TRADE REFORMS IN INDIA TEN YEARS ON: HOW HAS IT FARED COMPARED TO ITS EAST ASIAN NEIGHBOURS?

by

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1. Introduction

The strategic objective of Indian policy makers at the outset of independence was the creation of a self-reliant economy and the reduction of the high levels of poverty that existed, all within a democratic political framework. In order to achieve these objectives, the authorities steadfastly pursued a Socialist strategy of state-directed, heavy industry based industrialisation complemented by an across-the-board import substitution policy, financial repression and complex industrial requirements. Notwithstanding some notable successes, the highly statist and interventionist development policies adhered to during this period of insulation led to a severely distorted production structure (Rajan and Marwah, 1998). While growth did pick up in the latter half of the 1970s, the Indian economy was generally mired in a vicious circle of low productivity/product obsolescence and slow growth. Not only was the performance of the Indian economy well below the targets set by the planning authorities, the country was left lagging in terms of economic growth and development relative to its East Asian neighbours such as China and Korea which had broadly similar levels of per capita income at the time of India's independence (Kelkar, 2001). Jagdish Bhagwati (1992) rationalises India's development failure as follows:

> I would divide them into three major groups: extensive bureaucratic controls over production, investment and trade; inward-looking trade and foreign investment policies; and conventional confines of public utilities and infrastructure. The former two adversely affected the private sector's efficiency. The last, with the inefficient functioning of public sector enterprises, impaired additionally the public sector enterprises' contribution to the economy. Together, the three sets of policy decisions broadly set strict limits to what India could get out of its investment (p.13).

Although some tentative steps were taken in 1985 to liberalise and unshackle the economy by delicensing a few industries, these partial and rather ad hoc measures contributed to the creation of severe and unsustainable macroeconomic imbalances in the Indian economy, particularly with regard to escalating fiscal deficits (Joshi and Little, 1994). The imbalances corresponded to a period of severe political instability and uncertainty following three successive minority governments during 1989-91.

While the fragilities in the Indian economy were largely homemade, the shock of the 1990 Gulf war was the single factor which "broke the camel's back" as India was brought to the brink of an international default, something that had never occurred in its post-independence history. Faced with a severe balance of payments crisis as foreign exchange reserves plummeted to US$1 billion in late June 1991, barely sufficient to cover a fortnight worth of imports, India entered into an IMF structural adjustment program (Cerra and Saxena, 2000). In addition to the conventional expenditure switching and reducing policies, as part of the IMF agreement, a range of far-reaching economic policy reforms was launched in July 1991 in the external, industrial, financial and public sectors (Desai, 1999 and Srinivasan, 1996).

These reforms appear to have paid significant dividends at a macro level. The Indian economy recovered smartly from the crisis, real GDP growing at an annual average rate of 6.4 percent between 1992 and 1998 (Table 1). Not only was this a marked improvement from India's own past, it was the second highest rate of growth in the world behind China. Of equal importance is the quality of growth. As Desai (2000) has noted, "the Indian economy appears to be..sound…Something has changed; we are no longer in the boom-and-bust mode of the 1960s, 1970s or 1980s" (p.4). This in turn may be partly attributable to the fact that post-1991 growth was driven principally by an expansion of private investment while national savings simultaneously rose, thus ensuring that there was no significant pressure on the balance of payments position (compared to the consumption-led growth of the mid to late 1980s).

This paper concentrates on the impact of India's economic reforms in the 1990s on its international trade linkages with the rest of the world. The paper consists of five sections. The next section briefly summarises recent trade reforms in India and documents the extent to which the country has integrated with the global trading system. Section 3 goes on to analyse shifts in India's export patterns over the past two decades and compares it to that of East Asia which has long been characterised as having followed a "flying geese pattern" (FGP) of production and trade. The FGP, due to Japanese economist Akamatsu Kaname (1962), has been used to describe the shifting pattern or spatial

reorganisation of international production and comparative advantage across East Asian countries. Data limitations invariably limit focus of the empirical analysis in these two sections to merchandise trade. However, as part of India's newfound global orientation, trade in services has taken on a key role, constituting over a quarter of India's total exports in 1999/2000 (IMF, 2000 and Raipuria, 2001). Within the services sector, the Information and Communications Technologies (ICT) sector is of particular relevance. This sector is seen as a means of "leapfrogging" the stages of trade and development that is characteristic of the FGP pattern. Section 4 therefore discusses the role of the ICT sector in India which has been the bulwark of the country's export growth. The final section provides a summary and some concluding remarks on the role of foreign direct investment (FDI) which is often viewed as an integral part of a successful outward-oriented growth strategy.

2. Evolution of India's Merchandise Trade in the 1990s

2.1 Trade Reforms to Date

As noted, prior to 1991, India was the archetypical import substituting regime with "one of the most complicated and protectionist regime in the world" (IMF, 1998). However, following steps towards the unshackling of its trade regime, India's simple average tariff rate has come down significantly from 128 percent in 1991 to about 34 percent in 2000. The trade-weighted tariffs declined from 87 percent in 1991 to around 30 percent by 2000, while the maximum tariff rate fell to 45 percent in 1997, having hovered at 355 percent in 1991 (Table 2). More precisely, India's trade liberalisation efforts can be broadly divided into two periods. The first five years from 1991 to 1996 was a period of intense liberalisation as tariffs fell dramatically. The second half of the 1990s can at best be characterised as a period of consolidation of but definite deceleration in the pace of tariff compression in general; the average tariff level remained largely unchanged. In fact, while the simple average tariffs remained more or less constant, there was a slight increase in the trade-weighted tariffs from a low of 25 percent in 1996 to 30 percent by 2000. Without attributing causation, note that this corresponds to the decelerating trend

in economic growth in the latter half of the 1990s compared to the first five years since the crisis of 1991 (IMF, 1998 and Forbes, 2001)[1]. Taxes on international trade as a proportion of total tax revenue far exceeded most of the Developing East Asian (DEA) countries (save the Philippines which had somewhat comparable levels of trade restrictions) (Figure 1)[2].

While India continues to have one of the world's most restrictive external sectors, significant progress has been made in recent years towards a compression and simplification of tariff structures; the tariff structures have become more uniform across goods, as observed by a decline in the dispersion of tariff rates over 1990-98 (Table 3). India aims to have in place a tariff structure similar to the middle-income DEA economies by the mid of this decade. Noteworthy steps have also been taken to reduce nontariff barriers (NTBs) and eliminate quantitative restrictions (quotas and import licensing requirements), particularly on intermediate and capital goods (IMF, 2001). The Indian rupee was allowed to float in March 1992 and currency convertibility on the current account was introduced in August 1994[3].

The IMF (1998) and Kalirajan (2001) have detailed the trade and investment policy reforms over the last decade, while Forbes (2001) provides a useful discussion of the practical implications of these reforms for businesses operating in/planning to operate in India. Accordingly, rather then go over well-traveled terrain, we summarise the major external sector reforms in the 1990s in Annex 1[4]. While being fully cognizant of the fact that the recently announced reforms will take time to fully come into effect, it

[1] Economic growth, which averaged 7 percent in the first of the 1990s, decelerated to about 5 percent in the latter half. While this may be partly due to the general slowdown caused by the East Asian crisis, there exist a number of structural impediments to growth (Bajpai, 2001 and Bajpai and Sachs, 2000).

[2] In view of the fact that tariffs remain a major source of revenue in India, given India's already weak fiscal position, further tariff liberalisation may be limited by the availability of alternative sources of government revenue. Apart from general "reform fatigue", this may be part of the reason for the hold up in the rate of tariff reductions.

[3] It is by no means suggested that such nominal tariffs are a complete measure of a degree of a country's openness (see Panagariya, 1999 and Pritchett, 1996).

[4] Panagariya (1999) has detailed South Asian trade reforms (including those in India) until 1997-98.

is fair to ask if and to what extent the decade long reforms have been successful in integrating India with the global market economy.

2.2 India's Global Merchandise Trade Linkages

Table 4 summarises the key indicators of India's external sector for the period 1980-1999. Table 5 compares India's major external sector indicators to those of selected DEA economies (the ones considered here are China, Korea, Indonesia, Malaysia, and the Philippines) in two distinct periods, viz. 1980-89 and 1990-98[5]. The following general observations may be delineated on the basis of available data.

India has been able to gradually increase its share in global merchandise trade and exports from 0.58 percent and 0.43 percent in 1980 to 0.69 percent and 0.74 percent, respectively in 1999. While this increase may not appear particularly striking at first, it is, considering that India's share in world merchandise trade was on a declining trend up until 1991 (Figure 2). Between 1990 and 1999 India's merchandise trade and exports grew at an annual compound average of 8.2 percent and 9.0 percent, respectively. Since this growth was matched by an expansion of the overall economy, India's level of openness, as proxied by the trade to GDP ratio, has remained more or less constant over the past few years at 0.25 (though this was almost 70 percent higher than that in 1980). These improvements notwithstanding, India has continued to lag behind the DEA economies[6]. For instance, India's exports to GDP ratio was the lowest among all the countries considered here between 1980 and 1989, and this remained so during the post-reform period. India's share of manufactured exports in total exports during the 1980-89 period was higher than all the DEA economies except Korea but by 1990-98 all of them

[5] These countries are chosen for comparison with India since, with the possible exception of Korea, they mostly constitute middle-income developing Asian countries whose development levels during the past decades were at comparable levels with that of India.

[6] Except for China, the other East Asian countries were significantly affected by the financial crisis of 1997-98 (Annex 3).

except Indonesia and Philippines surpassed India in diversifying their export baskets towards manufactured goods (World Bank, 2000).

An analysis of India's composition of exports over 1988-90 to 1998-2000 (Table 6) reveals that while India's export dependence on primary products, as indicated by its average share in India's total merchandise exports, declined over the period (from 24 percent in 1988-90 to about 20 percent in 1998-2000), that on manufactured products increased slightly (from 71 percent in 1988-90 to 77 percent by 1998-2000). With regard to the manufactured exports during the 1998-2000 period , the largest share of exports consisted of Handicrafts, primarily Gems and Jewellery (18.0 percent), Engineering goods (14.0 percent), Readymade Garments (12.3 percent), Textile Yarn Fabrics (11.6 percent) and Chemicals and Allied products (9.0 percent). This composition remained almost unchanged over the past decade or more[7].

3. The Flying Geese Pattern: India versus East Asia

While there has been an increase, albeit modest, in the degree of India's global economic integration since the initiation of the reforms, it is important to understand the reasons behind this. Accordingly, we examine shifts in India's comparative advantage in merchandise trade. As before, it is insightful to have a yardstick of comparison. We therefore place India's export experience in an East Asian context.

