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# Appraising Industrial Policies of India and China from Two Perspectives

Nationalist and Internationalist

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High gross domestic product (GDP) growth rates for over 30 years in China, and for a shorter stretch in India, combined with the fact that the two economies were relatively unscathed by the recent global crisis, have led the international media as well as academic circles to consider both as the miracle economies of this century.

One may first note some long-term trends. At constant international dollars, China's per capita GDP was 19 per cent of the US level in 2007, as against 3.5 per cent in 1978; the figures were respectively 9 per cent and 5.8 per cent for India (Penn World Table, Version 6.3 [PWT] 2009). In net output of manufacturing at constant international dollars, China's share rose from 0.92 per cent of the US level in 1970 to 1.63 per cent in 1980 and 13.8 per cent in 2006, while the figures for India were respectively 0.65 per cent, 0.68 per cent, and 2.02 per cent over the same years (UN database). China's percentage share in global

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exports of manufactures shot up from 0.8 in 1980 to 13.5 in 2009, and that of India from 0.5 and 1.3 (WTO database).

Industrial policies in these countries are examined from two alternative perspectives. In the section 'India', I take a 'nationalist' position, emphasizing economic growth and national self-reliance. I begin with the Nehru-Mahalanobis strategy of self-reliant industrialization that was broadly followed from 1955 to 1984. From 1985 began a turn towards Washington-inspired liberalization culminating in the financial crisis of 1991. The changes since 1991 to date are then probed. The section 'China' is on China's economic reform of 1978 crafted by the Communist Party. China has now become the manufacturing hub of the world, and the largest exporter of high-technology manufactures. The section 'A Critique of Growth Experience in India and China' critiques the policies of the two countries from an 'internationalist' perspective of growth with equity, both within the country and across its borders.

## INDIA

### India before 1991

India's industrialization strategy (IIS) from 1956 to 1984 was outlined in the Mahalanobis plan frame that was endorsed by most Indian economists as well as leading Western scholars of a liberal or socialist persuasion. But the conservatives in the West were highly critical for several reasons: (a) IIS was biased towards heavy- and capital-goods industries that made too little use of overabundant surplus labour available in the country; (b) tariff walls across the board created high-cost industries that adversely affected domestic sales as well as exports; and (c) industrial investments required licensing by bureaucrats, and private entrepreneurs had to waste time and money to bribe officials, adding to the costs.

As a subcontinent, India fostered almost all industries. Thus Little (1960) found that 'the broad strategy of India's planned development is eminently sound'. A few years later he turned into a trenchant critic (Little et al. 1970). Mahalanobis (1953) had showed through simple algebra that a high proportion of investments going into heavy and capital goods industries ensured the quickest way to attain the goal of industrial self-reliance, alleviating simultaneously the foreign

exchange shortage. This target was achieved around 1980, as a bare 10 per cent of capital goods required by the country were imported, and aggregate savings nearly equalled investment.

But the main goal of approaching full employment in 10-15 years remained elusive, and the backlog of underemployment kept piling up (Shetty 1978, Chaudhuri 1997). Mahalanobis never expected that the heavy- and capital-goods industries would absorb much surplus labour. For employment creation, he had assumed, following Nehru's call for a 'socialistic' transformation of the country in 1954, that radical land reforms would give land to the tiller. With a significant rise in their income, the peasants' demand for foods and 'simple' manufactures would go up. If simultaneously, the government froze the capacities of large urban factories turning out goods that could be produced by labour-intensive urban or rural industries, employment could greatly expand over a short period with a multiplier effect (Mahalanobis 1955). Actually, the agenda of land reforms was aborted by the landlords, and the income of rural masses still remains depressed; two recent official reports have underlined this factor in the context of the Naxalite challenge (Planning Commission 2008, Ministry of Rural Development [MRD] 2009.) As for large urban factories competing with small units, the government measures were again half-hearted, thanks to opposition from big industrialists.

Although IIS incorporated export promotion schemes for manufactures, India's performance lagged well behind those of Asia's miracle economies like Japan, South Korea, or Taiwan. Following the logic of mathematical induction, can one argue that India could successfully emulate these countries by modifying drastically IIS?

From Washington's prestigious Institute of International Economics, Cline (1982) was sceptical about the mantra of export-led growth as a panacea. A decade later, Summers, who has held top positions in the World Bank, successive US Administrations, and Wall Street, wrote a piece jointly with Thomas (Summers and Thomas 1993), chiding the Bank for chanting the same mantra for all developing countries.

Why did a handful of countries actually succeed? In his Marshall Lecture at Cambridge on the Japanese miracle, Morishima (1982) underscored the fact that the United States of America was politically and militarily committed from the early 1950s to the economic prosperity of Japan as a bulwark against the USSR and China, and encouraged Japan to pursue a mercantilist trade and investment

policy that ran against the immediate interests of US businesses. It does not contradict the claim of Johnson (1982) that Japan owed its success to the domestic policies inspired by Soviet planning, and that the United States of America as the hegemon should have approved of Japan's 'market-oriented planned economy'. Amsden (1989) rightly stressed Korea's policy on both import substitution and export promotion, but omitted altogether the US role as the Santa Clause. Once the USSR disappeared, Washington engineered, according to many, the financial crisis of 1997, while the media and numerous scholars in the United States scornfully referred to the Korean miracle as a gift from the United States of America.

Back in 1960, India was the world's second-largest exporter of cotton textiles with a share of 8.8 per cent of the total (Nayyar 1976, Table 4.3). From 1962, the Multi-Fibre Arrangement was enforced unilaterally against the General Agreement on Tariffs and Trade (GATT) rules, enabling rich countries to impose product-wise quotas on each exporter. As a friend of the USSR, India saw its quota nearly frozen for the benefit of the strategic allies of the United States of America in East Asia. In a quota-based trade regime the concept of comparative advantage loses all relevance. Furthermore, there is a spillover effect. Countries with high quotas in textiles earned a reputation in foreign markets and diversified into the export of other low-technology products. That may explain why India not only lost its share in world exports in textiles, but also failed to break into new areas.

Critics of IIS asserted that the effective rate of protection (ERP), that is, the extent of tariff protection required by a domestic industry to impede imports, was quite high and hence most of them were inefficient. (Bhagwati and Desai 1970, Bhagwati et al. 1975, World Bank 1990). The basic flaw in the argument was that the 'deemed' costs of domestic and imported inputs were artificially inflated, reducing the domestic value added as shown by a number of scholars (Nambiar 1983, Chandrasekhar 1992, Kathuria 1995, Chaudhuri 1997).<sup>1</sup>

An alternative to ERP is the domestic resource cost (DRC) that indicates the opportunity cost of saving a unit of foreign exchange. If the DRC of a product is higher (lower) than the import value at the current rate of exchange, the industry is regarded as inefficient (efficient). A series of studies from the 1970s indicate that by this yardstick India's industries have generally, with some important exceptions, been efficient. In particular, if one considers 'short-run'

DRC for firms that exports only a small part of their output, Indian firms have been efficient almost without exception.<sup>2</sup>

Most telling are two in-depth studies on India's capital goods industries by the World Bank (1975 and 1984). For each study, large teams of engineers, accountants, and economists visited the plants and examined the balance sheets and other data. In textile machinery, the best Indian firms in 1975 had achieved global quality, and their prices were lower than abroad by 12-35 per cent. Somewhat similar was the finding for five major capital goods industries in the early 1980s. So far, both reports remain 'classified' by the Bank and mainstream writers in the West or in India still ignore them, though the 1984 report was summarized in the *Economic and Political Weekly* (Anonymous 1985).

Most writers also ignore another piece of evidence. The International Comparison Project of the World Bank and the UN compared the 'final purchaser' prices in 1975 of 76 manufactured products; Indian prices were more attractive, lower than in the United States of America with respect to 44 items, but were particularly high for 'luxury' goods like consumer durables with a high rate of indirect tax (Kravis et al. 1982).

