased global integration of Indian manufacturing that took place in the previous decade in manufacturing trade have not reversed. One implication of this is that even with depressed industrial growth, the levels of imports have remained high relative to that of exports. This is one contributory factor towards India’s non-oil trade balance, which was almost always in surplus between 1991 and 2003-04, being persistently negative thereafter. With the growth of India’s services exports as well as that of remittances tending to taper off, relatively depressed industrial growth appears to have become a necessary accompaniment of maintaining balance of payments stability.

**Figure 6: India’s Exports of Manufactured Products (US \$ Million), 2011-12 to 2019-20**



Source: RBI, HOSIE

The changes in India’s manufacturing trade have also tended to reinforce the increasing pre-eminence of registered manufacturing over unregistered manufacturing. Partly this is on account of the technological changes or ‘modernization’ enabled and forced by greater openness and



exposure to global competition respectively. In addition, the changes in export composition have also made the export basket far more concentrated in products in whose direct and indirect production the role of the unorganized sector is more limited than in the traditional exports.

Finally, combining with and the declining significance of the public sector in the economy, the shift in favour of registered manufacturing has made the dominance of the private corporate sector in manufacturing greater than had been the case before liberalization (Rajakumar 2011). However, the private corporate sector itself has tended to reduce its 'industrial' character during this period and expanded more in services and construction activities (Mazumdar 2014).

### **Liberalization and Indian Industrialization: Why the Unfulfilled Promise?**

The major trends presented above clearly indicate that Indian industrialization experienced no significant push as a result of liberalization. Of course, there are aspects of these trends which suggest change and 'dynamism'. The level of manufacturing production has also increased, and the technological context has become more modernized. However, pretty much the same could be said about the record before 1991 when the 'movement' of the industrial sector did not really add up to a process of full-fledged industrialization. The more recent trends suggest that the gains since 1991 have come at the expense of a great reduction in the self-sufficiency of Indian manufacturing without any compensating benefit of an export-led industrialization. Indeed, the return of stagnation now haunting the industrial sector indicates in fact the absence of even adequate domestic demand.

The idea that India's industrialization potential would be unlocked simply by the liberalization of the economic policy regime was flawed on account of its mistaken underlying assumption that globalization has identical effects on all participating economies. Indeed, the history of

industrialization (including India's experience under colonialism) is testimony to the fact that industrialization in some regions had often opposite effects on other parts of the world economy. The period of globalization itself has been one where the advanced economies have been de-industrializing and the geography of world production has changed with an increasing share of it being concentrated in the developing world. However, East and South-East Asia has been the principal area of such concentration and a large part of the developing world has also become subject to premature de-industrialization (Rodrik 2015). In fact, even some of the more advanced economies in East Asia are also de-industrializing and at the world level the share of manufacturing in GDP has been declining. In other words, de-industrialization has become the dominant trend of the world economy in the last few decades and only a handful of countries have managed to escape that trend. How likely was it that India would be one of them simply by liberalizing and opening up?

India's geographical location as well as its comparative economic context always made it an unlikely candidate for emerging as a significant location towards which manufacturing production for the world market would gravitate in a world of free capital and commodity flows. It was not proximate to any of the three advanced regions of the world - namely North America, Western Europe and Japan. However, it was close to East Asia, and in comparison to that region India was behind on almost every indicator that mattered in determining relative competitiveness of locations. East Asia had taken shape as an economic region while the political barriers to such integration in South Asia were too severe. In 1991, India as a country could not even match China, let alone the entire East Asian region, in terms of population size, per capita income, size of the industrial base or physical and human infrastructure. East Asia therefore offered not only a larger market but also the scope for higher productivity, production and lower logistics costs. Technology was also no

source of a competitive advantage for India. She had developed very limited technological development capabilities over time, and the evidence that technological self-reliance has reduced even further with liberalization is compelling (Mani 2009, 2020). The evidence that India thus only had cheap labour, and this too wasn't a source of a decisive advantage as wages even in much of East and South-East Asia were much lower than in advanced countries. As such, not only was East Asia a generally more attractive location for globally mobile manufacturing production - it posed a potential competitive threat even when it came to production for the India's own market.

It is therefore not particularly surprising that liberalization did not succeed in automatically giving rise to any manufacturing export-led industrial growth process. Equally unsurprising is the fact that India's trade with the more industrial parts of the world economy, both advanced and developing - like Germany, Japan, China and other countries in East Asia - has generally tended to be in deficit. The absence of any significant FDI in manufacturing or exports of manufactures by FDI firms is also understandable. Only in a few sectors like pharmaceuticals, for very special reasons that go back to the industrial policy of the past, has liberalization been accompanied by a major export breakthrough (Chaudhury 2013) - accompanied however by increasing import dependence for intermediates like bulk drugs (Kallummal and Bugalya 2012, Joseph 2012). All of these have contributed to India having a persistent tendency towards a current account deficit, despite significant foreign exchange earnings from services exports and remittances, and made the country relatively more dependent on volatile capital flows to cover this deficit (Mazumdar 2014). India's relatively large size and the distinctive nature of its domestic market, on the other hand, have ensured that its domestic industrial base has not been eliminated but expanded - while some parts of this base became capable over time of generating

exports when global demand is high, imports have also thinned out some segments of Indian manufacturing.

