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Manufacturing Trade Deficit and Industrial Policy in India

by

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1962.¹ It can be seen that till about the mid-1970s, manufactured import ratio (as a percentage of GDP) was quite under control. In fact the import ratio fell from 3.2% in 1962 to 2% in 1976. Since then it increased moderately to about 4.6% in 2001 and then sharply to 11.4% in 2008. So far as manufactured exports are concerned, right up to the mid-1980s, the export ratio remained steady at around 2%. The export ratio accelerated from 2.4% in 1986 to 9.4% in 2008. Reflecting such import and export behaviour, the manufacturing trade balance improved between the early 1960s and the mid-1970s. Again after some deterioration in the late 1970s and the early 1980s, the trade deficit improved from -1.7% in 1986 to 2.1% in 2001. Since then it has started declining – the surplus turning into a deficit in 2006 and reaching a level of -2.1% in 2008. With a sharper fall in imports than in exports during 2009

In Table 1 we have considered the contribution of different manufacturing groups to the overall surplus between 1986 and 2001 and the overall deficit between 2001 and 2008.

By 2001, half of the 45 manufacturing sectors listed in Table 1 had a surplus trade balance. Among these industries, the major ones which contributed to the overall manufacturing trade surplus between 1986 and 2001 are garments (“articles of apparel and clothing accessories”) (28.85% contribution), textiles (25.71%), iron & steel (11.01%), non-metallic minerals (10.48%), specialized machinery (7.39%), pharmaceuticals (6.37%), metals (5.28%), chemicals other than pharmaceuticals (4.00%), motor vehicles and parts (2.96%), cycles and scooters (2.21%) etc. The sectoral percentage contribution has been calculated as the change in the sectoral trade balance (exports minus imports) as a percentage of the absolute value of the change in the total manufacturing trade balance.

These industries with surplus trade balance were well established by the time economic liberalisation started in 1991. Textiles and garments have been in existence for a long time. The other industries listed above are among those which were targeted for development under India’s planning strategy. The strategy succeeded in widening the industrial base. When reforms started, the important industries were not only the traditional ones such as textiles but also several new industries which were consciously developed. The share of the machinery sector (comprising electrical and non-electrical machinery) in the manufacturing value added, for example increased from just 1.2% in the early 1950s to about 12.7% in the early 1990s. The other industries which have significantly gained in importance are chemicals, transport equipment and non-metallic mineral products (Chaudhuri 1998, Table 6.2).

Pharmaceuticals is one of the industries which has contributed significantly to the manufacturing trade balance. We take up the case of this industry below to demonstrate how active state intervention before the 1980s led to the development of the industry and enabled it to play an important role since the 1980s. Singh (2009) has pointed out that the institutions

which had been established in the 1950s and 1960s for the purpose of public health and family planning were instrumental in the development of the pharmaceutical industry since the 1980s (Singh 2009).

(“automatic data processing machines”)

apparatus for line telephony and telegraphy” and for office and computing machinery, the index went down to 31 and 51 respectively in 2007.⁵

Consider the important sectors of aircraft, computers and telecommunication equipment

By the time India became independent in 1947, the international pharmaceutical industry was transformed into a vast R&D intensive industry dominated by the MNCs. To develop the industry the government not only encouraged but invited the MNCs to start manufacturing operations in the country. But despite the favourable attitude and persuasion of the government, the response of the MNCs was poor. They preferred imports to local production. Even when they started some manufacturing, they were keen to formulate imported bulk drugs rather than to produce the bulk drugs and develop the production base in the country. It was primarily because of the reluctance of th

and 1960s, direct interventions by the government in the 1970s and 1980s not only provided the indigenous sector the space and the opportunity to develop but also compelled the MNCs to undertake manufacturing investments from basic stages.

By the time the reforms were started in the 1990s, Indian companies had emerged as a dominant force. Indian companies became a major player in the global pharmaceutical industry receiving world-wide recognition as a low-cost producer of high quality drugs exporting not only to other developing countries but increasingly also to developed countries particularly the United States (Chaudhuri 2010). Unlike in aircraft, computers and telecom equipment (Figures 2 to 4), the pharmaceutical industry experienced trade surplus all through the 1990s and 2000s (Figure 5). In fact while the contribution of the former to trade balance deteriorated sharply during the 2000s, that of the pharmaceutical industry improved (Table 1).