In recent years, 'total factor productivity' (TFP) growth as a key indicator of macroeconomic efficiency has come to the fore in mainstream economics. In examining the East Asian miracle, World Bank (1993) put TFP growth rate at above 6 per cent for Korea (1966-85), as against 2 per cent for Japan (1960-79). But Krugman (1994) cited a study by Young (1994) to argue that Korean or Japanese growth was in some ways similar to Soviet or East European growth; value added in manufacturing rose fast for a long period, but TFP growth was negligible. Krugman was apparently vindicated by the Korean crisis that erupted soon after, though others questioned the statistical finding of Young. Sarel (1996) felt that most TFP estimates lacked robustness for a variety of reasons. Rodrik (1997) reiterated this point, added some weighty objections, theoretical and empirical, to the prevalent estimates, and concluded that the rate of accumulation is the best predictor of GDP growth. Strangely, Rodrik and Subramanian (2004) took a very different position on the Indian scene, discussed later.

Ahluwalia (1991) showed that TFP in Indian manufacturing declined annually by 0.4 per cent between 1959 and 1985, but there was a significant improvement in the 1980s. Goldar (1992) came to

the opposite conclusion: TFP improved by 0.8 per cent p.a. from 1956 to 1984. Instead of the standard single deflation (SD) method deflating the time series of value added by the output price index, Balakrishnan and Pushpangadan (1994) used the double deflation (DD) method, deflating both inputs and outputs by their respective price indices for the years, 1970-88. In a period when raw materials prices shoot up, for example, after the oil shock of 1973, DD provides a better indicator of real growth and TFP. A more elaborate exercise along the same lines was that of Trivedi (2000) covering the years 1973 to 1997.

The findings of the two studies are presented in Table 4.1. Often 1980-1 is taken as the break point, but it was a 'bad' year well below the peak of 1978-9. I consider the latter as more appropriate, and in Part A of the table, two alternative sets of data are given. Now, the growth rates were higher in the 1970s than in the next decade with the new break point, and more so if the DD method is used. Trivedi's findings in Part B of the table confirms it. Further, compared to the previous period, growth accelerated during 1983-9, but fell steeply during 1989-96, using either TFP-S or TFP-D.

Table 4.1 Annual Percentage Growth Rates in Value Added and Productivity in Indian Manufacturing, 1970-96

A. Balakrishnan and Pushpangadan				
	VA-S	TFP-S	VA-D	TFP-D
1970/1-1978/9	5.4	0.6	10.0	4.0
1978/9-1988/9	5.2	0.2	6.0	-0.3
1970/1-1980/1	3.1	1.9	7.6	1.6
1980/1-1988/9	8.0	3.2	8.0	1.3
B. Trivedi				
	TFP-S		TFP-D	
1973/4-1978/9	4.4		14.1	
1978/9-1983/4	1.6		-0.4	
1983/4-1989/90	2.2		4.5	
1989/90-1996/7	1.6		2.4	

Sources: Balakrishnan and Pushpangadan (1994), Trivedi (2000).

Notes: (a) VA and TFP denote respectively value added and total factor productivity, while the letters S and D stand for SD and DD methods respectively.

(b) Trivedi presented two time series of TFP-S, using slightly different methods; as the indices were highly correlated, I have taken a simple average. I did the same for the two series of TFP-D.

In an influential study, Rodrik and Subramanian (2004) observed that there was considerable progress in manufacturing during the IIS era, but asserted that the 'Hindu growth' phase ended in 1980, and per capita income growth doubled from 1.7 per cent in 1950-80 to 3.8 per cent in 1980-2000. They referred to many studies, including those in Table 4.1, and endorsed the view 'that manufacturing experienced a surge in productivity in the 1980s'. Clearly, they drew a wrong inference.

Thus none of the alleged drawbacks of IIS, namely neglect of the export potential, high costs of protected industries, and low TFP growth till 1980, stands up to a close scrutiny, putting a question mark over the narratives of Rodrik and Subramanian (2004) or of those echoing the Washington Consensus. The flawed diagnosis provided a rationale for the blitzkrieg of reforms after 1991.

#### India after 1991

In a prescient essay, Bliss (1989, p. 121) wondered whether developing countries with high levels of protection 'would benefit if a foreign power destroyed a part of the [inefficient] capital stock in a bombing raid. This is not a plausible assumption for most LDCs.' In fact, a surrogate bombing in the form of shock therapy was carried out on 2 January 1992 in post-Soviet Russia, devastating the whole economy.<sup>3</sup> An insider in the debate within the US administration in the late 1980s over the 'desirable' reform path for the USSR, Stiglitz (2000) revealed that along with several leading American economists like Arrow, he had suggested a path of gradual reforms that would enable the Soviet enterprises to adapt themselves to a market economy. But the US Treasury on grounds of realpolitik did not want a revival of socialism. The barely concealed objective was to prevent Soviet firms from posing a challenge to Western multinational corporations (MNCs). The Treasury view was echoed in the joint report of four multilateral institutions (International Monetary Fund [IMF] et al. 1991), prepared at the request of the then Soviet President Gorbachev, and was faithfully implemented by the successor President Yeltsin.

An advisory body appointed by the Indian prime minister, the National Manufacturing Competitiveness Council (NMCC 2008, p. 4) used the term 'big bang' to describe the impact of 1991 reforms on industry. Of course, India did not have a traumatic experience like

Russia. Yet there are parallels. A widely used textbook, by Joshi and Little (1996), strongly supported the reforms, since 'a good deal of Indian industry, after 40 years of almost total protection and limited domestic competition was in poor shape in 1991 to survive international competition with only very limited protection'. Curiously, they admitted that for capital goods there was for some years 'negative protection in some cases', and that 'everyone agrees that time for adjustment was needed—say seven years' (pp. 71-3). It is evident that the reformers expected that an abrupt liberalization of imports would cause a collapse of many Indian industries, especially in capital goods.

After a brief period of import compression, imports across the board began to surge. By 1994-5 import of capital goods jumped to US\$8.5 billion, or 50 per cent more than in the pre-crisis year of 1990-1 (Report on Currency and Finance [RCF] 1994-5). Further, as noted by the NMCC and others, the import duties remained over the years virtually nil for capital goods required for 'mega projects' across the sectors; to add insult to injury, the domestic producers had to pay stiff indirect taxes without countervailing duties on competing imports. The extent of damage to domestic industry and employment was analysed by Nambiar et al. (1999). Indeed, the compound average annual growth rate of all manufacturing was higher in the 1980s (7.6 per cent) than in the post-reform years, 1990-2009 (6.2 per cent); much steeper was the fall in that of capital goods, from 11.3 per cent to 5.4 per cent over the same years. The shock therapy was quite effective for capital goods with the growth rate plunging to 3.8 per cent during 1990-2000, but it recovered to 7.3 per cent over the next nine years (Reserve Bank of India [RBI] 2010, Table 30). Apart from import liberalization, there were many other factors behind the deceleration in manufacturing growth.

As for export, the reformers confidently predicted acceleration in that of labour-intensive manufactures after 1991. Did it happen? United Nations Industrial Development Organization (UNIDO) classifies all commodities into: (a) resource based (RB), (b) low technology (LT), (c) medium technology (MT), and (d) high technology (HT); the number of SITC three-digit products in these groups are respectively 68, 44, 72, and 17 (UNIDO 2009, p. 127) From the UN Comtrade database, the percentage share of each group in India's total export was calculated for 1990 and 2008. What is most remarkable is the sharp rise of the RB group from 35 per cent in 1990 to 47 per cent

in 2008. The earlier policy of restricting the export of minerals and preserving them for future use in domestic manufacturing was gradually lifted after 1991; this led to large-scale environmental degradation and displacement, especially of the tribal population, and generated sociopolitical tensions. Equally remarkable was the precipitous fall in the share of labour-intensive LT goods from 47 per cent to 28 per cent in those years. However, the share of more capital-intensive MT group went up from 13 per cent in 1990 to 20 per cent in 2008. At the other end, the share of the HT group was quite small and stagnant at 4-5 per cent.