Cheap labour has not proved to be sufficient for export competitiveness over a wide range of products. Yet it no doubt would have been important for whatever exports have happened and to check the further replacement of domestic production by imports. Herein lies a great contradiction confronting Indian manufacturing under liberalization - the most important source of its ability to confront global competition, and the success in maintaining that one advantage, is also the reason why industrial growth is demand constrained. Low wages are not enough to create a large export market for Indian manufacturing, but its necessary accompaniment is also a restricted domestic market.

It is a well-established fact that a prolonged stagnation of real wages has been observed in organized Indian manufacturing since the early 1990s and that the wage share in value added has declined considerably (Muralidharan et al 2014, Sen and Das 2015, Sood et al 2014). The limits to this declining share were reached by the end of the 2000s, by which time wage costs became an insignificant fraction of manufacturing cost of production. Accompanying this wage trend was increasing contractualization and informalization of labour even in the organized sector (Sood et al 2014). All of this happened during a period in which per capita income quadrupled; the pay of managerial and supervisory employees, even those in manufacturing, saw a steady rise. Obviously, therefore, the organized manufacturing sector has faced no situation of labour shortage - even in the period in which it expanded employment. This could have only been the case if the employment opportunities created in the economy as a whole were always less than the increasing numbers of those seeking work - and earnings from all alternative employments remained below the wage level in organized manufacturing. Agriculture's inability to sustain an increasing population underlay this situation of a perpetual labour surplus which in turn meant a downward

pressure on wages for even those in employment. Between the lack of work and the low remuneration for it, a large proportion of the Indian population has been stuck in a low-income trap which doesn't allow them to constitute a significant market for manufactured products – this holds true even if relative prices of manufactured products decline.

Low wages in the economy, even in the face of a rise in product per worker, and the consequent effect on the profitability of production activities can of course spur investment in the economy - generating both the incentive for it as well its financing. All investment is manufacturing intensive expenditure and therefore investment can also create a growing demand for manufactured goods even if consumption demand growth is slow. Indeed, periods of relatively rapid growth of manufacturing have been periods of fast investment growth. Such rapid investment growth, to the extent that it was in the manufacturing sector itself, also explains the combination of declining labour-intensity of organized Indian manufacturing and increasing organized sector employment (Nagaraj 2011). However, investment in manufacturing also expands capacity in manufacturing. On the other hand, rapid investment growth in sectors like real estate and manufacturing cannot be sustained on an extremely narrow demand base. On the other hand, the reliance on private investment for infrastructure development is also fraught with problem of sustainability of that investment, exemplified by the NPA problems that have surfaced in India's banking sector in the second decade of the twenty first century (Chandrasekhar & Ghosh 2018). This is what explains why investment has tended to fluctuate (Mazumdar 2008) and also why a prolonged stagnation has set in – as the scope for benefitting from squeezing the wage share has got exhausted -with effects on the growth of industrial output and employment.

A long-term stagnation of wages and insecure employment situation also results in adjustments in the behaviour of employers and the conditions of workers which limit the development of other sources of increasing

competitiveness of Indian manufactures (Tyabji 2000). It incentivizes use of technology merely to intensify labour rather than to achieve productivity increases through technological development proper. On the side of workers, their physical health, their education levels, and their acquisition of skills are all affected adversely by their low income status and the prospects they face. All of these problems are further accentuated under liberalization by the freer access to imported technology. The consequent limits to achieving increases in 'productivity' increases the probability that exposure to global price trends will have an adverse effect on Indian manufacturing through an import of de-industrialization from advanced economies (Rodrik 2015).

Fiscal policy is of course one instrument that could have been used to simultaneously expand demand and employment, to improve the physical and human infrastructure and to address the problems of agrarian distress and increasing inequality - all of which in turn would have short-run multiplier effects and create the conditions for a long run expansion of investment, output, employment and productivity growth in manufacturing growth that was not dependent on maintaining a low wage elastic labour regime. However, with liberalization also came fiscal conservatism and the preoccupation with maintaining low taxes and a low fiscal deficit. This has not allowed the state to step up public expenditure as needed and the nature of Indian integration into the world economy - resulting in a persistent current account deficit, dependence on volatile capital flows and consequent vulnerability of the rupee's value - has only served to reinforce and entrench this conservatism.

## **Conclusion**

A marked continuity rather than change characterizes the effects on the industrial development process in India of the shift in economic policy towards liberalization. Expansion of production and development of new capabilities, and yet a failure of manufacturing to drive a process of

structural change in the economy – this combination has been the stable picture of Indian manufacturing both before and after 1991. With de-industrialization having become a worldwide phenomenon and Indian manufacturing being caught in one of the worst slumps in its history – the possibility of India missing out on the industrialization bus forever is a distinct possibility. If such an eventuality is to be averted, economic policy needs to make decisive interventions - but that cannot be in the direction of increasing labour-market flexibility as is often argued or ‘improving’ the climate for private investment. Indeed, that is no solution precisely because the problem is perhaps too much rather than too little labour-market flexibility and too limited public expenditure. Therefore, the hope if any lies in crafting the conditions for a more autonomous growth process based on India’s domestic market.

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