The market share of larger firms has been increasing in the domestic market (Chaudhuri 2010). Abolition of industrial licensing may have helped the larger firms. Import liberalization too may have helped some Indian companies. China has been offering some bulk drugs and drug intermediates at prices lower than what Indian competitors could do. Indian exporters have benefitted from cheaper bulk drugs and drug intermediates imported from China.¹¹ Indian companies could exploit the opportunities arising out of reforms because by then they had acquired the competence to do so. As we will see below, in the case of telecom equipment, manufacturing opportunities remained under-utilized after reforms because indigenous technology was not developed and the MNCs who have the technologies neither used nor transferred technologies in the country.

For the drug MNCs, the situation is similar to that during the 1950s and 1960s. Interestingly enough their current behaviour too is reminiscent of the earlier period. With the withdrawal of restrictions in the 1990s, the MNCs have started disinvesting in manufacturing operations. They have sold a number of plants which they had set up earlier under government pressure. The days of product monopolies and high prices are back in India. The MNCs have started marketing new patented drugs at exorbitant prices particularly for life threatening diseases such as cancer. Imports of high priced finished formulations are expanding rapidly with manufacturing investments lagging far behind. With the taking over of some Indian companies, for example Ranbaxy, the MNC share in the domestic formulations market has risen dramatically in recent years (Chaudhuri 2012). A few more Ranbaxy-type takeovers can shatter the confidence of the Indian generic industry and “neutralize the sting out of India’s generics revolution” (Ministry of Commerce & Industry 2008, pp. 42-44). The need for government regulation is being advocated in the pharmaceutical industry also which is more matured than the telecommunications equipment manufacturing industry discussed below. Some provisional changes have been made in the pharmaceuticals FDI policy in India in

2011. To acquire domestic units, MNCs now require prior permission from the government. Pharmaceutical FDI policy has become a very controversial issue. The final policy is yet to evolve.¹²

Economic Reforms and the underdevelopment of the telecommunications equipment manufacturing industry:

The telecommunications sector can broadly be classified into telecom services (mainly landline and cellular telephone services) and telecom equipment manufacturing. Before 1984, both telecom services and telecom equipment manufacturing were government monopolies. The Department of Telecommunications (DoT) of the central government was the sole service provider and manufacturing of the entire range of telecom equipment (switching, transmission and terminal equipment) was exclusively reserved for the public sector. The Indian Telephone Industries Ltd (ITI) was the main public sector undertaking operating in this sector (DOT 2004, p. 1).

Reforms in the telecom sector started in 1984. The entry of the private sector in telecom equipment manufacturing was initiated in that year with the government permitting private firms to manufacture terminal equipment, mainly telephone instruments. So far as switching equipment is concerned, the government set up in the same year the public sector research organization, Centre for Development of Telematics (C-DoT) to indigenously design, develop and commercialize digital electronic switching systems. In 1991 the entire telecom equipment manufacturing was de-licensed and entry of Indian private firms and foreign firms permitted. In telecom services, the private sector was permitted in 1992 to provide cellular mobile services and other value added services such as radio paging, video conferencing. In 1994 the private sector was permitted to enter basic telephone services as well (DOT 2001, p. 5).