Table 4.2 shows that though India's HT exports during 2000-9 rose impressively by a factor of 7, India remains a minor player with a share of less than 1 per cent of the total for six exporters.

Table 4.2 High-tech Export by Some Leading Countries, 2000-9  
(US\$ billion)

Countries	2000	2008	2009
China	40.3	270.2	239.1
USA	142.2	145.7	113.6
Japan	76.2	63.2	n.a.
EU-27	92.3	164.1	137.1
S. Korea	43.2	68.3	59.4
India	1.4	6.7	10.0

Source: UN Comtrade.

A highly significant hightech area where the 1991 reforms literally destroyed the incipient domestic industry is telecom manufacturing. The C-DOT, a government-funded research and development (R&D) unit, made remarkable progress in designing, developing, and commercializing a range of digital automatic exchanges within five years of its creation in 1984; the total outlay was just Rs 1,000 million, or a tiny fraction of the R&D costs incurred by MNCs. Further, the fixed cost per installed landline using C-DOT equipment was just one-third of that for imported equipment (Meemansi 1994). After 1991, the government marginalized C-DOT, encouraged private players, domestic or foreign, and permitted duty-free import of equipment. Apparently, the new policy was a great success: The subscriber-base, fixed line and mobile, expanded exponentially from 5.0 to 650

million during 1991-2010, and the revenue of service providers reached US\$35 billion. But for telecom equipment with a domestic sale of around US\$30 billion, local production (mainly, peripherals like telephone sets) accounted for less than one-fifth. It is ironical that India's major suppliers are Chinese SOEs that were entirely dependent on MNCs up to the mid-1990s. Since software plays a crucial role in manufacturing telecom equipment, and India is still well ahead of China in software development, the C-DOT and similar entities could, with appropriate state support, offer a stiff challenge.

The only major Indian industry that emerged after 1991 and captured global admiration is the export-oriented software industry. Its growth was fuelled by the information technology (IT) revolution in the USA, the presence of a large body of Indian expatriates occupying key managerial posts in that country, and the abundance of highly skilled workers in India earning a fraction of their American counterpart. The Indian government provided various tax incentives in tune with international practice; similar concessions were available to Indian exporters even before 1991.

Indian reformers, prompted by Washington, deliberately abjured an 'industrial policy'. Their overriding objective was to 'lock' India into the global financial system by moving as fast as feasible towards a free cross-border flow of capital. Thus shortly after 1991, control on current account transactions was removed, and unlimited inflow of foreign portfolio capital with virtual exemption from all domestic taxes was solicited. More slowly, big Indian firms were encouraged to raise equity and debt funds in international capital markets, and Indians can now invest abroad using domestic resources. This more or less free mobility of capital is of immense benefit for the large firms and rich individuals; however, whether India as a poor country could gain from such flows has been questioned by many mainstream economists.

For a net inflow of capital, the current account has to be in deficit. The import surplus ballooned from \$6 billion in 2000-1 to US\$119 billion in 2008-9, or about 10 per cent of the GDP. The surge in India's software exports and sizeable private transfers covered a large part of the trade deficit. There was still an almost persistent deficit in the current account. From 1990-1 to 2008-9, the cumulative current account deficit amounted to US\$91.3 billion while the surplus on capital account was as high as US\$337.9 billion, and foreign exchange reserves increased by US\$248.9 billion. The corresponding figures (in

US\$ billion) for 2000-1 to 2008-9 were 47.6, 260.8, and 215.9 respectively (RBI 2009, Table 142). The huge capital inflows entailing high costs, did not invigorate the productive sectors of the economy, but were locked in low-yield foreign exchange reserves. The consequent annual drain from the country amounted to 4-5 per cent of the 2007 GDP (Chandra 2008).

## CHINA

### Compulsions behind the Reform

Economic reform in China was the result of a tectonic political shift in 1978 under Deng Xiaoping from 'iron rice bowl' to 'let some get rich first, others will benefit later' as the guiding principle of state policy. The gradual spread of market relations in lieu of very detailed central planning was almost a logical corollary, affecting both agriculture and industry. There was also a compulsion behind the reform that has not received adequate attention.

In absolute terms, China has enormous reserves of natural resources as compared to most other countries, but these are not so abundant per head of the population. After three decades of fairly rapid growth in manufacturing, energy consumption may have approached the sustainable limits by 1978. In that year the ratio of energy consumption (in units of 10,000 tonnes of standard coal equivalent for different types of energy) to the GDP (in units of 100 million yuan at constant 1970 prices) stood at 16.99. Thanks to 'socialist modernization', in 2007 the ratio fell to less than a third at 4.99 (Statistical Yearbook of China [SYC] 2008). However, in 2003, China's energy intensity (in oil equivalents per international dollar of GDP) was higher than the world average by 10 per cent, and also exceeded that of USA, India, Mexico, Brazil, and (World Resources Institute 2009). Moreover, the country is still heavily dependent on imports and has been acquiring foreign sources of energy and minerals at a feverish pace. Without a change in track around 1978, China's growth would have been stymied.

The bulk of modern industries in China were built in the 1950s with Soviet technology and equipment. When Soviet experts withdrew in the wake of the Sino-Soviet rift, the Chinese bravely faced the challenge, but took many years to complete the unfinished plants.<sup>4</sup> The Soviets had acquired Western technologies in the 1930s to set up

most big industries (Sutton 1971, R.W. Davies 1996, pp. 490-9) and replicated these over time. During World War II, significant technical advances were made in the USA to which the Soviets had no access owing to the US embargo during the Cold War. The Soviet economists in the 1950s began to complain about excessive material costs in their industries. Liberman's reform proposal (1962) on pricing of inputs and outputs, and on replacing profits rather than gross output as the 'success indicator' for a firm, was designed to correct these as well as other systemic deficiencies, without diluting state control over the economy. But the Soviet leaders apprehended that the reform would slow down economic growth and rejected it (Lewin 1974). Rather, they opted in the 1970s for massive loans from Western banks to purchase some plants from the West for modernizing Soviet industries; they hoped to repay the loans through exports of such products. But the US-backed embargo on such exports upset the Soviet calculation, and the country was saddled with a huge debt burden.

The Chinese drew two lessons. Relying primarily on indigenous efforts, China could hardly modernize its industries fast enough to avoid a resource crunch. As the import bill for modernization was going to be huge, China could escape a debt trap only if exports rose in step.

An opening was created during President Nixon's Beijing visit in 1972 to meet Mao Zedong. Both agreed that the USSR was the main danger for world peace. In the years, 1972-5, China's exports to the West rose rapidly. A de facto Sino-US strategic alliance was struck, and was cemented during Deng's visit to the USA in 1979. China obtained exceptionally high quotas for textile exports to the USA under the Multi Fibre Arrangement (MFA). However, China's state-owned enterprises (SOEs) were unlikely to satisfy the requirements of US consumers. On the other hand, capitalists from the Chinese diaspora in Hong Kong, Macao, and so on, were already well-entrenched in Western markets, faced rising labour costs, and were keen (with US blessing) to relocate production in China. To accommodate them, China had to change its foreign direct investment (FDI) rules. Further, the planning system with centralized allocation of inputs and of price-fixing, had to be radically changed to give priority to exports. Indeed, the number of centrally planned products was reduced gradually, allowing a greater leeway for market forces—under the state's overall control.

