

STRUCTURAL CHANGES IN INDIA'S FOREIGN TRADE

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November 2011

Institute for Studies in Industrial Development
New Delhi

A Study Prepared as a Part of a Research Programme
**STRUCTURAL CHANGES, INDUSTRY AND EMPLOYMENT
IN THE INDIAN ECONOMY**
Macro-economic Implications of Emerging Pattern

Sponsored by
Indian Council of Social Science Research (ICSSR)
New Delhi

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I. Historical Backdrop

The domestic production reflects on exports and imports of the country. The production in turn depends on endowment of factor availability. This leads to comparative advantage of the economy. For long, India has been endowed with labour and land, but capital was always a scarce factor. With this backdrop, India remained better off in the production of labour-intensive commodities. India's foreign trade started to gain significance during the latter half of the 19th century. The period 1900-1914 saw expansion in India's foreign trade. The rise in the output of such crops as oilseeds, cotton, jute and tea was largely due to a flourishing export trade. The First World War was a serious setback to India's foreign trade. In the immediate post-war period, India's exports increased due to rise in world demand for raw materials and removal of war time restrictions. The imports, too, increased to satisfy the pent-up demand. India's foreign trade was severely hit by the great depression of 1930s. It was mainly due to: sharp fall in commodity prices, decline in consumer's purchasing power and discriminatory trade policies adopted by the colonial government, to name but a few. During the Second World War, India achieved huge export surplus, enabling her to accumulate substantial amount of sterling balances.

There was a huge pressure of pent-up demand in India during the Second World War. The import requirements were larger and export surpluses were smaller at the end of the war. The partition of the country enlarged the deficit in food and raw materials. There was a sharp contraction in export surpluses of commodities like raw cotton and raw jute. Oilseeds and pig iron were required in large quantities to meet increased domestic industrial needs. These shortages were some extent counter-balanced by increased exports of primary commodities such as spices, mica and vegetable oil. However, volume of exports in 1946-47 was still only about two-thirds of pre-war level. In 1938-39, jute manufactures, cotton

manufactures and tea accounted for only about 35 per cent increased dependence on a few commodities and brought an element of instability in the export prospects¹.

Prior to independence, India's foreign trade was typical of a colonial and agricultural economy. Exports consisted mainly of raw materials and plantation crops, while imports composed of light consumer goods and other manufactures. The structure of India's foreign trade reflected the systematic exploitation of the country by the foreign rulers. The raw materials were exported from India and finished products imported from the U.K. The production of final products were discouraged. For example, cotton textiles, which at one time constituted bulk of India's exports, accounted for the largest share of her imports during the British rule. This resulted in the decline and decay of Indian industries.

Over the last six decades, India's foreign trade has undergone a complete transformation in terms of composition of commodities. The exports cover a wide range of traditional and non-traditional products while imports mainly consist of capital goods, petroleum products, raw materials, intermediates and chemicals to meet the ever increasing industrial demands.

The pattern of export trade during 1950-1960 was marked by two main trends: 1) among commodities which were directly or largely based on agricultural production such as tea, cotton textiles, jute manufactures, hides and skins, spices and tobacco exports did not increase on the whole; and 2) there was a significant increase were in the exports of raw manufactures like iron ore but these were not significant to offset the decline in traditional exports. In 1950-51, basic primary products dominated the Indian export sector. The primary products were: cashew kernels, black pepper, tea, coal, mica, manganese ore, raw and tanned hides and skins, vegetable oils, raw cotton and raw wool. These products constituted 34 per cent of the total exports. The proportion of intermediate products was slightly higher with 41 per cent. However, these products were agriculture-based low value added. This group consisted of commodities such as cotton piece goods, woollen carpets, gums, resins and lac, gunny bag and gunny clothes. By and large, this trend continued with little variations. There has been an overall rise in the exports of cashew kernels, tea, gums and resins, vegetable oil, raw cotton and gunny clothes.

¹ Mathur, Vibha, (2006), Foreign Trade of India, 1947 to 2007, Trends, Policies and Prospects, New Century Publications, New Delhi.

The rise was not consistent and exports did not show much dynamism. The world demand for many agriculture-based products failed to increase or decline due to cyclical down turn in the global economy.

The decade of 1950s also witnessed balance of payments crunch. In the mid-1950s the sterling balance that India acquired during the Second World War got exhausted. The export proceeds were not enough to meet the growing import demand. The decline in agriculture production and growing tempo of development activity added pressure. The external factors such as the closure of Suez Canal added to the strain on the domestic economy. The crucial problem at that juncture was that of foreign exchange shortage. The Second Five Year Plan with its emphasis on the development of industry, mining and transport had a large foreign exchange component. This strain on the balance of payments necessitated the stiffening of import policy at a later stage. India was also at that time negotiating with the International Bank of Reconstruction and Development (IBRD) in respect of loans to cover the foreign exchange needs of several of its development projects. India was also exploring possibilities of deferred payments in respect of imports of capital goods from various countries.

II. Foreign Trade in 2nd and 3rd Plan

A progressive tightening up of import policy took place in 1957. The Open General License (except for poultry, fish, vegetables, etc., from Pakistan) discontinued; instead limited quotas in respect of essential commodities were granted to importers on the basis of their actual imports during 1952-56. No fresh licenses were issued in this period to established importers and the conditions of issue of capital goods licenses on deferred payment basis were made more stringent. The licenses were given keeping in view the austerity measures and imports of consumer's goods being cut drastically and that of raw materials and intermediate products being limited to the minimum necessary for the maintenance of production. Capital goods licensing continued to be confined to the highest priority programmes. As a result, the imports came down drastically. In the late 1950s, the government imports witnessed a continuous upward trend, which included food imports. The balance of payments position in 1959-60 was comparatively better than the previous years. There was an increase in exports as also a reduction in imports. The exports of hides and skins, cotton textiles, vegetable oils and manufactures such as bicycles, sewing machines and fans increased. Export duties on a few products were reduced and drawbacks of import duties on raw materials used in the manufacture of exports were granted. Special licenses for import of raw materials and components and spare parts were granted for a number of commodities on the basis of export performances; in a few cases this facility was extended to the imports of capital goods also. The policy of removing quantitative restrictions on exports was continued and export quotas on items like certain oilseeds and oils were liberalized. The search for new markets continued and agreement designed to raise the level of trade with several East European countries were concluded.

In 1960-61, both government and private imports showed an increase. Imports of food grains, raw cotton and metals contributed significantly. During this period, the government set up 12 Export Promotion Councils to promote exports in respective areas and special export schemes were also devised and operated. In

some cases, larger import licenses were issued as part of export production. The balance of payments once again came under considerable pressure in 1964-65 due to rising debt service burden, repayment to the IMF, increase in imports of food and goods for development. The exports were not sufficient to meet the import requirements. However, there was an improvement in the utilization of external assistance. This did not help to mitigate the crunch in the balance of payments situation.

India resorted to the devaluation of Rupee in the face of financial crisis in June 1966. The nominal devaluation was to the extent of 57.5 per cent (Rs 4.7 to Rs 7.5 per dollar) in relation to the pound and dollar. It has been estimated that it was about 36.5 per cent in real terms. Domestic inflation had caused Indian prices to become much higher than world prices at the pre-devaluation exchange rate. In 1966, the foreign aid was cut off and this compelled the devaluation. This act was accompanied by liberalization of foreign trade, particularly liberalization in import controls and tariff cuts. In spite of this India did not receive foreign aid; subsequently, the government backed-off its commitment to liberalization. Almost all liberalizing initiatives were reversed and import controls tightened. According to T.N. Srinivasan “devaluation was seen as a capitulation to external pressure which made liberalization politically suspect... (Srinivasan, p. 139)”. Two additional factors played a role in the 1966 devaluation. The first was India’s war with Pakistan in late 1965. The US and other countries, friendly with Pakistan, withdrew foreign aid to India, which necessitated devaluation. In addition, the large amount of deficit spending required by war effort accelerated inflation and led to further disparity between Indian and international prices. Defence spending in 1965-66 was 24 per cent of the total expenditure. The second factor was the drought of 1965-66 which led to sharp rise in prices over 10 per cent. The government used the method of quantitative restrictions with varying levels of severity until the import-export policy announcement in 1985-88. The fact of the matter was that the regime of import control was consolidated and strengthened in the subsequent years and more or less intact in the 1980s.

From independence to 1966 devaluation could be clubbed as one period of trade policy in broad terms. It may be characterized as “ transition from liberal to

move towards inflexibility”. The Pound sterling devaluation of 1949 provided some scope for relaxing the war time import and other controls for expanding the scope of Open General Licensing (OGL) and increasing tariffs in order to take some of the pressure off the import licensing system. However by 1956 inflation had begun to erode the effects of the devaluation, and this continued and accelerated during the next ten years. In effect amounting to continuing and substantial real appreciation of the rupee in relation to the then fixed rates with the Pound and the US dollar. Consequently, the start of the Second Five Year Plan in 1956 coincided with a severe foreign exchange crisis, and the following period up to 1966 was characterised by comprehensive and tight administration of the import licensing system. These foreign trade policies were an extension of more general economic policies under which the “commanding heights “of industrial economy were dominated by state enterprises, and the private sector was subject to extensive controls, which collectively came to be known as the “Licensing Raj”².

In the pre-devaluation period of 1966, all imports were either subject to discretionary import licensing or were “canalized “by monopoly government trading organizations, with some flexibility provided by changing OGL lists. The products on OGL lists could only be imported by actual users and could not be resold: they were entirely raw materials, components or machines which were not domestically produced and required by domestic producers. In this system tariffs lost most of their relevance for regulating the quantity of imports and for protecting local industries: their main function was to raise revenue and to transfer quota rents from or to the recipients of import licenses. After 1956, import licensing was regularly tightened in response to steadily worsening foreign exchange situation, and tariffs were increased very high levels by early 1966. As result, large and highly variable gaps opened up between domestic and international prices of manufactured products. In order to offset the anti-export bias resulting from the increasingly over valued exchange rate subsidies were provided to manufactured exports by allowing exporter to import duty free otherwise restricted raw materials, components and machines that they could sell in the domestic market for premiums that reflected the scarcity values. As a result of these subsidies and other export incentives for

² Bhagwati, Jagdish N. And Padma Desai. (1970), India: Planning for Industrialization, Oxford University Press, London.

manufacturing, a fairly range of manufactured products begun to be exported for the first time. The average implicit protection was very high and increasing during the pre-devaluation period.

III. Development of Complex Regime

In the late 1970s and early 1980s, the trade regime was based on a complex system of licensing. India's trade policy heavily relied on quotas rather than on tariffs³. Imports were regulated through a licensing system without any policy prescriptions. However, import licenses allocated reflect two major criteria: 1) the principle of 'essentiality', and 2) the principle of 'indigenous non-availability'. Thus, the imports, in terms of both magnitude and composition, were to be permitted only if the firm in question certified to the government that they were 'essential' (as inputs or equipment for production). At the same time the government had to clear the imports from the viewpoint of indigenous availability: if it could be shown that there was domestic production of that products imports, then imports were not permitted (regardless of quality or cost considerations). Almost all imports were subject to discretionary import licensing or were 'canalized' by the government monopoly trading organizations. The only exceptions were commodities listed in the Open General License (OGL) category. Capital goods were divided into restricted category and the OGL category. While import licenses were required for restricted capital goods, those in the OGL could be imported without a license subject to several conditions. Intermediate goods were also classified as falling into the banned, restricted and limited permitted categories plus the OGL category. The banned, restricted and limited permissible lists were in the order of import stringency. OGL imports of intermediate goods were governed by the actual user condition. The import of consumer goods was banned (except those that were considered essential and could only be imported by the designated government canalizing agencies).