The shifting patterns of trade and the catching up of the East Asian countries have often been analysed using the flying geese pattern (FGP) (see Feenstra and Rose, 2000 for a recent empirical confirmation of this phenomenon). According to the FGP, economies are arranged in a descending order of their stages of industrialisation so that countries participate in the international division of labour at

[7] It is interesting to note here that among these top products in India's manufacturing export basket, almost all have involved some amount of foreign investment, except for Gems and Jewellery. Incidentally, Engineering goods and Chemicals and Allied industries were opened to foreign investment since 1970s, while readymade garments and textiles was opened to foreign investment during the earl 1990s (Sharma, 2000).

different stages in the product cycle in accordance with their comparative advantage. In other words, the traditional Heckscher-Ohlin approach is extended and given a dynamic nature. Specifically, it has become legion to think of international production and trade in East Asia in terms of Japan as the most advanced economy producing and exporting new and higher value added goods before others in the region. Japan in turn has been tailed closely by the four economies, Hong Kong, Korea, Singapore, and Taiwan, collectively referred to as the "Four Tigers". Then come the other crisis-hit economies (Malaysia, Thailand and Indonesia), and behind them, Mainland China and other emerging regional Southeast Asian countries such as Cambodia, Lao and Vietnam. FDI plays a very important role in this pattern of international production and trade as the sequential development of industrial competence is facilitated by the migration of investments and technologies from higher to lower income countries. Beyond this, the major conditions for realisation of this pattern of trade include i) geographical proximity among the economies; ii) economic diversity among them; and iii) level of openness of the economies.

3.1 Methodology

In order to proceed with the empirical analysis, we make use of the conventional concept of Revealed Comparative advantage developed by Balassa (1965). According to him, since pre-trade relative prices are unobservable, analysis on trade patterns often needs to depend on post-trade data; the pattern of international trade broadly reflects relative costs and differences in non-price factors. Among a variety of such ex-post trade indices, the most commonly used is the export index of revealed comparative advantage (XRCA) popularised by Balassa and Noland (1989).

The XRCA index is simply the ratio of the share of country i in world exports of commodity k to its share of total commodity exports. This index is represented as $XRCA = (X^k_i/X^k_w)/(X_i/X_w)$, where X_i^k = exports by country i of commodity k ; X_w^k = world exports of commodity k; X_i = total exports of country i ; X_w = total world exports. The weighted average of XRCAs of all commodities equals unity. An individual XRCA index value greater than one indicates an ex-post or a revealed comparative advantage

in the good, and if less than one, it indicates comparative disadvantage. This index can be computed for commodities classified by product groups as well. However, a major limitation of this index is that at any point in time it takes into account only one side of the trade flows, i.e. exports or imports. Nonetheless, this index has been widely used to explain the export performance and similarity of trade patterns among the East Asian countries (for instance, see Chow, 1990 and Rana, 1990). We analyse the shifting pattern of trade between India and its East Asian neighbours using a slightly modified version of XRCA. Following Laursen (1998) we rely on the Export Revealed Symmetric Comparative Advantage (XRSCA) indices, wherein the conventional XRCA indices are modified to make it symmetric. The modified XRCA takes on values between 1 (highest comparative advantage and degree of specialisation) and -1 (no specialisation) [8]. The XRSCA is defined as follows:

XRSCA = (XRCA-1)/(XRCA+1)

A positive value of XRSCA indicates the presence of specialisation in that particular product category and therefore a high degree of comparative advantage. We examine shifts in comparative advantage in selected product groups of manufactured exports according to the factor intensities classification developed by Garnaut and Anderson (1980)[9]. The authors classify product groups of trade in manufactured goods into four main categories depending on whether labour or capital (either physical or human capital) is used more intensively in production of those commodities[10]. As noted, the XRSCAs are estimated for India and the selected DEA economies to enable a cross-country comparison of shifting

[8] Unlike the conventional XRCA, the XRSCA index can also be used for econometric analysis to understand the pattern of change in specialisation of exports in a particular commodity category as the error terms of XRCAs are normally distributed.

[9] See Annex 2 for details on the classification.

[10] This classification covers the SITC categories 5 to 8 at the 3-digit level. Admittedly this classification is still quite aggregated since it does not differentiate between unskilled labour intensive and capital/technology intensive activities at further disaggregated (SITC 5 digit) commodity levels, i.e. Parts and Components and Assembly of manufactured products (also see section 3.3).

comparative advantage in manufactured goods. The shifting pattern of product specialisation is then investigated using the XRSCA series for these countries in order to relate the observed changes to those predicted by the FGP of international production and trade. The indices are worked out for the years 1982, 1987, 1992 1996, 1997 and 1998. The data source for all countries is the UN International Trade Statistics Yearbook.

3.2 Results

Tables 7 and 8 respectively present the estimated XRSCAs for each commodity group, along with their shares in each country's total exports as well as in world exports. The results reveal that India continues to specialise heavily in unskilled labour intensive (ULI) manufacturing goods, especially in textiles and textile yarns and in clothing and accessories, as observed by the increase of XRSCA indices in this category from 0.34 to 0.56 between 1982 and 1996. The share of ULI goods in India's total exports nearly doubled during this period from 17.5 percent in 1982 to 33 percent in 1997, while the indices relating to the total world exports of ULI goods also showed a marginal increase from 1.1 percent in 1982 to 1.5 percent by 1997. However, India's level of specialisation in this category has actually declined since 1996. Among other categories, India's XRCA indices in Physical Capital Intensive (PCI) goods have shown some degree of improvement over the same period, while more differentiated and sophisticated Technology Intensive (TI) and Human Capital Intensive (HCI) goods have not experienced any discernible improvement (their XRSCA values actually declined in 1996). On a positive note, the share of TI goods in India's exports nearly doubled over this period, though its share in world exports saw a negligible increase from 0.14 percent to 0.17 percent. Therefore, although in relative terms there has been a positive shift in the composition of its exports towards TI goods during the reform period, India has not been able to attain international competitiveness in this category despite eight years of reforms.

In contrast, the majority of the DEA economies focused their export thrust towards technology intensive goods over time with rising per capita incomes, consistent with the prediction of the flying

geese theory. More evidence of this is given by the increases in East Asia's XRSCAs in TI goods and changes in signs from negative to positive over 1982-98. Malaysia, the Philippines and Korea attained comparative advantage in TI goods by the beginning of the decade of the nineties, while China attained this status in 1998. Other than China and Indonesia, the shares of TI goods in total exports of all other East Asian developing countries were more than half of their respective exports by 1998. These shares increased four to five fold for most of these countries over the 1982-98 period. A notable aspect of East Asia's export dynamism is that the share of all these countries' exports in world exports increased significantly (by more than double or triple) over this period. Telecommunication equipments, Electrical Machinery and parts, and more recently, Electronic products viz. Data Processing Machines have been the major items of export among TI goods.

All the DEA economies other than Malaysia were specialised in unskilled labour intensive (ULI) goods during this period. The Philippines and Korea have been distinctly moving away from this area of export specialisation, as observed by a decline in the absolute values of their XRSCAs from 1997. Their shares in world exports of ULI goods and in their total exports have also declined during this period. Only China and Indonesia still remain heavily specialised in ULI goods. Among other categories, Physical capital intensive (PCI) goods have also managed to increase their shares in East Asia's exports over time, though Korea is the only country that attained an outright comparative advantage in this area. Human Capital Intensive (HCI) goods declined in their comparative advantage for most of these countries, with the exceptions of Korea and Indonesia which attained comparative advantage in this category by 1998.

Comparing shifts in India's export patterns to those of East Asia, it is clear that India's XRSCA value in this category is comparable to that of Indonesia and Korea in 1998, while China had a higher level of export specialisation in this category than did India, with 56 percent of its exports taking the form of ULI goods. At the same time, while the East Asian developing countries including China developed a significant comparative advantage in TI goods in the 1990s, India has been unable to do so. The DEA economies have, almost without exception, also improved on their ex-post comparative advantage in HCI

goods, indicating a constant shift in composition of export basket of these countries over time. Thus, while Korea was at a higher level of specialisation in ULI goods in 1982 compared to that of India in the same period, it managed to halve it by 1998; in contrast, India experienced a slight increase. A further interesting observation is that in 1982 India was at the same level of specialisation in TI goods as the Philippines and China were in 1987. However, while the Philippines attained comparative advantage in this category of exports by the mid-1990s and China did so in 1998, India has failed to experience even a marginal improvement in the existing level of specialisation in TI goods. Even Indonesia, which was negligibly specialised in this category in 1982 and had lower XRCAs and XRSCAs compared to India, increased it significantly by 1996.

To complement the foregoing analysis, we have computed the rank correlation of XRSCAs of India and the selected DEA economies over five different sub-periods between 1982 and 1997. The results are presented in Table 9. Products are ranked in each country in a descending order of XRSCA values. The rank correlation of XRSCAs among the different periods in a country indicates the degree of export specialisation/de-specialisation (i.e. extent of export product dynamism) over time. A positive rank correlation value of unity indicates no change in specialisation. Values close to zero indicate a discernible change in the rankings of the XRSCA index values, denoting a presence of export dynamism. The results indicate that over the decade of 1987-97 changes in degree of export specialisation experienced by India were lower than each of its East Asian neighbours and there was no discernable change in this trend in the post reform period. Thus, over a fifteen-year period of 1982-97, the rank correlation of India's XRSCAs exceeded those of the DEA economies, indicating that India's export structure was relatively much less dynamic. Table 10 shows the results of pair-wise correlation of export structures of the four-product groups (for which XRSCAs are computed) between India and each individual DEA economies for 1987 (five years before reforms) and 1997 (five years after reforms). In 1987, India's export structure for these products was similar to that of China (a correlation of 0.96), followed by Indonesia (0.82) and Korea (0.79). However, the degree of correlation declined substantially by 1997, with India's export structures

in these four product categories of manufacturing goods being closest to that of Indonesia (0.76), followed by China (0.68).

3.3 Summary and Caveats

The preceding empirical results, while expectedly mixed at times, do by and large indicate that reforms initiated in 1991 have shown some positive signs in terms of increasing the growth in India's merchandise trade and its share of world exports, as well as in infusing greater dynamism into the country's overall export structure[11]. Notwithstanding an improvement in the country's overall export performance since the reforms, India continues to lag far behind most of its East Asian neighbours. The latter have been successful in diversifying and upgrading their exports towards high growth-oriented, technology intensive and knowledge-based products in the manufacturing sector. The fact that India had a head start in the industrialisation process over most of the DEA economies in the 1950s puts in perspective the extent to which the heavily protectionist regime has held India back; India's insular policy precluded it from harvesting the benefits that come form actively engaging in the international division of labour[12]. Despite the recent reforms, India's level of overall integration in the global trading system in merchandise trade has remained low.