In short, China embraced market socialism with an 'open door' to FDI out of domestic compulsion. Today's left-wing critics in China have not questioned the need for the market forces or for FDI, but attacked the systemic tendency aggravating multi-layered inequalities; they believe that the trend can still be reversed to salvage socialism (Open Letter 2004, Lee and Selden 2008).

### Industrial Policy after 1978

China proceeded carefully with reforms without a clear blueprint, and retained a number of policies from the Maoist era, while discarding others. The state-party maintained its iron grip over the polity. The economic goal of catching up with the advanced capitalist countries remained and the state exercised as much control as it thought necessary over all economic transactions, domestic or foreign. FDI and technology imports played a critical role in this process. Market forces were encouraged in ever-widening spheres, not as an end in itself, but as a tool of state policy. This basic feature of 'socialism with Chinese characteristics' contradicts the essence of neo-liberalism as formulated by Hayek or Milton Friedman, although some of Deng's key ideas were indistinguishable from those of the latter.

Despite an enormous appetite for foreign capital, over the years China's domestic savings generally financed domestic investment and the external account was rarely in the red. Being self-reliant on these two fundamentals, the state decided on the kind of foreign capital to be encouraged or barred. To promote exports and rapid modernization of domestic industries, FDI in export-oriented sectors was molycoddled with income tax breaks and liberal imports of capital goods or intermediates. But many restrictions, though changing over time, were imposed on FDI seeking to exploit the domestic market. Further, in each case to this day, the foreign investor must sign a prior contract with the state, specifying the foreign contribution (in the form of technology, capital goods, and cash), and the contract period (usually 30 years, but renewable) beyond which the investor would have no claim over the residual assets.

Till the late 1990s, the foreign investor was obliged to form a joint venture (JV) with a Chinese SOE; the latter would have the majority stake and appoint the Chairman. The foreign partner had to disclose full details of the technology and capital goods supplied, so that the

Chinese could assimilate the know-how and know-why of the technology.<sup>5</sup> Further, foreign exchange outflows (import of capital goods and raw materials, dividends, and so on) had to be balanced by exports either from the JV itself or from a 'third party' to be identified by the foreign investors (Chandra 1999).

The constraints mattered little for investors from the Chinese diaspora in Hong Kong, Macao, and elsewhere in Southeast Asia, as they set up low-technology, labour-intensive units for 'processing exports'. The overwhelming bulk of FDI into China till the late 1990s came from these sources.

Foreign investors (till the late 1990s) seeking to exploit China's domestic market were irked by the restrictions mentioned earlier. Yet they came in droves to have a slice of the enormous market. Owing to the disclosure requirement, they rarely inducted the latest technologies. Still, they profited from China's protected markets. Critics of the official policy lamented that the country lost precious foreign exchange, while the pace of modernization was slow. The same argument has been made with respect to other developing countries, and needs closer scrutiny.

Had China insisted on obtaining state-of-the-art technologies in the early 1980s, few MNCs would be interested, even if they became the sole owners with full control over the ventures. For, the market for such expensive products was quite small owing to the low income of the Chinese. Indeed, India's Foreign Exchange and Regulation Act, 1973, put a 40 per cent cap on foreign equity, but relaxed it to 50 per cent or more, if a firm utilized 'sophisticated' technology not available in the country. At the end of the 1970s, only two or three out of hundreds of foreign firms fulfilled the requirement (Chandra 1994).

Conversely, could China in the early 1980s successfully absorb the latest technologies in different sectors? As noted earlier, the USSR in the 1970s had imported such technologies from the West in several industries. But these plants were like islands with no linkages to the rest of the economy, and could not be replicated by Soviet engineers (Gomulka et al. 1984). It should have been true a fortiori for China in the 1980s. On the other hand, the somewhat dated technologies of the JVs were fully assimilated by the Chinese personnel who set up new production facilities on their own with much lower imports than before. Moreover, through further development work, the Chinese

kept production cost pegged at a low level. Technology diffusion spawned a large number of new domestic firms and intense competition among them as well as the JVs exerted a downward pressure on market prices, resulting in a rapid expansion in domestic sale and exports of low-cost manufactured goods.

Foreign invested enterprises (FIEs) do now play a leading role in China's exports. In Figures 4.1 and 4.2 the values of their export and net export are shown and the share of FIEs in China's manufacturing exports. On the FIE share, I have no data prior to 1991 when it was just 22 per cent; it improved gradually to 50 per cent in 2000, soared to a peak of 62 per cent in 2004, but came down to 58 per cent in 2008. On the other hand, their net foreign exchange earning was in the red till 1997, and became positive, though quite small, up to 2004.

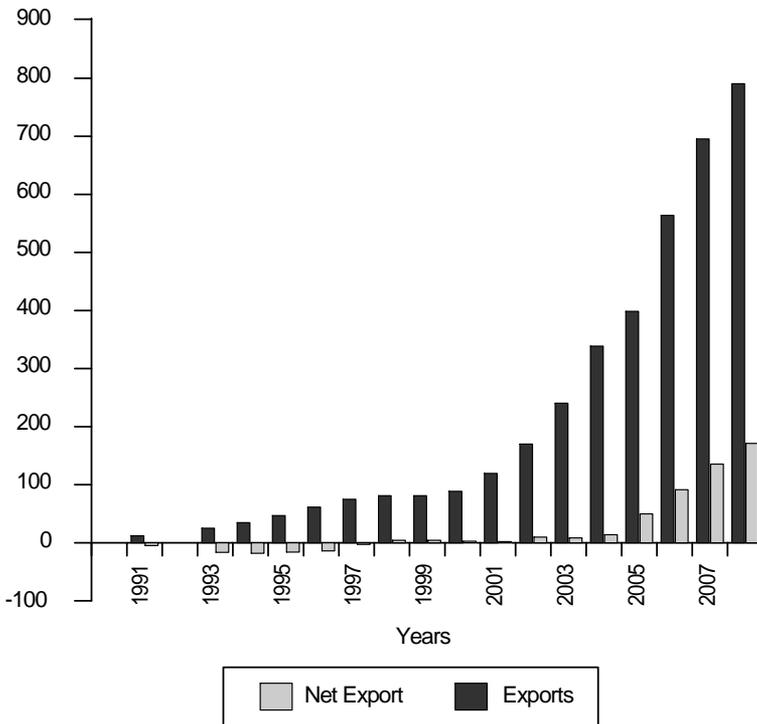


Figure 4.1 Exports and Net Export of FIEs, 1991-2008 (US\$ billion)

Source: SYC, various years.

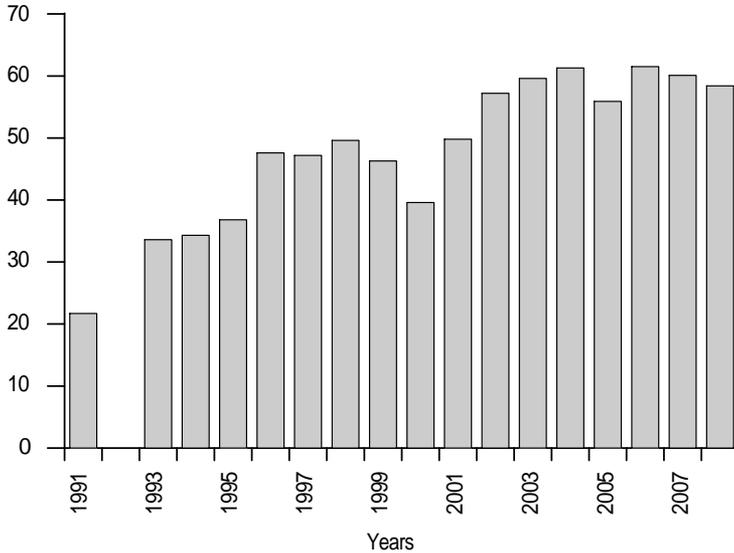


Figure 4.2 Share of FIEs in Manufacturing Exports, 1991-2008 (per cent)

Source: SYC, various years.