Significant acceleration in export growth rate was recorded in mid-1980s. However, exports grew relatively slower than imports. As a result, the balance of payments crunch remained with a different magnitude. The modernization of industrial technology was becoming imperative. The import control stiffened the manufacturing sector. The necessity for economic reform emerged from this

³ Bhagwati, J.N. and Srinivasan T.N. (1975), Foreign Trade Regimes and Economic Development: India, New York, Columbia University Press.

backdrop. The process of liberalization that began in mid-1980s was slow and fragmented. Many export incentives were introduced and imports were tied to exports. However, the growth of imports over exports kept a continuous pressure on balance of payments. Despite buoyancy in export growth and slow-down in imports the balance of payments crunch aggravated. The foreign reserves were hardly enough to meet one month's import bill.

There was a slow and sustained relaxation of import controls with the Export-Import Policy of 1977-78. Several capital goods that were previously not allowed to be imported without an import license were steadily shifted to the OGL category. The number of capital goods on the OGL list increased from 79 in 1976 to 1170 in 1988. These changes were made with the intention of allowing domestic industries to modernize. During the 1980s, the import licensing of capital goods in the restricted list was administered with less stringency⁴. As a result, the import penetration ratio in the capital goods sector increased from 11 per cent to 18 per cent in 1985-86⁵. In the case of intermediate goods, there was a steady shift of items from restricted and limited permissible category to the OGL category. However, in practice a capital or intermediate good was placed on the OGL list only if it was not being domestically produced. This may have led to some degree of competition among established producers of intermediate and capital goods. By 1987-88, the unweighted average of tariffs on manufactured goods was 147 per cent with most tariff lines for manufacturing clustered around a range of 140-160 per cent⁶.

The speed of trade reform quickened a shift from quantitative import controls to protective system based on tariffs was initiated by the Rajiv Gandhi Government in November 1985. Restrictions on imports of capital goods were further relaxed to encourage technological modernization. In the mid-1980s, there was a renewed emphasis on export promotion. The number and value of incentives offered to exporters were increased and administration procedures were streamlined. The allotment of REP (replenishment) licenses-tradable import

⁴ Pursell, G (1996), Indian Trade Policies since 1991-92 Reforms, The World Bank, Washington D.C.

⁵ Golder, B., Ranganathan V.S. (1990), Liberalization of Capital Goods Imports in India, Working Paper No.8, National Institute of Public Finance and Policy, New Delhi.

⁶ Sen, Kunal (2009), Trade Policy, Inequality and Performance in Indian Manufacturing, Routledge, London.

entitlements awarded to exporters on a product specific basis became more generous. Finally, the duty exemption scheme for imported input was extended to cover all imported inputs for both direct and indirect exporters.

IV. Episode of Trade Liberalization

A major programme of economic reform and liberalization was introduced in 1991 with emphasis on external sector. The new trade policy reversed the direction followed for decades. The tariff protection reduced, relaxed and simplified the restrictive import licensing regime. Import licensing was totally abolished with respect to imports of most machinery, equipment and manufactured intermediate products. Internal reforms included reduced control over locational restrictions and industrial licensing. In some sectors controls were reduced on administrative prices. The policy focus was primarily on liberalization of capital goods and inputs for industry, to encourage domestic and export-oriented growth. However, imports of consumer goods remained regulated. There has been no change in the structure of export incentives and subsidies. India's financial services are gradually being liberalized⁷. While significant headway was made in liberalizing telecommunications, other services such as shipping, roads, ports and airports are beginning to open up. However, foreign participation remains relatively low and administrative barriers remain. India amended its copyright law in 1994 to comply with its obligations under the Trade Related Intellectual Property Rights (TRIPs) agreement. There was also a significant change in tariff rates with the peak rate reduced from 300 per cent to 150 per cent, and the peak duty on capital goods cut to 80 per cent. Customs duty rates fell from an average of 97 per cent in 1990-91 to 29 per cent in 1995-96. There was little or no change in the trade policy with respect to consumer goods which remained on the negative list⁸. The exchange rate was unified and made convertible on current account in 1993.

Tariffs have been reduced from an average of 71 per cent in 1993 to 35 per cent in 1997, however, the tariff structure remained complex and escalation remains high in several industries, notably in paper and paper products, printing and publication, wood and wood products, food and beverages and tobacco. As of

⁷ Ahluwalia, I.J. (1999), India's Economic Reforms: An Appraisal, in J.D. Sachs, A. Varshney and N. Bajpai (ed), India in the Era of Economic Reforms, New Delhi: Oxford University Press.

⁸ Balasubramanyam, V.N. (2003), India Trade Policy Review, The World Economy, 26(9): Pp. 1357-68.

December 1995, more than 3000 tariff lines covering raw-materials, intermediaries and capital goods were freed from import licensing requirements. Peak tariff rates reduced from 300 per cent at the beginning of 1990s to 40 per cent by the end of the decade. In the same period, the weighted tariff average fell from 75 per cent to 25 per cent. Tariff rates fell across the board, on intermediate, capital and consumer goods⁹ From a very complex customs tariff structure in 1991 with an incredible array of general, specific and user-end exemptions, the structure has been simplified. In 2002, customs duties included only four rates (35 per cent, 25 per cent, 15 per cent and 5 per cent). In general, bound tariffs are substantially higher than applied rates, particularly for agricultural products. The import licenses continue to be the main non-tariff barriers. Over the years, the number of goods subject to import licensing have been reduced with an emphasis on industrial and capital goods rather than consumer products¹⁰. In 1997, India presented a programme for the removal of remaining restrictions to its trading partners. The reforms in tariff and non-tariff barriers have not been accompanied by similar reforms on export subsidies and incentive programmes. These include income tax exemptions, subsidized credit, export insurance and guarantees. The overall scope of such incentives has been enhanced, resulting in more explicit export-oriented policies, which have increased the possibilities of resource misallocation. However, since 1996-97, mean tariffs slowly increased. The removal of quantitative restrictions took place in 2000 and 2001, after India failed in its attempt to defend them on balance of payments grounds at the WTO.

India has also simplified its foreign investment regime and opened up a number of sectors to foreign direct investment. This was the case in manufacturing where foreign participation of up to 51 to 74 per cent can take place automatically in a number of sectors. Major changes since 1993 have included automatic permission for foreign equity participation of up to 50 per cent in some mining activities. This also applies to oil exploration and offered incentives such as tax holidays. FDI policy has been further liberalized. Investment is allowed in greater number of sectors and

⁹ Das, D.K. (2003), Quantifying Trade Barriers: Has Protection Declined Substantially in Indian Manufacturing? ICRIER, Working Paper 105, July, New Delhi, p. 18.

¹⁰ Government of India (1993), Tax Reform Committee: Final Report, part II, Ministry of Finance, New Delhi.

made eligible for automatic investment procedures¹¹. However, FDI was not permitted in a few sensitive sectors.

In 2001, the removal of all import restrictions maintained for balance of payments reasons were effected. Import weighted means tariffs have slowly increased from 24.6 per cent in 1996-97 to 30.2 per cent in 1999-2000. While removing QRs on imports in 2001, the government has raised the tariff rates from the lower applied to higher bound levels. In case of agricultural commodities, India engaged in 'dirty' tariffication by setting very high bounds way above applied levels. Thus, raising tariffs to their bounds in effect would virtually shut of any imports¹². India began to make use of all measures to protect the domestic economy under the WTO rules. It includes the use of sanitary and phyto-sanitary (SPS) measures. The government set up a "war room" to monitor the imports of 300 sensitive tariff lines. The protective measures that came into vogue are in the form of tariff adjustments, levy of antidumping and countervailing duties, safeguard actions such as temporary imposition of QRs and SPS measures.

As a result, the customs tariff has become the main form of border protection. The tariff rates remained relatively high; the MFN rate fell to 29 per cent in 2003 and peak rate of tariff reduced to 30 per cent. Finally, two-tier tariff rates were introduced; 10 per cent for raw materials, intermediates and components and 20 per cent for final products. In addition to the tariff, importers have to pay additional and special duties on a number of products. India's binding of tariff lines increased from 67 per cent to 72 per cent as per the commitment to the WTO. The new bindings were primarily in textiles and clothing. India also renegotiated bindings in some farm products. The average bound rate in agricultural products was 50.6 per cent, higher than applied MFN rate. The gap provided scope for applied rates to be revised on a few agricultural products. While import licensing and tariff restrictions are generally declining, there has been an increase in other import measures. India became one of the main users of antidumping measures, with over 250 cases initiated since 1995. The number of activities reserved for the public sector has been reduced from six to three as also the number of sectors reserved for small-scale

¹¹ Reserve Bank of India (1994), Annual Report.

¹² Srinivasan, T.N. (2001), India's Reforms of External Sector Policies and Future Multilateral Trade Negotiations, Economic Growth Center, Yale University, New Haven.

industry. Price control maintained on petroleum and fertilizers have gradually phased out.

The tariff continues to remain the principal trade instrument and important source of tax revenue at around 16 per cent of Central government tax revenue. Applied MFN tariffs, particularly for non-agricultural products continue to fall steadily, with overall average currently at 15.8 per cent. At 12.1 per cent the average for non-agricultural products is considerably lower than the average for agricultural products, which is 40.8 per cent. The growing gap between agricultural and non-agricultural tariffs has also raised dispersion in the tariff and the escalation pattern shows increasing de-escalation between unprocessed and semi-processed and in some cases between semi-processed and final products. With the exception of a few applied tariffs at their corresponding bound rates, the difference between the bound applied rates is considerable. The difference provides the government scope to raise applied tariffs. This was used to raise tariffs for some agricultural products in recent years. Nonetheless, the overall downward trend for tariff continued. Further reduction in the “peak rate” was effected in 2007 from 12.5 to 10 per cent. Despite gradual reform over the years, the tariff regime remains complex. There are a number of exemptions, which are based on industrial use. The policy regarding tariff rate quotas remain unchanged since 2002. The economic reform introduced in 1991 helped India to eliminate ‘export pessimism’ of 1950s and 1960s¹³. It belied the argument that ‘export pessimism’ (such as protectionism in industrialized countries) or ‘economic nationalism’ (based on the belief that domestic protection for domestic consumption is economically superior to trade) is right course. It was realized that there is no virtue in production being ‘domestic’, if such production is inefficient.

India offers tariff preferences under its regional trade agreements. These preferences are not significant. The use of import restrictions has declined, with around 3.5 per cent of tariff lines. India continues to be a frequent user of antidumping measures. In recent years, the number of investigations and measures in force have shown a declining trend. The majority of such measures were targeted at

¹³ Jalan, Bimal (1996), *India’s Economic Policy: Preparing for the Twenty–First Century*, Viking, New Delhi.

chemicals, plastics, rubber products, base metals and textiles and clothing¹⁴. India is not a member of the WTO agreement on Government procurement. The procurement policies have undergone reform at the Central Government level, however, preferences for small-scale industry and state owned enterprises continue.

India's export regime continues to be complex. Export prohibitions and restrictions have remained unchanged since 2002. In order to reduce the anti-export bias inherent in import and indirect tax regime, a number of duty remission and exemption schemes have been in place to facilitate exports. The schemes are open to all exporters who use imported inputs. The scheme of tax holidays are offered to sectors such as electronics, farm products, services, export processing zones, export-oriented units and special economic zones.

India's recent foreign trade policy modifications underline the importance of increasing exports and facilitate those imports which are required to stimulate the economy. The foreign trade policy is built around two major objectives. These are: 1) to double the percentage share of global merchandise trade within next five years, and 2) to act as an effective instrument of economic growth by giving a thrust to employment generation. The key strategies outlined to achieve this are:

- Unshackling of controls and creating an environment of trust and transparency to unleash the capabilities of enterprises;
- Neutralizing incidence of all levies and duties on inputs used in export of products;
- Nurturing special focus areas which will generate additional employment opportunities, especially in semi-urban and rural areas;
- Simplifying the procedures and bringing down transaction costs;
- Facilitating technological and infrastructure up gradation of all sectors.
- Promotion of "Brand India" goods; and

¹⁴ WTO (2007) "Trade Policy Review of India", Report by the Secretariat, Restricted WT/TPR/S/182, 18 April.

- Emphasis on “focussed market and product scheme”.

