India and China: Trade and Foreign Investment

Arvind Panagariya*

* The author is Professor of Economics and Jagdish Bhagwati Professor of Indian Political Economy at Columbia University, New York NY 10027. He is grateful to T. N. Srinivasan for numerous helpful comments on an earlier draft. He can be contacted at ap2231@Columbia.edu.

Table of Contents

India and China: Trade and Foreign Investment

Arvind Panagariya

1 Introduction

Most informed observers agree today that the Indian economy has turned a corner. They also agree that the opening to world markets has been a key element in the success achieved to-date and will continue to play an important role in the future. Self-reliance and the obsession for diversification of production, which had dominated the thinking of the policy makers in India for several decades, has, thus, given way to the view that an open trading environment can help catalyze and sustain faster growth. Indeed, India's success in the information technology (IT) sector has led journalist Thomas Friedman to (erroneously) go so far as to suggest that the world has turned flat and that the countries such India can now produce and compete with the United States in all products.

Nevertheless, for an Indophile, comparing the performance of the external sector of India to that of China is a humbling experience. Having completed my review, I even wonder whether there is any justification for depicting the external sectors of the two countries on the same graph other than to show that they are in different leagues.[1] Journalists, economists and policy analysts are justifiably impressed with the phenomenal success of the Indian IT sector. But even this performance fades in comparison to several of the leading exports of China.

---

[1] I hasten to add, however, that we should be careful not to make future prediction on the basis of this comparison. Twenty-five years ago, India was seen as a lost cause with no hope of bringing the poverty ratio down unless the development strategy then in place was drastically changed and such as change was not foreseen likely. But the gloom and doom scenarios many had depicted at the time have now been proven false primarily because many elements of the strategy, in particular with respect to foreign trade and investment, have changed.

For example, we are used to thinking of textiles, apparel, footwear and toys as the major exports of China. Yet, with the exception of apparel, these products are no longer the leading exports of China today. At the two-digit Standard International Trade Classification (SITC) level, three of the top four exports of China—office machines & automatic data processing machines; telecommunications, and sound recording and reproducing apparatus and equipment; and electrical machinery, apparatus & appliances—were virtually absent from the export list twenty years ago. In the first of these three categories alone, China registered $87 billion worth of exports in 2004. In comparison, the *total* merchandise exports of India in 2004 were $80 billion. Put differently, during each of years 2002, 2003 and 2004, the latest three years for which I have comparable data, the *increase* in China's exports over the previous year was more than the absolute level of India's exports.[2]

Both India and China had highly restrictive trade regimes until the late 1970s. Both employed a variety of overlapping restrictions, some of which were either redundant or mutually canceling. Both began to open to international trade in the late 1970s in modest ways but China moved faster. Liberalization in India received some impetus in the second half of the 1980s under the then Prime Minister Rajiv Gandhi, especially through de-licensing of many imports, introduction and expansion of export incentives that partially offset the anti-trade bias of the regime, and a significant depreciation of the exchange rate. But India's liberalization became systematic only with the launch of the major reform package of 1991. In the 1990s and beyond, India undertook considerable

---

[2] Economist Nicholas Lardy, a leading scholar of the Chinese economy, has made this comparison during several panel discussions on India and China in which we have jointly participated.

liberalization of not just merchandise trade but also services trade and direct foreign investment.

As for China, it initially focused on liberalization through decentralization of trading rights to the provincial and city administrations and multiplication of the so-called "foreign trade companies". It also relied heavily on the creation of Special Economic Zones and Open Cities that were allowed more liberal economic environment than available elsewhere in the country. Subsequently, in the 1990s, China came to focus more directly on the liberalization of the conventional instruments such as licensing and tariffs. By the time it was granted entry into the WTO at the Doha Ministerial Conference in 2001, China already had a relatively liberal regime in the area of industrial goods trade, at least by the developing country standards. And with its WTO entry conditions now nearly fully implemented, its merchandise trade regime is one of the most open among the large developing countries including India.

The WTO entry conditions have also led to considerable liberalization of services trade in China. Doors to virtually all services sectors—distribution, construction, banking, insurance, telecommunications and professional services—have been opened wider on account of the obligations China was required to undertake by other WTO members. Nevertheless, while in some specific areas such as the distribution sector China may be more open, India is overall more open than China in services trade. From a political economy standpoint, whereas China's opening of services has been externally driven as a part of the WTO negotiations, it is unilateral liberalization by India that has opened its services market. This means that prospects for further opening in services may well be better in India than China.

Both India and China have reaped handsome returns to opening up. Because China had better complementary conditions for the expansion of manufacturing than India, it has been more successful than the latter in exploiting its huge comparative advantage in labor-intensive products. Indeed, as just noted, the growth of the Chinese labor-intensive manufactures exports has been spectacular. India too has been successful in expanding its exports but its quasi-spectacular success has been so far limited to the software industry. In manufacturing, to-date, the labor-intensive industry in India has produced only modest success. The same comment applies to direct foreign investment (DFI): to-date: DFI flows into India have been modest when compared to China. On portfolio investment, which is more volatile in the short run, India has done better.

In Section 2, I give a brief discussion of the growth experience of India and China. In Section 3, I describe the evolution of trade flows at the aggregate level. In section 4, I discuss the composition of exports and imports of goods. I also discuss document briefly the success of India's software industry in this section. In Section 5, I briefly compare the foreign direct and portfolio investment flows in the two countries. In Section 6, I explore the connection of trade and foreign investment flows to policy changes during the last quarter century. For the interested reader, I offer a much more detailed discussion of the policy changes in an appendix available upon request. In Section 7, I discuss why India continues to lag behind China. Finally, in Section 8, I turn to two specific external trade issues of relevance to India and China: the Doha Round and an India-China free trade area (FTA).

2 Growth

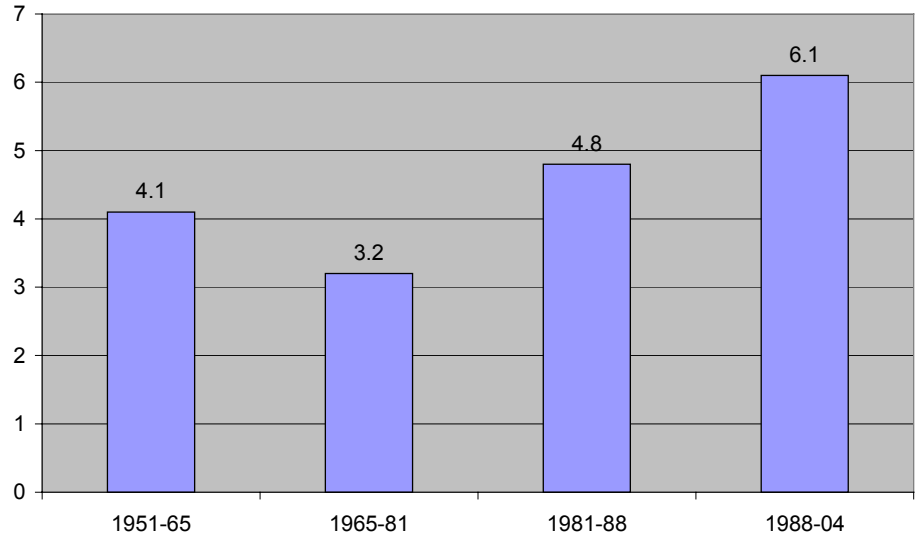
Any discussion of trade and investment policies must be conducted in the context of the growth experience. The virtual consensus view among economists studying India and China is that both countries have been growing rapidly since the early 1980s with the latter cloaking a substantially higher rate of growth. Specifically, most observers place the rate of growth of India at approximately 6 percent and of China between 8 and 10 percent per year during the 1980s and 1990s. By simultaneously but erroneously dating the beginning of the reforms in India in 1991, some analysts have gone on to claim that reforms contributed precious little to India's growth.[3]

I argue in Panagariya (forthcoming, chapter 1) that the growth experience in India can be best related to policies if we divide the period between 1951-52 and 2003-04 into the following four phases: 1951-65, 1965-81, 1981-88 and 1988-04. Growth rates during these four phases are as shown in Figure 1. It is immediately clear from this figure that though there was an upward shift in the growth rate in the early 1980s, it much more modest than to the 6 percent that many analysts claim. It is only in the late 1980s that the growth rate shifted to 6 percent plus level.

---

[3] See, for example, DeLong (2004), Rodrok (2004) and Rodrik and Subramanian (2005). Panagariya (2004a) originally pointed out the error underlying the thesis as offered by DeLong (2004) and Rodrik (2004). He noted that while the growth rate in India had shifted up in the 1980s, until 1987-88, it was substantially below 6 percent and that piecemeal reforms that had begun in the early 1980s and accelerated in the second half of the 1980s had played an important role in the shift in the growth rate. Subsequently, Rodrik and Subramanian (2005) elaborated the DeLong-Rodrik thesis but were thoroughly criticized by Srinivasan (2005). Without mincing words, the latter opens his critique as follows: "This is a disappointing paper. It sees a mystery and fails to convince through analysis why it does. Had the authors been familiar with Indian economic literature, they might not have written it!"

Figure 1: India: Growth Rates During Four Phases



Source: Author's calculations using data in the Reserve Bank of India (2005, Table 2, Column 2).

India had grown less than 1 percent per annum during the first fifty years of the 20th century. Starting in the 1950s, it successfully broke out of that mode, registering a respectable 4.1 percent growth of the GDP at factor cost between 1951-52 and 1964-65.[4] But whereas countries such as the Republic of Korea and Taiwan, which had exhibited growth rates similar to those of India in the 1950s and early 1960s, managed to accelerate their growth rates to 8 to 9 percent levels, India slipped into prolonged stagnation. The latter's growth rate dipped to 3.2 percent during 1965-81. A small turn for the better came in the early 1980s with the result that India was able to register a growth rate of 4.8 percent during 1981-88. But the shift to the 6 percent plus growth rate did not take place until the late 1980s.

[4] India's fiscal year runs from April 1 to March 31. Therefore, a year such as 1951-52 refers to the period starting on April 1, 1951 and ending March 31, 1952. Unless otherwise noted, a period such as 1951-65 relating to India in this section would refer to years between 1951-52 and 1964-65 inclusive of the end-point years.

Why is it then that so many analysts hold the view that the growth rate in India had shifted to the 6 percent level in the early 1980s? The explanation for this fact lies in two related facts. First, India grew at the super-high rate of 7.6 percent during the last three years of the 1980s: 1988-89 to 1990-91. Second, story-telling being smoother when facts can be distinguished by decades rather than periods that awkwardly begin or end in the middle of the decades, there is a natural tendency on the part of the analysts to divide time periods according to decades. When this is done, however, one inevitably lumps the super-high growth period between 1988-89 and 1990-91 together with the much lower-growth period spanning 1980-81 and 1987-88. The result is a growth rate of 5.6 percent during 1981-91, which is virtually indistinguishable from the growth rate of 5.8 percent during 1991-01.

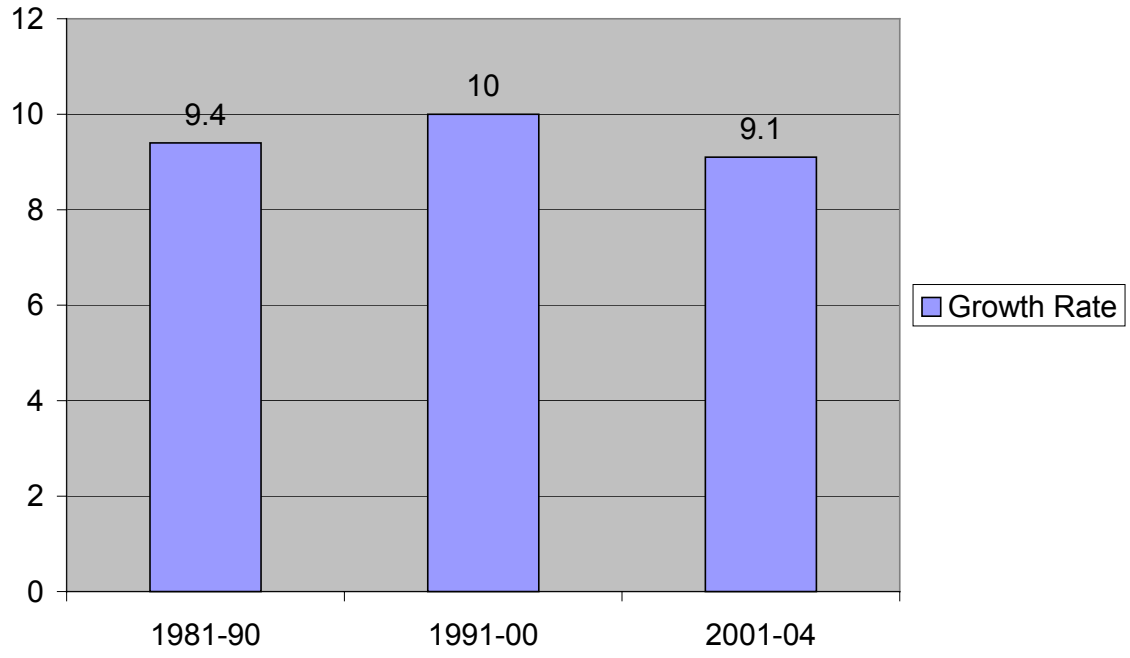
But this is clearly a distortion of the true evolution of the economy since India did not begin to grow at near 6 percent rate until the late 1980s. The timing of the shift is crucial: the 4.8 percent growth more or less represents a return to the rate that had already been achieved in the 1950s and early 1960s. And this return is readily explained by the piecemeal liberalization that started in the late 1970s and continued into the mid 1980s. Moreover, once we take account of the acceleration of liberalization under Rajiv Gandhi and add to it the (unsustainable) contribution of foreign borrowing and expansionary fiscal policies, we are also close to explaining the super-high growth during 1988-91. In contrast, if we stick to the calculations by the decades, we are hard pressed to explain why the growth rates during the 1980s and 1990s were virtually identical despite near-radical changes in the policy regime in the 1990s. In turn the distorted view of the

growth gives credence to the distorted conclusion, articulated by Rodrik (2003), that the reforms of the 1990s made little contribution to India's growth.