Subsequently, the positive balance jumped from US\$50 billion in 2005 to a massive US\$171 billion in 2008. Still, their trade balance as a proportion of exports was just 22 per cent in 2008. The surge in FIE export from the late 1990s is related to China's quest for high tech industries with the help of foreign capital and technology, and I shall discuss it shortly.

Another common perception is that the FIEs are mainly engaged in 'processing trade' in which local value added is small. Indeed, of FIE export in 1996, as much as 86 per cent consisted of processing export, according to the customs data; the percentage came down to 81 in 2000, and 73 in 2008 (UNCTAD 1996 and Invest in China, Investment Promotion, Agency of Ministry of Commerce, Beijing).

Data on processing export by all firms, including FIEs, are given in Figures 4.3 and 4.4. Such exports gathered momentum from the mid-1980s, and consistently exceeded one-half of China's manufacturing export from 1989, reaching a peak of nearly two-thirds in 1996. The share began to drop slowly thereafter, reaching barely 50 per cent in 2008. Net export was negative till 1988, and positive but small up to

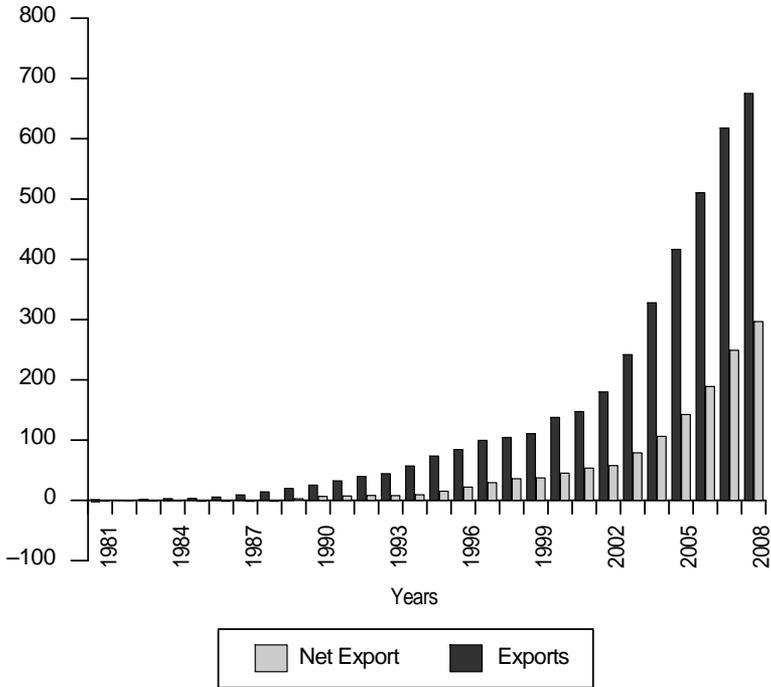


Figure 4.3 Processing Trade: Exports and Net Export 1981-2008 (US\$ billion)  
 Source: SYC, various years.

1995. Over the years there was a significant improvement, and the ratio of net to total export rose to 44 per cent in 2008. The percentage is quite high compared to that for overall manufacturing exports from many countries, for example, South Korea. Viewing China’s processing export as a kind of entrepôt trade is outdated.

At this stage, one must put in a caveat. Observers have long noted that a part of FDI is not ‘foreign’, but represents ‘round-trip’ investments by Chinese SOE affiliates in offshore locations, notably Hong Kong. How important has it been? A widely quoted scholar, Huang (2003, p. 38) referred to an unsubstantiated 1992 World Bank report as well as others to suggest that the percentage of such investment in total inflow in the early 2000s was 25 or less, and hence round-trip FDI was not very significant. On the other hand, in an OECD paper Sung (1996) looked closely at China’s outward FDI policy from the early 1950s, and explored the reasons why the

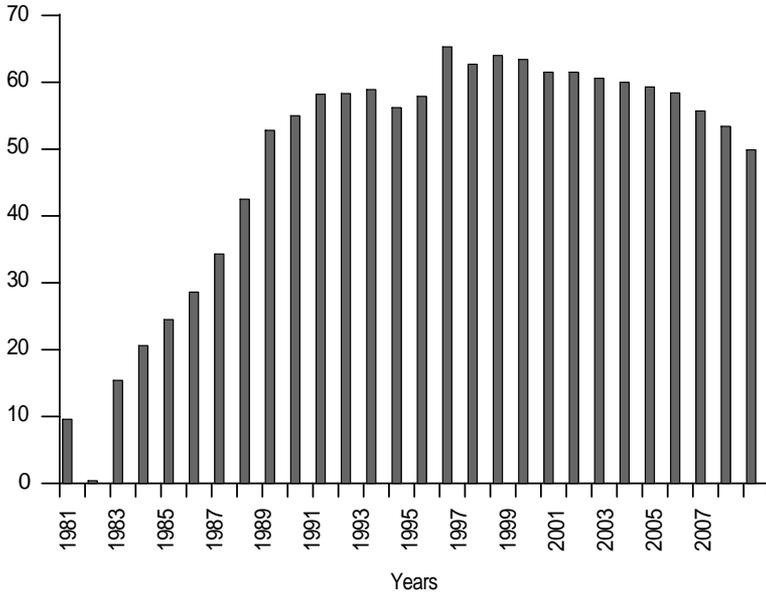


Figure 4.4 Share of Processing Export in Total Manufacturing Exports, 1981-2008 (per cent)

Source: SYC, various years.

state encouraged the SOEs affiliates in Hong Kong. They would gain, for instance, access to information on overseas market conditions, act as listening posts to gather data on technology, management, and so on. Sung provided data on how individual SOE affiliates expanded over the years, but gave no figure on the overall magnitudes of outward FDI. He concluded that in the mid-1990s, the stock of outward FDI should have been a significant proportion of the stock of inward FDI.

A detailed study for the Asian Development Bank by Geng Xiao (2004) put the percentage of round-trip to total FDI inflow at anywhere between 26 and 56 in the early 2000s. Next, China's Central Bank reported that one-half of FDI into China in 2004-5 was owing to round-trips by domestic firms through Hong Kong and the Caribbean off shore centres to avail of tax-breaks (Hindu Business Line, 10 August 2005). In 2007, offshore locations like the Virgin Islands, Cayman Islands, and Samoan Islands became major sources of FDI, accounting

for 28 per cent of the total of US\$72 billion (SYC 2009); apparently, these were instances of round-tripping. Further, the current definition of 'FIE' includes any firm with a foreign equity of at least 10 per cent (Kennedy 2007). Hence a significant, though unknown, proportion of FIE exports and imports was on account of enterprises directly or indirectly controlled by the SOEs or other Chinese firms.

Returning to the question of the relative importance in export of domestic firms and FIEs (including the round-trip cases), I have compiled in Table 4.3 figures for some years. One finds that: (a) up to 2000 the domestic firms were the main exporters, but in 2008 the FIEs went far ahead, (b) in processing trade, the FIEs had a clear lead over domestic firms all through, and (c) conversely, in ordinary trade the local firms consistently outperformed the FIEs, even in 2008. However, it would be hazardous to extrapolate into the future from the trend between 2000 and 2008.

Table 4.3 The Contribution of FIEs and Domestic Firms to China's Processing Export and Ordinary Export, 1995-2008 (US\$ billion)

	Processing	Ordinary
<b>1995</b>		
FIEs	40.3	6.6
Domestic firms	33.4	47.0
<b>2000</b>		
FIEs	71.8	16.8
Domestic firms	65.9	69.2
<b>2008</b>		
FIEs	492.8	297.7
Domestic firms	182.3	380.0

Source: SYC, various years.