This new EXIM policy is essentially a roadmap for developing international trade. However, this may be modified from time to time to meet the changing dynamics of foreign trade. The policy focuses on product lines such as agriculture, handicraft, gems and jewellery, and leather. The promotional measures for these products consist of exemptions from bank guarantee under EPCG scheme, duty free imports of capital goods under EPCG scheme, imports of inputs under the advance license scheme and duty free import entitlements up to a certain value and CVD exemptions on duty free imports. India’s trade reform has been calibrated in order to make structural transformation less painful.

V. Economic Growth and Policy Framework of Foreign Trade

India's foreign trade policy was highly restrictive and central to the growth strategy. It was a major factor in India's poor growth performance. After independence in 1947, India's primary task were to end disruptions caused by partition and the establishment of a new government. In 1950-51 period, when the First Five Year Plan (FFYP) was promulgated, consists largely of a listing of infrastructure and other government projects which were under way. It was not until the formulation of the Second Five Year Plan (SFYP)¹⁵ that India's broad economic policy guidelines were adopted that would dominate until the 1980s. Most of India's economic data does not go beyond 1950-51 and thus analysis starts with that data. *Table 1* gives the evolution of real gross domestic product (GDP) over the years, as well as share of gross domestic capital formation in GDP and per capita net national product. The growth targets were fixed for each plan and in most cases the achievements were below the targeted rates of growth. The growth rate of above 6 per cent was achieved from Seventh Five Year Plan onwards with exception of 9th Plan (1997-2002). The agricultural growth rates did not pick up over the years.

Table 1
Indicators of Long-Term Indian Economic Performance, 1950-2010
(Average annual growth)

<i>Years</i>	<i>Gross Domestic Product at Factor cost</i>	<i>Per Capita Net National Product</i>	<i>Gross Fixed Capital Formation</i>
1951-52 to 1960-61	3.8	2.2	11.4
1961-62 to 1970-71	4.1	1.4	14.4
1971-72 to 1980-81	3.2	0.7	17.8
1981-82 to 1990-91	5.2	3.0	21.4
1991-92 to 2000-01	5.6	3.5	24.2
2001-02 to 2005-06	7.1	5.2	28.6
2006-07 to 2009-10	8.5	6.7	36.2

Note: At constant prices of 1999-2000, Yearly averages.

Source: Economic Survey 2010-11, Government of India, New Delhi

¹⁵ Second Five Year Plan covered the years 1956-57 to 1961-62. Many consider it a real beginning of the planned era.

In 1950, it was estimated that more than 70 per cent of the population lived in rural areas and the agriculture accounted for about 56 per cent of the GDP. Per capita income was among the lowest in the world, life expectancy at birth was about 32 years and literacy rate was 18 per cent. Gross domestic savings were about 8 per cent of the GDP; exports were just over 6 per cent of the GDP. India was considered to be a poor country by all standards. During the period of FFYP, attention was given to economic policy and direction was set which was to be followed for the next several decades. It was decided that there should be a “socialist pattern of society” in which the government should take leading role in the economy. Planning the role of the state was the foremost objective. The Planning Commission set output targets for a wide array of commodities. In some cases public sector firms were established or expanded. In others, it was expected that expansion would come from controlled private sector firms.

The Second Five Year Plan (SFYP) was designed to shift the orientation of industries to the production of heavy industry and in particular machine building¹⁶. The investment goods needed to set up this capacity were heavily import intensive and industries themselves were capital intensive. The plan envisaged a sizeable increase in investment. The combination of these factors resulted in a sharp increase in imports and with it a balance of payment crisis in 1956-57. The foreign exchange crisis developed from this time. This became the prime impediment to growth. Rather than adjusting the exchange rate, restrictive exchange controls were imposed. An import licensing regime was established under which firms had to apply for import licenses, and to demonstrate to the authorities that domestic production capacity was not available for these goods whose imports were permitted¹⁷.

Despite these measures, in 1966 there was again a balance of payment crisis, as imports needed to carry out planned investments and to provide intermediate goods and raw materials for new industries required much more foreign exchange than was available. At that time the rupee was devalued. However, due to several

¹⁶ In 1938, Nehru had stated that “the fundamental requirement of India, if she is to develop industrially and otherwise, is: a heavy engineering and machine-making industry, scientific research institutes, and electric power. These must be foundations of all planning. See Srinivasan, T.N. (2000), *Eight Lectures on India’s Economic Reforms*, New Delhi: Oxford University Press, p.1

¹⁷ Bhagwati, J.N. and T.N. Srinivasan, (1975), *Foreign Trade Regime and Economic Development: India*, Chapter 2, The Macmillan Company of India Limited, Delhi.

reasons devaluation was flawed and in the subsequent period trade regime became more restrictive. During the years when global prices (in US dollar terms) were stable or rising 2-3 per cent annually, Indian inflation was in the range of 5-10 per cent. The result was that over time rupee became increasingly overvalued, making imports ever more profitable for those who could obtain licenses, and providing lesser incentive to produce for export markets. As a result, exports grew relatively slowly and fell as a percentage of GDP from 6.2 per cent in 1950-51 to 3.2 per cent of GDP in 1964-65. India's share in world market had fallen and continued to fall till 1980s.

The policies adopted by the government of India, aimed directly at curbing imports, would by themselves have resulted in a trade sector diminishing in importance over time. Incentives were highly skewed towards import substitution, where the Tariff Commission and import licensing procedures virtually assured profitability to anyone producing for domestic market. It was estimated that the average level of nominal protection in manufacturing was 120 per cent in 1986, rising to 130 per cent in 1992 before starting to decline after reform took place¹⁸. These tariffs were often greater than the price differential between domestic products and those available on the international market, but there was a complete prohibition on imports of most consumer's goods, and quantitative restrictions and other non-tariff barriers were the instruments effectively constraining imports. When the product was available domestically, import licenses were not granted.

Between the first two balance of payments crises, the real exchange rate appreciated as India's inflation exceed world inflation. There was thus gradual appreciation of the currency in real terms until the 1965-66 devaluation episodes; it thereafter remained fairly constant until 1986 after which real depreciation began and accelerated until 1993. In general, exports grew more rapidly during the periods of real exchange rate depreciation; however, they were well below the levels that might have resulted from relative uniform incentives for import-competing and export production¹⁹. In addition, a number of other economic policies contributed to

¹⁸ Pursell G., Kishor N, and Gupta K. (2007) "Manufacturing Protection in India since Independence", Australia South Asia Research Centre, Australian National University Research paper.

¹⁹ Joshi, V., and Little I.M.D. (1994), India: Macroeconomics and Political Economy, 1964-1991, Washington D.C. World Bank.

the marginalization of India in foreign trade. The large industrial houses, which were among the more efficient producers of some goods, were highly constrained by the government policy and permitted to expand only in areas deemed essential where there were no other qualified producers. At the same time, the government wanted to protect small-scale producers, and adopted a “small-scale reservation” law which essentially extended a number of special privileges to small-scale producers in large number (at its maximum over 1200) of industries and prohibited other producers from competing with them. The existing firms with their existing capacities were permitted to increase their output only for exports²⁰. Most of the small-scale reserve industries were labour-intensive. The small firms were confronted with a choice of staying small or losing their special privileges. The large firms were precluded to enter these areas. Three other sets of policies also deterred efficient production and exports. There were a neglect of infrastructure, regulations governing the labour market and the “license raj” itself which imposed high cost on economic activity.

India’s infrastructure was highly inadequate. Roads, railroads and ports were heavily congested but communications were poor. Overseas telephone calls were difficult and obtaining the telephone, too, was difficult and time consuming. Infrastructure quantity and quality remains a major problem in many areas and these seriously affected India’s economic growth and integration into the world economy. The labour market was highly regulated. The firms in the organized sector were not permitted to fire workers. Union and worker rights were enshrined in law, and union activity often disrupted production. The “license raj” compelled the private sector producers to spend more time for seeking required licenses for imports and exports and for capacity expansion. Even when the licenses were granted, there were delays and considerable efforts had to be made in obtaining necessary permits.

Prior to 1990s economic reforms, several ad-hoc efforts were made to encourage export growth and rationalize the trade regime. These measures had marginal effects, as bias of incentives toward import substitution remained substantial. The evolution of exports is given in *Table 2*. It can be seen that they fell to a low of less than 4 per cent of GDP by 1970s. The restrictiveness of the regime

²⁰ Mohan, R. (2002), *Small-scale Industry Policy in India; Critical Evaluation*. In Krueger A.O. (ed), *Economic Policy Reforms and the Indian Economy*. Chicago: University of Chicago Press.

intensified with even the modest “Hindu rate of economic growth” as demand for imports rose with incomes far more rapidly than the rate of growth of export supply. As a consequence of the policies, overall economic growth was relatively slow. The factor productivity growth in manufacturing has been negative until 1980s. Inefficiencies resulted from entrepreneur’s efforts to substitute domestic inputs for those obtainable abroad, and, from the failure of domestic firms to utilize even their existing capacity because of foreign exchange shortage. Lack of competition also contributed. The system was inefficient and uneconomic in several ways. Delays in getting licenses, spare parts, etc., resulted in frequent shut-downs even in new factories. As the restrictiveness of the regime intensified, incentive for smuggling and other evasions increased which in turn led to higher inspection for applications for licenses for investment projects and import consignments. There was also a virtual monopoly position for import substituting firms dependent on imports of raw materials and intermediate goods: even if there was more than one producer, each firm’s share was virtually determined by the import licenses received.

Table 2
India’s Exports, Export Growth and Share in GDP

<i>Period</i>	<i>Exports (Rs. Crores)</i>	<i>Annual change (%)</i>	<i>Export as % of GDP</i>
1950-51	606	-	6.2
1960-61	642	0.5	3.9
1970-71	1535	9.7	3.6
1980-81	6711	16.3	5.0
1990-91	32, 553	17.5	6.4
1991-92	44,041	35.3	7.5
1992-93	53,688	21.9	7.5
1993-94	69,551	29.9	8.9
1994-95	82,674	18.5	9.1
1995-96	106,353	28.6	9.9
1996-97	118,817	11.7	9.5
1997-98	130,100	9.5	10.4
1998-99	139,752	7.4	8.7
1999-00	159,561	14.2	9.0
2000-01	203,571	27.6	10.7
2001-02	209,018	2.7	10.1
2002-03	255,137	22.1	11.4
2003-04	293,367	15.0	11.6
2004-05	375,340	27.9	13.1
2005-06	456,418	21.6	14.0
2006-07	571,779	25.3	15.3
2007-08	655864	14.71	14.32
2008-09	845534	28.2	15.92
2009-10	845534	0.6	13.79

Source: Economic Survey, Government of India, 2010-11

Bureaucratic delays were the part of the “license raj”, where obtaining the license was important to profitability. The documents and paper work was associated with all activities of the government. This was to prevent over-invoicing, under-invoicing and capital flight. Capital inflows until the 1990s were almost entirely official, mostly development assistance (see Table 3). The government of India discouraged foreign direct investment (FDI) by prohibiting it unless it was deemed “essential”—usually technology—which was brought to the country that could not otherwise be obtained. Even then, conditions were stipulated such as less than 40 per cent equity might be owned by the foreigners, FDI could take place only in specified “priority” areas and requirement for foreign technology transfer. These conditions made FDI unattractive²¹. As a result, many foreign companies closed their establishments.

Table 3
Trade and Capital Account Balances (Million \$)

<i>Period</i>	<i>Trade balance</i>	<i>Current account balance</i>	<i>Capital account balance</i>	<i>External assistance</i>	<i>Private flows*</i>	<i>NRI deposits</i>
1950s	-489	-265	126	106	29	0
1960s	-938	-831	845	852	48	0
1970s	-1303	-29	615	662	151	85
1980s	-7363	-4414	3932	1487	1393	1135
1990s	-10,356	-4368	7822	1515	5168	1328
2000s	-22,331	1584	16290	-71	13090	2253
2003-06	-33,087	809	23402	346	18856	1822
2006-07	-61782	-9565	46171	1787	46186	4321
2007-08	-91467	-15737	107901	2119	84638	179
2008-09	-119520	-27915	7835	2785	30466	4290
2009-10	-118374	-38383	51824	3261	68839	2924
2010-11	-130467	-44281	57331	4966	66434	3230

* Sum of foreign investment and commercial borrowing.