Turning to China, let me point out two important facts. First, there are widespread claims that China carried out the reform of agriculture before it began to open its economy to the world markets. Strictly speaking, this is a false claim. According to the careful discussion in Lin (1988), experiments on a very limited scale with the household responsibility system in agriculture were surreptitiously conducted starting at the end of 1978 in Anhui province though the system was actually prohibited in the document issued by the Fourth Plenary Session of the Eleventh Central Committee of the Communist Party of China in September 1979. Success of the experiment led the central leadership to allow the system in hilly and mountainous areas. Thought he system spread rapidly beyond these areas, its full official recognition did not come until the end of 1981.

In comparison, according to the discussion in Panagariya (1993), China launched its open-door policy in December 1978. For the first time in three decades, this policy permitted foreign investment into China. In 1979, China went on to launch the four Special Economic Zones (SEZs). The same year, it also opened the door to exports and imports much wider by giving greater freedom to provinces to trade and by extending the rights to trade to several new foreign trade companies. China also began to give foreign exchange retention rights to exporters and devalued its currency in the early 1980s. Thus, the process of opening up was very much under way side by side with the implementation of the household responsibility system in agriculture. The main difference was that the latter spread rapidly while the process of external liberalization was gradual and still incomplete.

Figure 2: Official Growth Rate in China

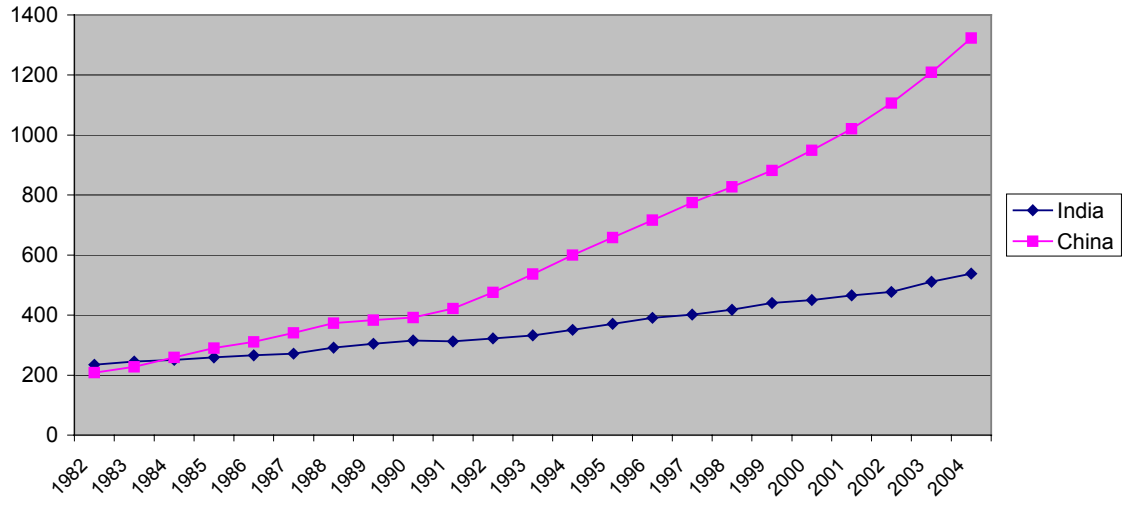


Source: Author's calculations using data in the *China Statistical Year Book 2005* (Table 3.4).

Second, there remains disagreement on the precise growth rates in China. Many sources view the official Chinese estimates of growth rates as excessively high and offer their own lower estimates. But for purposes of broad comparisons with India, the disagreements are small except in the case of the OECD whose estimate of 6 percent growth during 1986-94 is well below offered by all other sources. For example, Lardy (2002, Table 1-2, p. 12) notes that the official Chinese sources place the growth rate during 1978-95 at 9.4 percent whereas the World Bank places it at 8.2 percent. Both of these figures are substantially higher than the growth rate achieved by India during the same period. Keeping this broad-picture objective in mind, I take the constant-price GDP indicators in the *China Statistical Year Book 2005* (Table 3.4) to calculate the GDP growth rates shown in Figure 2. According to these calculations, China grew 9.4 percent

per annum from 1981 to 1990, 10 percent from 1991 to 2000 and 9.1 percent from 2001 to 2004.

Figure 3: Per-capita GDP in India and China at 2000 $US



Source: World Bank, *World Development Indicators*, 2005.

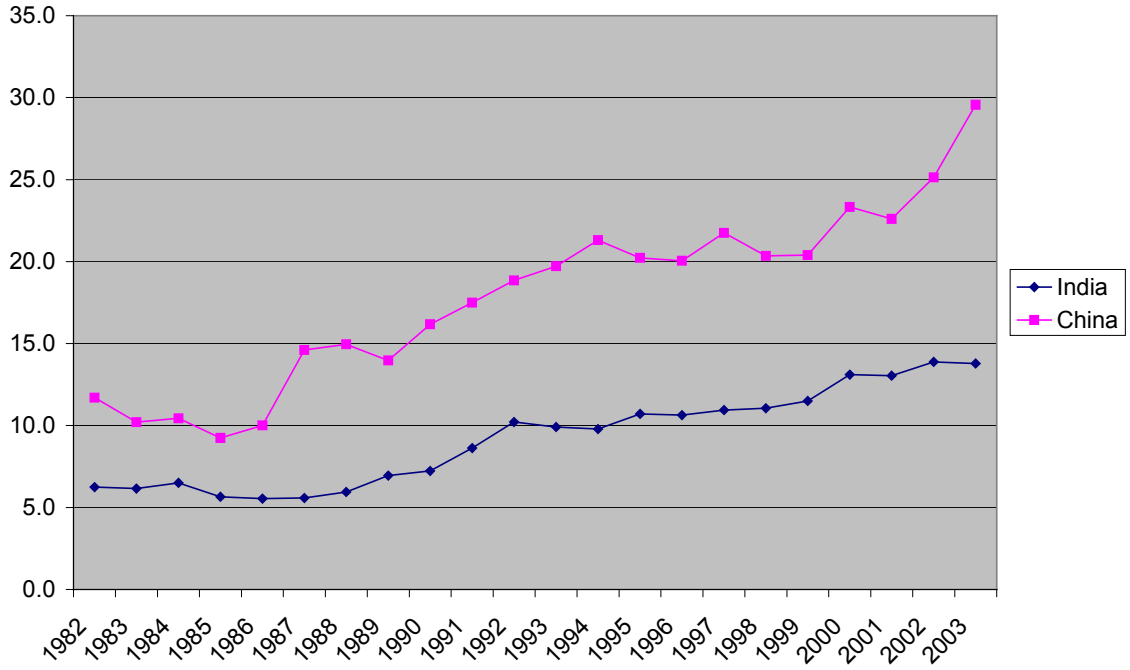
Before I conclude this section, it is important to note that in the early 1980s, India and China had approximately equal GDPs and India had marginally higher per-capita GDP. As we have just seen, around this time, whereas India was barely beginning to emerge out of one-and-a-half decade of slow growth, China had already shifted to the near-double-digit growth rate. Based on the *World Development Indicators* (WDI) data, per-capita GDP in India annually grew 3 percent during 1983-87 and 5.2 percent during 1988-90 or, equivalently, 3.8 percent over the entire period. In contrast, per-capita GDP in China grew at the annual rate of 8.3 percent during 1983-90. Consequently, per-capita income of China reached 1.25 times that of India in 1990 and 2.4 times in 2004. Figure 3 shows the evolution of per-capita GDPs in the two countries.

3 Growth in Total Trade

Tables 1 and 2 summarize the evolution of aggregate exports and imports of goods and services in India and China between 1982 and 2003. The choice of these end-point years is dictated by the availability of comparable data in the World Development Indicators (WDI) database. With the exception of the memo items at the bottom, all other indicators of trade in Tables 1 are presented as proportions of either the relevant GDP or world trade. The corresponding absolute values can be readily derived using the GDP data. For example, we can infer that the total exports of goods and services by India and China in 2003 were $83 billion and $485 billion, respectively.

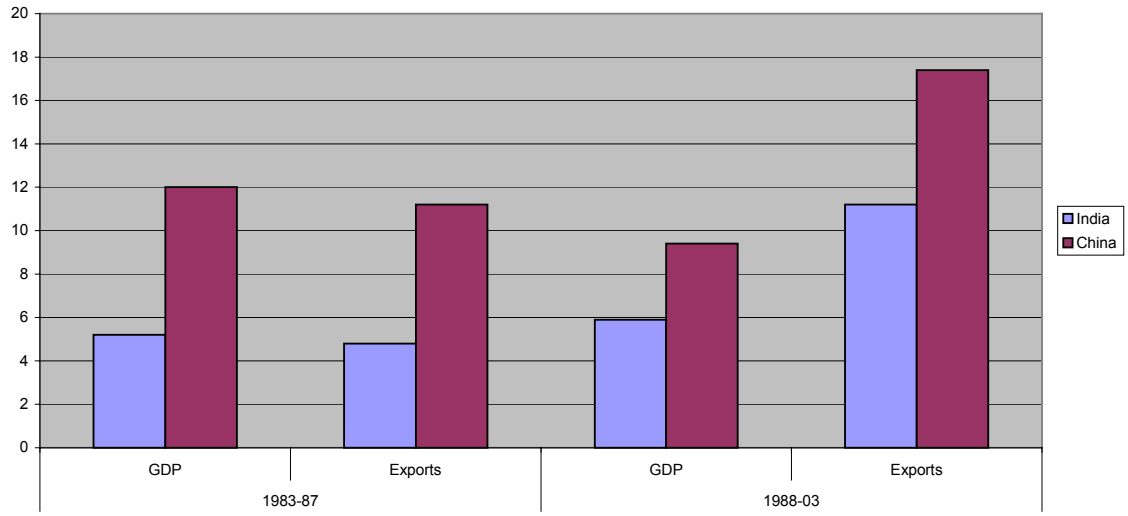
Three features of the evolution of trade can be noted. First, in terms of exports, whether of goods and services or just goods, China was significantly more open than India even in 1982. Because India ran a large trade deficit in that year, the gap in openness in terms of imports was smaller. During 1982-03, exports and imports expanded far more rapidly than the GDP in both countries so that exports and imports of goods as well as services as a proportion of the GDP rose sharply. But again, trade grew far more rapidly in China than in India (table 2). By 2003, China looked far more open than India in terms of the shares of exports and imports in the GDP. The total trade in goods and services as a proportion of the GDP rose from 15.2 percent in 1982 to 29.4 percent in 2003 in India. It rose from 21.1 percent to 57 percent over the same period in China. Figure 4 shows the evolution of the ratio of exports of goods and services as a proportion of the GDP.

Figure 4: Exports of Goods and Services as Proportion of the GDP



Second, from early to mid 1980s, growth in trade in both India and China was substantially slower than subsequently. In India, the real exchange rate first appreciated and was not reversed until the mid 1980s (Joshi and Little 1994, p. 159) and in China the government specified export and import targets for most products (Lardy 2002, p. 55). In the second half of the 1980s, India devalued the nominal effective exchange rate by as much as 45 percent and continued the process through the 1990s. China did the same alongside progressively letting independent foreign trade companies and enterprises take charge of trades and introducing price incentives through foreign exchange retention rights and progressive freeing of imports. The contrast in the performance between 1983-87 and 1988-03 as reflected in the growth of the GDP and exports in the WDI 2005 data is shown in Figure 5.