### High-tech Industries

From the late 1990s China adopted a variety of well-coordinated measures to promote HT industries and their export. In 2002, Beijing radically revised the existing legislation in order to promote smoother and faster movement of technology and know-how into China by shifting the emphasis toward approval rather than tight control. As Table 4.2 shows, Chinas exports rose almost six-fold to US\$279 billion

during 2000-8, the last pre-crisis year, while that of the US or Japan remained stagnant or fell, and that of the EU-27 expanded by 80 per cent. This is corroborated by a US National Science Foundation study cited by an EU (2009) report, each using a somewhat different scheme of classification for 'HT'. The latter study found that 'the labour-skill structure of imports from China increasingly mirrored that of intra-EU trade'. On the other hand, China recorded impressive gains in virtually all those industry groups that witnessed falling unit-values. Although China was successfully upgrading technology in export sectors to provide a 'competitive challenge' for the EU, much of it took place outside the 'genuinely' Chinese enterprises. Excluding export from the FIE, China was still specializing in labour-intensive goods, the EU report concluded.

A joint study by scholars from China's National Development and Reform Commission and the US International Trade Commission (Ferrantino et al. 2008) prepared two sets of estimates, based respectively on China's definition of HT, and that of the US Census Bureau on 'advanced technology products (ATP)'; the absolute levels are different, but both show a similar trend over time. The combined export of China and Hong Kong (often used as an entrepôt by Chinese firms) of ATP to the United States rose from US\$5.5 billion in 1996 to US\$73.5 billion in 2006. While the United States had a small surplus of US\$2.3 billion in 1996, the deficits were very large at US\$49.3 billion in 2006, and US\$65.0 billion in 2008 (US Bureau of Census website). The Americans are worried by the rising imbalance in their ATP trade with China and Hong Kong. Since 'wholly foreign owned' firms accounted for the overwhelming bulk (over 95 per cent in many product lines) of China's exports, American firms obviously set up labour-intensive manufacturing subsidiaries there to remain globally competitive. Moreover, these firms are also creating very large R&D centres in China (and India). In the not-too-distant future, the employment prospects for America's highly skilled labour force that has ensured since 1950 the nation's global supremacy, may be jeopardized.

Mainstream Western economists had welcomed cheap imports of textiles, and so on, from developing countries in the hope that the West would specialize in high-value goods. Quite a few of them, including Nobel Laureate Samuelson (2004) and Gomory and Baumol (2004), are now having second thoughts about the benefit of free trade. Should

America lose its leadership in ATP, it might be irreversible under free trade conditions. Krugman's (1987 and 1993) new trade theory shows why, for an advanced industrial country, a selective protectionist trade policy may be beneficial. The response to Samuelson by Bhagwati et al. (2004) missed the point as they focused on arm's-length transactions typified by 'business process outsourcing' by a Western firm to a contractor in a low-wage country.

Radical critics of China's FDI policy contend that the country is highly dependent on exports channelled through the MNCs, subjecting China to the volatility of global markets; besides, these exports have a low domestic content, much of it in the form of subsistence wage (or less) for migrant labour from rural areas (Hart-Landsberg 2008). This pattern of trade brings little benefit to China as it reproduces the traditional hierarchy of the colonial era in the international division of labour.

Table 4.4 shows China's trade performance in electronic goods, but the coverage may be incomplete. China improved her percentage share of the world market dramatically from 4.5 to 24.5 over the eight years, while its net import of US\$959 million in 2000 turned into a massive export surplus of over US\$150 billion in 2008. Of the three sub-groups, China in 2008 became the world's leading exporter in EDP and office equipment as well as in telecom equipment, and the

Table 4.4 China's Share in World Export and Its Trade Balance in Electronic Goods, 2000 and 2008

Product group	2000	2008
1. All electronic goods (4.3)		
Share in world export (%)	4.5	24.5
Net trade balance \$ million	-929	150,724
1a. EDP & Office Equipment (4.3.1)		
Share in world export (%)	5	32.2
Net trade balance \$ million	7,780	130,313
1b. Telecom equipment (4.3.2)		
Share in world export (%)	6.8	27.1
Net trade balance \$ million	7,095	124,963
1c. ICs & electron. component (4.3.3)		
Share in world export (%)	1.7	10.5
Net trade balance \$ million	-15,804	-104,552

Source: WTO website.

Note: The figures in parentheses refer to the code for each product group.

corresponding trade balance was a staggering US\$254 billion. But in intermediates, namely ICs and electronic components, despite a six-fold rise in China's share of world exports, its net import was quite large at US\$105 billion. These figures give some credence to the view that China is primarily assembling imported kits for exports, mostly through the FIEs.

To probe further into the issue, one may look at Table 4.5 on the shares in 2008 of different types of enterprises in China's exports. For all commodities, the highest contribution came from the FIE, followed by domestic private firms, the SOE group (including collectively owned firms), and, finally, other foreign firms. The proportions are somewhat different for electronic goods; the FIEs play a dominant role in export and net export, leaving others way behind. By clubbing together FIEs and other foreign firms, many analysts consider China's export success as a by-product of her ability to attract foreign capital, and recommend other developing countries to tread the same path.

Table 4.5 Contribution of Different Types of Enterprises in China's Exports and Net Export, 2008

Commodities	Export \$ Million	Share (%) in Export	Net Export \$ Million	Net Export/ Export (%)
All commodities	1,428,869	100	297,401	20.8
SOE <sup>a</sup>	311,908	21.8	-70,303	-22.5
FIE	545,477	38.2	115,999	21.3
Other foreign firms <sup>b</sup>	245,355	17.2	54,602	22.3
Private <sup>c</sup>	325,845	22.8	200,909	61.7
Electronics <sup>d</sup>	542,140	100.0	160,728	29.6
SOE <sup>a</sup>	67,118	12.4	10,944	16.3
FIE	324,162	59.8	103,339	31.9
Other foreign firms <sup>b</sup>	100,531	18.5	28,171	28.0
Private <sup>c</sup>	50,298	9.3	18,508	36.8

Source: China's customs statistics as compiled in US-China Economic Security Review Commission, Hearing 24 March 2009, [www.uscc.gov](http://www.uscc.gov).

Notes: <sup>a</sup> SOEs and collectively owned enterprises.

<sup>b</sup> Includes Sino-foreign joint contractual ventures and Sino-foreign equity joint ventures.

<sup>c</sup> Includes private enterprises and private firms.

<sup>d</sup> Includes communication equipment, consumer electronics, electronic components, equipment manufacturing, industrial electronics, and semiconductors.

Against this I have two reservations. First, as noted already, since the threshold of foreign equity is only 10 per cent, many FIEs may be SOE-controlled. Second, 'other foreign firms', comprising of two kinds of joint ventures with local firms, have a large share of export, and one cannot label these either as domestic or as foreign. Nevertheless, there is no doubt that a very large part of China's export of electronic and other goods is of a 'processing' type by Western MNCs.

The figures do not reveal the potential of China's domestic firms. For analogy, one may recall that Korea's Samsung and LG began assembling electronic components as subcontractors of US majors, but became eventually global leaders. Let me now quote from the testimony by Scalise (2005), then president of the US Semiconductor Industry Association, before a US Congressional Committee. In semiconductor technology, China chose

the low end of the foundry business as the entry vehicle into the global ... industry. [The] foundries are advancing rapidly to becoming world-class in leading-edge process technology. In addition, the Chinese Government proactively supports an entire local ecosystem including fabless design houses, integrated device manufacturers (IDMs), contract manufacturers (EMS) and designers (ODMs), test and packaging houses, venture capital and start-up firms.