Liberalization of telecom services ushered in a new era in India. Before the 1990s, telecom access was hardly a priority in the state owned telecom sector. Access to telephone was essentially considered as a “luxury” meant for the elites and public investment in the sector was low (Srinivasan2010). The result was that access to telephone and other telecom services were in a very poor state. One had to wait years before getting a phone connection. The priorities of the government altered radically in the 1990s. The National Telecom Policy, 1994 (NTP, 1994)¹³ stated that “the focus of the Telecom Policy shall be telecommunication for all and telecommunication within the reach of all. This means ensuring the availability of telephone on demand as early as possible”. Acknowledging that the government will not be able to generate the resources to achieve the target of universal access, NTP, 1994 stressed the need for private investment “in a big way to bridge the resource gap”. What one witnessed thereafter is active state intervention to realize these objectives. Under the NTP, 1994, the private firms were given licenses through competitive bidding on the basis of the

fixed fee quoted by the firms. When the entry of the private sector and the expansion of the telecom network were found to be less than what was projected, the government took the proactive step to revise the telecom policy in 1999. The government agreed with the view of the private sector that the fixed fee system was not remunerative enough for private investment and in the New Telecom Policy, 1999 (N

public sector service providers BSNL and MSNL started buying from Indian suppliers who were not manufacturing but merely importing and supplying to them. The existing manufacturers – ITI and the MNCs - too started trading activity, importing and supplying equipment to service providers (DOT 2004, pp. 2-5).

Several other factors intensified this tendency. In line with India's commitment to the World Trade Organization, both tariff and non-tariff barriers have been progressively lowered. The import duty on finished telecom equipment was 65% in the mid-1990s. It came down to 35% by the late 1990s and 15% by the early 2000s. By the mid-2000s import duty on telecom equipment was abolished together. This was not mandated by the General Agreement on Tariffs and Trade (GATT). Unlike GATT wh

were on foreign technologies could not do in several decades (Saha 2004 and Mani 2005). What C-DoT demonstrates is the importance of a supportive industrial policy in developing indigenous technology and industry. The government intervened in three crucial ways: in funding C-DoT, in giving it a free hand to pursue clearly stated objectives and supporting it

not in the form of de-regulation as in the 1990s but reforms to design and implement a strategy for technological and industrial development in the country as in the late 1980s. In other words, what is required is active state intervention to promote domestic manufacturing of telecom equipment. There is no indication to suggest that a re-thinking of the strategy has taken place at the country's highest decision making level. But at the micro level, an attitudinal change is discernible among those who are more directly aware of and involved with the industry. Recognising the crucial importance of an industrial policy, the Telecom Equipment Manufacturers Association of India (TEMA) has been asking for quite some time for a state led strategy involving all the stakeholders (Aggarwal 2012¹⁶). Again, the reports of government working groups comprising of government officials from relevant administrative departments and industry representatives have been acknowledging the difficulties of domestic manufacturing and have been suggesting corrective measures (see for example, DOT 2006).

Perhaps the most significant is the attempt by the Telecom Regulatory Authority of India to develop a "telecom equipment manufacturing policy" (TRAI 2011). It has recommended a series of steps to promote domestic manufacturing. These recommendations emerged through a consultative process involving the stakeholders. Telecom equipment is broadly classified between telecom network equipment and end-user equipment (such as mobile handsets, dongles, modems). The former is further classified between active equipment (such as fixed and mobile switches, routers, base stations, transmission equipment) and passive equipment (such as cables and towers). Passive equipment is largely sourced locally (TRAI 2011, p. 18). In recent years a number of MNCs (such as Nokia, Samsung, LG, Huawei) and some local players (for example Micromax, Spice Mobile) have started manufacturing mobile handsets. As a result production has improved and exports have also started (TRAI 2011, pp 37, 44). This has generated an expectation that India may develop as a manufacturing hub (Mani2008; KPMG and FICCI 2010). Even before handset manufacturing began, some companies such as VMC and Tejas Networks took

country. Among the other recommendations are loans at subsidized rates of interest, providing venture capital, reducing and rationalizing the structure of indirect taxes so that local production is not disadvantaged, income tax holiday, providing infrastructure facilities through telecom clusters, establishing proper testing and certification facilities. Recognizing that R&D is vital in this technology intensive industry where rapid changes take place, TRAI has recommended the setting up of a Telecom Research and Development Corporation for managing a research fund and setting up a telecom research park.