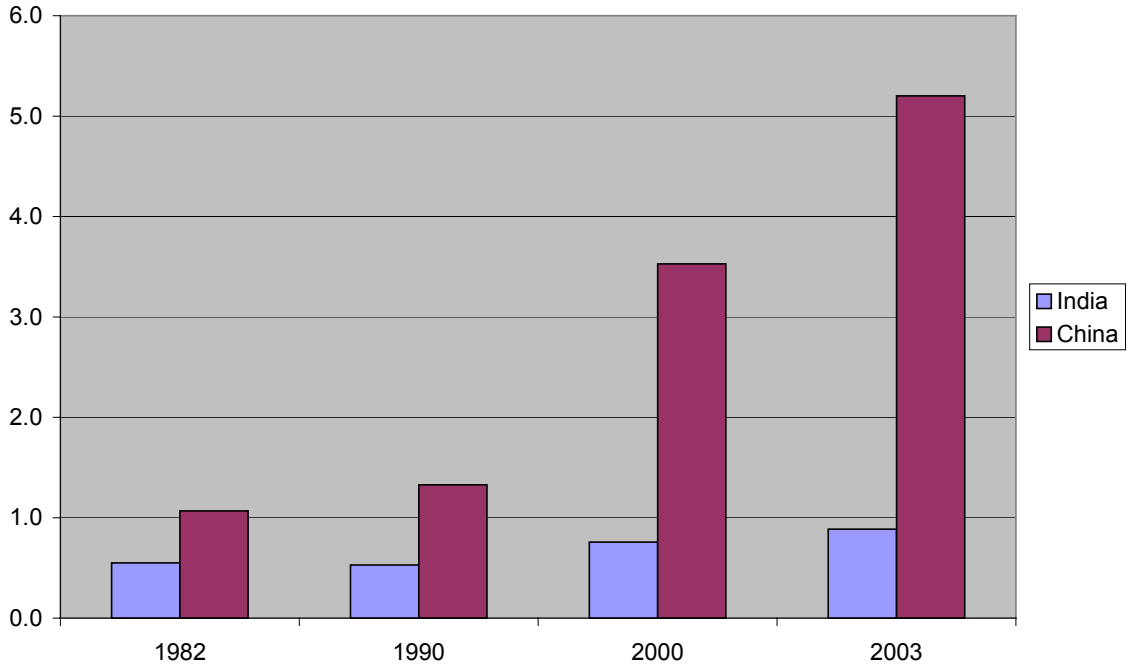
Figure 5: Growth in GDP and Exports of Goods and Services



Third, because the GDP in China grew almost twice as fast as in India, the comparison between trade-to-GDP ratios of the two countries masks the phenomenal growth of the Chinese trade. A better idea of the true difference can be gained by comparing the shares of exports of the two countries in the world exports. In 1982, India and China had 0.5 and 1.1 percent shares in the world exports of goods and services, respectively. By 2003, while India's share rose to only 0.9 percent, that of China jumped to 5.2 percent. If we do the comparison in terms of just goods exports, the performance of China looks even more impressive. Its share during the period rose from 1.2 percent to 5.9 percent. Figure 6 depicts the evolution of the share of exports of goods and services in the two countries over time.[5]

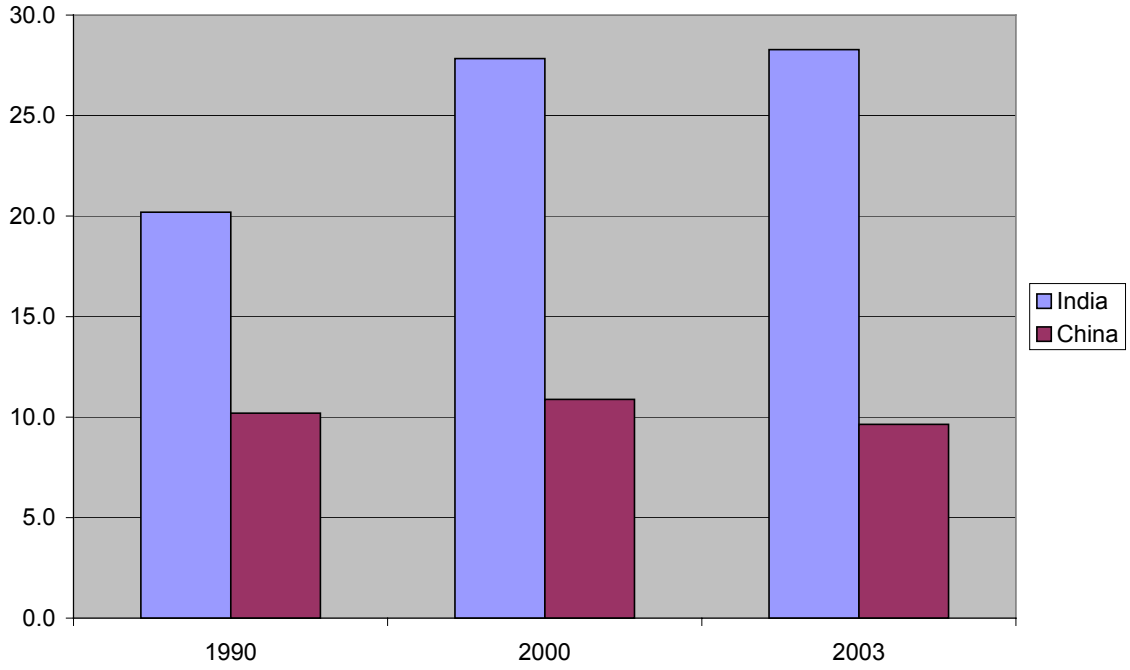
[5] Based on the World Trade Organization (2005) data, which are available from 1994 to 2004, the picture is only slightly different. China's share in the world goods and services rose from 2.6 percent in 1994 to 5.8 percent in 2004. For India, the rise was from 0.6 to 1.0. If we restrict ourselves to merchandise exports, China's share rose from 2.8 percent to 6.5 percent and India's from 0.6 to 0.8 over the same period.

Figure 6: Share of exports of goods and services in the world market



Finally, services exports have always had a much larger share in the total exports in India than in China. Moreover, services exports in India have grown far more rapidly than goods exports since 1990 with the result that their share in total exports has gone up from 20.2 percent in 1990 to 28.3 percent in 2003. The opposite is true of China: the low share of services in its exports has marginally declined over the period from 10.2 percent in 1990 to 9.6 percent in 2003. Figure 7 captures these changes.

Figure 7: Share of services in exports



4 The Patterns of Trade

I divide the discussion of the pattern of trade into three subsections: merchandise exports; merchandise imports; and services exports.

4.1 Merchandise Exports

As I discussed in Panagariya (2004), a partial answer to the differences between the economic performances of India and China lies in the differences between the patterns of their exports. In the late 1970s and early 1980s, there was no clear pattern of trade in terms of factor intensities in China. Reflecting the dominance of central planning whose primary objective was to somehow generate foreign exchange, the country opportunistically exported what it could. As a result, its exports included some very capital-intensive products such as petroleum products alongside some highly labor-

intensive products such as apparel. But as its liberalization progressed, the structure of China's exports rapidly shifted towards light, labor-intensive manufactures. In contrast, the pattern of trade in India has remained haphazard: even today, it exports some very capital-intensive and skilled-labor intensive products alongside labor-intensive products.

Because of a variety of policy-imposed constraints to be discussed later, in contrast to China, India has failed to fully exploiting its huge comparative advantage in unskilled-labor-intensive products. This has meant slower growth of the Indian industry and since industry tends to be more traded than services and also attracts more foreign investment, slower industrial growth has meant slower growth in trade and foreign investment. In turn, this has meant slower growth of the GDP.[6]

Table 3 summarizes the composition of goods exports from India and China during the 1980s and beyond in terms of the SITC (Revision 2) one-digit classification. Table 4 does the same using the SITC two-digit classification but reports only those product categories for each country that account for 2 percent or more of its total exports during 2001-04. Based on data availability, precise period covered is 1980-2004 for India and 1984-2004 for China. In constructing Tables 3 and 4, I have taken the current dollar values of annual exports of each commodity in different years and calculated its average share in the total value of exports during 1980-83, 1984-90, 1990-2000 and 2001-04 for

---

[6] I had originally written about the poorer performance of the Indian industry as the key factor explaining why India was lagging behind China in an op-ed in the *Economic Times* (Panagariya 2002). In Panagariya (2004a, 2004b), I developed this theme further in terms of the poor performance of unskilled-labor-intensive exports by India, documenting the fact that on average India had been experiencing faster growth of skilled-labor-intensive and capital-intensive goods than of unskilled-labor-intensive goods. Subsequently, Joshi (2004) has embraced my idea noting that countries such as the Republic of Korea and Thailand underwent a transformation similar to that of China. More recently, Kochhar et al. (2006) have extended the idea in terms of overall industrial structure of India being tilted towards skilled-labor-intensive and capital-intensive goods.

India and for the last three of these periods for China. The annual export value for each commodity aggregate being in current dollars, the aggregation across different years involves some error. But the conversion into constant dollars is neither feasible due to the unavailability of commodity specific prices indexes nor likely to produce dramatically different composition.

Three points emerge from Table 3 regarding the patterns of exports of the two countries. First, SITC categories 6, 7 and 8, which largely consist of manufactures, have accounted for more than half of the total exports of each country throughout the period. Moreover, the joint share of these categories has steadily risen from 55 percent during 1984-90 to 62 percent during 2001-04 in India and from 57 percent to 86 percent over the same period in China. The share has shown some signs of stagnation in India in the recent years. Twin facts that the total exports of China rose very rapidly and the degree of concentration within SITC categories 6, 7 and 8 also rose rapidly suggest the presence of some very fast-growing export products in that country. I return to this point below.

Second, Chinese exports have shown much greater dynamism than Indian exports during this period. For instance, miscellaneous manufactures (SITC 8), which largely consist of labor-intensive products, increased their share in the total exports from 24 percent during 1984-90 to 37 percent during 1991-2000 but declined to 29 percent during 2001-04. The share of machinery and transport equipment (SITC 7) rose from 12 percent during 1984-90 to 25 percent during 1991-2000 and to 42 percent during 2001-04. Progress has been much less dramatic in India, as is readily gleaned from Table 3. While I will give a graphical presentation of this point shortly below in terms of two-digit exports, it is pertinent to note here that the movements in the export shares of China and

India in the world markets for textiles and apparel shown in Srinivasan (2006, Table 8) also exhibit much greater dynamism of China's exports relative to India.

Finally, within the SITC 6, 7 and 8 categories, whereas China's exports are concentrated in categories 7 and 8, those of India are concentrated in category 6. Moreover, since the three categories accounted for only 57 percent of the total merchandise exports in India compared with 86 percent in China during 2001-04, some of the products with large export shares in India are outside these three categories. Probing the differences between the patterns of exports of the two countries requires further disaggregating of the data.

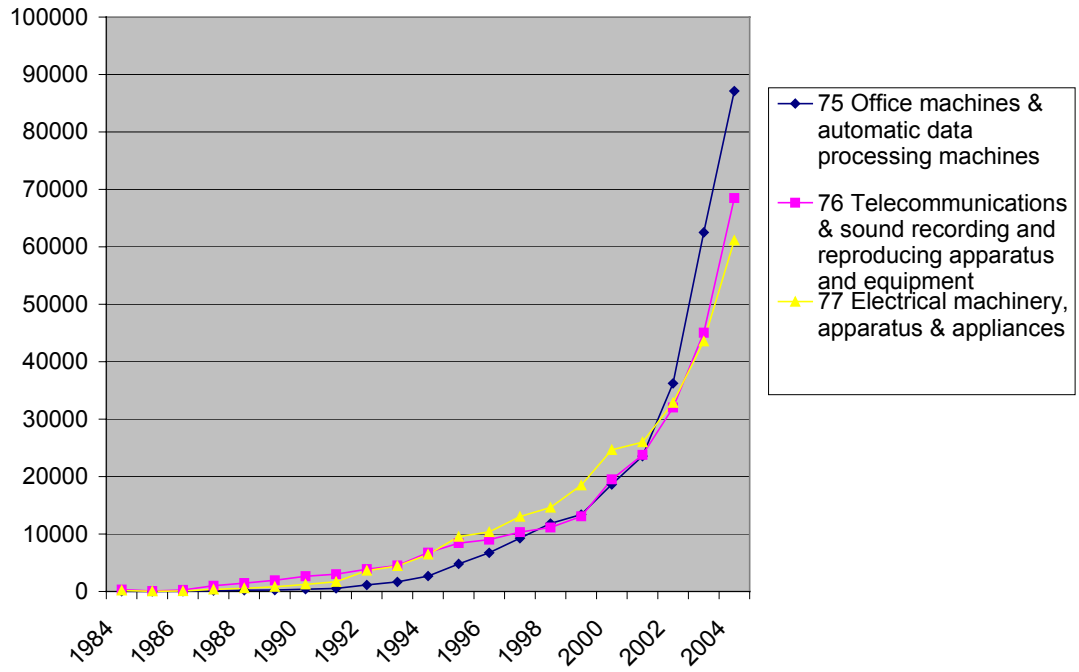
In Table 4, I present all two-digit SITC products that account for 2 percent or more of each country's total merchandise-exports during 2001-04. To trace the evolution of exports of these products, I also show their shares during the earlier periods. Differences between the patterns of exports of India and China now come out more sharply. Only 11 two-digit products make the Chinese list in comparison to 14 products on the Indian list. Moreover, if we take top eleven products of each country during 2001-04, they account for 67.5 percent of India's exports and 72.4 percent of China's exports. These facts offer suggestive though by no means conclusive evidence of greater specialization in China despite its larger size.