#### Why do MNCs opt for China?

Chinese government policies, and not lower labour costs, are the major contributor to 10 year, a \$1 billion cost differential, between building and operating a semiconductor plant in China compared to the U.S. About 70% of the cost difference is due to tax benefits, 20% due to capital grants, and only 10% due to lower labour costs. Operating costs such as lower utility costs or cheaper logistics are also slightly lower overseas.

'Haier, the leading Chinese consumer electronics firm ... started as an OEM manufacturer for several Japanese electronics firms, evolved into TV and DVD design, and are now marketing as a branded entity in the U.S. and Europe. They have become [by 2005] the world's fifth largest supplier of consumer electronics equipment from a cold start in 1984.' Another excellent example is Flextronics, little known outside the industry circles. Over the years it 'has evolved from a pure U.S.-based contract manufacturer in the 1980s to a global force in the design and manufacture of cell phones and other high value consumer

devices. [It has] over 2000 ... engineers ... in China, designing products for companies such as Motorola, Sony, Ericsson, and Siemens.'

If China offers incentives to MNCs not available elsewhere, a wide spectrum of SOEs, especially some 159 SOEs under the State-owned Assets Supervision and Administration Commission (SASAC) that are monitored on a daily basis by Beijing, and characterized by the German magazine, *Der Spiegel* (2007), as Red China Inc., are nurtured like plants in a hothouse to become global players. In terms of value added, the SASAC group does not contribute much to the GDP, but its profits amount to 3-4 per cent of the GDP, thanks to a range of fiscal bounties. Further, these firms account for the bulk of China's R&D that has increased exponentially in the last decade (Kuijs 2006, Naughton 2007).

Encouraging both the MNCs and the SOEs appears to be contradictory, but as the 11th Five-Year Plan for Use of Foreign Investment explained, China will

Encourage foreign enterprises—especially large-scale multinationals—to transfer the processing and manufacturing processes with higher technology levels and higher added value and research and development organisations to China, ... to develop a technology spillover effect, and strengthen the independent innovation ability of Chinese enterprises ... [T]he overall strategic objective of use of foreign investment in China is to ... change the emphasis in use of foreign investment from making up the shortage of capital and foreign exchange to introducing advanced technologies. (Introduction 2009)

In addition, China promotes its own technical standards to tip the scale in favour of its own SOEs; the best example is that of 3G technology for mobile telephony that helped Huawei and ZTC to penetrate the equipment market in the EU and India, among others. Last but not least, government procurement policy consistently favours domestic firms and brand names so that the huge budgetary funds for R&D outlays and even larger bank credits at low rates of interest are channelled into the SOEs.

Against radical critics like Hart-Landsberg, my arguments can be summed up as follows: (a) Some of the SOEs have emerged as world-class players, setting the norms for global industry. (b) In view of the advantages of locating business in China, John Chambers, the CEO of Cisco Systems (US), a front-ranking IT firm, was reported saying in 2003: 'China will become the IT center of the world. What we're trying

to do is to outline an entire strategy of becoming a Chinese company' (quoted from Jones 2008). Washington was alarmed. (c) After the 1997 Asian financial crisis, China has been investing in infrastructure at a feverish pace through the budget as well as directed credit from the commercial banks. The contracts are typically awarded to the SOEs. The latter often collaborate with MNCs that agree to part with technical know-how and know-why. As a result, the SOEs began to win an increasing number of big contracts to develop infrastructure at home and abroad. I may cite just one. In 2004 an SOE obtained the Japanese bullet train technology from Kawasaki for \$1.6 billion, including the cost of 60 train sets. The first trains ran in 2007. The Chinese improved upon the original design parameters so that in 2010 only 15 per cent of the value of train sets came from import. The market in China is worth US\$100 billion, and rising rapidly (Dickie 2010). China is also bidding for a project in Los Angeles.

*Ceteris paribus*, China's industrial policy has been eminently successful from a narrow nationalist perspective. But the social benefits of enormous investments (close to 50 per cent of GDP) in modernizing industry, in grandiose public works or in esoteric HT areas, have not been investigated, taking into account financial costs and the colossal environmental damage.

## A CRITIQUE OF THE GROWTH EXPERIENCE IN INDIA AND CHINA

While the growth rates of India and China have 'mesmerized' the international community, there are two major flaws of a systemic nature. In both countries there has been an astonishing rise in inequality. In foreign trade and investments these countries have derived enormous benefits from their integration with the neoliberal international economic order.

### Inequality

Estimates of the Gini coefficient of income distribution for India do not exist as household surveys exclude savings. The Gini coefficient from China's official surveys of household income has of late crossed the generally accepted 'danger' level of 0.40 to reach 0.47. Actually, it is worse. 'Grey income', not captured in the surveys, amounted in

2008 to US\$1.4 trillion, or about 30 per cent of China's GDP, and 80 per cent of the total belonged to the top 20 per cent of households, according to a study sponsored by Credit Suisse (Forsythe 2010).

More revealing are the global estimates made annually since 1996 by Capgemini ([www.capgemini.com](http://www.capgemini.com)) of the wealth of the super-rich, each with assets of US\$1.0 million or more. In China their number in 2009 was 415,000, while their combined wealth amounted to 26 per cent of the GDP; the corresponding figures were 127,000 and 28 per cent for India. Further, the number and wealth of the group have been increasing at a much faster pace than the GDP in these countries over the last 15 years.

At the other end, only one-fifth of the population in India had an income exceeding the unacceptably low official poverty level by 50 per cent in 2004 (NCEUS 2007). Hunger and malnutrition are still widely prevalent. The Human Development Index (HDI) of the United Nations Development Programme (UNDP) gave a lowly rank of 119 to India, and 89 to China, out of a total of 169 countries in 2009 (Human Development Report 2010).

In China the overwhelming majority of the population now enjoys a far higher level of real income than in 1980, and the incidence of poverty is much smaller than in India. Yet for 65-70 per cent of the population, mainly farmers and migrant workers, earnings (currently US\$1,000, as against a per capita GDP of US\$3,800) have either stagnated or risen very slowly for two decades (People's Daily, 31 October 2005, Fan Gang 2010). Indeed, the share of household consumption in the GDP fell sharply from 48 per cent to about 33 per cent (the lowest ever in the world) during 1997-2007 (TDR 2010, Chart 2.10).

A leading establishment economist, Yu Yongding (China Daily, 23 December 2010) began by quoting Premier Wen Jiabao: 'China's growth is 'unstable, unbalanced, uncoordinated and ultimately unsustainable' [emphasis added]. There was massive overinvestment on 'luxurious condominiums, magnificent government office buildings and soaring skyscrapers ... Some local governments are literally digging holes and then filling them in to ratchet up the GDP ... [In the meanwhile] China has become one of the world's most polluted countries'. The author characterized the present system as one of 'collusion between government officials and businesspeople', that is, 'capitalism of the rich and powerful'. Further, 'breaking this unholy alliance will be the big test for China's leadership in 2011 and beyond'.

Thus, for all the recent rhetoric of 'harmonious development' in China and 'inclusive growth' in India, the actual trends are in the opposite direction. Not surprisingly, it has spread to the sphere of international economic relations.

### Foreign Trade

China is now the world's largest exporter with a share of 9.6 per cent in 2009, ahead of Germany (9.0 per cent) and the US (8.5 per cent), with India (1.3 per cent) lagging far behind. What is the pattern of China's trade with other developing countries?

In textiles and clothing, China's global share increased from 14.7 per cent in 2000 to 20.8 per cent in 2004; after quotas under MFA were abolished, it shot up to 31.7 per cent in 2009. Over the same decade Africa's share barely rose from 3.7 per cent to 3.9 per cent, and that of Latin America and the Caribbean countries shrank from 1.4 per cent to 1.0 per cent. South Asian countries saw a marginal rise in their share from 6.6 per cent to 7.3 per cent (WTO database). A telling case is that of Central America that had the same share (12.0 per cent) as China of the US imports of garments in 2001; despite the creation of the Central American Free Trade Association, the region's share of the US market plunged to 8.7 per cent as China's soared to 38 per cent in 2008 (Gallagher 2010).