The foregoing results, while revealing, must be interpreted with some degree of caution. As indicated, the XRSCAs have been computed at the 3-digit product level which does not adequately differentiate between the final good and its parts and components (PCAs)[13]. Accordingly, the distinction

[11] Empirical analysis suggests that a real depreciation in the Indian rupee as well as general boom in world trade are important explanatory powers of India's post-reform export spurt (Brahmbhatt et al., 1996 and Sharma, 2000).

[12] The ironical fact is that India was one of the 23 original signatories to the General Agreement on Tariffs and Trade (GATT) in 1947.

[13] Such differentiation may be better done at SITC 4 and 5 categories. Ng and Yeats (2001) show that within SITC 7 at least 60 individual product groups consisting solely of PCAs on manufactured equipment can be identified. Arndt (2001) stresses how intraproduct specialisation, broadly defined as the fragmentation of the process of production of a good into its sub-component parts and processes, enables cross-border production networks to develop. As he

between technology intensity and labour intensity becomes blurred at times. For instance, Electronic goods exports are considered to be technology or capital intensive according to the Garnaut and Anderson (1980) classification, whereas within this product group, production and exports of its PCAs may vary in factor intensities, with some being relatively labour intensive. This is likely to be particularly relevant for XRSCAs computed for manufactured exports of DEA economies in the SITC 7 category (Machinery and Transport equipment) since PCAs in East Asia constitute about one-fifth of the region's manufacturing exports (Table 11)[14].

What explains this pattern of trade in East Asia, and why is India not observed to be following the FGP? As noted, Japan has been a major player in expanding East Asian trade and upgrading the region's industrial structures via the infusion of FDI. In other words, trade, which has followed the flying geese pattern, has been largely investment-driven (Athukorala and Hill, 1998 and Rajan, 1996). Japanese FDI to East Asia really took off following the sharp appreciation of the yen after the Plaza Agreement of September 1985. Inflows essentially took place in three sequential but overlapping stages. First, investments were made in the newly industrialised economies (NIEs) like Korea, Hong Kong, Singapore and Taiwan during 1986-89. Second, labour-intensive Japanese investments began to be diverted to Southeast Asian countries (Malaysia, Indonesia and Thailand or MIT specifically) from 1988 to the early 1990s, attracted by the low wage levels and rapid growth of the region. As the NIEs themselves moved to more capital and skill intensive stages of production, NIE firms also began using the MIT countries as export platforms for labour intensive PCAs, as observed earlier. Since the early 1990s, investments in China from Japan and other NIEs have grown dramatically[15]. In contrast, Japan has been an insignificant

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notes, the "basic idea is to think of the region rather than the nation as the production base and to spread component production around the region in accordance with comparative advantage". Also see Krugman (1995).

[14] Ng and Yeats (2001, Table 2) observe that apart from exports, nearly three-fourths of East Asian imports of telecommunication equipment (SITC 76) and a half of Office machinery (SITC 75) were PCAs for further assembly.

[15] In fact the Southeast Asian policy makers have expressed concerns about what they perceive as being a diversion of investments away from their countries to China (Rajan, et al., 2001). Their response has been to hasten the

source of FDI to India. For instance, between 1998 and 2001, India accounted for a paltry 3 percent of Japan's total number of projects in Asia and less than 1 percent in value terms (data from Ministry of Finance, Japan).

India, being a latecomer on the international stage, clearly missed the boat as far as being part of this regional division of labour in manufactured PCAs is concerned. Aiyar (1999) too has contended that India may have missed the opportunity to gain a global comparative advantage in manufacturing exports. Citing recent examples of India's success in the services sector he goes on to observe that India's export structures will be increasingly dependent on the services sector, particularly in the areas of Information and Communication Technology (ICT) and related services. We turn our attention to this issue in the next section.

4. Emergence of the Services Sector in India

4.1 Overview and Significance

The services trade sector is inherently more complex than merchandise trade. Consequently, its regulation and liberalisation is particularly challenging. First, in many service activities, problems of asymmetric information are especially acute as the purchaser does not know the quality of a professional service being purchased until after it has been paid for and consumed. Second, services trade requires the consumer and service provider to interact simultaneously. Besides, the consumer also often needs to go to the country of the service provider. Thus, services trade involves international movements of capital and labour and also accompanies transfer of knowledge and technology across international borders[16]. Nonetheless, it is indisputable that the revolutions brought about by the introduction of innovations in

implementation of the regional free trade agreement (AFTA) as well as take early steps to create an ASEAN-China free trade agreement.

[16] Specifically, according to the General Agreement on Trade in Services (GATS) there are four main types of services: i) cross-border supply where services are produced in one country and delivered in another; ii) activities provided to foreign naturals by foreign branches and subsidiaries of domestic firms; iii) outright relocation of natural persons; and iv) where domestic residents go abroad to consume (tourism being a classic example in this regard).

information technology and telecommunications have been vital factors in increasing the importance of service transactions in the global economy; "the internationalisation of services is viewed as being at the core of economic globalisaton" (Primo Braga, 1996).

Tables 12a and b summarise some key indicators of services trade in India over the period 1980-98 and again considers it in comparative perspective to the DEA economies. The data reveal that while value added by the services sector as a proportion of GDP during the pre-reform period of 1980-89 was about 40 percent in India, it increased steadily over the post-reform years to a high of 45 percent in 1998. This share was close to that attained by Malaysia over the same period and exceeded those of China and Indonesia. Korea was the only economy with a greater contribution of the services sector to overall GDP. The growth of the services sector in India averaged 7.7 percent between 1993 and 1998. This rate of growth was second only to China during the 1992-98 period. Over the entire period of 1990-98, India's average growth rate of the services sector was comparable to that of Korea, Malaysia and Indonesia. Thus, the services sector has not only become an important component of India's GDP over time, its growth in value added terms has been impressive even in comparison to East Asia.

On the trade front, the services sector in India has outperformed merchandise trade, especially over the post-reform period (Annex 3). Thus, while merchandise and services trade expanded at almost the same rate between 1980 and 1989 (9 percent), the average annual growth of services trade over the 1990-98 period was about 15 percent. India's growth in services trade was nearly double that of merchandise trade during the 1992-98 sub-period itself. Growth in India's services trade in the 1990s exceeded those of Indonesia, Korea. India's share in Asia's exports of commercial services (as defined by the WTO) increased from 3.5 to 5.8 percent over between 1990 and 2000. India's share in 2000 was higher than Malaysia, Indonesia and the Philippines, and about two-thirds of that of China and Korea (WTO, 2001, Table III.79). In the year 2000, India ranked 22th in terms of its share in world exports of commercial services, with China and Korea being the only two DEA economies ranked higher than India. For comparison, note that during the same period, India's ranked a lowly 31st in world merchandise

exports and 26th in world merchandise imports. In contrast, the DEAs, save the except for the Philippines, were ranked far higher in merchandise trade than services[17].

Balance of payments data for India shows that both merchandise and services trade have been in deficit during the 1990-98 period, with services trade incurring particularly large imbalances, nearly eight times higher than that in merchandise trade during the period under consideration. However, the services trade deficit was far lower than most DEA economies save the Philippines and has been steadily increasing since 1996-97 (Kalirajan, 2001). Note that in contrast, while the DEA economies also had large services deficits, these were compensated for by sizeable merchandise trade surpluses.

4.2 Information and Communications Technology: Emerging Potential and Opportunities for Leapfrogging

While the Information and Communication Technology (ICT) and related services were viewed as being nontradable just a few years ago, they have in fact been the main thrust of rapid expansion of services trade in India, accounting for nearly 58 percent of service exports and about 16 percent of total exports in 1998 (Table 13). Its share in India's services export was almost double that in 1995. In comparison to the DEA economies in 1997, before the regional financial crisis began, the share of ICT exports (to total services exports) in India was higher than that of China, Indonesia and Korea. During the crisis year of 1998, India had the second highest share in ICT service exports after the Philippines and was the only country apart from Indonesia which experienced an increase in the share of ICT goods.

To be sure, the ICT services sector comprises IT related and enabled services, viz. those involving trade in and use of computer software, hardware and the like, as well as services involving communications technology viz. the Internet, e-commerce and telecommunication sector. This category of services covers a wide range of activities and primarily involves the extensive use of knowledge and

[17] Specifically, China ranked 7th and 8th, Korea ranked 12th and 13th, and Malaysia ranked 18th in both world merchandise exports and imports, respectively. Even Indonesia was ranked 26th in world merchandise exports, higher than India.

information as a vital input in the factor of production, combining the latest developments in electronic and communications technology. Bajpai (2001) has noted that "(i)nspired by the success of Singapore, several developing countries consider IT as a unique opportunity to leapfrog whole stages of industrial development. Having missed the first two industrial revolutions, they are eager not to miss the third one - the making of the knowledge economy" (p.13).

a) *Reasons behind growth of ICT in India*

The development of the ICT industry in India has been primarily attributable to the software and product services segments which posted an average revenue growth of about 50 to 60 percent annually during the 1990s; from a mere US$20 million 10 years ago to US$5.6 billion in 1999-00. Growth of software development has been overwhelmingly market-driven as opposed to being government-led; government intervention has been minimal ("hands off") and largely reactionary. Its expansion has been propelled by an increasing international demand for such skills, mainly from the US market, on the one hand, and India's nurturing of a pool of skilled IT professionals, on the other[18]. The Indian software industry employs some 160,000 professionals and contributes to around 10 percent of India's total merchandise exports. However, despite this rapid growth, India's share in the total global software market is still a mere 1-2 percent[19]. The fact that India's share in the total global software market is currently miniscule suggests there may be significant scope for future expansion. In view of this, the Indian government has identified the software industry as a major export and growth thrust area.

A comparison of the major potential factors influencing the development of IT-enabled services reveals that India ranks favourably in comparison to some leading DEA economies, with a clear advantage in terms of workforce availability and skills and also in terms of a cosmopolitan work culture

[18] India possesses the world's second largest pool of scientific manpower that is also English speaking (see Arora and Athreya, 2001, Bajpai, 2001, Miller, 2001 and Tschang, 2001).

[19] See www.hyderabad.com/news/20010322/news18.htm. However, India's shares in other sub-markets are above 10 percent. For instance, India commands an 18 percent market share in the global customised software market.

(NASSCOM, 2001). Some segments of IT-enabling services (such as back-office operations, remote maintenance, medical transcription, call centers, content development and remote maintenance) have been important sources of employment generation in India.

b) Areas of concern for India's ICT sector

Despite the foregoing advantages, there can be no room for complacency. Over the years, the growth in the computer software sector has been much more rapid and steady than that of the hardware sector in the IT sector. The development of the hardware sector has been held back by long-standing and severe bottlenecks in infrastructure and supporting facilities (discussed in Brahmbhatt et al., 1996), and a rather unattractive tax regime. The DEA economies including China have outperformed India in this area[20]. Lal (2001) has suggested that "the hardware sector in thoroughly demoralised in India…India needs a positive agenda rather than merely adopting a *laissez faire* policy..in IT manufacturing" (p.116). In addition, the diffusion rates across the population have been much slower in India compared to its East Asian counterparts. Thus, while the use of mobile phones, facsimile, cable television and Internet services in India increased significantly during 1995-97 compared to earlier periods, it was still far lower on average compared to DEA economies (Miller, 2001 and Table 14). In part, India has lagged behind because of a late recognition of the potential in this sector and a lack of proper policy and institutional framework to encourage the usage of ICT in India in the beginning of the 1990s when the economic reforms were initiated[21].