Source: Reserve Bank of India 2010.

The import substituting firms were dependent on raw materials, intermediate goods and capital goods in order to produce many of the import substituting products and also to expand capacity. Even in these cases, the government struggles to issue licenses to industrial users. The rapid growth of demand for imports led to chronic current account deficit. It can be seen in Table 4. The trade balance was negative in all years except 1976-77. It peaked as a percentage of GDP in the years

²¹ Agarwal, P. (2003), Economic Impact of Foreign Direct Investment in South Asia. In Mattoo, A. and Stern R.N (ed), India and the WTO, Washington D.C: World Bank and Oxford University Press, Pp. 117-140.

of India's first post-independence "balance of payments crises" in 1956-57 at 4.8 per cent of GDP, remained in the 3-4 per cent range in the 1960s, rose again as a response to the oil and commodity price increases of the early 1970s and again in that range in the 1980s. *Table 3* provides the estimates of trade balance, current balance, and capital account balance by decade. However, these figures do not correctly indicate the magnitude of the foreign exchange shortage, as import licenses were constrained to a large degree by the availability of foreign exchange. For most of the period, the trade and current account balances would have been much larger negative figures had there been freedom to carry out desired transactions at prevailing prices. The entire capital flow prior to the 1980s was from official sources (see *Table 3*).

Table 4
Evolution of India's Trade Balances (Rs. Crores)

<i>Period</i>	<i>Exports</i>	<i>Imports</i>	<i>Trade balance</i>	<i>Trade balance as % of GDP</i>
1951-52	716	890	-174	1.7
1956-57	605	841	-236	4.8
1961-62	642	1122	-480	3.7
1966-67	1157	2078	-921	3.1
1971-72	1608	1825	-217	4.7
1976-77	5142	5074	68	0.1
1981-82	6711	12,549	-5838	3.8
1986-87	10,895	19,658	-8763	3.1
1991-92	32,553	43,198	-10,645	2.1
1996-97	118,817	138,920	-20,103	1.6
1997-98	130,100	154,176	-24,076	1.7
1998-99	139,753	178,332	-38,580	2.4
1999-00	159,561	215,236	-55,675	3.1
2000-01	203,571	230,873	-27,302	1.4
2001-02	209,018	245,200	-36,181	1.7
2002-03	255,137	297,206	-42,069	1.8
2003-04	293,367	359,108	-65,741	2.6
2004-05	375,340	501,065	-125,725	4.4
2005-06	456,418	660,409	-203,991	6.2
2006-07	571,779	840,506	-268,727	7.1
2007-08	655,864	1,012,312	-356,448	7.8
2008-09	840,755	1,374,436	-533,680	10.1
2009-10	845,534	1,363,736	-518,202	8.5

Source: Economic Survey; Ministry of Finance, Government of India (2010-11)

In 1984, the reform began to make its entry with the rationalization of the licensing system. There was a modest liberalization of the licensing system, both

regarding the control of industry and imports and exports regime²². For example, investment and imports of less than a specified amount were permitted without the necessity of obtaining a license. In addition, after 1986 the effective real exchange rate depreciated steadily by 21.4 per cent from 1986 to 1990. This real depreciation encouraged exports during the latter half of 1980s and also facilitated the reforms, particularly import liberalization of 1990s. In the early 1990s, tariffs were a far more important component of protection of domestic industry than they had been in earlier years as higher import prices absorbed part of import demand and thus, quantitative restrictions had less bite.

²² The firms were permitted to produce at least levels above those permitted in their industrial licenses and the size of the firm needing a license was increased.

VI. Foreign Trade Policy Reforms after 1991-92

In 1980s, there had been some degree of relaxation in foreign exchange control regime and also some depreciation of the rupee. However, there were huge macroeconomic imbalances. The fiscal deficit of the central government averaged around 4-5 per cent of GDP by the end of 1970s and it rose to around 8.5 per cent of GDP in 1985-86. It remained almost at that level till early 1990s. The deficit of the state enterprises and that of the states increased at the same pace. As a result, public debt built up, both internal and external, and coupled with rising inflation. The inflation rate rose above 10 per cent by 1991-92. The current account deficit rose to over 3 per cent of GDP in the late 1980s. Although growth during the 1980s rose to an annual average rate of over 5 per cent, it was unsustainable in the light of expansive macroeconomic policies and build up of huge public debt. Whatever the reforms were undertaken in 1980s contributed to the accelerating growth in that period, although the economy remained heavily overregulated and constrained by any standard. It was in this back-drop, the economic reform programme was initiated.

In early 1991, major economic crises emerged. The roots of the problem were mainly macroeconomic imbalances; the precipitating factor was sharp drop in foreign exchange reserves. It was coupled with cut-off in private foreign lending and downgrading of India's credit rating²³. Despite the IMF loan in January 1991, the situation did not stabilize immediately. The new government was formed with P.V. Narasimha Rao as Prime Minister. The new government was committed to structural reforms but first it had to address macroeconomic imbalances. The IMF loan supported the reform package which included 19 per cent devaluation of rupee and abolition of export subsidies²⁴. Tight control on imports was introduced. The result was that dollar value of exports did not immediately increase. However, the tight fiscal situation, with the deficit dropping from 8.3 per cent of GDP in 1991-92 to 5.9 per cent of GDP in 1992-93, the slow-down in GDP growth rate, and the rupee

²³ Joshi V. and Little I.M.D. (1996), *India's Economic Reforms 1991-2001*, Oxford: Clarendon Press.

²⁴ An export entitlement scheme for exporters was also introduced

devaluation- all these factors contributed to a drop in imports, so that the current account deficit fell from 3.2 per cent to 0.4 per cent of GDP in the following year²⁵.

The policy changes effected after 1991-92 went far beyond those accompanying earlier balance of payments crises. Several factors contributed to this greater scope and depth. First, there was severity of crisis itself and it was estimated that foreign exchange reserves were no more than two weeks imports when initial measures were taken²⁶. Second, it was evident that fiscal deficit had been the major factor contributing to the crisis and had to be sharply curtailed. Third, over time, a large number of people expressed their discontent with India's slow growth. Fourth, the disintegration of the Soviet Union further altered perceptions and undermined support for state dominance of economic activity. Fifth and most important, the economic policy team led by Finance Minister Manmohan Singh supported by Prime Minister Narasimha Rao was convinced that economic reform was essential if India was to improve its economic performance. The crisis provided more than the usual room to change the policy regime. The reform proceeded slowly and gradually. Structural changes began to take place in 1992. The main areas chosen in the initial phase for reforms were tariffs, exchange rates, non-tariff barriers and capital flows. Many of the reforms effected in the capital flows had major impact on domestic monetary system, which was significantly liberalized.

In 1991, import licensing on all intermediate inputs and capital goods were abolished. But consumer goods accounting for approximately 30 per cent of the tariff lines remained subject to licensing. It was only after a challenge by India's trading partners in the Dispute Settlement Body (DSB) of the WTO that these goods were freed of licensing a decade later in April 2001. Except for 300 tariff lines of goods subject to licensing on grounds of environmental, health and safety considerations and few other items such as fertilizers, cereals, edible oils, and petroleum products, continue to remain canalized (imported by the government only). All other goods can be imported without license or any other restrictions. The tariff rates were raised substantially during the 1980s to turn quota rents into revenue for the

²⁵ The primary deficit (the deficit net of interest payments) fell from 3.4 per cent of GDP in the crisis year to 1.6 per cent of

²⁶ The rise in the prices of oil and reduction in workers remittances associated with first Gulf War increased the sense of crisis.

government. The tariff revenue share of imports went up from 20 per cent in 1980-81 to 44 per cent in 1989-90²⁷. In 1991, the highest tariff rate stood at 355 per cent, simple average of all tariff rates at 113 per cent and import weighted average of tariff rates at 87 per cent. With removal of licensing, these tariff rates became effective restrictions on imports. The major task set for 1990s and beyond has been to lower tariff rates. This has been done in a gradual manner by compressing the top rates while rationalizing the tariff structure through a reduction in the number of tariff bands. The top rate fell to 85 per cent in 1993-94 and 50 per cent in 1995-96, though there were some reversals in the form of new, special duties and unification of a low and high tariff rates in the later period. The general direction has been towards liberalization with top rates coming down to 25 per cent in 2003-04 and further to 20 per cent in 2007-08.

The 1990s reforms were accompanied by the lifting of foreign exchange control that had served as an extra layer of restrictions on imports. As the part of 1991 reform, the government devalued the rupee by 22 per cent against the dollar from 22.2 rupee to 25.8 rupee per dollar. In February 1992, a dual exchange rate system was introduced, which allowed exporters to sell 60 per cent of their foreign exchange in the free market and 40 per cent to the government at lower official price. Importers were authorized to purchase foreign exchange in the open market at the higher price, effectively ending the exchange control. Within a year of establishing this market exchange rate, the official exchange rate was unified with it. From February 1994, many current account transactions including all current business transactions, education, medical expenses, and foreign travel were also permitted at the market exchange rate. These measures culminated in India accepting the IMF Article VIII obligations, which made the rupee officially convertible on current account.

At the same time, the restrictions on FDI and portfolio investment were eased²⁸. Initial effect of the reform was a surge in private capital inflows. Foreign

²⁷ Government of India (1993), Tax Reform Committee: Final Report, part II, Ministry of Finance, New Delhi.

²⁸ The capital inflow and resulting foreign exchange receipts complicated macro policy. The authorities chose the risk to risk inflation and maintain nominal exchange rate, rather than risk undermining the incipient growth of exports.

exchange reserves were built rapidly. From 1993-94 onwards, export growth accelerated, with exports increasing by 20 per cent annually. Exports as percentage of GDP rose from 7.5 per cent at the beginning of the decade to 10.4 per cent of GDP in 1997-98. After two years of slow growth, they continued to increase and by the year 2006-07, it was 15.3 per cent of GDP. After the rupee devaluation, the exchange rate was determined by a combination of market forces and intervention, in such a way that the real exchange rate remained within a narrow range of 10 per cent. This was the part of new policy package, and relative certainty about the future of the real rate may have been as important as the level of providing incentives for foreign traders.

One major change occurred in the infrastructure sector which had a positive effect on the external sector-telecom. It resulted in vast improvement in both internal and external communications. The deregulation, permission for private entry into cell-phone market and separation of the regulator from the state provider resulted in much improved business environment. Now, the telecom services have improved vastly but yet to reach the high level achieved by the developed countries. Although there have been efforts to enhance infrastructure capacity in other areas, the rapid growth of real GDP has meant that congestion and delays in all transport modes were as frequent as ever. The cost, delays and uncertainties surrounding transport remain a significant for domestic and foreign trade. Port congestion was substantially high and impeded external trade to a large extent.

For imports, the 1990s saw a virtual complete dismantling of controls over producer imports, but imports of consumers goods remained prohibited. However, by 2002, import prohibitions were almost entirely removed by the WTO ruling against India. Tariffs were gradually reduced as also some of the non-tariff barriers. There was some offset to this liberalization, as para tariffs were imposed in some instances, and the government began using anti-dumping and other measures frequently to raise the protection level. A special cell in the Ministry of commerce was set up to monitor 300 sensitive import products to determine whether imports were causing disruption to domestic production. Soon it became evident that damage from imports was significantly less than anticipated. The maintenance of a realistic exchange rate and reduced costs of production associated with import

liberalization enabled much more adjustment than had been expected. The monitoring of imports was dropped. It was decided to bring down the levels of tariff rates to the South East Asian levels. In 2007, the average protection for manufacturing products was around 15 per cent²⁹. However, Indian tariffs are still high as compared to the levels of many emerging markets. The WTO estimated that in 2005, the simple average of India's MFN Tariff was 18.3 per cent with a bound average of 49.8 per cent. This provides great deal of latitude to raise tariff rates if circumstances warrant. By comparison, China's average bound and applied rate was 10 per cent and South Korea's 11.2 per cent³⁰. However, India's simple tariff rates declined to 12 per cent in 2010-11.