More importantly, in terms of their factor content, exports from China exhibit greater coherence with that country's factor endowments. For one thing, all of the products accounting for 2 percent or more of China's exports belong to SITC one-digit categories 6, 7 or 8. Three out of its top four SITC two-digit exports—SITC 75, 76 and 77—represent closely related product categories. And the specific top product categories are

unskilled-labor or semi-skilled-labor intensive. In contrast, five out of fourteen products on the Indian list are outside categories 6, 7 and 8. Given generally poor performance of goods exports by India, this fact points to the poor performance of Indian manufacturing sectors rather than spectacular performance of non-manufacturing sectors. In terms of factor content, petroleum, petroleum product and related materials (SITC 33), representing fourth largest export of India, are highly capital intensive. Iron and steel, sixth largest export, is also capital intensive. Textile yarn and fabric, which are more capital intensive than apparel and clothing, have consistently accounted for larger share of total exports than the latter. India's top export, gems and jewelry, which accounts for the bulk of its top two-digit export (SITC 66), largely employs labor with specialized skills. The most unskilled-labor-intensive two-digit product category, apparel and clothing, ranks third currently and has lost substantial share in the total exports during 2001-04 relative to that during1991-2000.

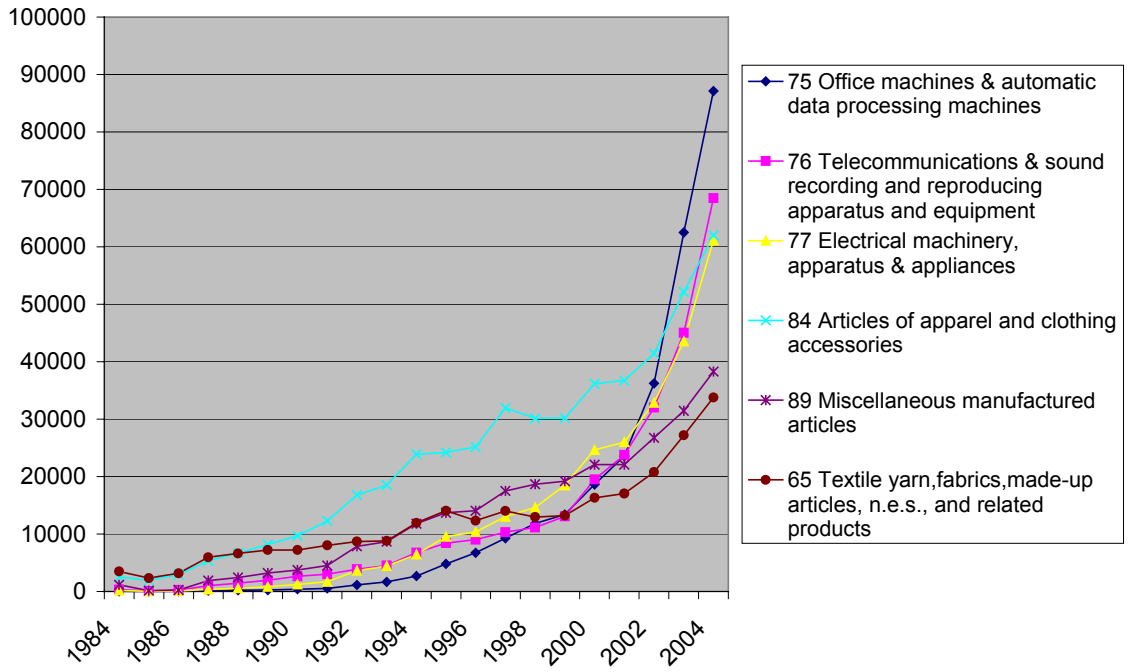
Setting aside apparel, which is its traditional export, three of China's top four exports at SITC two-digit level of classification (SITC 75, 76 and 77) have shown breathtaking growth in the last decade. Figure 8, which plots the evolution of exports of these products, demonstrates this fact. It is remarkable that each of these products would have gone virtually unnoticed in the mid 1980s. But by 2004, each registered more than $60 billion in exports. In comparison to $87 billion worth of exports registered by SITC 75 alone in 2004, India's *total* merchandise exports were $80 billion that year.

Figure 8: Three Fastest Growing Exports of China ($million)



To appreciate further the rapid expansion of exports of these three products and the dramatic transformation of the structure of China's exports, it is useful to contrast their performance against the remaining three of the top six exports. This is shown in Figure 8. We see that textiles (SITC 65) and apparel (SITC 84) dominated China's exports until the early to mid 1990s. But miscellaneous exports (SITC 89), which included toys and sporting goods, had begun to surge in the mid 1980s. By mid 1990s, these exports had surpassed textiles. Telecommunications exports had also appeared on the scene by mid 1980s but initially grew more slowly than miscellaneous exports. By mid 1990s, telecommunications had been joined by office machines and electrical machinery exports in a big way and by late 1990s all three of them were growing at phenomenal rates. By 2004, all three had either caught up with or left behind textiles, apparel and miscellaneous exports.

Figure 9: Top six exports of China



Apart from the rapid transformation of the structure, an alternative view of the dynamism of China's exports is gained by comparing their evolution to the exports of India. Figures 10 and 11 offer two such comparisons. Figure 10 show the evolution of the top two exports of each country while Figure 11 shows the evolution of textiles and apparel exports of each. It is evident that both in terms of level and growth, China is well ahead of India.

Figure 10: Top two exports of each of India and China

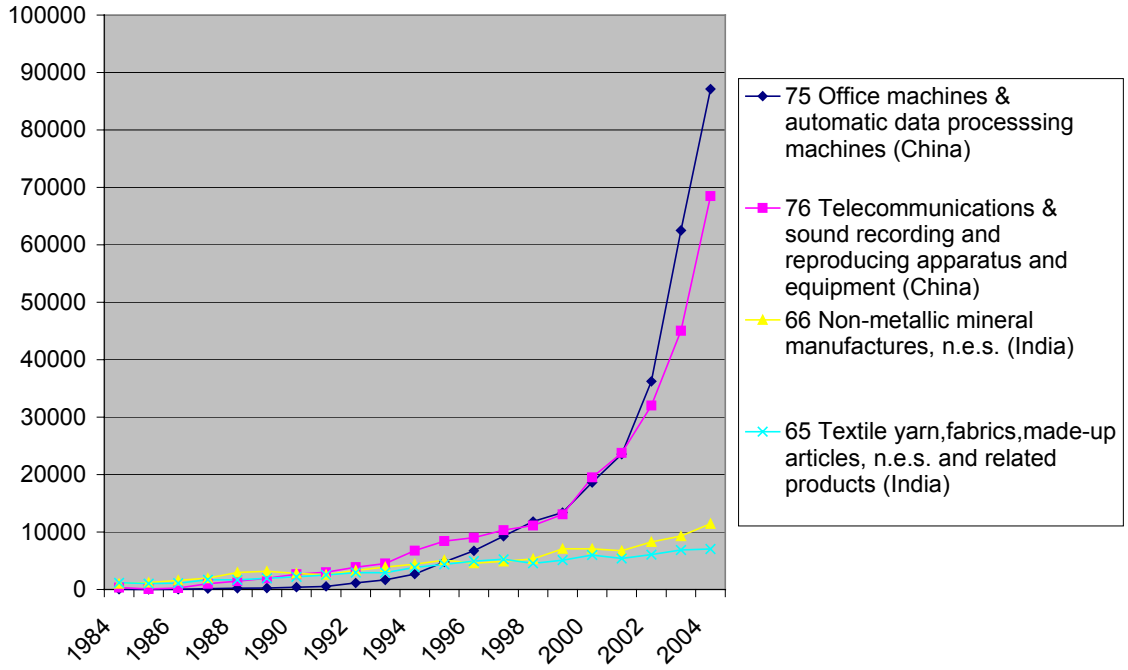
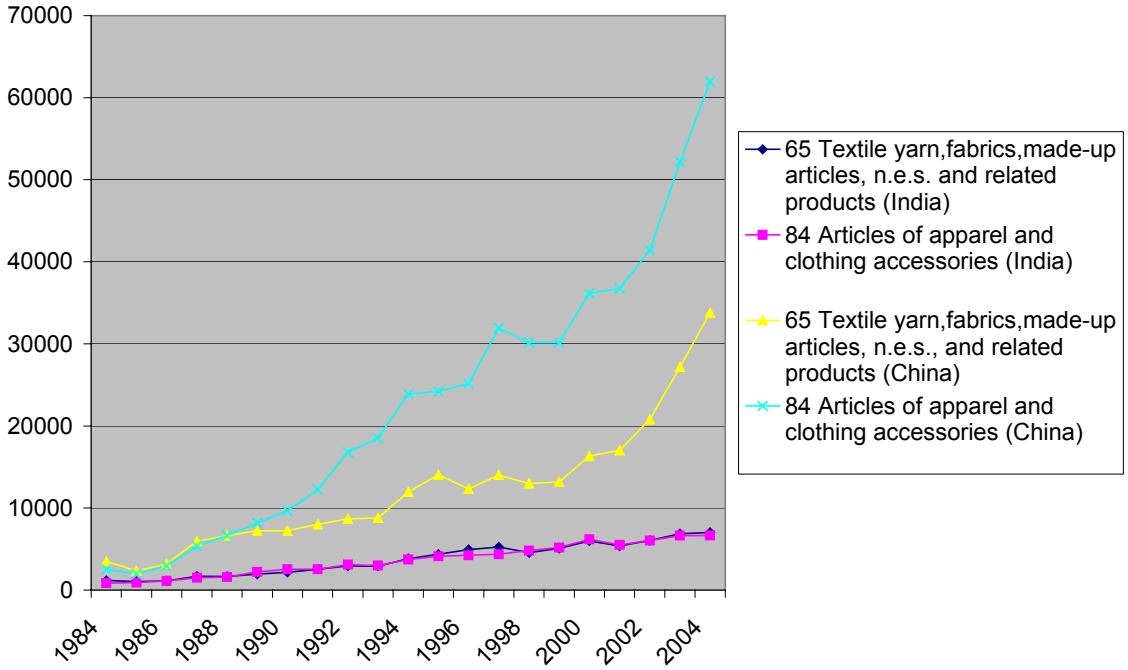


Figure 11: Textiles and clothing exports of India and China



Before turning to imports, it may be noted that some of the fast growing industries in India that have attracted much attention seem to have largely domestic orientation. For example, by all accounts, auto parts, automobile and pharmaceutical industries have been growing very rapidly. But to-date, these industries have not registered large volumes of exports. For example, automobile exports are included in road vehicles (SITC 78) but the share of this category of exports has not grown and remains small.[7] Auto parts and pharmaceutical exports do not even appear in the list shown in Table 4, which means that they accounted for less than 2 percent of India's total exports during 2001-04.

4.2 Merchandise Imports

The patterns of imports of India and China are shown in Table 5. Perhaps the most notable fact in this table is that machinery and transport equipment (SITC 7) account for a whopping 46 percent of China's total imports during 2001-04. The corresponding figure for India is barely 19 percent. This observation reinforces the anomalous behavior of pattern of exports by India: whereas China spends a large chunk of its export revenues on buying machinery, India continues to satisfy the bulk of its machinery needs via domestic production. The comparison is even starker when we consider the absolute figures since the total imports of China are many times those of India. Thus, for example, in 2004, China spent $253 billion on machinery and transport equipment in relation to $22 billion by India. This difference far outstrips the differences in investments by the two countries.

---

[7] This is the result of growing incomes that have rapidly expanded the domestic demand for automobiles, de-licensing, deregulation of foreign investment and the application of exceptionally high custom duties of 100 percent.

It is tempting to argue that the lower expenditure on machinery and transport equipment by India is the result of the need for higher imports of mineral fuels and lubricants (SITC 3), which accounted for 31 percent of India's imports during 2001-04. But such an argument relies on erroneous assumption of constant export revenues. Given the rupee is flexible, higher demand for machinery and transport equipment would have meant depreciation of the rupee and increased export proceeds. A more plausible explanation of the small machinery and transport equipment imports is the sluggish demand for them due to weak investment demand reinforced by sufficiently large domestic capacity created by the past policies.

For readers curious about big-ticket SITC two-digit import items, Table 6 offers the list of items accounting for 2 percent or more of the total imports in each country during 2001-04. After petroleum and petroleum products, the largest import of India, non-metallic mineral manufactures, relates to inputs used in its gems and jewelry exports. Machinery imports in various categories remain tiny. China, on the other hand, imports large volumes of virtually all kinds of machinery: the only SITC 7 categories at two-digit level missing from the list are SITC 73 and 79.

4.3 Services Exports

The overall comparative picture between India and China in services is provided in Table 1: in 2003, India accounted for 1.2 percent of the world services trade and China for 2.5 percent. Thus, even in services, China remains a larger player in the world market. Nevertheless, the main story in the sector is that of the Indian information

technology (IT) exports.[8] Among all of India's exports, whether goods or services, this one has had by far the most spectacular success and it may eventually match the performance of some of the star performers of China.