Next, consider the trade between China and India, respectively ranked first and second in manufacturing competitiveness, ahead of Korea, USA, and Brazil, in a recent study by Deloitte and the US Commission on Competitiveness (Times of India, 3 December 2010). Bilateral China-India trade rocketed from US\$2.3 billion in 2000 to US\$40.0 billion in 2009, while China's surplus jumped from US\$0.8 billion to US\$19.3 billion over the same years. In 2009 India had a surplus of US\$2.8 billion in primary goods, while China had a surplus of US\$4.0 billion in labour-intensive manufactures, including US\$1.5 billion in textiles and clothing, and \$18.1 billion in medium- and high-tech manufactures (UNcomtrade database).

China's two-way trade with Africa leapt from US\$6 billion in 1997 to US\$107 billion in 2008. China's imports consist predominantly (around 90 per cent) of oil and other primary commodities, while manufactures dominate the exports (Harsch 2007, Wang and Bio-Tchné 2008). Similarly, Latin America's imports, predominantly of

manufactures, from China stood at US\$44 billion in 2009, indicating a ten-fold rise since 2000; but in exports primary goods constituted over 80 per cent of the total. The share reached 90 per cent in Brazil's exports to China. By contrast, manufactures constituted 38 per cent of Brazil's aggregate exports. (Bárcena and Rosales 2010, Barbosa and Mendes 2006).

China's emergence has benefited other developing countries in several ways. It is estimated that in the last two decades, a rise by 1 per cent in China's export had a positive 0.5 per cent impact on the growth of the rest of the world (Arora and Vamvakidis 2010). Moreover, the monopoly stranglehold of Western MNC firms has been breached in many areas. Prices of primary goods have risen sharply. For a wide range of manufactures from low- to high-tech goods the prices have come down. These claims are valid on the *ceteris paribus* premise, namely that the present architecture of global trade and investment flows is given.

A recent German study posed the question: China and Latin America—A partnership of equals or the one-sided securing of access to raw materials? Latin American countries with a large manufacturing base face 'threats' from China in a wide range of their exports (GDI 2010, Gallagher 2010). Africa faces the same predicament with factories in textiles and other consumer goods closing down (Hanson 2008).

Thus China's recent trade pattern *vis-à-vis* Africa, Latin America, and India is a mirror image of that in the colonial era when the periphery was de-industrialized by the metropolitan powers. Thanks to its opaque system of taxation, subsidies, government procurement policy, directed credit from banks, and so on, China has taken full advantage of the loopholes under the WTO rules to push exports and block imports simultaneously.

### Global Capital Market

China's huge trade surpluses enabled it to build up astronomical foreign exchange reserves. There is a strong presumption that the reserves have been deployed in a non-transparent manner to acquire foreign assets other than treasury bonds of rich countries. The stock of Chinese outbound FDI, according to a recent estimate, shot up from US\$28 billion in 2000 to US\$246 billion in 2009 (K. Davies 2010).

In recent years China and the USA were 'the real engine[s] of the world economy', contributing over one-half of the world's GDP growth from 2002 to 2008. There was a 'symbiotic relationship between the two giants'; China's BOP surplus and America's deficit complemented each other, and the term, Chimerica, was coined to describe the world order (Ferguson 2008, Fabre 2009). Even earlier, the Economist (30 July 2005) wrote on 'How China runs the world economy'.

More than two years after the crisis of 2008, the spectre of prolonged depression haunts the rich countries, despite sizeable bail-out and stimulus packages. China had a more effective stimulus package, propping up its GDP growth, trade surplus, outbound FDI, and foreign exchange reserve. India, too, weathered the storm thanks to portfolio capital inflows, but remains as vulnerable as before. Thus both countries are locked, for different reasons, into the neo-liberal world economic order.

Since the system is detrimental to the long-term interests of an overwhelming majority of mankind, including those in China and India, one must replace it by one that is fair and equitable for all concerned, and ensures national sovereignty of all developing countries in determining their foreign trade and investments policies. From this perspective the expanding trade and investment relations of China and India with other developing countries is a matter of serious concern.

## NOTES

1. Bhagwati et al. (1975) found that the unweighted averages were 97 per cent for 61 industries in 1963-5, and 84 per cent for 30 industries in 1970, while World Bank (1990), after examining 500 products 1987-9, put the average ERP at 46 per cent. In these exercises, the 'deemed' cost of a domestic input is equated to that of a similar import plus the nominal import tariff, even if the actual domestic input was lower; for an item with quantitative restrictions on import, the cost was put at that of import plus the black market premium, even if import covered a part of the domestic requirement. Since the black market premium assumes that the rupee was overvalued, the product prices should also have been raised correspondingly. Thus Kathuria (1995) put ERP at just 4 per cent for the World Bank set of products. Using a price-based method, and after eliminating the 'noise' created by higher domestic taxes and raw material costs in India, Nambiar (1983) found that for 170 traded goods the ERP was above 40 per cent in 1961 and 1968, but became negative at -17 per cent in 1973. For the capital goods sector, Chandrasekhar (1992) observed that the ERP was favourable for Indian products.

2. For DRC, the domestic value added is enhanced by the amount of indirect taxes paid on inputs that are usually much higher in India than abroad. World value added is the difference between world product price and the value of imported inputs needed to produce the good in the country, both calculated in dollars. The ICICI (1977 and 1985), then a leading development bank, made two studies for 1974-5 and 1980-1, based on samples of around 50 borrower companies that furnished data; some corrections were made to compute 'adjusted' DRC (see Chandra 1986). The DRC declined over the benchmark years, especially for capital goods industries. Short-run DRC that considers only the actual variable costs was found to be significantly below the official exchange rate across the board for the entire sample. The BICP, an official agency that replaced the Tariff Commission, estimated DRC for many industries in the 1980s; these are summarized by Kelkar and Kumar (1990). Broadly, the industries were found to be competitive, especially in engineering and capital goods required for aluminium processing or power generation, though it was not true for many petroleum-based industries.

3. Per capita real GDP at international dollars nosedived from US\$13,680 in 1991 to a trough of US\$7,104 in 1998, and then recovered somewhat; in 2007 it was still US\$13,401 (PWT 2009). A leading Russian scholar, Khanin (2006) found that even under President Putin, the structural weaknesses of the economy persisted, and industrial output was a pale shadow of its glory days up to 1990.

4. Based on archival materials, publications and interviews with relevant persons both in Russia and China, Shen (2002) provides a rare insight into the story of Soviet technical assistance to China from 1949 to 1960 that was perhaps unparalleled in human history. Soviet experts numbering about 20,000 were dispatched to China to help build the 'modern' sectors of the economy, including its planning and management, higher education and the armed forces. The guidelines were set at Mao's meeting with Stalin in 1949. Over the years, the Chinese wanted more experts than what the Soviets offered, as China had a paucity of qualified personnel. There were also criticisms in both countries about the role of Soviet experts. In July 1959 Khrushchev offered to withdraw them, but at China's request the programme continued though the number of Soviet experts gradually came down, and only a handful remained after 1960 in the wake of the Great Schism. Apart from the Soviet experts in China, a very large number (the exact figure is not available) of Chinese students entered Soviet universities, and trainees were attached to Soviet industries. Given the scale of China's industrialization in the 1950s, skill shortage was still quite acute in 1960, and this may have prolonged the country's agony after the Great Schism. This may explain why China under Deng required foreign technology suppliers to disclose details of imported technologies.

5. See Note 3.

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