Some of these concerns are being addressed, at least superficially. In acknowledgement of the strategic importance of IT for the country, the central government has established a goal of making India

[20] This being said, this component of trade is reflected in merchandise trade statistics and has already been discussed in section 2.

[21] This is admittedly a double-edged sword because, as noted, absence of government regulations is what facilitated the development of this area in the first instance. The key is to ensure that government initiatives are constructive rather than onerous and stifling. Admittedly, as with many other developing countries, India's track record as far as this is concerned leaves a lot to be desired. Hitherto, government failures in India appear to have far outweighed market failures.

a global economic power in IT by 2008 and has established a National Task Force to achieve this end. Among the major initiatives, as part of the 108 recommendations made by the National IT Taskforce, the Indian government is providing a strong thrust to facilitate supportive infrastructure for proliferation of IT Enabled Services throughout the country and developing strategies for wooing large companies to set up IT Enabled Services units in their state. Many State governments, especially Southern ones (like Andra Pradesh, Karnataka and Tamil Nadu) have started providing a special thrust towards IT Enabled Services; fourteen of the twenty six state governments have already come up with their own IT policies. Such initiatives are especially important in view of the growing competition in the low-value added segment of the software market (i.e. in customised software and IT-enabled services) from the Philippines and China (Kumar, 2001). India needs to quickly rise up the value-chain and move into software production and development, for which several critical measures - in the areas of greater emphasis on Research and Development (R&D) and product development, acquisition of global marketing channels/brands, industrial restructuring, and a rethink at the government's promotional measures for software exports - are required.

5. Summary and Concluding Remarks on FDI

India has made some important strides since the initiation of the reform program in 1991 and has been one of the fastest growing economies in the world. Given that the liberalisation program in India has been evolutionary (with inevitable hiccups and backtracking in the interim) rather than revolutionary, even a decade may offer too few degrees of freedom to pass definitive judgment on the longer-term prospects of the Indian economy. Nonetheless, considering that India faced virtual bankruptcy in mid 1991, its economic performance since then has laudable and rather under-appreciated. On the positive side, all indicators reveal the reduction of the anti-export bias has allowed the Indian economy to attain a higher degree of integration with the global economy in the 1990s compared to previous decades. On the negative side, India remains highly inward looking in comparison to China and its other East Asian

neighbours which embraced the multilateral trading system and laid out the welcome mat for FDI much earlier (in the mid to late 1970s and 1980s). Accordingly, while the DEA economies have been able to move rapidly from manufactured labour intensive commodities, India has largely been left out of the global division of labour, particularly with regard to parts and components (PCAs) production. India's manufactured exports as a whole have remained stagnant when benchmarked against East Asia. It continues to rely on traditional labour intensive products despite beginning the industrialisation process ahead of most of East Asia

India has however fared much better in the area of services trade, particularly new and dynamic sectors like the information and communication technology. The ICT sector in India, while a very promising growth niche, is still at a nascent stage of development. While the software industry is diversifying into new areas with strong growth potential like Applications Service Providers (ASP), e-commerce and related applications, the hardware component industry is yet to take-off. Nonetheless, the software sector in particular, but the ICT sector in general has brought substantive advantages to India over and above direct employment creation and being an additional source of export earnings. As Miller (2001) has noted

> (t)he fact that India is demonstrably competitive internationally in the production of sophisticated software brings other advantages to the country. Indian technological sophistication, though still narrowly defined, has begun to alter international perception of the country. Instead of viewing India as a country burdened by decades of heavy-handed government regulation of the economy, foreigners now view the country somewhat more favourably, though not yet as a country where future growth will approximate that of China and several of the Southeast Asian countries (p.21).

International trade in general but services in particular has been facilitated by FDI since the intangible and simultaneous production and consumption nature of disembodied services requires FDI to be the main mode of delivery of such services across borders to foreign markets. There is broad agreement that in a relatively non-distorted domestic policy environment, FDI fosters growth by promoting greater competition and trade and facilitating a country's overall integration with the global

marketplace (Lipsey, 2000)[22]. For instance, studies by Lardy (1994), Lemoine (2000), Wei (1996) and others have found that FDI has been a major conduit to China's export and overall economic growth.

Given severe restriction on FDI flows into India until the reforms of 1991, the presence of FDI was expectedly negligible. FDI inflows began in earnest only post 1991. Table 15 summarises trends in FDI *approved* and *actual* inflows in India since 1991. Note that the figures report the value of equity investments only, since FDI valuation in India is done at *equity investment* and not at *project cost* (in contrast to most of the East Asian countries)[23]. Since the economic reforms in India in July 1991, when India attracted less than US$ 0.5 billion worth of equity investments, approved FDI inflows in India increased annually to about US$ 15 billion in 1997[24]. It declined thereafter to about US$ 8.6 billion by 2000. Overall, India approved nearly US$ 72 billion worth of FDI since the post-reform period. However the realisation of this approved FDI into actual disbursements has been quite slow; the average realisation ratio (i.e. actual inflows-to-approvals) was about 36 percent over the entire period[25]. Thus, the actual levels of FDI investments in the 1990s have averaged only about US$ 2.5 to US$ 3 billion annually.

Inevitably, India's performance with regard to FDI pales when compared to its DEA neighbours and China in particular. To be sure, between 1990 and 1998, India's FDI to GDP ratio reached about 0.4 percent (nearly a ten-fold increase over 1980-89 period), while its FDI to GDI ratio increased by nearly eight-fold over 1980-89 period to about 1.6 percent. In comparison, China's FDI/GDP ratio

[22] Of course, in a distorted trade and investment environment, Brecher and Diaz-Alejandro (1977) have argued that capital inflows may be "immiserising" or growth reducing. See Agrawal (2000) for a recent empirical application to South Asia.

[23] Equity investment is about one fifth to one third of total project cost. Also see fn 26.

[24] This figure includes total FDI approved by all the three authorities viz. Secretariat for Industrial Approvals (SIA), Foreign Investment Promotion Board (FIPB), and the Reserve Bank of India (RBI) that are designated for clearing FDI proposals by the Government of India.

[25] One reason for this gap may be due to the type of investment projects involved. "Heavy duty" infrastructural, power and oil refinery-related projects tend by nature to involve much greater gestations periods between bring approved and being actually realised. On an annual basis, India's realisation ratio has increased significantly from 17 percent in 1991 to between 50 and 60 percent since 1999. This suggests that policy changes directed towards easing the process of FDI approvals do seem to have had some degree of success in speeding up the implementation process in translating FDI approvals into actual figures.

soared exponentially to 4.1 percent from less than 1 percent and its FDI as a proportion of domestic investment reached about 10 percent from only 1.4 percent during the 1980-89 period (Figures 3 and 4). China has emerged as the single largest recipient of global FDI among all developing economies and the second largest recipient of FDI in the world after the US, with cumulative inflows amounting to more than US$ 300 billion at the end of 1999 (Lemoine, 2000). India's FDI levels in the post-reform period in the 1990s (1990-99) were comparable only to those attained by China in the 1980s (1980-89)[26]. During 1992-98 cumulative FDI to India was US$12bn in equity, while that to China was twenty times as much (US$240bn).

Some recent studies have suggested that the best inducement to FDI in India is overall economic growth itself; success breeds success. Athreye and Kapur (2001) have recently emphasised that since the contribution of FDI to domestic capital formation is quite small (less than five percent), *growth-led FDI* is more likely than *FDI-led growth.* This is so as increased economic activity expands the market size, offering greater opportunities for foreign investors to reap economies of scale in a large market economy viz. India. One is led to a similar conclusion from an empirical study by Dua and Rasheed (1998) which finds that industrial production in India has a unidirectional positive Granger-causal impact on inward FDI flows (both approval and actual), thus inferring that economic activity is an important determinant of attracting FDI inflows in India, and not vice-versa. On the other hand, based on an analysis of panel data from South Asian countries including India, Agrawal (2000) find that there is a long-run positive association between FDI inflows on national investments[27]. In addition he finds that the impact of FDI

[26] Official FDI figures to China may be somewhat fictitious and artificially inflated and need to be interpreted with caution. For instance, while Hong Kong has been a major direct investor, part of the investments may be due to "round-tripping" from the mainland as domestic (Chinese) investors try to take advantage of tax and tariff benefits extended to foreign investors (Graham and Wada, 2001). The exaggeration of FDI figures by each region in China may also be done for political-bragging purposes (Broadman and Sun, 1997).

[27] As noted by the author, "a part, but not all, of this effect appears to be driven by the government policies requiring FDI to share some equity with national investors."

inflow on GDP growth rate has been negative prior to 1980, mildly positive for early eighties, and increasingly positive over the late eighties and early nineties as the economies deregulated and opened up.

What should one conclude from these studies? While they reiterate that "open door" policies should not be intentionally biased towards foreign investors at the expense of domestic investors, they do not necessarily imply taking a *laissez faire* attitude towards FDI. The rather listless response by foreign direct investors to the first decade of India's reforms is not inconsistent with the experience of China which experienced an acceleration in FDI flows only after 1986, despite the reforms being initiated in 1979 (Huang and Shirai, 1994)[28]. What is probably of more concern to Indian policy makers is the downward trend in the levels of FDI inflows in the last few years. Accordingly a more proactive approach may be needed to encourage FDI, especially if it is to hope to come close to attaining the stated goal of attracting US$ 10 billion in actual inflows annually (Blaxill and Maira, 2000, Sachs and Bajpai, 2000, Sachs et al., 2000). This effectively implies a quadrupling the level of annual inflows that India currently receives. Recent initiatives such as leveraging on the world class infrastructural and supporting facilities offered by Singapore and promoting the city state as a "gateway" to investing and doing business in India, not unlike the role historically played by Hong Kong vis-à-vis Mainland China, are encouraging steps in the right direction.

[28] During 1980-91, China's cumulative FDI was less than US$25, the spurt beginning only in 1991-92 (Figure 3).