Table 7 presents the overall picture of exports of services by India while Table 8 provides further details on software exports. Services exports of India are rising substantially more rapidly than its goods exports. Based on the WDI data, goods and services exports both had 0.5 percent share in the world market in 1990. In 2003, the share of goods exports rose to 0.8 percent but of services exports to 1.2 percent. According to Table 7, total services exports from India rose a whopping 106 percent during fiscal year 2004-05 over 2003-04. Because by far the largest absolute as well as proportionate increase is reported under the category labeled "miscellaneous," it is difficult to fully interpret this increase. But even ignoring the miscellaneous category, growth in the remaining sectors has been impressive: 22 percent in travel, 55 percent in transportation and 42 percent in software.

Software exports are divided into two broad categories: IT consisting of mainly custom software and IT Enabled Services ITES), also popularly called Business Process Outsourcing (BPO). While the large proportion of the software services is still contributed by IT, the share of BPO is rising rapidly and is likely to come to dominate the sector eventually. It is important to remember that though there is much noise made about the outsourcing of high-end activities including innovation and R&D to India, so far their share in outsourcing is minuscule.

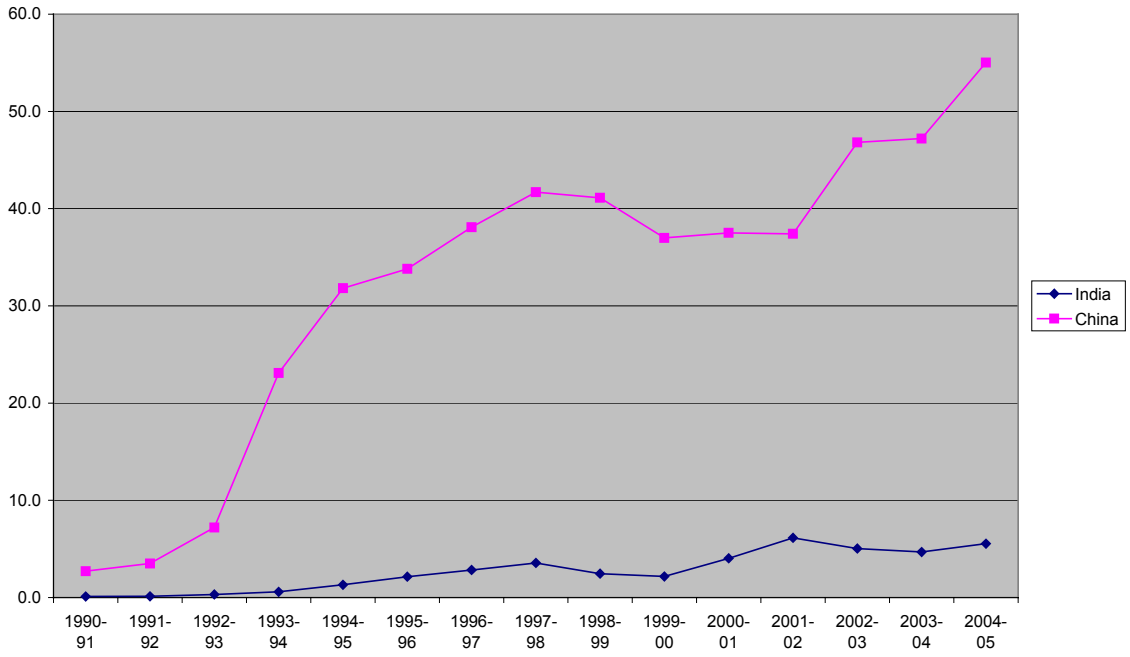
---

[8] Srinivasan (2006) provides a detailed discussion of the evolution of the Indian IT industry including policies that led to its impressive success.

5 Foreign Investment

Net inflows of direct foreign investment (DFI) and portfolio investment are shown in Table 9. Starting in the mid 1990s, DFI inflows picked up in a major way in China and have stayed at very high levels since then. DFI inflows into India have risen considerably when compared with their virtual absence prior to 1990. But, like merchandise exports, they remain modest when compared to China. On portfolio investment, India has done far better than China in net terms. During 2003-04 and 2004-05, India received more than $20 billion through this channel. Figure 12 shows the DFI in India and China.

Figure 12: Direct Foregin Investment (Figures for India prior to 2000-01 do not include re-invested earning)



Data on the composition of DFI in India and China employ different classification schemes so that they are not directly comparable. Moreover, in the case of India, I have only been able to obtain the composition for 1991-2005 lumped together while those for

China are available on an annual basis. In India, top six recipients of DFI between August 1991 and December 2005 have been electrical equipment including computer software and electronics (16.5%); transportation industry (10%); services sector (10%); telecommunications (10%); power and oil refinery ((8%); and chemicals 6%). In China, manufacturing received approximately 70% of the DFI during 2002-04. Within manufacturing, electronics and communications equipment has been the largest recipient.

According to Prasan and Wei (2006), five Asian economies—Hong Kong, Japan, Korea, Taiwan and Singapore—together account for 60 percent of FDI inflows into China during 2001-04. They conjecture that these inflows have brought many side inflows of the DFI including transfers of technological and managerial expertise. Contrary to the general presumption, the United States and the European Union (EU) together contributed only 15 percent of total inflows in 2003, down from 22 percent in 1999-2000.

The share of manufacturing in the DFI into China has steadily risen from 56 percent in 1998 to 71 percent in 2004 (Prasad and Wei 2006, Table 2). The largest sector within manufacturing is electronics and communications equipment, which accounted for 13 percent of the total DFI inflows in 2004. The share of manufacturing has expanded principally at the expense of utilities, construction, transport and telecommunication services, and real estate. This pattern is consistent with the hypothesis that DFI inflows are responsive to China's rising actual and anticipated clout in the world markets in manufacturing.

6 Connection to Trade and DFI Policies

Some pro-protection analysts view India and China as proving their case arguing that both of them grew rapidly under high degree of protection. They claim that the rapid growth of trade in these countries resulted from rapid GDP growth rather than the other way around. While there is no doubt that GDP growth and trade expansion interact with each other, the importance of liberalizing trade policies to faster growth of trade and GDP in the case of India and China is hard to deny. True, the level of protection was high when these countries began the process of liberalization. But throughout the fast-growth period, the two countries were progressively opening up their economies. Prior to this opening up, both had grown at unimpressive rates.

A comparison of the policy regimes in India and China also highlights the importance of complementary domestic policies. While India was slower to open up than China, the differences in their policy regimes outside of agriculture today are not vast. Indeed, in services and foreign investment, India is probably more open than China. Yet, as we have seen, the labor-intensive industry in India lags far behind that of China. I will argue in the next section that the root cause of it is the presence of several domestic-policy constraints facing the Indian manufacturing industry. Presently, I consider trade policy reform, first in the 1980s and then during the 1990s and beyond. My account draws heavily on Panagariya (2004) and Lardy (2002) for Indian and China, respectively.

6.1 Merchandise Trade Liberalization During the 1980s

In the late 1970s, virtually 100 percent of trade in both India and China was centrally controlled. In India, this was done through strict licensing. Once every six months, the Ministry of Commerce issued the import policy in the form of the so-called

Red Book that provided a long list of products whose imports were permitted. For each listed product, the policy also listed corresponding restrictions on who could import it, up to what proportion of the need, which varieties and, in some cases, from which country. The government's estimate of the available foreign exchange guided the total volume of imports permitted. So restrictive was the regime that non-oil imports as a proportion of the GDP dropped to just 3.4 percent in 1972-73.

In China, Starting in the early 1950s, trade flows came to be controlled through a centralized planning system under the Ministry of Foreign Trade (MFT). A limited number of centralized Foreign Trade Corporations (FTCs) under the MFT organized along product lines such as iron and steel and textiles and clothing and having branch offices in the main provinces that produced export products or used imported inputs conducted all trade. So inward looking did China become that its total trade in current dollars grew from $3.15 billion in 1955 to just 4.6 billion in 1970. In December 1978 when China launched its "open-door" policy, 12 such FTCs centrally controlled all its trade.

Given their different trade regimes, India and China naturally followed somewhat different paths to liberalization. Starting in 1979, India introduced a system whereby products not domestically produced were to be placed on an Open General Licensing (OGL) list. An actual user of these goods could obtain the import license with relative ease. The remaining products were to be divided between banned and restricted items. Items on the restricted list required license and those on the OGL did not though the importers had to be actual users in all cases. Consumer goods were generally on the banned list except those such as food grains that were considered "essential." Essential

consumer goods imports and many other products such as petroleum products and important minerals remained the monopoly of the governmental "canalizing" agencies specifically created for this purpose.

Piecemeal liberalization took place along several dimensions within this broad policy framework during the 1980s. First, improved agricultural performance, induced by the spread of the Green Revolution, and the discovery of oil at Bombay High helped cut the import share of canalized products from a hefty 67 percent in 1980-81 to 27 percent in 1986-87. This allowed the imports of machinery and raw materials by manufacturing firms to expand with greater ease. Second, the OGL list was steadily expanded. According to Pursell (1992, p. 441)), 'imports that were neither canalized not subject to licensing (presumably mainly OGL imports) increased from about 5 percent in 1980–81 to about 30 percent in 1987–88.' Third, relaxation of industrial controls, which often included foreign-exchange availability considerations, often removed extra layers of regulation on imports. Finally and perhaps most importantly, the setting of the exchange rate at a realistic level reduced the bias against traded goods relative to non-traded goods. The real exchange rate had depreciated as much as 30 percent between 1974–75 and 1978–79 but then appreciated slightly and then stayed unchanged until 1984-85. But in the second half of the 1980s, the exchange rate steadily depreciated. Joshi and Little (1994) and Srinivasan and Tendulkar (2003) attribute a considerable part of the success in export expansion during the second half of the 1980s to the real exchange rate management.[9]

---

[9] Srinivasan and Tendulkar (2003) view the depreciation as largely resulting from exogenous forces rather than an active policy of nominal depreciation. Based on the details provided by

During the 1980s, especially after 1985, tariff rates in India escalated. Some analysts erroneously conclude from this that this increase neutralized the effect of expansion of the OGL list. In practice, products that got moved to the OGL list actually received tariff reductions. The tariff increases largely applied to the restricted products and were intended to mop up the quota rents to help the government reduce fiscal deficit. Tariff revenue as a proportion of imports rose from 27 percent in 1977-78 to 62 percent in 1987-88. The impact of these increases was, of course, felt in the 1990s when licensing on capital goods and intermediate inputs was abolished.

During 1985-86 and 1986-87, the government took several measures to promote exports. These included a passbook scheme for duty-free imports for exporters, which broadened the coverage of the existing advance license scheme; increase in the business income tax deduction to 4% of net foreign exchange realization plus 50% (raised to 100 percent in 1988) of the remaining profits from exports; reduction in the interest rate on export credit from 12 to 9.5 percent; faster processing of export credit and duty drawbacks; upward revision of the rates of Cash Compensatory Support (CCS) for offsetting internal taxes; international Price Reimbursement Scheme for raw materials for all major export sectors (i.e., exporters were effectively offered international prices on internationally traded goods even when such inputs were purchased domestically); permission to retain 5-10% of foreign exchange receipts for export promotion; duty-free capital goods imports for exporters in "thrust" industries; full remission of excise duties and domestic taxes; and remission of 20% of interest charges on IDBI loans for firms exporting over 25% of output. These measures along with the depreciation of the real

---

Joshi and Little (1994, p. 183), Panagariya (2004a) takes the view that an active policy of nominal devaluation was indeed pursued by the government during this period.

exchange rate played an important role in the rapid growth in exports observed in the second half of the 1980s.

Liberalization in China took the form of decentralization of trade. The launching of the open-door policy saw an expansion of entities with independent rights to conduct foreign trade. At the center, line ministries created their own FTCs. Simultaneously, branch offices of central FTCs at the provincial and local levels were allowed to trade on their own in addition to fulfilling their traditional role of carrying out trade on behalf of their central counterparts. Provinces also created their own FTCs for special needs. Finally, foreign-invested enterprises whether wholly foreign owned or just joint ventures (with 25 percent or more foreign capital) were given the right to conduct their own trade. As a result of these changes, trade conducted by FTCs directly under the newly created Ministry of Foreign Economic Relations and Trade (MOFERT) declined from 89 percent in 1981 to 72 percent in 1984.[10]

In September 1984, the State Council approved the MOFERT Report on Reform of the Foreign Trade System. This round of reforms made the FTCs independent of their administrative departments and gave them full authority to carry out all day-to-day functions related to trade. Subject to the approval of MOFERT, large production enterprises were to be allowed to handle foreign trade themselves. Finally, FTCs were to henceforth act as passive agents of enterprises and handle exports and imports for a service charge. These changes considerably loosened the hold of MOFERT over trade.

---

[10] MOFERT was created in March 1982 by merging the MFT, Ministry of Economic Relations with Foreign Countries, Import Export Commission and Foreign Investment Control Commission.