Some of these recommendations have been accepted in the National Telecom Policy, 2012 (NTP, 2012) announced by the government.¹⁸ Like the earlier telecom policies, NTP, 2012 has stressed the importance of domestic production. In fact it has stated that one of the missions is to “to make India a global hub for telecom equipment manufacturing”. A lot, however will depend on how these policy pronouncements are implemented. So far as mandatory domestic purchase is concerned, NTP, 2012 has diluted the recommendation of TRAI. A rider has been added that indigenous products must be “comparable in price and performance to imported products.” This seems to be the result of the strong objections from the Cellular Operators Association of India and MNC equipment manufacturers¹⁹. Questioning the capability of indigenous enterprise to develop technology is a typical way to suppress the potential and continue with the domination of the MNCs. It may be recalled that C-DoT faced quite a hostile environment. It required direct intervention from the top political leadership to support the indigenous initiative and enable C-DoT to do what it did. Mandatory purchase requirement at that time did not make C-DoT less efficient. In fact C-DoT showed that it is possible not only to develop technologies as per international standards. The products can be cheaper and more suited to Indian conditions. If the telecom equipment industry is to develop properly, piece meal half-hearted steps will not do. What is required is a mission with full political support as in late 1980s when C-Dot was set up.

Conclusion

Manufacturing trade balance in India did not worsen after the economic reforms started in 1991. In fact it improved till the early 2000s. But this as such does not reflect the success of the reforms of the 1990s or for that matter the reforms of the 1980s. It is rather the result of the successful growth of industries such as pharmaceuticals which the earlier planning strategy helped to develop. If results were not always visible earlier it was because it takes time to develop new industries in developing country settings. In pharmaceuticals the actions in the 1950s and the 1960s turned out to be inadequate. The growth since the 1980s followed some radical government interventions in the 1970s.

Economic reforms of the 1990s led to the growth of services such as air travel and telecom services. The structure of demand changed in favour of capital goods such as aircraft and new

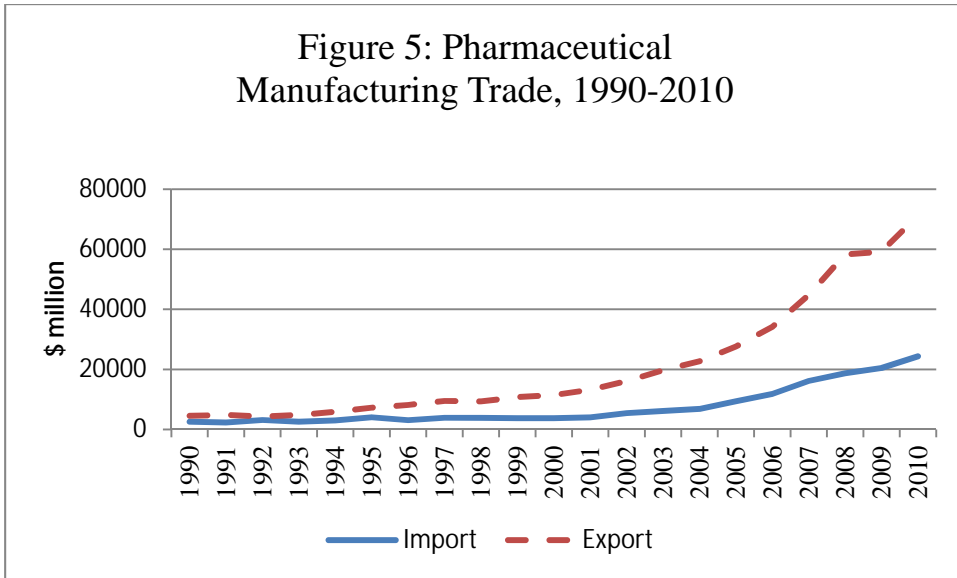
types of telecom equipment. But the manufacturing base did not respond appropriately. Reforms did not help the domestic manufacturing of these goods. Opportunities arising out of reforms could not be exploited by domestic manufacturers. Underdevelopment of these industries is the main reason why manufacturing trade deficit has worsened since the early 2000s.