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Annex 1
A decade of Economic Reforms in India's External Sector -
A comparison of pre-and post reform changes in Economic Policies[29]

Areas	Pre-Reforms (before 1991)	Post-reforms (till 2001)
Trade Policy	**High Import Restrictions :** Quantitative Restrictions (QRs) on 90 % of value added of manufacturing; import licensing based on 26 separate lists; 55 goods under "canalised imports" i.e. restricted to imports only by state agencies; Other nontariff barriers viz. actual user policy, phased manufacturing program and government purchase preferences existed **High Tariffs :** Maximum rate was 400 % (Average import-weighted rate was 87 % with a standard deviation of 41 %) ; rate of effective protection was 164 % **Significant Export Controls :** 439 items were subject to controls **Imposition of Export Taxes and Subsidies :** Taxes levied on minerals and agricultural products; direct subsidies targeting specific sectors	**Removal of Import Restrictions**: Elimination of all QRs on imports in EXIM policy 2001, taking steps to ensure that a "level-playing field is provided to domestic producers while competing with the importers. This step is aimed at providing easy access to inputs for domestic production, as well as further opening up of the economy to the international market, with special thrust on agriculture exports. Import of Technology has been liberalised. Hence, technology can be imported through the automatic route without any restriction. This has increased the access of modern and efficient techniques of production to Indian industries, making them more competitive and profitable than before. For the first time, Export of Services has been given separate focus in the Export-Import Policy and the future potential in them has been realised. The schemes for export promotion available to merchandise exporters to be extended to service exporters as well**.** Special Advance Licensing Scheme for export of electronic items has been introduced and Tourism industry has been granted an export house status. **Lowering of Tariffs :** Average imported weighted rate declined to 27 % with a standard deviation of 14 % by 1999 ; rate of effective protection was reduced to 72 % by 1995. **Removal of Export Controls :** Mostly lifted **Reduction in Export Taxes and Subsidies :** Taxes abolished; subsidies streamlined (direct subsidies eliminated and sector specific subsidies replaced by more general schemes such as non-taxation of export profits and duty drawback schemes.
	Pre-Reforms (Before 1991)	**Post-reforms (till 2001)**
Trade Policy (Contd.)	**No emphasis on Export Promotion :** Inward-looking Import-substitution strategy followed.	**Emphasis on Export promotion schemes:** While India has attempted to promote exports through exemptions from import duties on raw materials and imported inputs, other strategies such as the creation of export processing zones

[29] Source : Chopra et al (1995)

		or EPZs have not proven successful for a variety of reasons (Bajpai, 2001 and Bajpai and Sachs, 2000). Recognising this, India has recently established Special Economic Zones (SEZ) for the first time, following the Chinese model of export growth, to accelerate its integration with the world economy. The SEZ is a specially delineated duty free enclave, for undertaking manufacturing, assembling, trading and various other services. It will have a public utility status, and a single point clearance for exports and imports. Its first SEZ at Positra in Gujarat costing US$ 1.3 billion has achieved financial closure and another 2 to 3 such SEZs are expected do so in the near future (Asher, et al., 2001). However, compared to the Chinese SEZs, the size of proposed SEZs in India are quite small[30].
International Investment Policy **International Investment Policy (contd.)**	**Limited scope for FDI** : Foreign equity limited to 40 % in selected areas, most sectors prohibited from FDI. **Pre-Reforms (Before 1991)**	**Thrust on attracting FDI:** Automatic approval for up to 100 % foreign equity in certain areas, and opening up of most sectors to FDI; procedural simplifications for investors, greater thrust on speedy FDI implementation through setting up of Foreign Investment Implementation Authority (FIIA). With respect to international investment, overseas investment norms have been made more flexible. The limit for overseas investment for Indian companies with balances in their Export Earning Foreign Currency (EEFC) account has been raised from $4 million to $20 million. This has been another step towards full convertibility in the capital account and allows more Indian companies to venture globally by investing abroad. Investments in Information and Communication Technology (ICT) have been made more attractive. The ICT policy package allows for automatic approval for investments up to 50 percent of cumulative exports or foreign exchange earnings in last three years. It also provides freedom to invest in Joint ventures and wholly owned subsidiaries abroad, and also allows entry of Private Internet **Post-reforms (till 2001)** Service Providers (ISPs) into the IT market. This is expected to provide a boost to trade and investment in the ICT sector, whose development is critical for India to be competitive in a globalised world. With respect to investments in the Infrastructure sector, several measures have been taken. In the Power sector, Mega power projects in the public sector as

[30] ET invest online (July 23, 2000). http://www.etinvest.com/content/forex/fxanalysis/fxjul23an1.htm).

		well as Independent Power Producers (IPP) have been allowed to import capital equipment free of duty. In the Telecommunications sector, National long-distance telephony has been privatised, ending the monopoly of the MTNL, as announced by the Indian Prime Minister A.B Vajpayee, with International Long-distance telephony to be privatised by April 2002 (ENS Economic Bureau, 2000). The use of Global Satellite phones has been allowed and up to 49 percent of foreign equity investment in this area has been allowed.. Tax holidays in this sector have been extended to Radio paging and Domestic Satellite services. Internet service providers have been allowed to set up their own gateway for international connectivity. They have been also allowed to fix their own tariffs.

Annex 2
Classification of commodities of manufactured exports
according to relative factor intensities

SITC Rev.2 category	Product description and category	SITC Rev.2 category	Product description and category
	Unskilled Labour intensive (ULI) goods		**Technology Intensive (TI) goods**
65	Textile yarn, n.e.s	54	Medicinal and pharmacy products
651	Textile yarn	56	Fertilisers, manufactures
652	Cotton fabrics, woven	57	Explosives and pyrotechnic
653	Fabrics, woven of man-made fibres	58	Artificial resins and plastic materials
654	Other textile fibres	59	Chemical material and products
657	Special textile fabrics	752	Automatic data processing machines
664	Glass	759	Parts, n.e.s of and Accessories
665	Glassware	76	Telecommunication equipment
666	Pottery	77-775	Electrical machinery and Parts thereof
81	Sanitary, plumb fixtures	87	Professional, scientific, and controlling instruments
82	Furniture and parts	88-885	Photographic apparatus- watch clock
83	Travel goods		
84	Apparel and clothing accessories		**Physical capital intensive (PCI) goods**
85	Footwear	51	Organic chemicals
89-896-897	Miscellaneous- jewellery , art antiques	52	Inorganic chemicals
894	Baby carriages, toy	67	Iron and Steel
		68	Non ferrous metals
	Human capital intensive (HCI) goods	71	Power generating machinery
55	Essential oils	72	Machinery specialised
62	Rubber manufactures	73	Metalworking machinery
64	Paper , paperboard	74	General industrial machinery and equipment, n.e.s
69	Metal manufactures n.e.s	751	Office machines
775	Household electric and non-electric Equipment		
78	Road vehicles		
79	Other transport equipment		
885	Watches and clocks		
896-897	Works of art +jewellery		

Source : Garnaut and Anderson (1980)

Annex 3
Comparison of merchandise and services trade of India and Selected DEA economies

A. Aggregate values of merchandise and services trade in India and DEA economies

(current US$ billion)

	India		China		Indonesia		Korea		Malaysia		Philippines	
	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98
Merchandise exports	107.2	238.7	275.7	1003.6	197.1	371.4	337.8	912.8	159.7	504.0	57.0	144.4
Merchandise imports	161.0	293.5	306.1	853.5	145.3	297.1	324.6	905.3	132.5	468.2	72.4	201.9
Merchandise Trade	268.2	532.2	581.8	1857.1	342.4	668.5	662.4	1818.1	292.1	972.2	129.4	346.3
Merchandise trade balance	-53.8	-54.8	-30.4	150.1	51.7	74.3	13.2	7.5	27.2	35.8	-15.4	-57.4
Service exports (BoP)	33.6	63.1	28.6	138.3	8.1	40.9	50.4	157.2	19.3	70.1	21.6	68.0
Service imports (BoP)	23.8	54.8	21.7	153.3	42.3	99.1	43.8	178.6	37.4	90.8	13.6	54.2
Services Trade (BoP)	57.3	117.9	50.3	291.6	50.4	140.0	94.2	335.8	56.6	160.8	35.1	122.2
Services trade balance	-244.4	-477.5	-560.2	-1703.7	-300.1	-569.4	-618.6	-1639.5	-254.7	-881.4	-115.8	-292.1

B. Compound Annual Growth rate of trade and investment aggregates

(Growth rate in %)

	India		China		Indonesia		Korea		Malaysia		Philippines	
	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98
Merchandise exports	7.7	8.1	10.2	17.2	0.5	8.2	15.2	9.6	7.5	12.1	3.4	17.4
Merchandise imports	5.3	8.4	10.5	15.8	4.7	5.1	11.3	4.0	7.6	9.5	3.4	11.7
Merchandise Trade	6.3	8.3	10.3	16.6	2.0	6.9	13.2	7.0	7.5	10.9	3.4	14.2
Service exports (BoP)	4.1	14.2	9.04[a]	19.3	19.6[b]	7.6	14.9	12.4	10.9	21.4[c]	9.3	11.0
Service imports (BoP)	9.8	15.3	9.9[a]	26.7	1.1[b]	8.7	11.1	11.2	5.5	18.0[c]	0.9	24.4
Services Trade (BoP)	6.3	14.7	9.4	22.9	3.8	8.4	12.9	11.8	7.2	19.5	5.8	17.0

[a] C.A.G.R for 1982-89; [b] C.A.G.R for 1981-89 ; [c] C.A.G.R for 1990-97

Table 1
India's growth performance compared to East Asian Countries

	India			China		Indonesia		Korea		Malaysia		Philippines	
	1980-89	1990-98	1992-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98	1980-89	1990-98
GDP at factor cost (constant 1995 US$ billion)	5.7	5.8	6.7	N.A	10.6	N.A	5.4	9.2	5.4	N.A	N.A	N.A	N.A
GDP at factor cost (current US$ billion)	5.2	3.8	8.7	N.A	13.0	2.5	-1.7	15.2	3.1	N.A	N.A	3.8	4.7
GDP at market prices (constant 1995 US$ billion)	5.9	5.6	6.5	9.8	10.8	6.1	4.6	9.0	5.3	5.6	6.4	1.5	2.7
GDP at market prices (current US$ billion)	5.3	3.7	8.5	6.1	13.2	3.0	-2.4	15.1	3.0	5.0	6.8	3.1	4.9
GDP growth (annual %)	6.0	5.6	6.4	9.4	10.1	6.4	5.3	7.9	5.9	5.8	6.8	2.0	2.7
GDP per capita, PPP (current international $)	923.2	1732.6	1830.2	793.0	2255.3	1176.4	2537.8	4796.8	12007.9	3622.3	7324.4	2514.8	3372.3

Source: World Bank (2000)

Table 2
Tariff Structure of the Indian economy, 1990-99
(in percent)

	1990/91[a]	1993/94[b]	1995/96	1996/97[c]	1997/98[d]	1998/99	1999/2000
Average Unweighted							
Agriculture	113	43	27	26	26	30	29
Mining	100	70	30	26	25	29	27
Manufacturing	126	73	42	40	36	41	40
Whole Economy	125	71	41	39	35	40	40
Dispersion of tariff [e]	41	30	19	19	15	15	14
Maximum tariff rate [f]	355	85	50	52	45	40	38.5[h]
Average Weighted [g]	87	47	25	22	20	30	30

a) Prior to reform package of July 1991. Includes auxiliary duty mostly at 45%.
b) The auxiliary duty was merged with the basic customs duty in the 1993/94 budget.
c) Includes special rate of 2%.
d) Includes special rate of 5%.
e) Dispersion for the whole economy as measured by the standard deviation.
f) Higher than the so-called maximum rate is applied to a few items; in 1997/98, 0.4 percent of tariff lines.
g) Weighted by 1992/93 import values.
h) Includes a 10 percent surcharge announced in the Union Budget of Year 2000.
Note: Tariff averages consider only those tariff lines with ad valorem rates. Year beginning 1 April.
Classification used is based on the International Standard Industrial Classifications(ISIC):
Agriculture = ISIC 1; Mining = ISIC 2; Manufacturing = ISIC 3, including food processing.
Source: WTO, *Trade Policy Review : India 1998*, p. 46, *Asian Development Outlook 2001,* The Asian development Bank and World Bank Staff estimates for 1998/99 and 1999/2000.