Several other measures were taken to relax control over foreign trade. For example, there was reduction in the amount of paper work required to obtain export finance or permission to export. There were systemic efforts to reduce paper work and control the economic activity in general. There was positive change in the attitude towards the private sector. Private sector was encouraged to enter into foreign market. Product standardization and quality testing procedures have improved. Institutional infrastructure to assist exporters was made more efficient. The problems of the exporter's are addressed quickly. The data collection and dissemination has improved.

Reforms were rapid during the first few years after 1991, and reform momentum continued on a number of fronts. There has been backsliding and the momentum for reform was lost to some extent after the coalition government led by Manmohan Singh took office in 2004. However, some reform measures have been taken which are not significant. India entered into a number of preferential trading arrangements (PTA), mainly with South and South East Asian countries. Free Trade Agreement has been concluded with Sri Lanka, Thailand and Singapore. PTA is under consideration with China. Now, India's foreign trade has been relatively geographically diversified. The decision to enter into PTA has been defensive, as

²⁹ This means much of the redundancy in has disappeared and many of the tariff lines are binding, with Indian manufacturers facing the fluctuations in international prices of their goods. But levels bound under the WTO are much higher than the applied tariff in most cases.

³⁰ Martin, W. and A. Mattoo (2008), *The Doha Development Agenda: What is on the table?*, Policy Research Working paper, No. 4672, World Bank, Washington D.C.

PTAs were proliferating worldwide. Both the share of intra-regional trade and trade governed by the PTA remains relatively small³¹.

In recent years, trade initiative has moved towards the Special Economic Zones (SEZ). Intention was to enable exporters to avoid both the bureaucratic red tape governing transactions and the restrictive labour laws. The objective is to promote the development of large-scale manufacturing of unskilled labour-intensive goods. The legislations permitting SEZs was passed in 2005 and regulations for implementation was promulgated in early 2006. However, in 2007, licenses granting SEZ status were suspended for several months. This was because political objections were raised on the grounds that farmers were losing their land and large enterprises were using the legislation to obtain land inappropriately. This problem was addressed. The SEZ scheme was made more attractive through offers of tax holidays to investors. The Ministry of Finance estimates that the revenue forgone from the scheme was Rs. 538 billion in 2006-07, with an additional Rs. 21 billion for SEZs. The cost effectiveness of the schemes in generating incremental investment and employment is open to question. The SEZs are attracting capital-intensive industries.

By end of 2010, a total of 130 SEZs are already exporting. Out of this 75 are information technology (IT) / IT enabled services (ITES), 16 multi-product and 39 other sectors specific SEZs. The total number of units in these SEZs is 3139. The physical exports from these SEZs have increased by 121 per cent to 47,981 million 2009-10 with a compound average growth rate of 58.6 per cent from 2003-04 to 2009-10 compared to 19.3 per cent for the total exports of the country for the same period. The growth in exports was 121 per cent in 2009-10, compared to a paltry 0.6 per cent growth in total exports from India as a whole (*for details see table 5*). Out of the total employment of 6,44,073 persons in SEZs an incremental employment of 509,369 (79 per cent) was generated after February 2006 when the SEZ Act came into force. At least double of this number obtains indirect employment outside the SEZs as the result of the operations of the SEZ units. The total investment in the SEZs at the end of 2010 was approximately \$42,467 million including \$41,590 million (98 per cent) in the newly notified zones. In SEZs 100 per

³¹ Even for Sri Lanka, there was zero duty for 1000 tariff lines, a 50 per cent margin of preference for all other items except for 429 items on a negative list. For, textiles, the tariff is 25 per cent the MFN rate, while tariff quotas applied to tea, garments and vanaspati.

cent FDI is allowed through automatic route. The government role has been more as a facilitator by fast tracking approval rather than providing any monetary incentives. The SEZs set up under the SEZ Act of 2005 are primarily private investment driven.

Table 5
SEZ Exports and India's total Exports: A Comparison

<i>Period</i>	<i>Exports from SEZs</i>		<i>Exports from India</i>		<i>Share of SEZs in total Exports</i>
	<i>Value (crore)</i>	<i>Growth in %</i>	<i>Value (crore)</i>	<i>Growth in %</i>	<i>In %</i>
2003-04	13,854	39.0	2,93,367	-	4.7
2004-05	18,314	32.2	3,75,340	27.9	4.9
2005-06	22,840	24.7	4,56,418	21.6	5.0
2006-07	34,615	51.6	5,71,779	25.3	6.1
2007-08	66,638	92.5	6,55,863	14.7	10.2
2008-09	99,689	49.6	8,40,755	28.2	11.9
2009-10	2,20,711	121.4	8,45,534	0.6	26.1

Source: Economic Survey, Government of India, 2010-11

The removal of reductions in tariff rates and quantitative restrictions lessened the restrictiveness of the regime. There has been a partial offset by the use of antidumping measures. From 1995 to 2005, India was the largest user of antidumping measures, with a cumulative 425 initiations. By contrast, the US had initiated 366 cases, the EU 327 and Argentina 204 cases. However, antidumping actions have diminished in recent years³². Now, there were only 205 cases on investigations at the end September 2010. Largest number of actions were initiated against China by India which amounted to 52 per cent of the total measures. Steps are being taken to align national standards with international norms; so far some 73 per cent of national standards for which corresponding international standards exist. These are aligned with international norms. SPS procures are also being streamlined, notably with the passage of the food safety and standard Act in 2006 to consolidate 13 separate laws relating to SPS issues. The government procurement policy at central government level has undergone reform, although preference continues to be extended to certain items from small-scale industry and state-owned enterprises.

³² The largest proportion of antidumping cases was against chemicals and chemical products (41.2 per cent, plastic and rubber products were the second largest group (16.5 per cent)

VII. Service Sector and Reforms

Since the initiation of reforms in 1991, there has been opening up of the service sector to private participation, both domestic and foreign. Many services including construction, tourism, health and computer related services have been placed on automatic approval route for FDI. Telecom services have experienced greater amount of liberalization. Now, fully-owned foreign firms are allowed in several segments of telecom sector, government monopoly in long distance telephony and internet has been eliminated and there are no restrictions on the number of providers. In several services, government increased the foreign holding limits to 74 per cent from the earlier ceiling of 49 per cent. Similarly in financial services there has been some liberalization. From the earlier limit of 20 per cent minority participation for foreign banking companies or financial companies in private Indian banks through technical or through the Foreign Investment Board route, the limit of foreign ownership has been raised to 74 per cent in 2004 under automatic route. In 2000, the Insurance Regulatory Bill was ratified permitting foreign equity participation up to 26 per cent only through joint ventures and partnership. Since the limit has been raised to 49 per cent. Various other segments of the financial sector, including mutual funds and capital market have been opened up to foreign participation. Other areas such as health services, construction and engineering services an autonomous liberalization has been undertaken. Since 2000, the hospital segment has been opened to 100 per cent FDI participation on automatic route. There are more than 30 foreign firms present in healthcare sector through various kinds of arrangements, including subsidiaries, technology, training and joint ventures. Similarly, in construction sector, the government has permitted 100 per cent FDI through automatic route in civil works.

Autonomous liberalization has not taken place in certain services, namely education, retail, accountancy and legal services. As a result, opening up in these areas has been limited. In the higher education sector, regulatory pre-conditions are required to support liberalization. Foreign equity participation is permitted up to 100 per cent under the automatic route since 2000 for entry through franchises, twinning

arrangements, study centres, and programme collaboration. There is a 49 per cent cap for research and teaching activities. However, the sector remains closed to the establishment of foreign universities, education testing and training services. The opening up of higher education services has centred around inadequate regulatory capacity and need to balance measures aimed at attaining legitimate public policy objectives such as quality and equity with provision of sufficient regulatory autonomy for Indian and foreign higher education providers.

In the distribution services sector, unilateral liberalization has varied across segments. While non-retail segments such as wholesale trading, export trading, cash and carry and franchising are permitted up to 100 per cent through automatic route, retail sector was partially open. In 2006, the government allowed 51 per cent FDI in single brand retailing subject to FIPB approval and subject to certain other conditions. There remains a restriction on multi-brand retailing although these restrictions can be bypassed through other channels such as local sourcing, manufacturing and franchising, hence, this segment is not completely closed. The opening up of multi-brand retail segment to foreign players was subject to debate as well as the entry of big domestic entities. There is a strong political and domestic stakeholder's interest against further liberalization of retail services, notwithstanding recognized benefits due to increased sourcing and export opportunities, improved supply management, standardization and efficiency spillovers.

The strong domestic stakeholder's sensitivity is present in the case of accountancy services. Major international players in the US and the EU have been pushing for the removal of all barriers to the established foreign professional accountancy firms in India. However, the sector remains closed to FDI and foreign services providers are not allowed to undertake statutory audit of the companies in India. The Institute of Chartered Accountants of India (ICAI) has resisted the opening up of the sector to foreign accountancy firms unless the level playing field is created for domestic firms, with amendments in domestic legislation permitting domestic firms to enter into limited liability partnership, multi-disciplinary work and the removal of restrictions on the number of partners and solicitation of business by Indian accountants. In addition, ICAI has urged the government to seek reciprocal arrangements for domestic accountants of Indian firms in other countries, thus

linking FDI liberalization in the sector to greater market access and recognition of Indian accountancy professionals in other countries. The Indian accountancy firms need reciprocity and domestic regulatory reforms.

In legal services sector, there is a domestic opposition to the opening up to foreign commercial presence as well as cross-border delivery of legal services. The Bar Council of India has maintained that it is neither interested in accessing international markets nor in liberalization to foreign law firms. It is concerned about uneven playing field, given the domestic regulations which prevent Indian firms from having more than 20 partners, multi-disciplinary practice, limited liability partnerships and restrictions on advertising by Indian lawyers. It enhanced the recognition of Indian qualifications and reciprocal treatment of Indian legal professionals. There is a concern that the entry of foreign law firms will make it difficult for small Indian law firms to survive and the market segmentation and price effect of such entry.

The approach to autonomous liberalization varies considerably across sectors. The determining factors have been domestic lobbies and stakeholder's sensitivities against liberalization on the one hand, and efficiency, competitiveness and technology considerations and overall economic and structural reform programme initiated in 1991 on the other.

India is a participant in the WTO-GATS negotiations. In the Uruguay Round, India made limited commitments. Many sectors such as energy, distribution, education and environmental services to name but a few, were not scheduled. Even important sectors such as financial and telecom services, key sub-sectors and activities such as insurance or international long distance telephony were not committed. Moreover, the commitments typically bound less than the status quo create a gap between the existing market access conditions and the level committed under the WTO. India's multilateral commitments in services reflected a conservative approach and no additional market opportunities for trading partners. In the Doha Round, services negotiations which were based on bilateral requests and offers, India received request in almost all sectors. These requests centered on the expansion of India's commitments to include more services sectors and activities within the scheduled sectors and liberalize its commitments. In response to these

requests, India submitted its initial offer in 2004. This offer did not substantially improve upon its earlier Uruguay Round commitment mainly because there was little progress in the commitments by other member countries' sectors in which India expressed its interest. In its 2005 revised offer, India significantly improved upon its Uruguay Round commitment by including several new services sectors and sub-sectors. India indicated its willingness to remove commercial presence restrictions in key areas which it had autonomously liberalized earlier. Its revised offer covered 11 sectors and 94 sub-sectors as opposed to 7 sectors and 47 sub-sectors in its initial conditional offer. Some of the new areas included were education, distribution, accountancy and environmental services. These changes reflected new approach to India's negotiating stance.