The third phase of reforms began in 1988 with the adoption of the Plan for Restructuring the Foreign Trade System. This round of reforms stressed the implementation of the contract responsibility system whereby all provinces would sign annual contracts with the MOFERT specifying their export quotas, the basic amount of renminbi subsidy to be received fore earning foreign exchange through exports, and foreign exchange earnings to be turned over to the center. In turn, provinces were to sign contracts with provincial, and city FTCs. All FTCs signed contracts with enterprises, collective and Town and Village Enterprises.[11]

Under the 1988 reform, the government also began to confer trading rights on the large state-owned enterprises, which naturally helped bring the integration of production and trade activities. Provincial commissions of the MOFERT were also authorized to grant such rights for products not subject to export licensing. Qualifications for the direct rights included a minimum level of direct exports and qualified personnel to handle direct trade.

The overall impact of these changes was to loosen the hold of the MOFERT on trade, substantial expansion of foreign trade companies and autonomy to them in conducting foreign trade. From just 12 FTCs with monopoly rights on trade in 1978, the number of FTCs rose to 800 in 1985 and to more than 5000 in 1988. The number of manufacturing enterprises with trading rights also expanded though remained small in relation to the total number of such firms.[12]

---

[11] No information on the proportion of exports covered by the contract responsibility system is available. In personal correspondence, Nick Lardy has stated that the system was not central to the rapid growth of exports by China. The system remained in force, however, until 2002 when it was phased out.

[12] See Lardy (2002, Table 2-3, pp. 40-45).

Once the reform process got under way, China also took steps to make the exchange rate attractive to exporters through a system of multiple exchange rates and through the depreciation of the domestic currency, renminbi (RMB). Starting in the early 1980s, the government operated an elaborate system of foreign exchange retention rights that allowed the central, provincial and local governments and exporting FTCs and enterprises to share foreign exchange in varying proportions across different products. From 1988 onwards, the government also allowed the retained foreign exchange to be traded at the Foreign Exchange Adjustment Centers operated by the State Administration of Exchange Control.

Incentives for exports were also given through depreciation of the exchange rate. Initially, in January 1981, the government introduced an internal settlement rate of RMB 2.8 per dollar for goods trade. The official rate of RMB 1.5 per dollar continued to apply to services transactions such as tourism. Over time, the official rate was devalued and in 1984, the two rates were unified at RMB 2.8 per dollar. The rate was further devalued to reach RMB 3.7 per dollar in July 1986. Three years later, in December 1989, the currency underwent another 21.2 percent devaluation and then in January 1991 it fell to RMB 8.7 per dollar. A modest appreciation brought the rate to RMB 8.3 per dollar in mid 1995. Taking all changes together, the Chinese currency depreciated a little more than 80 percent between 1978 and 1995.[13]

China has also had a system of rebating the value added tax and custom duties paid on inputs used in exports. Partial rebate on value added tax was introduced in 1984. In 1994, the rebate was made 100 percent. Duty drawback was introduced initially for

[13] This paragraph relies entirely on Lardy (2002, p. 49).

foreign-invested enterprises but was extended subsequently to domestic enterprises as well. In the Special Economic Zones (SEZs) and Open Cities, the policy regime was particularly liberal with the enterprises granted the rights to hire and fire workers. China also offered financial incentives to enterprises in these zones that were not available elsewhere.

Once the policy to decentralize trade was initiated, China relied on three main instruments to limit the flow of imports. First, it introduced import licensing to retain control over inflows of certain goods. According to Lardy (2002, p. 39), at its peak in the late 1980s, the share of all imports under licensing was 46 percent. Second, like India, China also "canalized" the imports of certain products through exclusive trading rights to state agencies. Finally, tariffs were raised with increased decentralization. According to Lardy (2002, Table 2-1), the average statutory tariff in 1982 had already gone from negligible levels in the pre-reform era to 56 percent. There was a major overhaul of the tariff regime in 1985, which brought the average tariff down to 43 percent. The system remained intact, however, for the rest of the 1990s.

Based on the above discussion, it is safe to conclude that overall the trade regime was more open in China than India in the 1980s. In India, the default regime for any product was licensing. The liberalization under the OGL applied to at most 30 percent of the imports in the late 1980s. Even then only inputs not produced at home had been liberalized. In comparison, even at its peak, licensing covered 46 percent of the imports in China. Chinese FTCs were also free of the regulations Indian enterprises faced through industrial licensing. Finally, whereas the exchange rate in India came to be overvalued in India in the first half of the 1980s, China seems to have kept its exchange

rate competitive, perhaps even undervalued, throughout the 1980s. Thus, the superior Chinese performance in trade in the 1980s is certainly consistent with its more open regime.

6.2 Merchandise Trade Liberalization in the 1990s and Beyond

Both India and China undertook greater liberalization during the 1990s and beyond. In a single stroke, India abolished import licensing on inputs and capital goods in 1991 though retaining it on consumer goods imports. This made tariffs, which had risen considerably in the 1980s, an effective barrier to imports. In a series of steps that compressed tariffs down from top, India reduced the highest tariff rate from 355 percent in 1990-91 to 85 percent in 1993-94 and to 50 percent in 1995-96. Though there was some reversal in the mid to late 1990s, the process came back on track and with the major exception of passenger vehicles the top tariff rate today is 12.5 percent. In 2005-06, custom duty as a proportion of merchandise imports fell to 4.9 percent.

In April 2001, India also abolished licensing on consumer goods imports. Thus, currently, India is virtually licensing free and relatively liberal in industrial products. In agriculture, like other countries, India chose very high tariff bindings and its applied tariffs are also relatively high. With approximately 60 percent of the labor force on the farm, this sector remains politically off limits to liberalization. But in services and foreign investment areas, India has made remarkably rapid progress. This described below in a separate subsection.

On the foreign exchange front, India continued to let the exchange rate depreciate to keep Indian goods competitive. As a part of the 1991 reform, the government devalued the rupee by 22% against the dollar from 21.2 rupees to 25.8 rupees per dollar. For a short

period, it maintained a dual exchange rate offering more attractive terms to exporters but unified the rates to a single rate and went on to adopt the IMF Article VIII obligations for current account convertibility starting February 1994. For the last two years, the exchange rate has been hovering around 45 rupees per dollar. Thus, the rupee has depreciated nearly 100 percent in nominal terms over a period of slightly more than a decade. Bolstered by the accumulation of approximately $145 billion worth of foreign exchange reserves, India has freed up many capital-account transactions and is actively studying the prospects for full capital-account convertibility.

China also continued to liberalize its trade regime. In 1992, the share of imports subject to licensing fell to 18 percent. In October 1992, as a part of its market access agreement with the United States, China committed to further reductions in the scope of import licensing over a period of several years. By mid-1997, it had only 5 percent of the tariff lines left subject to import licensing. Towards the end of the decade, the proportion fell to 4 percent and the share of imports subject to licensing to 8.45 percent of all imports. As a part of its WTO entry conditions, it agreed to eliminate all import quotas, licensing requirements and other non-tariff barriers by the end of 2005.

The average tariff in China had been around 43 percent at the end of the 1980s. In the 1990s, the government initiated a series of steps that brought the average tariff level down to 40 percent in 1993, 23 percent in 1996 and 15 percent in 2001. Again, as a part of its WTO entry conditions, China agreed to lower the average industrial tariff to 9 percent and average agricultural tariff to 15 percent by 2005. China also agreed to bind all its tariffs with the WTO. It further undertook to limit its agricultural subsidies to 8.5 percent of the value of production. This is below the de minimis limit of 10 percent

applicable to the developing countries under the Uruguay Round Agreement on Agriculture.

Comparing the trade regimes of the two countries, while China is more open than India in industrial products, the latter is steadily catching up. Indeed, India abolished import licensing before China did though it was subjecting more products to it than the latter in 2001. With some exceptions, the highest industrial tariff in India has now come down to 12.5 percent, which is not far from the average tariff of 9 percent in China. Moreover, as noted previously, custom duty as a proportion of merchandise imports fell to 4.9 percent in India in 2005-06. In agriculture, China is clearly ahead of India. Whereas the average agricultural tariff in China is to come down to 15 percent, the same is more than 30 percent in India.

6.3 Liberalization of Trade in Services and Foreign Investment

While several steps were taken to liberalize merchandise trade in the 1980s, leaving aside minor changes, trade in services and foreign investment regime in India remained off limits to liberalization. With some exceptions, foreign investment beyond 40 percent was not permitted under the Foreign Exchange regulation Act (FERA) 1973 and very little foreign investment came to India in the 1970s and 1980s.

But starting in 1991, India liberalized its foreign investment rules drastically, which also paved the way for the liberalization of international trade in services. Currently, the regime operates on "negative list" philosophy" meaning that unless there are specific restrictions spelt out in the foreign direct investment (FDI) policy, subject to the sectoral rules and regulations, up to 100 percent foreign investment is permitted under the automatic route.

Currently, four exceptions apply to 100 percent foreign investment under the automatic route. First, in four sectors, FDI is prohibited outright: retail trading (except single brand product retailing), atomic energy, lottery business and gambling and betting. Second, foreign equity share in excess of 24 percent in the manufacturing of items reserved for the small-scale sector requires prior government approval. Third, prior government approval is also required when the foreign investor has an existing joint venture or technology transfer/trademark agreement in the same field. Finally and most importantly, the FDI policy lists 28 sectors (some of which are further divided into sub-sectors for purposes of different rules) that are subject to sector-specific policies and sectoral caps on foreign investment that may or may not go up to 100 percent. Sometimes these sectors are further divided into sub-sectors to allow different investment caps or other restrictions across the latter. Broadly, the following caps apply:

- 20 percent to FM radio [FDI plus investment by foreign institutional investors (FII)].
- 26 percent to up-linking a news and current affairs TV channel; defense production; insurance; public sector refineries; air transport services (100 percent for the non-resident Indians); and publishing of newspapers and periodicals dealing with news and current affairs.
- 49 percent to asset reconstruction companies; three broadcasting sub-sectors including cable network; and investing companies in infrastructure and services except telecommunications.
- 51 percent to single-brand retailing.

- 74 or 100 percent to all others including banking, non-banking finance companies (approved activities); telecommunications, manufacture of telecom equipment; trading, construction, airports, power, petroleum and natural gas, coal and lignite mining; and tea; coffee and rubber processing; and Special Economic Zones.

China began to liberalize its foreign-investment regime in manufacturing right at the beginning of the launching of the open-door policy in December 1978. The liberalization consisted of a removal of the existing regulations as well as the provision of preferential treatment. Three main features were in place by 1990.

First, a 25% foreign investment gave an enterprise the status of a joint venture and qualified it for various tax incentives. At the same time, foreign equity investment could rise all the way up to 100 %. Restrictions on the choice of sectors were minimal and any preferences, sectoral or otherwise, took the form of incentives rather than barriers Second, employment, wage and pricing policies for joint ventures were flexible. Joint ventures were free to employ any required personnel on a contractual basis. Employees were subject to warnings, wage cuts and dismissal. Except for a few product categories for which prices were set by the state, joint ventures were free to set their prices both domestically and abroad. Third, China also gave extra incentives to joint ventures. These incentives were particularly generous in the SEZs and open cities. Additional preferential treatment was made available starting in 1986 to export-oriented or technologically advanced projects. To qualify as an export oriented, the joint venture were required to export 50% or more of their output and generate at least as much foreign exchange as they used. To qualify as

a technologically advanced project, the venture was to, inter alia, produce new products, upgrade domestic products, increase exports, or produce an import substitute.

While China undertook some liberalization in services trade during the 1990s, the bulk of the change has come as result of its WTO entry conditions.[14] Until the entry, China did not allow foreign companies in the provision of any telecommunications services including the Internet. Under the entry conditions, it has opened these services but on a limited basis and definitely less so than India. For example, it only allows 50 percent ownership in paging and value added services. In mobile service, foreign equity share is limited to 49 percent. For domestic and international wired services, 25 percent foreign equity was permitted only three years after accession and the share would rise to at most 49 percent six years after the accession. There are also phasing out limitations along he geographical dimension on all services.

In banking, foreign financial institutions were permitted to provide services without client restrictions for foreign currency business effective from the accession date. The major barriers faced by foreign banks operating in China in the 1990s were related to their domestic currency operations, however. Under the entry conditions, China agreed to lift all geographical limits and numerical limits on foreign banks providing domestic currency services by January 2005. China's central bank is to now license all applicants that meet the prudential criteria. Two years after their entry, foreign banks can conduct domestic currency business with the Chinese firms and three years after entry they can transact with individuals in the local currency. Five years after accession, foreign banks will enjoy full national treatment.

---

[14] The acceptance of the entry conditions naturally means that China did not see this liberalization onerous enough to offset the other benefits of the WTO emmbership.

In insurance, China has been gradually expanding the scope of business of foreign companies. The latter are now allowed to offer property and casualty insurance on a nationwide basis. Within three years after the accession, China was to also lift all geographic restrictions on the operation of foreign insurance companies. Foreign equity share up to 50 percent is permitted in life insurance and 51 percent in non-life-insurance companies.