Table 3
Dispersion [a] of Average tariff rates of selected developing countries in Asia: 1990-98

	1990-94	1995-98
India	39.4	12.7
Thailand	25	8.9
Indonesia	16.1	16.6
China	29.9	13
Philippines	28.2	10.2

[a] Measured by the standard deviation.
Source: World Bank (2001, Table 2.1)

Table 4
External sector of India: Major indicators

	1980	1989	1990	1992	1995	1997	1998	1999
Merchandise Exports	8.44	15.80	17.96	19.63	30.54	33.29	36.67	39.08
Merchandise Imports	14.82	20.30	23.94	23.20	34.48	38.91	43.41	45.42
Total Trade	23.26	36.10	41.68	41.72	65.02	72.20	80.08	84.50
Share in World Exports	0.44	0.52	0.59	0.52	0.60	0.60	0.67	0.69
Share in World Trade	0.58	0.58	0.59	0.55	0.63	0.64	0.72	0.74
Share of Manufacturing in Total exports	58.60	72.00	70.70	74.00	73.50	74.00	69.0	75.00
Import duties (% of imports)	26.4	45.4	42.20	36.90	24.8	28.20	24.20	N.A
Trade/GDP ratio	0.15	0.17	0.17	0.18	0.20	0.25	0.25	0.25
Nominal Exchange rate	7.86	16.23	17.50	25.92	32.40	36.40	41.26	43.05
Current A/c balance (% of GDP)	-1.3	-1.8	-2.5	-1.2	-1.8	-1.3	-1.2	N.A
Reserves (US $ bn.)	6.9	3.9	1.5	5.8	17.9	25.0	27.3	32.7
Foreign direct investment, net inflows (current US$ billion)	0.1	0.3	0.2	0.3	2.1	3.6	2.6	2.2
Foreign direct investment, net inflows (% of GDI)	0.2	0.4	0.2	0.4	2.3	3.6	2.6	N.A
Foreign direct investment, net inflows (% of GDP)	0.0	0.1	0.1	0.1	0.6	0.9	0.6	N.A

Source: The World Bank, *World Development Indicators*, and the IMF, IFS CD-Rom; N.A: Not Available

Table 5
Comparison of External sector indicators of India and Selected DEA economies

	India		China		Indonesia		Korea		Malaysia		Philippines	
	1980-89	**1990-98**	**1980-89**	**1990-98**	**1980-89**	**1990-98**	**1980-89**	**1990-98**	**1980-89**	**1990-98**	**1980-89**	**1990-98**
Exports of goods and services (% of GDP)	6.0	9.7	10.4	21.0	25.9	29.8	35.0	31.4	58.2	89.0	24.7	37.0
Exports of goods and services (annual % growth)	5.3	11.1	19.1	14.9	2.0	9.2	11.6	13.8	9.6	11.9	7.9	7.9
Share in World Exports	0.5	0.6	1.3	2.4	0.9	0.9	1.5	2.2	0.7	1.2	0.3	0.3
Share in World Trade	0.6	0.6	1.3	2.2	0.8	0.8	1.5	2.2	0.7	1.2	0.3	0.4
Manufactures exports (% of merchandise exports)	60.3	65.2	34.0	81.1	14.3	46.4	91.4	92.6	31.0	70.0	27.7	59.7
Trade (% of GDP)	14.5	21.9	21.5	39.5	48.1	57.2	69.8	62.9	113.9	176.1	51.0	80.6

Source: World Bank (2000)

Table 6
India: Average Exports of Selected Principal commodity categories over pre and post-reforms
(U.S $ billion)

No.	Category	1988-90	1994-96	1998-2000	1994-96 over 1988-90	1998-2000 over 1988-90
1	**Primary products**	3.4	5.8	7.0	2.4	3.6
		(24.1)	(21.6)	(19.9)	(18.8)	(17.0)
2	**Manufactured products, of which**	10.1	20.2	27.3	10.1	17.2
		(71.0)	(75.4)	(77.3)	(80.3)	(81.6)
2.1	*Handicrafts, of which*	3.2	5.4	7.4	2.2	4.1
		(22.7)	(20.2)	(20.8)	(17.4)	(19.6)
2.1.1	*Gems and Jewellery*	2.7	4.6	6.3	1.8	3.6
		(19.3)	(17.1)	(17.9)	(14.7)	(16.9)
2.2	*Engineering goods*	1.6	3.6	4.9	2.1	3.3
		(11.1)	(13.6)	(13.9)	(16.4)	(15.9)
2.3	*Readymade Garments*	1.6	3.2	4.3	1.6	2.7
		(11.2)	(11.9)	(12.3)	(12.6)	(12.6)
2.4	*Textile Yarns, Fabric*	1.1	2.9	4.1	1.8	3.0
		(7.9)	(10.8)	(11.6)	(14.2)	(14.2)
2.5	*Leather products*	1.1	1.6	1.6	0.5	0.6
		(7.5)	(5.8)	(4.6)	(3.9)	(2.6)
2.6	*Chemicals and Allied products*	0.9	1.9	3.1	1.1	2.2
		(6.0)	(7.2)	(8.8)	(8.5)	(10.7)
3	**Petroleum products**	0.7	0.8	1.0	0.1	0.3
		(4.9)	(3.0)	(2.8)	(0.8)	(1.4)
1+2+3	**Total Exports**	14.2	26.8	35.3	12.6	21.1

Source: *Handbook of Statistics on Indian Economy*, Reserve Bank of India, 2000
Notes: 1. Figures in parentheses constitute percentages of the total exports (1+2+3)
2. Mid-point to mid-point compound annual growth rates of total exports :
1988-90 to 1994-96 : 11.12 percent per annum over 6 years.
1988-90 to 1998-2000 : 9.51 percent per annum over 10 years.

Table 7
An Analysis of Export Revealed Symmetric Comparative Advantage (XRSCA) among India and ASEAN countries according to Garnaut and Anderson Classification of products by Factor intensities

UNSKILLED LABOUR INTENSIVE GOODS

Countries	XRSCA	1982	1987	1992	1996	1997	1998
INDIA	XRSCA >0	0.34	0.45	0.39	0.56	0.43	0.37
	XRSCA <0						
CHINA	XRSCA >0		0.43	0.57	0.56	0.61	0.62
	XRSCA <0						
INDONESIA	XRSCA >0			0.31	0.27	0.11	0.44
	XRSCA <0	-0.82	-0.27				
KOREA	XRSCA >0	0.67	0.57	0.49	0.38	0.19	0.34
	XRSCA <0						
MALAYSIA	XRSCA >0						
	XRSCA <0	-0.56	-0.46	-0.13	-0.16	-0.19	-0.08
PHILIPPINES	XRSCA >0	0.24	0.07	0.15	0.21		
	XRSCA <0					-0.13	-0.07

PHYSICAL CAPITAL INTENSIVE GOODS

Countries	XRSCA	1982	1987	1992	1996	1997	1998
INDIA	XRSCA >0						
	XRSCA <0	-0.62	-0.59	-0.33	-0.35	-0.24	-0.31
CHINA	XRSCA >0						
	XRSCA <0		-0.56	-0.37	-0.24	-0.17	-0.15
INDONESIA	XRSCA >0						
	XRSCA <0	-0.80	-0.66	-0.70	-0.61	-0.64	-0.25
KOREA	XRSCA >0						0.17
	XRSCA <0	-0.26	-0.31	-0.18	-0.19	-0.06	
MALAYSIA	XRSCA >0						
	XRSCA <0	-0.36	-0.68	-0.48	-0.46	-0.30	-0.17
PHILIPPINES	XRSCA >0						
	XRSCA <0	-0.69	-0.48	-0.71	-0.75	-0.87	-0.89

TECHNOLOGY INTENSIVE GOODS

Countries		1982	1987	1992	1996	1997	1998
INDIA	XRSCA >0						
	XRSCA <0	-0.59	-0.58	-0.58	-0.64	-0.54	-0.60
CHINA	XRSCA >0						0.05
	XRSCA <0		-0.59	-0.25	-0.10	-0.04	
INDONESIA	XRSCA >0						
	XRSCA <0	-0.90	-0.91	-0.63	-0.39	-0.43	-0.11
KOREA	XRSCA >0	0.03	0.07	0.17	0.21	0.23	0.39
	XRSCA <0						
MALAYSIA	XRSCA >0			0.18	0.18	0.40	0.49

HUMAN CAPITAL INTENSIVE GOODS

Countries	XRSCA	1982	1987	1992	1996	1997	1998
INDIA	XRSCA >0						
	XRSCA <0	-0.31	-0.56	-0.34	-0.53	-0.37	-0.47
CHINA	XRSCA >0						
	XRSCA <0		-0.42	-0.33	-0.26	-0.21	-0.16
INDONESIA	XRSCA >0						0.03
	XRSCA <0	-0.95	-0.88	-0.69	-0.48	-0.53	
KOREA	XRSCA >0	0.17			0.09	0.15	0.32
	XRSCA <0		-0.04	-0.06			
MALAYSIA	XRSCA >0						

Table 7 (continued)

TECHNOLOGY INTENSIVE GOODS								HUMAN CAPITAL INTENSIVE GOODS							
Countries		**1982**	**1987**	**1992**	**1996**	**1997**	**1998**	**Countries**	**XRSCA**	**1982**	**1987**	**1992**	**1996**	**1997**	**1998**
	XRSCA <0	-0.29	-0.21						XRSCA <0	-0.90	-0.83	-0.54	-0.51	-0.51	-0.42
PHILIPPINES	XRSCA >0				0.42	0.25	0.43	PHILIPPINES	XRSCA >0						
	XRSCA <0	-0.57	-0.66	-0.05					XRSCA <0	-0.86	-0.83	-0.81	-0.72	-0.72	-0.85