With respect to trade policy, India has been a proponent of multilateralism. However, in recent years, it has entered into bilateral and regional negotiations. India is a latecomer on the bilateral and regional scene. So far India has signed only one regional agreement on services, namely India-Singapore Comprehensive Economic Cooperation Agreement (CECA). The agreement came into force in August 2005. Efforts afoot to expand the service sector agreement to other countries. Such agreement exists with Sri Lanka, Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC) and Thailand. CECA has a positive list approach. It has a general obligations pertaining to recognition, domestic regulation and transparency as well as sector specific obligations with regard to market access and national treatment commitments with similar aims and objectives as those of GATS. Liberalization commitments under the CECA have gone beyond those under the GATS.

The services sector did play and will continue to play an important role in India's trade policy. The services sector is enabling India to integrate with the world economy. The policy framework and approach varied across different services sub-sectors, the general direction is towards greater opening up of all kinds of services. At the multilateral level, India pushed its agenda strongly in the GATS negotiations, but to little effect. It has in part contributed its shift towards comprehensive regional and bilateral agreements encompassing services and investment issues besides trade. It is perceived that India could achieve a win-win situation from regional and bilateral

frameworks covering services and fulfil the objectives of growth and efficiency. India can tap trade, investment and services potential within the South Asian region. Several clusters of services within the South Asian region have similarities and complementarities, which could serve as a basis for strengthening economic cooperation.

VIII. Export-Import Growth Scenario

Broad trends in the value of exports growth for the period 1950-51 to 1969-70 were almost near stagnation with small variations by year to year fluctuations. The export growth was in the vicinity of 1.8 per cent compound rate per annum. This was due to emphasis on import substitution and lack of attention to export stimulation measures. On the other side, imports grew around 4 per cent per annum. Import growth was relatively better in mid-1950s to mid-1960s. This was on account of heavy emphasis on industrialization, particularly that of public enterprises which emanated from the Third Five Year plan. However, this trend did not continue due to devaluation in 1966 and its severe adverse effect on balance of payments in the subsequent years. Import control regime was tightened with licensing system (see Table 6).

Table 6
Exports, Imports, Trade Balance and Growth Rates for 1950-51 to 1969-70
(value in million US\$ & percentages)

<i>Year</i>	<i>Exports*</i>	<i>Imports</i>	<i>Trade Balance</i>	<i>Export Growth Rate</i>	<i>Import Growth Rate</i>
1950-51 to 1954-55	6318	7332	-1014	5.24 (0.63)	4.88 (6.75)
1955-56 to 1959-60	6267	9447	-3180	1.88 (1.70)	7.34 (7.2)
1960-61 to 1964-65	7524	12377	-4853	4.96 (5.00)	7.08 (7.22)
1965-66 to 1969-70	8561	13125	-4564	2.04 (12.62)	-5.48 (5.30)

Note: 1) Exports includes re-exports also.

2) Exports and Imports are for a total of five years. Growth rates are average per annum.

3) Growth rates in brackets are in rupee terms.

Source: Economic Survey, 2010.

During this period, India failed to take advantage of opportunities offered by the growing world trade. This is evident from the fact that the world trade grew by 7.5 per cent per annum during 1950 to 1970. India continued to remain the exporter of primary commodities and world trade diversified into a large number of industrial products. The domestic industries were restricted by licensing system and modernization was difficult to come about. The public enterprises were in the infant stage of development and it could not make a dent in the world market.

In the 1970s, India's exports grew by 18.92 per cent per annum, which was quite impressive compared to her performance in the past. However, it declined sharply in 1980's. The exports grew by 7.85 per cent per annum. The imports also grew at the annual rate of 15.89 per cent in 1970s and declined marginally to 11.54 per cent in 1980s.

Table 7
Exports and Imports in 1970s and 1980s (Exports and Imports in million \$ & growth in %)

<i>Period</i>	<i>Exports</i>	<i>Imports</i>	<i>Trade balance</i>	<i>Export Growth</i>	<i>Import Growth</i>
1970-71 to 1974-75	14117	16445	-2328	17.82 (19.18)	24.36 (25.70)
1975-76 to 1979-80	31659	38413	-6754	13.86 (14.36)	15.80 (15.76)
1980-81 to 1984-85	45624	75553	-29929	4.46 (12.98)	6.16 (13.94)
1985-86 to 1989-90	61320	89666	-28346	11.62 (19.76)	8.18 (15.92)

Note: See notes of table No.4. Exports and imports for a total of five years. Similar is the case with Growth rates.

The balance of payments situation eased relatively in the late 1970s, the government initiated some measures of import liberalization. Since mid-1980s, a number of liberalization measures were adopted, which include some deregulation of industrial controls, softening of restrictions on monopolies, liberalization of capital goods imports with the view of technological up gradation and modernization of industry, some shifts from quantitative restrictions to tariffs, greater subsidies for exports and policy of active exchange rate depreciation. For the first time, a long-term (three-year) import-export policy (1985-88) was adopted in order to impart stability to the policy framework. The policy reforms during the 1980s mainly focused on domestic industrial liberalization rather than on foreign trade liberalization. Very little was done to open up Indian industry to foreign competition. The import liberalization related mainly to inputs and components, which increased the effective protection of final products. However, the average protection levels remained both high and widely differentiated and imports of consumer goods were banned (except those goods which were considered to be essential). India's trade regime was considered most restrictive due to its complex nature and wide number of tools used as policy instruments.

A comprehensive economic reform was undertaken in 1991 in the wake of severe balance of payments crisis. At that time, the foreign exchange reserves were not adequate enough to meet even 15 days of import bill. From 1985-86 to 1990-91, the deficit in the balance of payments ranged between \$5.93 billion to \$7.16 billion. The export, import and balance of payments picture is given in table 8.

Table 8
Export, Import and Balance Payments from 1990-91 to 2009-10

<i>Period</i>	<i>Exports (million \$)</i>	<i>Imports (million \$)</i>	<i>Balance of Trade (\$ million)</i>	<i>Export Growth (in %)</i>	<i>Import Growth (in %)</i>
1990-91 to 1994-95	103113	117328	-14215	9.98 (24.66)	7.24 (20.78)
1995-96 to 1999-2000	170313	209355	-39042	7.28 (14.28)	12.02 (19.40)
2000-01 to 2004-05	288484	353022	-64543	18.32 (19.06)	18.56 (19.00)
2005-06 to 2009-10	756,683	1,178,624	-421,941	17.02 (18.08)	21.90 (22.90)
2005-06	103091	149166	-46075	23.4 (21.6)	33.8 (31.8)
2006-07	126414	185735	-59321	22.6 (25.3)	24.5 (27.3)
2007-08	163132	251654	-88522	29.0 (14.7)	35.5 (20.4)
2008-09	185295	303696	-118401	13.6 (28.2)	20.7 (35.8)
2009-10	178,751	288,373	-82,107	-3.5 (0.6)	(-5.0) (-0.8)

Source: Economic Survey, Government of India, 2010-11

In the 1990s, the export growth was subject to wide ranging fluctuations. For example, exports grew by 20.8 per cent and also dipped to -5.1 per cent in 1998-99. The decade of 1990s, 1991-92 and 1998-99 showed negative growth rate in exports. On an average, export growth was 13.33 per cent per annum. On the other side, imports grew by 10.93 per cent per annum and only during 1991-92, it showed negative growth rate of 19.4 per cent. Otherwise, the import growth rate varied between 2.2 to 28 per cent. The balance of deficit increased continuously (see Table 7). One important fact that needs to be noted is that the base of the imports and exports enhanced considerably during the decade of 1990s along with considerable diversification in both exports and imports commodity baskets.

The year 2001-02 and 2009-10 saw negative growth rates, however, between 2001-02 and 2004-05, exports on annual average grew by 13.88 per cent, with over

30 per cent growth in 2004-05. Similar was the case with imports, the average annual growth rate was 13.73 per cent. From 2005-06 to 2007-08, exports increased in the vicinity of 25 per cent per annum and the imports grew much higher that was over 31 per cent per annum. However, the gap between exports and imports widened and pushed the balance of trade deficit to an alarming proportion. Ever since 1977-78, India has been running huge deficit in the current account of balance of trade. The deficit in the balance of payments began in 1995-96 and reached an alarming proportion of US\$ 12.85 billion in 1999-2000. Even in the recent years, the deficit in balance of trade is growing, it was over \$118 billion in 2008-09. The balance of trade amounted to 8.45 per cent of the GDP in 2009-10. The recent growth in exports is due to an increase in factor productivity, rise in world trade, increase in intra-industry trade and not due to the external sector reforms undertaken. Over the years, the share of exports and imports to GDP has increased, particularly from 2000-01 to 2009-10. The total trade (exports+imports) was 36 per cent of the GDP in 2009-10. Exports to GDP was 10.70 per cent in 2000-01 and has risen to 13.79 per cent in 2009-10. Similarly, imports increased from 12.4 per cent to 22.24 per cent in respective years. The export growth received set back in 2009-10 due to world-wide recession and fall in commodity prices for which was a main exporter. This underlines an increased integration of Indian economy with the world.

IX. Commodity Composition of Export and Import Basket

Over the last six decades, the commodity composition of export baskets has altered in the face of structural changes in the Indian economy. Emphasis on heavy industrialization to a large extent was responsible for this change. In the 1950s, agricultural and allied commodities, including farm processed products dominated the export basket. The share of these products was 32.75 per cent. Manufactured products, namely cotton piece goods, gunny bags and gunny clothes etc. composed of 38.85 per cent and minerals such as coal, mica and manganese ore accounted for 3.6 per cent of the total exports. The base of the manufacturing was farm products which was started on a small scale. Cotton piece goods, tea and gunny bags and clothes were the main items of exports which formed 51.3 per cent of exports and the share of these goods increased to over 56 per cent of total exports in 1954-55.

The structural change in the commodity composition of India's exports could be analyzed from 1960 onwards due to availability of data. The share of agriculture and allied commodity exports fell steeply during 1960-61 to 2009-10. It was 44.3 per cent of the total exports and dipped to 10.5 per cent. The sharp fall was witnessed in the first three decades. Before the economic reform of 1991, the agriculture and allied commodity share declined to 19.4 per cent in 1990-91. The share of agricultural and allied commodities also declined in the total world exports. This trend is consistent with shrinkage in the share of the sector in GDP of India. At the product level, share of tea, unmanufactured tobacco and spices declined in India's total exports and world exports. Only marine products showed both increase in India's exports and world exports during 1960 to 2006 period. However, its share declined in 2009-10 to 1.17 per cent. Products such as coffee, cereals, and vegetables and fruits indicated fall in their share in India's exports and rise in world exports. At a more detailed level, rice, sugar and sugar preparations and feeding stuffs of animals showed rise in their share of exports. Export share of ore and minerals declined and that of their share in world exports increased. This was particularly due to rise in the share of iron ore. This was on account of expansion of steel industry in China

and Japan. The share of ore and minerals almost remained at the same level from 1990-91 to 2009-10 and it was around 4.6 per cent.

The share of the manufactured goods in the total exports was nearly 39 per cent in 1950-51 which composed of cotton piece goods, gunny bags and gunny clothes. These were basically agriculture-based products. However, detailed data is not available. Industrial base was small. In 1960-61 the share of manufactured products increased to 45.4 per cent and prior to economic reforms in 1990-91 it went up to 72.9 per cent and reached its peak in 2000-01 to 78 per cent, thereafter downward trend was set in and it was 67.2 per cent in 2009-10. Share of chemicals, dyes, pharmaceuticals, gems and jewellery, iron and steel, machinery, transport equipment, electronic goods and clothing products increased, both in total exports and in world exports. However, the share of manufactures of metals declined in total exports but enhanced its share in world exports. Leather goods (including footwear) and textiles showed both decline in total exports and world exports over the period of 1960-61 to 2007-08. Crude and petroleum products entered in substantial proportions in 2000-01 and reached 16.1 per cent of the total exports in 2009-10. The product composition has changed to some extent from 2000-01 to 2010-11 (see table 9). Even in the manufactured category, the traditional goods exports were making the way for new products. The structural change was relatively minor in the first decade of the post-reform period. Changes occurred in the second decade with engineering products and chemicals leading the way. The petroleum products became an important segment of exports with the share of over 16 per cent in 2009-10. India has become one of the leading petroleum refining centre in Asia. In near future India is likely to emerge global hub of petroleum refining due to its proximity to the Gulf countries. Another most important concern is the declining share of textiles, its share has fallen to less than 10 per cent of total exports. To a lesser extent similar is the case with the gems and jewellery. (See Annexure I A & B and Graph 1).