China also agreed to open its distribution sector to foreign suppliers. All geographical restrictions on retailing were to be eliminated within three years of accession. Majority equity in foreign companies engaged in retail trade is permitted. Joint ventures engaged in the provision of wholesale services have been permitted since the accession. Within three years of accession, wholly owned foreign wholesale companies were to be permitted. Within five years of accession, China is to also allow foreign companies to retail and wholesale all products except salt and tobacco. It was also to extend to foreign companies the right to import and export all goods except those canalized through the governmental agencies within three years of accession.

7 Why India Lags Behind China

My review of trade policies above leads to the conclusion that starting in the early 1990s, India had begun to catch-up with China and that currently its external-policy regime in manufactures, services and foreign investment is reasonably open. It is only slightly less open than China in manufactures and probably more open in services and foreign investment. Even if we allow for a lag of five to ten years between the opening up of India and China to the external markets, the differences between their performances cannot be reconcile by differences between their external-sector policies.

In Section 4, we saw how different have been the patterns of exports of India and China. In the 1980s and early 1990s, China saw a massive growth in the exports of light manufacturing: apparel, toys, sporting goods, footwear and the like. Subsequently, as physical and human capital accumulation progressed, China moved into somewhat more sophisticated products that, nevertheless, still employed large volumes of labor. These products have included office machines, telecommunications and electronic apparatus and equipment, and electrical machinery. In contrast, most of the leading exports of India are either skilled-labor intensive or capital intensive: IT and ITES, textiles, petroleum and petroleum products and iron and steal. Apparel is a major contributor but it has declined in recent years. Even auto and auto parts and pharmaceutical that are said to be growing rapidly currently (though they did not appear significantly in the export data until 2004) are skilled-labor or capital intensive.

Therefore, to answer why India lags behind China, we must answer why the labor-intensive exports that have driven the growth of Chinese exports have done so poorly in India. The answer to this question lies in India's domestic policies that virtually guaranteed the failure of labor-intensive products in the export markets. Historically, these dirigist policies have had such deep roots that even two decades of economic reforms have not been able to fully stamp them out.

Starting in the late 1960s, driven by the misguided belief that equality could be achieved by excluding the wealthy entrepreneurs from investing in the bulk of the sectors, the government adopted a series of policies that effectively sealed the fate of labor-intensive exports. Four sets of policies deserve special mention:

(1) Business groups with $27 million or more in investments in land, building and machinery were confined to the 19 so-called core heavy industry sectors, which were all capital intensive.

(2) With some exceptions, foreign investment was limited to 40 percent. Foreign enterprises granted the exception to the 40 percent rule were also confined largely to the core heavy industry sectors

(3) Under the Small-Scale Industries (SSI) reservation policy, all labor-intensive products including but not limited to those on which China built its export sector in the 1980s and 1990 were reserved for the exclusive manufacturing by the "small-scale" units where the latter were defined as enterprises with less than $100,000 invested in plant and machinery. The limit was raised in later years but did not touch even $1 million mark until the end of the 1990s.

(4) The addition of chapter V.B to the Industrial Disputes Act (IDA) 1947 effectively ruled out the firing of workers by a firm with 100 or more workers under any circumstances. Even if a firm went bankrupt, it had to continue to pay the salaries of its workers.

The SSI reservation policy alone was sufficient to ensure that India would exclude itself from the exports of labor-intensive products. Foreign firms interested in buying labor-intensive products from cheaper sources demanded a scale and quality standard that the SSI units were incapable of supplying for most part. The huge cost advantage did allow some SSI enterprises to succeed but not on a scale justified by the cost advantage India potentially enjoyed.

The reforms carried out in 1991 and soon after effectively ended the first two of the above policies. But progress on eliminating the SSI list has been gradual. While many labor-intensive products have now been opened to the large-scale firms, as many as 508 products still remain on the list.[15] Items currently on the list include but are not limited to electrical machines, appliances and apparatus; paper products; plastic products; glass and ceramics, and auto parts and components still remain on the list. China exports many of these products in substantial volumes.

While systematic data on the impact of de-reservation on the entry of large-scale firms are not available, at least the export data do not show a major impact of the change. For example, large-scale firms catering exclusively to the export market had been granted entry into the garment sector but few firms seem to have taken advantage of this provision. In general, large-scale firms seem to continue to shy away from entering the market even in sectors that are now open to them.

This points to the presence of other constraints on these firms. In my judgment, two such constraints remain critical: labor markets and power supply. Much of the discussion on labor reforms focuses on chapter V.B of the Industrial Disputes Act 1947, which denies the firms with 100 or more workers the right to retrench workers under any circumstances. But the problem is deeper. Even smaller firms in the organized sector that do not fall under the purview of chapter V.B of the IDA find it nearly impossible to retrench workers. The provisions in Section 9A of the IDA also make reassignment of workers to different shifts or tasks extremely difficult, time-consuming and costly. These provisions result in very low productivity of regular

[15] The union budget 2006-07 promises to eliminate 180 of these items from the list. But the government order implementing this change has not been issued to-date.

workers with the firms having to hire contract workers to perform tasks for which regular workers already exist. Yet, the average level of wages in the organized sector is far higher than would be justified in a labor abundant economy such as India. A salaried driver, gardener or sweeper in the organized sector is often paid three or four times the wage available to him in the informal sector.

These labor-market rigidities have meant that whereas foreign investment has poured into unskilled-labor-intensive manufacturing in China, it has gone into either capital-intensive manufacturing such as auto parts and automobiles or skilled-labor intensive sectors such as software, BPO, telecommunications and pharmaceuticals in India. Even local firms have been highly reluctant to invest in the large-scale unskilled-labor-intensive units on the scale observed in China. Unsurprisingly, as we saw in the previous section, fast-growing exports from India are either skilled-labor intensive or capital intensive. India is virtually absent from the world markets for toys and the vast majority of other light manufactures. Its share in the U.S. market in apparel is fully matched by much smaller Bangladesh and is one fourth that of China.

While infrastructure in general (meaning ports, airports, railways, roads and power) has handicapped all exports from India, the problem is particularly serious with respect to power. Industry in India not only pays punishing prices for electricity so as to subsidize the lower prices offered households and to cover the transmission and Distribution (T&D) losses, the available power supply to it is often irregular and unreliable. This has led many firms to go for the highly inefficient and costly alternative of generating their own electricity.

Given the political constraints India faces in eliminating the labor-market rigidities, prospects of super-high growth of labor-intensive exports for the country are not particularly good. Unless the situation on this front changes dramatically, my own view is that exports are unlikely to play as central a role in the growth process of India as in China.

8 Looking Ahead: The Doha Round and an India China FTA

There are many aspects of trade reform including further liberalization of industrial goods, agriculture and services; restraining the use of anti-dumping; opening sectors such as retail trade to the DFI in India; and bilateral and multilateral negotiations that deserve further attention. Since I have addressed many of these issues as they bear on India in Panagariya (2004b), let me confine myself in this concluding section to two specific issues: the Doha Round and an India-China FTA.

Currently, the Doha Round is at an impasse. Both India and China have large stakes in the revival of the negotiations and eventual conclusion of the round: they both stand to benefit from further liberalization of their own and of their trading partners. Peak tariffs in the developed countries apply to products in which these countries have a comparative advantage. Both can also emerge as competitive in many agricultural sectors once the protection and subsidies in the rich countries are ended. Equally important, there is also some danger that a failure to complete the Doha Round will weaken the multilateral system and may encourage protectionist lobbies around the world to push their favorite agendas more aggressively.

In the negotiations to-date, subdued by the challenge it faces from the United States on the exchange rate and imbalances in global flows, China has taken a backseat. India

has been more active but less forthcoming with proposals of its own that would help move the process forward. But the key problem is the vast difference between the positions of the United States and the EU. Even more importantly, until the Congressional elections in the United States November 2006, prospects for the revival of the talks are negligible. The situation is rendered even more complex and pessimistic by the fact that the Trade Promotion Authority (TPA) of the President in the United States is due to expire in June 2007.

Alongside, Asia in general and India and China in particular have been moving forward to sign the free trade area (FTA) agreements at the breakneck speed. India has signed bilateral FTA agreements with Singapore, Thailand and Sri Lanka. It has also singed the South Asian Free Trade Agreement (SAFTA) and has a framework agreement with the Association of the South East Asian Nations (ASEAN) to form an FTA with it. Likewise, china has singed an FTA agreement with the ASEAN and Hong Kong and is negotiating with several partner countries.

While I have been generally opposed to taking the discriminatory route to liberalization, recently I (Panagariya 2005) have raised the issue of an India-China FTA. According to the Indian Commerce Ministry data, India's exports to China rose from a paltry $18 million in 1990–91 to approximately $5.3 billion in 2004–05. India's imports from China expanded equally rapidly, from $35 million to $6.8 billion over the same period. So rapid has this expansion been that from an insignificant supplier until the beginning of the 1990s, China trails the United States as India's top source of imports by less than $100 million. In the last three years, India's exports to China have grown at the

annual rate of almost 80 percent. Its imports have grown almost 50 percent per annum over the same period.

Given that both India and China are now into playing the FTA game and given that at least the FTAs India has signed—those with Sri Lanka, Thailand and Singapore—are with small countries and therefore likely to be trade diverting, will it not make sense for these large countries to forge an FTA agreement with each other? China is a large player in the world market and a super-efficient producer of many goods. This fact means that the risk of trade diversion is less than in other FTAs India has signed or is contemplating. The scope of diversion of China's exports from outside suppliers towards India is greater but the likely damage is smaller on account of relatively low tariffs in China.

But the case for an India-China FTA is based principally on its strategic value. During the last decade, with the creation of the NAFTA, several expansions of the EU and a host of smaller FTAs in Latin America, Asia has suffered from a diversion of these regions' trade away from it. One response to this trade diversion for Asia would be to move towards a bloc of its own. Such a bloc may give Asia the necessary leverage to pry open the NAFTA and EU blocs to outsiders by bringing the United States and the EU to the negotiating table at the multilateral round in greater earnest.

If one accepts this argument, an India-China FTA is probably the best starting point for such an Asian bloc. For example, as an alternative, even if India and China both forge FTAs with the ASEAN, an effective Asian bloc will not form without these two countries signing an FTA agreement with each other. On the other hand, if India and China signed an agreement, chances are much higher that the remaining countries in Asia

will rush to sign agreements with them. Presently, the ASEAN is driving the integration process in Asia but with the emergence of India and China as major economic powerhouses and the relative stagnation faced by the most populous ASEAN country, Indonesia, its ability to serve as the engine of the Asian integration has substantially diminished.

An India-China FTA also has the advantage that it will help promote an alternative FTA template that focuses on trade integration rather than non-trade subjects including labor standards, intellectual property rights and even restrictions on the use of capital controls. These subjects are integral parts of the US FTA template that the US may eventually want to turn into the WTO template. An Asian bloc that relies on a "trade only" template will be an effective instrument of countering the US template in the future WTO negotiations.

Internally, India can surely benefit from cooperation with China in shaping its labor-intensive industry. In particular, direct competition with China may help push some of the key reforms necessary to stimulate the expansion of the labor-intensive industry. With the wages in China now rising, the time for India could not be more opportune for moving in a big way into such labor-intensive sectors as apparel, footwear and toys. Likewise, China could gain from increased interaction with India in the information technology sector.

Table 1: Exports and Imports of Goods and Services

(Balance of Payments Data)

	India				China			
	1982	1990	2000	2003	1982	1990	2000	2003
As % of GDP								
Exports of goods and services	6.2	7.2	13.1	13.8	11.7	16.2	23.3	29.6
Goods exports	4.7	5.8	9.5	9.9	10.5	14.5	20.8	26.7
Imports of goods and services	9.0	9.3	16.0	15.6	9.4	13.2	20.9	27.4
Goods imports	7.2	7.4	11.8	11.4	8.4	11.9	17.9	24.0
As % of the World								
Exports of goods and services	0.5	0.5	0.8	0.9	1.1	1.3	3.5	5.2
Goods exports	0.5	0.5	0.7	0.8	1.2	1.5	3.9	5.9
Services Exports	0.7	0.5	1.1	1.2	0.6	0.7	2.0	2.5
Imports of goods and services	0.8	0.7	0.9	1.0	0.8	1.1	3.2	4.9
Goods imports	0.8	0.7	0.8	0.9	0.9	1.2	3.4	5.3
Memo								
Share of services in total exports	24.1	20.2	27.8	28.3	10.6	10.2	10.9	9.6
GDP (current billion US$)	194.8	316.9	457.4	600.6	202.1	354.6	1198.5	1641.0
GDP per capita (constant 2000 US$)	234.2	315.5	450.2	510.8	208.2	391.7	949.2	1209.0

Source: World Bank: World Development Indicators, 2005

Table 2: Growth Rates with exports and imports measured in current US$

	India			China		
Item	1983-90	1991-00	2001-03	1983-90	1991-00	2001-03
Exports of goods and services	8.4	10.3	11.5	12.2	17.6	20.6
Goods exports	9.2	9.3	11.3	12.3	17.5	21.3
Imports of goods and services	6.9	10.0	9.3	13.7	18.8	22.0
Goods imports	6.7	9.3	8.8	14.2	18.2	23.1
GDP (constant 2000 US$)	6.0	5.5	5.9	9.9	10.4	9.1
GDP per capita (constant 2000 US$)	3.8	3.6	4.3	8.3	9.3	8.4

Source: Author's calculations using the data from WDI 2005.