Source : Computed from UN International Trade Statistics Yearbook, various issues

Table 8
Export pattern of commodities between India and DEA economies
according to Garnaut and Anderson Classification of products by Factor intensities

UNSKILLED LABOUR INTENSIVE GOODS								PHYSICAL CAPITAL INTENSIVE GOODS							
Countries		**1982**	**1987**	**1992**	**1996**	**1997**	**1998**	**Countries**		**1982**	**1987**	**1992**	**1996**	**1997**	**1998**
INDIA	S_w	1.10	1.15	1.12	1.40	1.50	1.45	INDIA	S_w	0.13	0.12	0.25	0.31	0.37	0.35
	S_{ct}	17.48	32.50	31.40	31.39	32.82	28.34		S_{ct}	4.01	5.07	9.00	9.19	10.27	8.90
CHINA	S_w		4.98	8.42	10.13	11.95	11.96	CHINA	S_w		0.56	1.05	1.75	2.08	2.05
	S_{ct}		31.2	51.0	45.26	52.76	56.12		S_{ct}		5.5	8.2	10.51	11.67	12.43
INDONESIA	S_w	0.12	0.40	1.69	1.63	1.15	1.02	INDONESIA	S_w	0.14	0.14	0.16	0.23	0.20	0.24
	S_{ct}	0.82	7.05	25.76	22.77	19.76	33.27		S_{ct}	1.90	3.93	3.10	4.26	4.48	10.13
KOREA	S_w	6.62	7.99	6.49	5.80	3.22	2.96	KOREA	S_w	0.79	1.14	1.52	1.76	1.93	2.04
	S_{ct}	48.31	49.65	41.29	28.86	19.13	26.93		S_{ct}	11.8	11.6	15.2	15.6	14.57	23.93
MALAYSIA	S_w	0.31	0.41	0.83	1.04	0.96	0.89	MALAYSIA	S_w	0.52	0.21	0.38	0.54	0.76	0.75
	S_{ct}	3.79	6.90	10.61	9.65	8.91	11.00		S_{ct}	12.91	5.52	6.30	6.50	12.14	11.88
PHILIPPINES	S_w	1.62	1.16	1.36	1.54	0.77	0.87	PHILIPPINES	S_w	0.19	0.35	0.17	0.15	0.07	0.06
	S_{ct}	13.33	14.24	18.61	20.35	10.02	11.46		S_{ct}	3.10	6.77	3.04	2.59	1.15	0.96

Table 8 (continued)

TECHNOLOGY INTENSIVE GOODS								HUMAN CAPITAL INTENSIVE GOODS							
Countries		**1982**	**1987**	**1992**	**1996**	**1997**	**1998**	**Countries**		**1982**	**1987**	**1992**	**1996**	**1997**	**1998**
INDIA	S_w	0.14	0.12	0.13	0.17	0.18	0.17	INDIA	S_w	0.29	0.13	0.24	0.28	0.28	0.24
	S_{ct}	3.04	4.79	5.09	6.76	6.88	5.90		S_{ct}	8.23	5.48	9.62	8.24	8.24	6.92
CHINA	S_w		0.51	1.37	2.34	2.73	3.11	CHINA	S_w		0.81	1.16	1.70	1.93	2.02
	S_{ct}		4.7	11.6	17.96	21.37	26.48		S_{ct}		7.9	9.9	10.18	11.56	13.83
INDONESIA	S_w	0.07	0.03	0.20	0.41	0.37	0.32	INDONESIA	S_w	0.03	0.04	0.17	0.33	0.29	0.43
	S_{ct}	0.63	0.88	4.29	9.85	11.24	18.82		S_{ct}	0.37	1.23	3.59	6.14	6.77	20.25
KOREA	S_w	1.41	2.51	3.09	3.97	3.53	3.33	KOREA	S_w	1.89	2.00	1.97	3.06	2.93	2.82
	S_{ct}	12.22	17.82	23.65	30.11	37.25	54.92		S_{ct}	24.0	18.9	18.6	22.6	23.59	37.35
MALAYSIA	S_w	0.81	0.96	2.15	2.05	3.26	3.14	MALAYSIA	S_w	0.08	0.14	0.44	0.47	0.45	0.44
	S_{ct}	13.96	23.50	37.97	32.94	53.47	69.95		S_{ct}	1.80	3.63	7.89	5.76	5.66	7.85
PHILIPPINES	S_w	0.27	0.20	0.91	2.42	1.66	2.52	PHILIPPINES	S_w	0.07	0.09	0.10	0.16	0.12	0.05
	S_{ct}	3.17	3.61	17.22	55.10	38.40	59.74		S_{ct}	1.16	1.80	2.03	2.88	2.83	1.57

S_w indicates country share in world exports of a particular commodity group

S_{ct} indicates country share in its total exports to the world

Source : Computed from *UN International Trade Statistics Yearbook* and *IMF Direction of Trade Statistics Yearbook*, various issues

Table 9
Changes in degree of Export specialisation of India and DEA economies [a]

Period	India	China	Korea	Malaysia	Indonesia	Philippines
1982-87	0.88	N.A	0.86	0.77	0.69	0.66
1987-92	0.84	0.87	0.82	0.68	0.78	0.75
1992-97	0.94	0.95	0.55	0.64	0.88	0.74
1987-97	0.82	0.78	0.43	0.45	0.68	0.47
1982-97	0.75	N.A	0.41	0.34	0.39	0.46

[a] Computed by Spearman's Rank Correlation measures (adjusted for common ranks)
Source : Computed from *UN international Trade Statistics Yearbook*, various issues

Table 10
Correlation of Export structures in manufactured goods between India and DEA economies

	China	Korea	Malaysia	Indonesia	Philippines
1987	0.96	0.79	0.17	0.82	0.42
1997	0.68	0.39	0.01	0.76	0.07
1998	0.63	0.36	0.00	0.77	0.04

Source: Computed from *UN international Trade Statistics Yearbook*, various issues

Table 11

Trade in Parts and Components and accessories (PCAs) in DEA economies, 1996

Country	Exports		Imports	
	Value (US $ billion)	Share in total manufactured Exports [a] (%)	Value (US $ million)	Share in total manufactured Imports [a] (%)
China	17.2	18.7	10.7	9.0
Korea	14.0	16.6	12.0	11.3
Indonesia	6.6	27.0	1.8	7.4
Malaysia	19.2	32.3	12.5	22.0
Philippines	10.2	42.6	3.6	21.4

[a] Total manufactured goods are covered under SITC 6 to 8 less SITC category 68
Source : Ng and Yeats (2001)

Table 12a
Services, etc., value added (% of GDP) in India and DEA economies

	1980-89	1990-98	1992-98	1980-98
China	26.09	32.03	31.93	28.90
India	40.61	44.20	44.64	42.31
Korea.	46.69	50.09	50.63	48.30
Indonesia	38.67	40.52	40.27	39.55
Malaysia	44.32	42.86	43.32	43.63
Philippines	39.33	46.59	47.25	42.77

Table 12b
Services, etc., value added (annual % growth) in India and the DEA economies

	1980-89	1990-98	1992-98	1980-98
China	12.73	8.53	9.39	10.74
India	6.54	7.06	7.74	6.78
Korea	7.86	5.90	5.11	6.93
Indonesia	7.55	4.90	3.56	6.30
Malaysia	5.60	7.45	6.66	6.48
Philippines	3.54	3.68	4.02	3.61

Source: World Bank (2000)

Table 13
Communications, computer, etc. [ICT] (% of service exports, BoP) in India and DEA economies

	1980	1989	1990	1995	1997	1998
India	31.5	41.8	42.9	31.5	44.5	57.6
China	n.a	22.8	20.2	27.2	38.0	35.7
Korea	23.6	27.7	34.2	36.4	39.6	33.5
Indonesia	n.a	10.3	10.7	4.4	4.2	5.0
Malaysia	29.8	24.5	25.3	44.5	55.1	n.a
Philippines	63.6	77.6	77.6	84.3	82.0	76.4

Source: World Bank (2000)

Table 14
Indicators of diffusion of ICT and related services in India and the DEA economies
(per 1000 persons)

India

	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	0.0	17.2	18.8	9.1	12.2
Fax machines	0.0	0.1	0.2	0.1	0.1
Internet hosts	0.0	0.0	0.0	0.0	0.0
Mobile phones	0.0	0.1	0.9	0.0	0.2
Personal computers	0.5	1.3	2.1	0.8	1.2
Radios	96.5	119.7	121.4	105.0	110.4
Telephone mainlines	7.7	12.9	18.6	10.1	12.4
Television sets	39.6	61.4	69.1	51.4	56.4

China

	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	21.1	28.4	40.0	24.9	29.2
Fax machines	0.1	0.2	1.6	0.1	0.6
Internet hosts	0.0	0.0	0.2	0.0	0.1
Mobile phones	0.1	2.9	10.6	1.2	3.5
Personal computers	0.9	2.3	6.0	1.5	2.6
Radios	332.9	331.1	333.3	332.6	332.5
Telephone mainlines	9.7	33.0	56.2	19.9	30.0
Television sets	190.1	243.5	271.8	217.5	233.2

Korea

	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	0.0	156.4	145.2	94.0	111.2
Fax machines	6.8	8.9	0.0	8.0	5.3
Internet hosts	0.0	6.5	28.8	2.6	9.0
Mobile phones	6.2	36.4	149.6	18.6	49.0
Personal computers	56.8	107.7	150.7	79.8	100.3
Radios	1005.2	1020.0	1032.8	1009.3	1017.0
Telephone mainlines	354.2	412.4	444.0	383.5	401.4
Television sets	208.6	321.9	342.4	272.9	294.8

Indonesia

	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	0.0	0.0	0.0	0.0	0.0
Fax machines	0.2	0.4	0.9	0.3	0.5
Internet hosts	0.0	0.1	0.5	0.0	0.2