For 1950-51, the imports are classified into consumers 'goods and producers' goods. Further, the producer's goods are classified into raw materials and capital goods. The share of the consumers goods was 17.62 per cent and that of producers' goods was 57.53 per cent and in the category the share of raw material was 34.47 per cent and that of capital goods was 23.10 per cent. In the consumer's goods

category grains, pluses and flour were the main products. Similarly, in raw materials, raw cotton, oil and raw jute were the main items. Capital goods consist of machinery, electrical goods, metals, iron and steel products. At this point of time, India was importing raw cotton and jute to process and export gunny bags and gunny clothes. This period was more a continuation of colonial pattern of foreign trade.

Table 9
Change in the Composition of Exports 2000-01 to 2010-11 (in %)

<i>Product Groups</i>	<i>Share in total Exports 2000-01</i>	<i>Share in total Exports 2010-11</i>	<i>Rise or fall in percentage points</i>
Engineering Goods	12.4	23.63	10.79
Petroleum Products	1.66	16.59	14.93
Gems and Jewellery	16.75	13.75	-3.00
Textiles	24.26	9.34	-14.92
Agriculture and Allied Products	8.8	6.97	-1.83
Ores and Minerals	2.62	4.42	1.80
Electronic Goods	2.54	3.36	0.82
Leather and Leather Goods	4.41	1.59	-2.82
Marine products	3.16	1.17	-1.99
Chemicals and related Products	14.01	12.93	-1.08

Source: Economic Survey, Government of India. Various years.

From 1960-61 onwards the imports are classified into three categories: food and live animals; raw materials and intermediates, and capital goods. The share of food and live animals category imports declined sharply from 19 per cent in 1960-61 to 3 per cent in 1980-81, thereafter it became insignificant. In this category cereals and cereal preparations was the main item, its share in total imports declined from 16.5 per cent in 1960-61 to 0.01 per cent in 2009-10. The decline was continuous over the period (see *Annexure II A & B*).

The share of raw materials and intermediates increased from 46.96 per cent in 1960-61 to 63.44 per cent in 2009-10. The share of this product group increased sharply in the pre-reform period and touching 77.77 per cent of the total imports in 1980-81, thereafter it dipped. However, it varied between 53 per cent to 63 per cent from 1990-91 to 2009-10. Cashew nut, crude rubber (including synthetic and reclaimed), fibres and iron and steel showed decline in their share of total exports. This decline was continuous in case of iron and steel till 2000-01 and thereafter there was an increase mainly due to imports of specialty steel. Non-ferrous metals enhanced its share in total imports between 1960-61 to 2009-10 and also in the pre-reform as well as post-reform periods. Similar is the case with petroleum, oil and

lubricants. Its share in the total imports galloped from 6.16 per cent in 1960-61 to 30.09 per cent in 2009-10. The fact is that its share went up to nearly 42 per cent in 1980-81 in post second oil crisis the world over. Animal and vegetable oils, fertilizers, plastic materials, and pearls and precious stones showed rise in 1960-61 to 2009-10 and in pre-reform period but indicated a declining trend in the post-reform period. Only non-ferrous metals showed rising share in total imports during the entire period as well as in the post reform period. Both non-electric machinery and electric machinery product groups showed decline in the share of imports in total, pre-reform and post-reform periods. The product of transport equipment share in total imports and post-reform period and in 1960-61 to 2009-10 period increased.

India's imports were broadly classified into bulk and non-bulk items. The product groups such as food and allied products, fuel, ores and metals, fertilizers and paper, paper board and pulp fall under bulk category and rest of the items in non-bulk category. In 1960-61, the share of bulk items in total imports accounted for 49.89 per cent after declining in some years, it reached its peak in 1980-81 to 65.27 per cent and it again declined in 2000-01 and further increased to 50.18 per cent in 2009-10. Main reason for increase was the rise in oil prices. The trend could be seen from the table below. Rise in the crude oil prices pushed up the share of bulk imports, particularly in 1980-81 and in 2009-10. The liberalization episode did not dramatically alter the bulk imports although there was decline in other items of imports, namely food and allied products and fertilizers. Many of the restricted and canalized items were removed from quantitative restriction lists. Bulk items still comprise the main proportion of the national import bill. The crude oil production has increased in India after 2001-02. Its contribution is less than 18 per cent of domestic consumption (See Table 10).

Table 10
Share of Bulk Imports in Total Imports (in %)

Items	1960-61	1970-71	1980-81	1990-91	2000-01	2009-10
Food and allied products ¹	19.08	15.85	3.03	2.29	2.68	2.77
Fuel	6.16	8.33	41.94	26.88	30.97	30.09
Ores and metals	15.17	8.97	6.79	10.98	2.61	14.17
Fertilizers	7.86	13.23	11.87	4.10	1.31	2.32
Paper, board & pulp	1.61	2.27	1.63	2.11	1.43	0.83
TOTAL	49.89	47.64	65.27	46.36	39.00	50.18

Source: Economic Survey, Government of India, 2008-09.

India's exports were highly concentrated in OECD countries and it still continues, though on a lesser scale. Share of the OECD countries was 66 per cent in 1960-61 and declined to 50 per cent of the total exports in 1970-71 and thereafter till 2000-2001 it varied in the range of 46 to 55 per cent. It further fell to 41 per cent. In case of the EU, the share of exports was 36 per cent and it fell sharply in 1970-71 to 18 per cent. Even with the expansion of EU countries to 21 per cent till the end of 2007-08, U.K., Germany and France were the major export destinations in the 1960-61 but their share declined over the years and other EU countries Belgium, the Netherlands and Italy emerged from 1980s onwards. The share of Russia (as USSR) was substantial with rupee payment arrangements, which declined sharply after the disintegration of the USSR in 1991 and came to less than one per cent at the end of 2007-08. Japan one of the main trading partners also experienced a fall in its share in total exports over the years. Many new economies emerged as trade partners, prominent among them being China, United Arab Emirates, RP Korea, Malaysia, Singapore, Indonesia, Italy and Spain (See *annexure III*). Most of the countries emerged as strong trading partners, particularly after 1995-96 when the trade policy reform was getting impetus. The global link with the production process was evident after 2000-01. Dependence on developed countries continue to remain strong due to supply of intermediates and India emerged as an exporter of simple capital goods and tools and equipments. This means some of the import substituting industries of the past turned to exports. There has been change in the export destination in 2010-11 as compared to 2000-01. This is evident from *table 11*.

Table 11
Major Export Destination in 2000-01 and 2010-11 (share in %)

<i>Destination</i>	<i>2000-01</i>	<i>2010-11</i>
EU	24.00	18.53
US	22.43	10.91
Japan	4.04	2.17
Asia and ASEAN	38.69	54.86
Latin America	2.22	4.28
Africa	4.09	6.72
Others	4.53	2.53

Most striking feature is the growing importance of Asia as an export destination. Asian share in total exports has increased by substantial proportion and it is nearly 55 per cent in 2010-11. This is due to India's "Look East Policy" and sustained effort to develop strong relations with China and the ASEAN. At the same

time declining share of the EU and the US. Concerted effort has been made to develop trade relation with Africa and Latin America.

Direction of the imports was almost similar to that of exports. The share of the OECD countries in total imports was 78 per cent in 1960-61 and declined steeply to 45.7 per cent in 1980-81. It increased again in 1990-91 with expansion of EU to 12 members, including UK, however, the share declined to 38.5 per cent in 2007-08. Now, the EU share has declined to 18.5 per cent in 2010-11. Similarly, the US Share also dipped to nearly 11 per cent in the same year. The import share of Belgium, Germany and U.K. fell continuously with some aberrations and that of France and the Netherlands increased marginally. In the last decade, Italy's share increased though it became an important trade partner in the mid-1990's. The share of the US and Japan declined over the period and that of Australia increased. The share of Russia was at its peak in 1980-81 at 8 per cent but with the disintegration of the USSR, it dipped to one per cent. Abrogation of rupee payment agreement and Russian agreement to sell crude oil to Europe led to decline in imports. Imports from Saudi Arabia, Iran, United Arab Emirates, Nigeria, Indonesia, Malaysia Kuwait also increased due to purchase of crude oil from these sources towards the end of 2007-08. The most striking fact is that the import share of China increased rapidly from 2000-01. The import share of Italy, Switzerland, Singapore and South Africa also registered rise (see *Annexure IV*). Diversification of imports was mainly due imports of raw materials, capital goods for modernization and expansion of industries. The "look East policy" of the government yielded some positive results. Both exports and imports increased to some extent to East Asia and South-East Asia after 1995-96.

X. Factor Intensity Analysis of Exports

A classification of products based on their factor intensity regarding skill, technology and capital to assess the factor content of India's foreign trade and its evolution over the last three decades has been attempted in this section. The analysis presented is based on the classification proposed by UNCTAD (1996) and resulted into the following product categories by factor intensities:

Group 1: All food products;

Group 2: Agricultural raw materials;

Group 3: Minerals, ore and metals;

Group 4: Fuels;

Group 5: Labour and resource intensive manufactures³³;

Group 6: Low-skill and technology-intensive manufactures³⁴;

Group 7: Medium skill and technology intensive manufactures³⁵;

Group 8: High skill and technology- intensive manufactures³⁶;

Group 9: Other manufactures³⁷.

In 1975, all food products, share in India's total export was 37.7 per cent which declined sharply to 0.9 per cent in 2000, then it has rose marginally to 2.4 per

³³ Labour-intensive and resource manufactures with a low-skill-technology-and capital content, or where use can be made of indigenous skills and technology acquired through earlier handicraft production.

³⁴ Includes manufactures with a low-to-medium level of skill, technology, capital and scale requirements.

³⁵ Includes manufactures with medium –to- high level requirements in skill, technology, capital and scale.

³⁶ Includes manufactures which have the highest requirements in terms skill, technology, and scale.

³⁷ Special category of products which is important in India's exports and imports; namely, jewellery, precious stones and metals and pearls.

cent in 2006. Fresh, chilled, and frozen fish was the main item in 1980 followed by crude vegetable materials. The composition changed by 2006, the leading products in this group were crustaceans, molluscs etc. However, crude vegetable materials remained at high proportion. Fish, crude animal materials and fixed vegetable oils disappeared much before 2006. The share of agricultural raw materials declined sharply from over 22 per cent in 1980 to 5.6 per cent in 2006. Even in the intervening period the decline was sharp and it dipped down to as low as 1.3 per cent in 1996. Evidences show that India was rapidly shifting from primary products. Within the group, the share of rice, vegetables, fruits and nuts, sugar, molasses and feeding stuffs increased from 1980 to 2006. The share of coffee and substitutes, spices and tea declined substantially. India's tea exports came down sharply. This was mainly due to international competition as well as constraints on supply and enhanced domestic consumption.

The export share of minerals, ores and metals declined from 12.3 per cent in 1975 to 2.2 per cent in 2000 then again increased marginally to 9 per cent in 2006. This was on account of rise in the exports of iron ore, and copper. The share of fuels increased substantially from 1.1 per cent in 1975 to 17.6 per cent in 2006, this increase mainly came from rise in petroleum oils and oil obtained from bituminous (not crude).