Table 3: Composition of Exports (SITC one-digit classification)

		India				China		
SITC Code	Item	1980-83	1984-90	1991-00	2001-04	1984-90	1991-00	2001-04
0	Food and live animals	23.6	17.6	14.6	10.1	12.4	6.7	3.9
1	Beverages and tobacco	2.6	1.0	0.6	0.4	0.5	0.6	0.3
2	Crude materials, inedible, except fuels	10.2	9.0	4.8	5.3	8.6	2.6	1.2
3	Mineral fuels, lubricants and related materials	8.6	4.7	1.9	6.5	13.0	3.6	2.6
4	Animal and vegetable oils, fats and waxes	0.4	0.3	0.6	4.0	0.3	0.2	0.0
5	Chemicals and related products, n.e.s.	4.1	5.7	8.9	9.1	5.8	5.4	4.5
6	Manufactured goods classified chiefly by material	30.9	37.7	39.3	35.8	21.1	18.9	16.6
7	Machinery and transport equipment	7.2	6.9	7.5	9.2	11.9	24.7	41.8
8	Miscellaneous manufactured articles	12.2	15.8	19.8	17.9	23.9	37.1	28.9
9	Transactions not classified elsewhere	0.3	1.4	1.9	1.7	2.5	0.3	0.2
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations using UN Commodity Trade data

Table 4: SITC two-digit products with export shares exceeding 2 percent during 2001-04

SITC Code		1980-83	1984-90	1991-00	2001-04
India					
66	Non-metallic mineral manufactures, n.e.s.	9.4	16.4	15.9	14.9
65	Textile yarn, fabrics, made-up articles, n.e.s	12.4	12.0	14.0	10.6
84	Articles of apparel and clothing accessories	7.8	11.9	13.6	10.4
33	Petroleum, petroleum products and related materials	8.5	4.7	1.7	6.3
89	Miscellaneous manufactured articles	3.0	2.0	3.7	5.2
67	Iron and steel	0.8	1.1	3.1	5.0
43	Animal or vegetable fats and oils, processed	0.1	0.0	0.1	3.6
53	Dyeing, tanning and coloring material	0.8	1.1	1.3	3.1
28	Metalliferous ores and metal scrap	4.8	4.8	1.9	3.0
69	Manufactures of metal, n.e.s.	2.6	1.7	2.2	2.7
04	Cereals and cereal preparations	3.0	1.9	2.8	2.7
78	Road vehicles (incl. air cushion vehicles)	2.1	1.6	2.3	2.4
03	Fish, crustaceans, mollusks and aquatic invertebrates, and preparations thereof	3.7	3.2	3.3	2.2
77	Electrical machinery, apparatus & appliances	1.4	1.5	1.5	2.1
China					
75	Office machines & automatic data-processing machines		0.4	4.8	12.9
84	Articles of apparel and clothing accessories		14.3	16.8	11.8
76	Telecommunications & sound recording and reproducing apparatus and equipment		2.9	6.1	10.4
77	Electrical machinery, apparatus & appliances		1.2	7.2	10.1

89	Miscellaneous manufactured articles	4.9	9.3	7.3
65	Textile yarn, fabrics, made-up articles, n.e.s.	13.8	8.1	6.1
69	Manufactures of metal, n.e.s.	2.0	3.1	3.4
85	Footwear	2.0	4.4	2.9
74	General industrial machinery & equipment	0.6	1.4	2.7
78	Road vehicles (incl. air cushion vehicles)	4.0	2.1	2.6
82	Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings	0.5	1.4	2.1

Source: Author's calculations using the UN Commodity Trade data

Table 5: Composition of imports using SITC one-digit classification

		India				China		
SITC		1980-	1984-	1991-	2001-	1984-	1991-	2001-
Code	Product Description	83	90	00	04	90	00	04
0	Food and live animals	4.5	3.7	2.6	1.9	6.5	3.0	1.7
1	Beverages and tobacco	0.0	0.0	0.0	0.0	0.5	0.2	0.1
2	Crude materials, inedible, except fuels	5.3	8.5	6.5	5.5	8.7	7.5	8.8
3	Mineral fuels, lubricants and related materials	39.4	22.3	27.1	30.9	1.7	5.7	7.6
4	Animal and vegetable oils, fats and waxes	5.2	2.8	2.5	2.9	1.2	1.0	0.6
5	Chemicals and related products, n.e.s.	9.5	13.2	12.7	9.3	12.4	13.0	12.1
6	Manufactured goods classified chiefly by material	18.8	21.5	18.3	16.7	25.3	22.3	15.1
7	Machinery and transport equipment	15.4	20.7	16.8	19.3	38.2	40.8	45.6
8	Miscellaneous manufactured articles	1.9	3.1	3.4	4.2	5.2	5.9	7.9
9	Commodities and transactions not classified elsewhere in the SITC	0.0	4.1	10.1	9.3	0.3	0.6	0.4
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's calculations using the UN Commodity Trade data.

Table 6: SITC two-digit products with import shares exceeding 2 percent during 2001-04

SITC Code	Product Description	1980-83	1984-90	1991-00	2001-04
India					
33	Petroleum, petroleum products and related materials	39.2	20.9	24.3	27.9
66	Non-metallic mineral manufactures, n.e.s.	5.9	9.4	9.2	9.5
76	Telecommunications & sound recording equipment	0.5	1.1	1.0	3.5
51	Organic chemicals	2.0	3.2	3.7	3.4
77	Electrical machinery, apparatus & appliances	1.6	3.4	2.9	3.2
79	Other transport equipment	2.3	2.0	1.8	2.8
42	Fixed vegetable oils and fats	4.9	2.7	2.2	2.7
75	Office machines & automatic data processing machines	0.3	1.0	1.6	2.5
74	General industrial machinery & equipment	3.5	4.1	3.0	2.4
72	Machinery specialized for particular industries	3.7	5.0	3.2	2.4
32	Coal, coke and briquettes	0.2	1.3	2.3	2.2
89	Miscellaneous manufactured articles	0.3	0.8	1.3	2.0
28	Metalliferous ores and metal scrap	1.2	2.6	2.0	2.0
China					
77	Electrical machinery, apparatus & appliances		3.4	10.1	19.0
33	Petroleum, petroleum products and related materials		1.4	5.1	7.0
75	Office machines & automatic data processing machines		1.6	3.1	5.5
72	Machinery specialized for particular industries		12.1	8.4	5.1
58	Artificial resins, plastic material, cellulose		3.7	5.7	4.9
76	Telecommunications & sound recording equipment		3.9	5.2	4.7
87	Professional, scientific & controlling instruments		1.4	1.7	4.6

67	Iron and steel	9.7	5.5	4.6
74	General industrial machinery & equipment	3.8	4.4	4.0
51	Organic chemicals	1.9	2.6	3.9
65	Textile yarn, fabrics, made-up articles	7.6	7.9	3.7
28	Metalliferous ores and metal scrap	1.3	2.2	3.4
68	Non-ferrous metals	1.9	2.3	2.5
78	Road vehicles (incl. air cushion vehicles)	6.8	2.6	2.4
71	Power generating machinery and equipment	2.6	2.6	2.0

Source: Author's calculations using the UN Commodity Trade data.

Table 7: Services Exports by India

(In million dollars except the last row, which is in percent)

Year	Total	Travel	Transportation	Insurance	G.N.I.E.	Software	Miscellaneous*
1970-71	292.0	49.1	145.1	16.1	40.0	0.0	42.0
1980-81	2804.0	1219.7	457.1	64.5	112.2	0.0	950.6
1990-91	4551.0	1456.3	983.0	109.2	13.7	0.0	1988.8
2000-01	16268.0	3497.6	2049.8	276.6	650.7	6344.5	3465.1
2003-04	24949.0	4116.6	3268.3	424.1	274.4	12200.1	4665.5
2004-05	51326.0	5029.9	5081.3	1026.5	410.6	17296.9	22532.1
Annual Growth in 2004-05	105.7	22.2	55.5	142.0	49.6	41.8	383.0

*Excluding software

G.N.I.E.: Government not included elsewhere

Source: RBI Annual Report 2005, Table 1.66

Table 8: Software Services

Year	IT Services	ITES/BPO	Total Software
	1	2	3 4 (=2+3)
Value in million dollars			
1995-96	754	–	754
2000-01	5287	930	6217
2003-04	9200	3600	12800
2004-05	12000	5200	17200
Shares			
2000-01	85.0	15.0	100
2003-04	71.9	28.1	100
2004-05	69.8	30.2	100

ITES: IT Enabled Services; BPO: Business Process Outsourcing

Source: NASSCOM (as per the RBI Annual Report 2005, Table 1.68)

Table 9: Foreign Investment ($billion)

	DFI (net)		Portfolio (net)	
Year	India	China	India	China
1990-91	0.1	2.7	0.0	-0.2
1991-92	0.1	3.5	0.0	0.2
1992-93	0.3	7.2	0.2	-0.1
1993-94	0.6	23.1	3.6	3.1
1994-95	1.3	31.8	3.8	3.5
1995-96	2.1	33.8	2.7	0.8
1996-97	2.8	38.1	3.3	1.7
1997-98	3.6	41.7	1.8	6.8
1998-99	2.5	41.1	-0.1	-3.7
1999-00	2.2	37.0	3.0	-11.2
2000-01	4.0	37.5	2.8	-4.0
2001-02	6.1	37.4	2.0	-19.4
2002-03	5.0	46.8	1.0	-10.3
2003-04	4.7	47.2	11.4	11.4
2004-05	5.5	55.02	8.9	

Notes: 1. Year 1990-91 refers to the financial year in the case of India and to calendar year 1990 in the case of China. The same holds true for the remaining years.
2. In the case of India, DFI data prior to 2000-01 do not include re-invested earnings. As such, the DFI data between India and China are strictly comparable only from 2000-01. Also, figures for 2004-05 for India are provisional.

Sources: RBI, Handbook of Statistics 2005 (Table 157) for India and Prasad and Wei (2006, Table 6) for China.

References

DeLong, J. Bradford, 2004, "India Since Independence: An Analytic Growth Narrative," in Dani Rodrik, ed., *Modern Economic Growth: Analytical Country Studies*, New Jersey: Princeton University Press.

Jalan, Bimal, 2005, *The Future of India*, New Delhi: Viking.

Joshi, Vijay, 2004, "Myth of India's Outsouricng Boom," Financial Times, November 16.

Kelkar, Vijay, 2004, "India on the Growth Turnpike," K.R. Narayanan Oration, Australian National University, 27th April.

Kochhar, Kalpana, Raghuram Rajan, Arvind Subramanian and Ioannis Tokatlidis, 2006, "India's Pattern of Development: What Happened, What Follows," NBER Working Paper No. 12023.

Lardy, Nicholas, 2002, *Integrating China into the Global Economy*, Washington, D.C.: Brookings Institution Press.

Lin, Justin Yifu, 1988, "The Household Responsibility System in China's Agricultural Reform: A Theoretical and Empirical Study," *Economic and Development and Cultural Change* 36(3), S199-S224.

Panagariya, Arvind, 1993, "Unraveling the Mysteries of China's Foreign Trade Regime," *World Economy* 16, 51-68.

Panagariya, Arvind, 2002, "Why India Lags behind China," *Economic Times*, May 22.

Panagariya, Arvind, 2004a, "Growth and Reforms During 1980s and 1990," *Economic and Political Weekly*, June 19, 2581-94.

Panagariya, Arvind, 2004b, "India's Trade Reform," *India Policy Forum* 1, 1-57.

Panagariya, Arvind, 2005, "An India-China Free Trade Area?" April 20.

Panagariya, Arvind, forthcoming, *India: An Emerging Giant*, New York: Oxford University Press.

Prasad, Eswar and Shang-Jin Wei, 2006, "Understanding the Structure of Cross-border Capital Flows: The Case of China," presented at the conference, "China at Crossroads: FX and Capital Markets Policies for the Coming Decade," held at the Columbia University on February 2-3, 2006.

Rodrik, Dani, 2004, "Institutions, Integration, and Geography: In Search of the Deep determinants of Economic Growth," in Dani Rodrik, ed., *Modern Economic Growth: Analytical Country Studies*, New Jersey: Princeton University Press.

Srinivasan, T.N., 2006a, "China, India and the World Economy," mimeo., Yale University, Department of Economics.

Srinivasan, T.N, 2005, "Comments on "From 'Hindu Growth' to Productivity Surge: The Mystery of the Indian Growth Transition," IMF Staff Papers 52(2),

Srinivasan, T.N., 2006b, "Information-Technology-Enabled Services and India's Growth Prospects," in Susan Collins and Lael Brainard, editors, *Brookings Trade Forum 2005*, Washington, DC: Brookings Institution Press.

Srinivasan, T.N. and S. Tendulkar, 2003, *Reintegrating India with the World Economy*, Washington DC: Institute for International Economics.

World Trade Organization, 2005, *International Trade Statistics*, Geneva: World Trade Organization.