Mobile phones	0.2	1.1	4.5	0.5	1.6
Personal computers	2.0	5.0	7.9	3.4	4.7
Radios	149.4	151.5	156.4	150.8	152.7
Telephone mainlines	9.0	16.9	24.7	12.2	15.8
Television sets	76.1	113.0	134.1	94.3	106.2
			Malaysia		
	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	0.0	0.0	5.2	0.0	1.4
Fax machines	2.5	5.0	6.9	3.3	4.3
Internet hosts	0.0	2.0	18.7	0.7	5.6
Mobile phones	10.7	50.0	92.3	26.9	45.3
Personal computers	21.9	37.3	46.1	29.4	34.2
Radios	426.4	432.6	419.9	430.6	427.1
Telephone mainlines	111.5	165.7	194.9	137.1	153.6
Television sets	149.3	169.1	166.1	159.3	161.5
			Philippines		
	1992	1995	1997	1992-95	1992-97
Cable TV subscribers	0.0	5.8	6.9	3.7	4.7
Fax machines	0.3	0.7	0.0	0.5	0.3
Internet hosts	0.0	0.3	0.6	0.1	0.2
Mobile phones	0.9	7.2	18.0	3.1	7.3
Personal computers	5.2	9.6	13.4	7.3	9.0
Radios	143.5	145.7	158.8	144.5	149.0
Telephone mainlines	10.4	20.5	28.7	15.2	19.1
Television sets	78.4	104.9	107.7	96.9	100.4

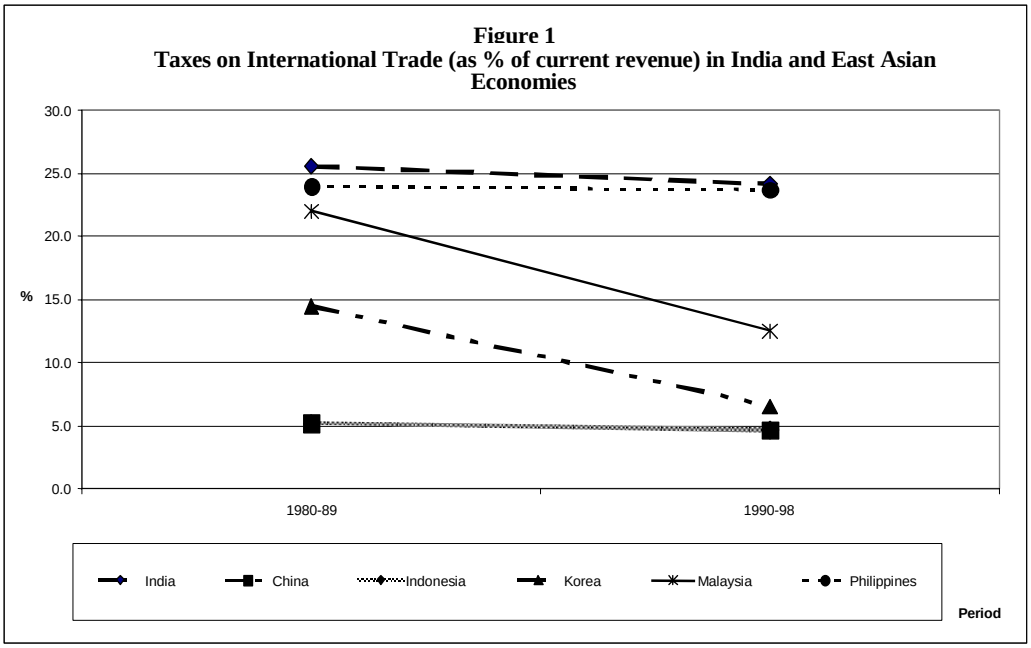
Source: Computed from World Bank (2000)

Table 15
FDI inflows in India over ten years of reforms

	Total Approved equity Investments (US $ billion)	**Total Actual equity investments (US $ billion)**	**FDI Realisation ratio (Actual/Approved FDI) (%)**
1991	0.22	0.14	65.80
1992	1.49	0.26	17.37
1993	2.89	0.58	20.17
1994	4.52	1.05	23.18
1995	10.21	2.17	21.26
1996	10.51	3.02	28.74
1997	15.30	4.58	29.92
1998	7.80	3.38	43.29
1999	6.75	4.02	59.46
2000	8.61	4.50	52.22
2001*	4.09	2.16	52.81
Cumulative (1991-2001*)	72.40	25.86	35.72

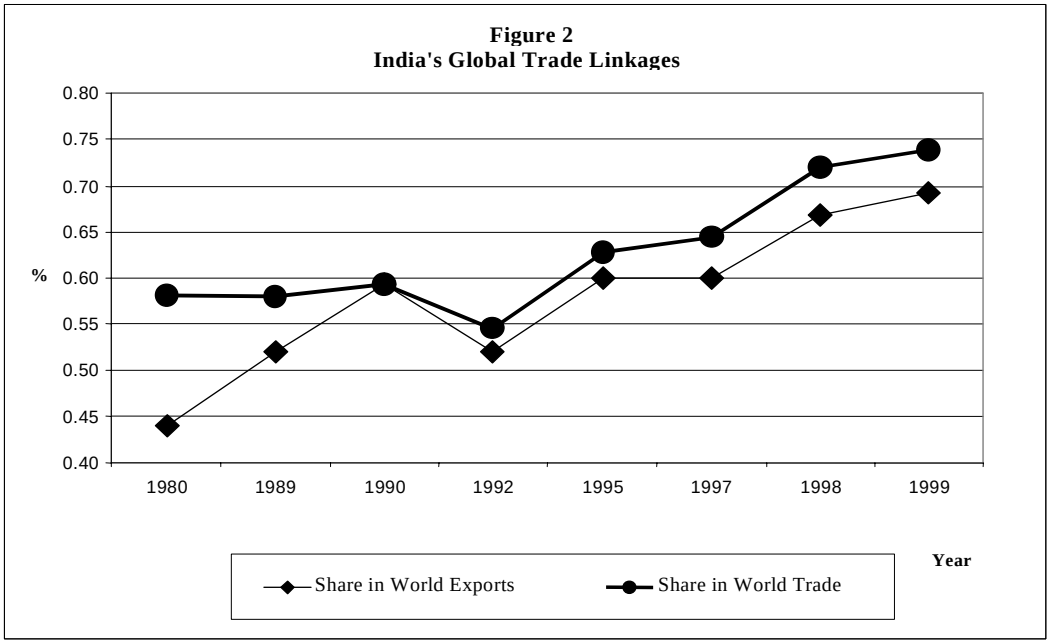
* Upto July 2001
Source : Calculated from *SIA Newsletter*, various issues

Figure 1
Taxes on International Trade (as % of current revenue) in India and East Asian Economies



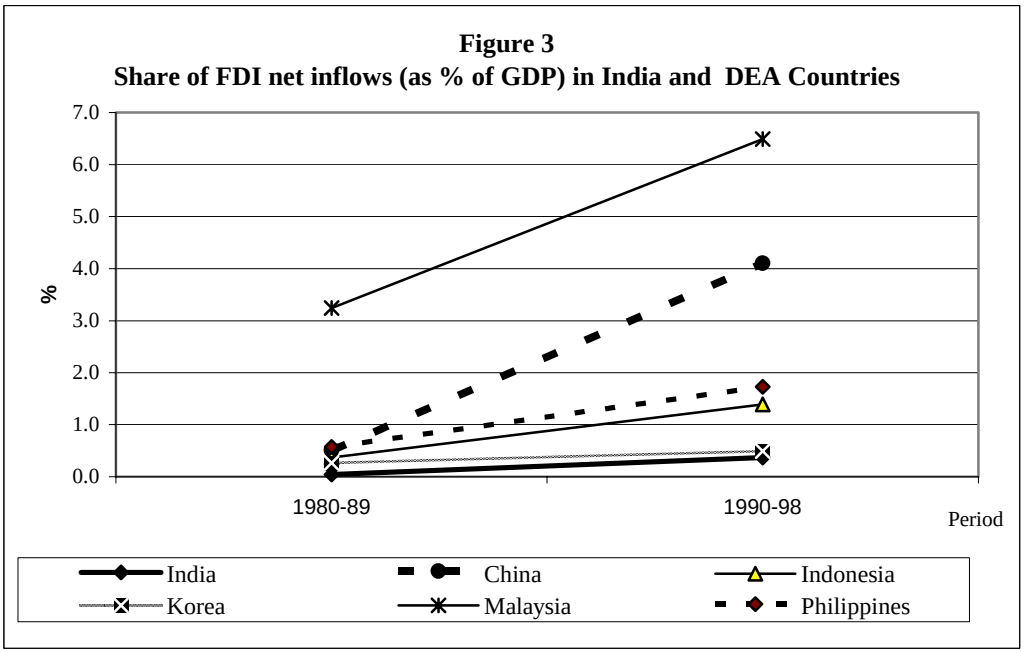
Source : World Bank (2000)

Figure 2
India's Global Trade Linkages



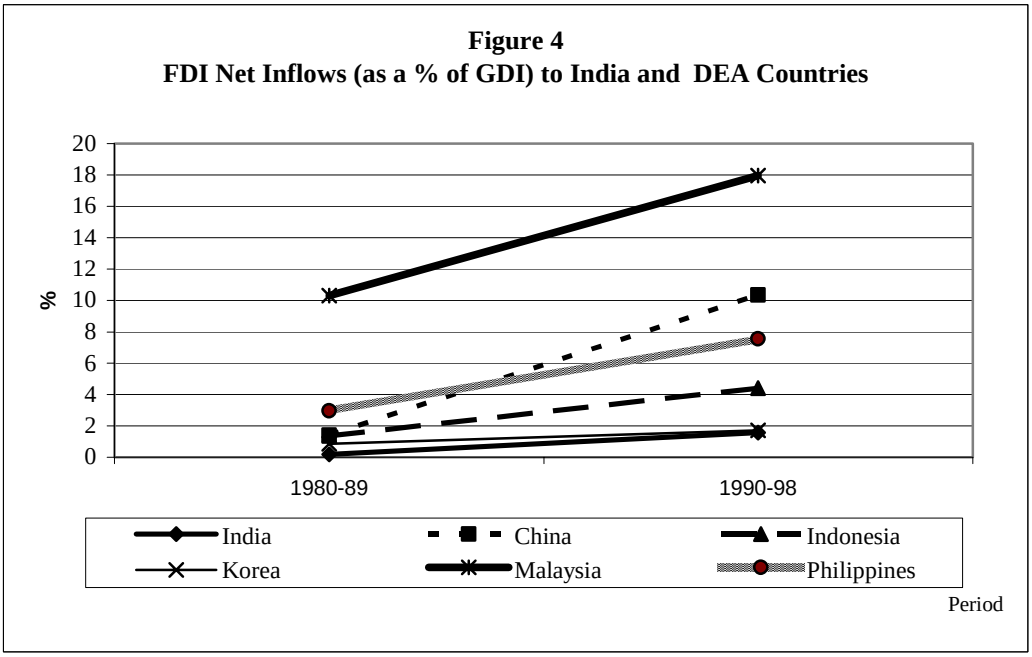
Source : World Bank (2000)

Figure 3
Share of FDI net inflows (as % of GDP) in India and DEA Countries



Source : World Bank (2000)

Figure 4
FDI Net Inflows (as a % of GDI) to India and DEA Countries



Source : World Bank (2000)