Economic reforms – withdrawal of government regulation and freedom to the private sector – are at best an opportunity for the firms which have already acquired the capabilities and capacities to develop further. It does not automatically lead to the creation of such competencies in firms which lack these in the first place. In developing countries in underdeveloped industries, reforms basically favour the MNCs from the developed countries which dominate these industries. This does not guarantee the development of the industry in developing countries. The government by regulating the MNCs and supporting indigenous efforts can help the development of these i

Source: same as in Figure 2

Note: SITC Rev-2 codes (752 + 7599) for auto

Figure 5: Pharmaceutical Manufacturing Trade, 1990-2010



Source: Same as in Figure 2.

Note: SITC Rev-2 code 541 for medicinal and pharmaceuticals products.

Table 1 Sectoral Manufacturing Trade balance, 1986, 2001 and 2008

SITC Rev-2 codes	Manufacturing groups	Trade balance 1986 \$ lakhs	Trade balance 2001 \$ lakhs	Trade balance 2008 \$ lakhs	Sectoral contribution 1986-2001 (%)	Sectoral contribution 2001-2008 (%)
541	Pharmaceutical	-406	9219	39532	6.37	8.28
5-541	Chemicals exc pharmaceuticals	-16404	-10356	-176567	4.00	-45.42
61	Leather	5623	6908	7746	0.85	0.23
62	Rubber	175	2169	6137	1.32	1.08
63	Wood	61	26	20	-0.02	0.00
64	Paper	-1651	-2825	-12403	-0.78	-2.62
65	Textiles	9873	48701	80200	25.71	8.61

786	Trailers, and other vehicles, not motorized	55	38	-166	-0.01	-0.06
791	Railway vehicles and associated equipment	-189	114	-1692	0.20	-0.49
792	Aircraft and associated equipment, and parts	-1189	-2039	-106774	-0.56	-28.62
793	Ships, boats and floating structures	-1410	-3046	-21895	-1.08	-5.15
81	Sanitary, plumbing	14	79	-822	0.04	-0.25
82	Furniture and parts	12	136	190	0.08	0.01
83	Travel goods, handbags	536	3142	6702	1.73	0.97

Articles of apparel and

84

Table 2 Index of Domestic Production Ratio

(Base year: average of 1989 and 1990)

Year	Chemicals exc pharmaceuticals	Pharmaceuticals	Iron & steel	Metal products	General purpose machinery	Special purpose machinery	Office and computing machinery	TV and radio transmitters and apparatus for line telephony and telegraphy
1991	100	103	103	103	104	104	107	105
1992	97	98	104	111	102	96	104	102
1993	101	100	106	106	102	89	101	98

Table 2 (Contd)

Year	Electrical machinery	Household equipment	Motor vehicles	Motor vehicle parts*	Railway
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data. ASI production data corresponding to SITC Rev-2 group of automatic data processing machines and parts (codes 752+7599) and of telecommunication equipment and parts (codes 764) are not available. Hence in this table we have considered the entire group of office machines and automatic data processing machines (code 75) and electrical line telephonic and telegraphic apparatus and parts, television, radio-broadcasting; transmitters and telecommunications equipment (codes 7641+7643+7648+76491) to correspond to ASI groups 300 and 322 respectively – see the Appendix.

Table 3 Growth of services in India

Year	Communication services (GDP at constant prices) (annual growth rate) (%)	Telephone connections (landline) (million nos)	Cellular subscribers (million nos)	Export of software services in US \$ (annual growth rate) (%)	Passengers flown in domestic scheduled operations
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Appendix Table of concordance between NIC, 2004 and SITC Rev-2 classifications

NIC 2004 Code	NIC 2004 description	SITC Rev 2 code	SITC Rev 2 description
24-242.3	Chemicals and chemical products except pharmaceuticals, medicinal chemicals and botanical products	5-541	Chemicals and related products except medicinal and pharmaceuticals products
242.3	Pharmaceuticals, medicinal chemicals & botanical products	541	Medicina

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¹⁹ See the Press Release, “COAI response to TRAI Recommendations on “Telecom Equipment Manufacturing Policy” issued by the Cellular Operators Association of India (accessed from its website, www.coai.in); “Telecom gear makers' body split