The share of labour and resource intensive manufactures increased rapidly from 27.8 per cent in 1975 to 55.9 per cent in 2000, then it declined to 31.2 per cent in 2006. The textile yarn replaced raw cotton exports. In clothing, women's or girl's outerwear of textile fabrics (not knitted or crocheted), made up articles of textile materials and articles of apparel of textile fabrics (whether or not knitted/crocheted) became main products of exports. In footwear, leather and travel goods segment, leather which was a main component of this segment declined sharply and similar was the case with leather manufactures. The share of woven cotton fabrics, textile and clothing accessories declined rapidly during this period.

The share of low skill and technology intensive manufactures increased to some extent in 2006 over 1975 to 9.4 per cent but it did decline in 1985 and at a later stage it showed gradual increase. This was on account of rise in the exports of

iron and steel products, manufactures of base metals and motor vehicles and cars, etc. Similar trend was apparent in the case of medium skill technology intensive manufactures. Its share in the export was 5.7 per cent in 1975 and gradually it increased to 7.9 per cent in 2006. Some new products such as polymers of ethylene, plastics in primary forms, rotating electric plants and parts got added to the export basket, besides rubber tyres, internal combustion, piston engine, electric apparatus for sewing machine and parts and other motor vehicles continue to be important items.

High skill technology intensive products had a meagre share of 2.8 per cent in exports in 1975 and its share increased over the years, but rise in the share was slow (see table 12). The products which increased their share were hydrocarbons and their derivatives, organic chemicals, medicaments, electric machinery and apparatus and electric power machinery and parts. However, there a was significant fall in the share of carboxylic acids, nitrogen compounds, medical and pharmaceutical products, pesticides disinfectant, automatic data processing equipment and electric distributing equipment in exports (see Annexure VA and B and Graph 2, 3. 4).

Table 12
Product Structure of Exports of India

<i>Product Groups</i>	<i>1975</i>	<i>1985</i>	<i>1996</i>	<i>2000</i>	<i>2005</i>	<i>2006</i>
1. All food products	37.7	25.3	19.0	0.9	2.7	2.4
2. Agri. Raw materials	4.0	2.8	1.3	4.9	5.8	5.6
3. Minerals, ores, and metals	12.3	7.6	3.6	2.2	7.6	9.0
4. Fuels	1.1	6.0	1.7	4.6	13.4	17.6
5. Labour and resource intensive munf.	27.8	42.2	48.5	55.9	37.4	31.2
6. Low skill and tech-intensive munf.	6.1	2.5	6.2	5.1	9.0	9.4
7. Medium skill and tech. Intensive munf.	5.7	5.8	6.3	6.2	7.4	7.9
8. High skill tech. Intensive munf.	2.8	4.2	8.6	12.3	10.0	10.1
9. Other munf.	1.6	2.6	2.8	7.7	6.8	6.8

Source: Calculated from data available RBI Hand Book, various years.

XI. Factor Intensity Analysis of Imports

The factor intensity analysis also reveals that the share of primary commodities in total imports over the period has fallen. The share of all food products has consistently declined from 31.9 per cent in 1975 to 7.0 per cent in 2006. In this product group, vegetables, fruits and nuts were the main items of import. Wheat was the major item in some years due to seasonal factors and the government policy of food imports. Share of vegetable oils of all forms increased consistently over the years. Fixed vegetable oils and cotton showed rise in some years but were totally absent in other years. The import share of minerals, ores and metals increased from 5.4 per cent in 1975 to 10.7 per cent in 2006. This was due to rise in iron and steel scrap, copper ores and concentrates, non-ferrous metal scrap and silver. There has been a rise in the import share of fuels which was hardly four per cent in 1975 and it touched 15 per cent in 2006. There has been large increase in 1980, 1985 and 1995. This was on account of rise in the prices of petroleum products. The domestic consumption of oil also increased. The share of the petroleum product was 36 per cent in 1975 and rose to 56 per cent in 2006. The share of crude oil was 25.3 per cent in 1990-91 and it went up to 31 per cent in 2000-01 of total import bill. It remained almost at the same level in 2006.

Labour and resource intensive manufactures were four per cent of the total imports in 1975 and shot up to 23.8 per cent in 2000, thereafter it began to decline and it was 10.8 per cent in 2006. The main items in this group were pulp and waste paper, pearls, precious and semi-precious stones. The share of silk, wool, animal hair, and textile yarn declined over the years. The share of low skill and technology intensive manufactures in total imports fell from 9.8 per cent in 1975 to 3.7 per cent in 2000 but increased gradually to 10.1 per cent in 2006. The main products in this group witnessed rise in their share were iron and steel shapes, flat rolled products, tubes and pipes. There was substantial decline in the share of iron and steel plates (see Table 13).

Table 13
Product Structure of Imports of India

<i>Product Groups</i>	<i>1975</i>	<i>1985</i>	<i>1996</i>	<i>2000</i>	<i>2006</i>
All food products	31.9	8.4	4.6	8.1	7.0
Agri. raw materials	2.5	3.4	4.3	3.3	1.2
Minerals, ores, metals	5.4	7.0	7.5	5.6	10.7
fuels	4.4	26.6	25.9	13.4	15.0
Labour and resource intensive manufactures	4.0	8.2	9.7	23.8	10.8
Low skill and technology intensive manufactures	9.8	8.9	5.6	3.7	10.1
Medium skill and technology intensive manufactures	15.8	17.0	16.6	7.4	7.9
High skill and technology intensive manufactures	23.0	17.0	20.4	34.7	

Source: Calculated from RBI Hand Book of various years.

The share of medium skill and technology intensive manufactures in imports declined from 15.8 per cent in 1975 to 7.9 per cent in 2006. It rose during the intervening period, i.e., 1985 and 1995. There has been a rise in the share of civil engineering equipment, textile and leather machinery, printing machinery, rotating electric plant. Share declined in heating and cooling equipment, pumps for liquids, and electric machinery. The import share of high skill technology intensive products increased over a period of time, its share was 23 per cent in 1975 and reached 37.3 per cent in 2006, however, the rise was very much evident from 1988. The product share of nitrogen function compound, organic chemicals and elements, medicinal and pharmaceutical products, fertilizers, miscellaneous chemicals, transistor and valves, electric machinery, telephone equipment, automatic data processing equipment, office machinery and parts and switch gear also showed rise in their shares (see *Annexure VI and Graph 5, 6, 7*).

XII. Structural Weakness of India's Foreign Trade

Several studies have indicated that economic and trade liberalization has not yet succeeded in bringing far-reaching changes in the commodity structure of India's foreign trade which reflects pre-reform strategy to a large extent. It is visible that the inward-oriented and heavy industrialization strategy followed for quite a long time has resulted in a large and diverse industrial sector. Over time, this sector has accumulated impressive technological capabilities, but these were accompanied by wide-spread technological lags and inefficiencies due to inadequate access to new technologies and capital goods, restricted inward investment, controls on the growth of large private domestic firms³⁸. Changes did occur after 1992 with liberalization of trade. Trade liberalization had a stimulating effect mainly in the immediate post-reform period. Manufactured exports accelerated and the share of traditional exports like textiles tended to decline, whereas new sectors emerged such as chemicals, pharmaceuticals, and engineering products (linked to outsourcing strategy of firms from industrialized countries). However, the export sector is not sufficiently diversified and still dominated by simple and undifferentiated products with low levels of skill and simple technologies, and for which India's comparative advantage lies in cheap labour. Due to this specialization India exports mainly those products for which international demand is growing slowly³⁹. India's exports were thus concentrated in low technology products and slow growing markets. Its incentive regime favours domestic market, protects inefficient industries and suffers from deficiency in infrastructural facilities. The following analysis broadly confirms the statement mentioned above. It not only underscores the stability of India's comparative advantage at product level for nearly four decades and its strong specialization in labour intensive industries, but also it points out a slow upgrading of the technology level. However, some changes are visible at product level exports from 2000-01 onwards but it is not substantial. The labour-intensive products such

³⁸ Lall. S. (1999), India's Manufactured Exports: Comparative Structure and Prospects, World Development, Vol 27, No. 10, Pp. 1769-1789.

³⁹ Srinivasan, T.N. (2001), India's Reform of External Sector Policies and Future Multilateral Trade Negotiations, Economic Growth Centre, Yale University, Centre discussion paper, No. 830, June.

as textiles and leather products are losing its share in world market but capital-intensive products are making dent.

XIII. Stability of India's Comparative Advantage

On the export side, five categories of products have kept a dominant share and it amounted to over 80 per cent in 1970-71 and 1980-81. It declined to over 60 per cent in 1990-91 to 2000-01 and further declined to 53 per cent in 2007-08. Textiles, which was the most important category till 2000-01, share remained in the range of 20 to 25 per cent and dipped to 12 per cent in 2007-08 and further to 9.34 per cent in 2010-11. A decline of nearly 15 percentage points from 2000-01 (See also table 9). Food and agriculture share was over 40 per cent in 1970-71 which decelerated continuously and reached 11 per cent in 2007-08. The share of chemicals, machinery and iron and steel increased to some extent over a period of time. New product groups began to emerge from 1990-91 with energy products leading along with electric and electronics. These could be seen from Table 14.

Table 14
Sectoral Breakdown of India's Exports (in %)

Product Groups	1970-71	1980-81	1990-91	1995-96	2000-01	2007-08	2010-11
Textiles	23.6	20.7	23.9	25.3	25.3	11.7	9.16
Food and agriculture	45.4	41.8	18.5	19.1	13.4	11.0	9.71
Chemicals	2.4	3.5	9.5	11.3	13.2	12.5	11.39
Machinery	2.9	7.8	6.0	5.5	5.8	9.8	15.63
Iron and steel	5.9	7.7	5.3	5.6	5.9	7.5	2.59
Energy	0.8	0.9	8.2	5.1	6.8	22.5	16.48
Electric	1.1	1.7	1.3	2.6	3.6	5.6	3.50
Electronic	-	0.7	1.3	2.1	2.4	2.0	-
Transport Equipment	2.5	2.9	2.2	2.9	2.2	4.0	7.25
Non-ferrous	0.8	1.2	1.2	1.5	1.4	1.0	-
Precious, semi-precious stones, etc.	2.7	9.0	16.1	16.6	16.6	12.0	16.03

Source: compiled from RBI Handbook of statistics 2011

There have been some changes in the product composition of imports over the years from 1970-71 to 2010-11. Energy, machinery, and chemicals remained important. However, electronics share grew much faster and food and agriculture share declined rapidly. The share of non-ferrous metals, too, declined along with iron and steel. The rise in the share of energy products was rapid due to enhanced domestic consumption and also rise in the world crude oil prices. India also became an importer of coal in recent years. The energy imports were over 33 per cent of

the total imports in 2010-11. Till the year 1995-96, the share of machinery increased but thereafter it tended to decline. Precious and semi-precious stones occupied main share also fell fast. Within the product group of medicinal and pharmaceuticals there has been shift towards more speciality products. The *table 15* provide the picture.

Table 15
Sectoral Breakdown of India's Imports (in %)

<i>Product Categories</i>	<i>1970-71</i>	<i>1980-81</i>	<i>1990-91</i>	<i>1995-96</i>	<i>2000-01</i>	<i>2007-08</i>	<i>2010-11</i>
Energy	8.3	42.2	15.3	23.0	33.2	34.3	32.82
Chemicals	11.8	10.6	10.1	16.8	10.7	5.6	6.81
Machinery	15.8	8.7	13.8	18.7	10.4	11.5	6.11
Electricals	4.3	2.1	2.3	4.0	1.0	1.2	1.00
Electronics	-	-	-	7.1	7.3	8.6	6.10
Food and agri	13.0	3.0	1.3	5.9	2.9	1.6	2.63
Non-ferrous metal	7.3	3.8	3.2	3.3	1.1	1.4	1.14
Iron and steel	9.0	6.8	7.1	5.1	1.6	3.5	2.92
Textiles	7.5	1.1	1.4	1.6	1.2	1.0	0.87
Vehicles	0.9	3.8	1.4	1.5	0.9	-	-
Precious and semi-precious stones	1.5	3.3	4.9	5.7	9.5	3.17	8.87
Transport equipment	4.1	3.8	2.2	3.0	1.4	8.0	3.12

Source: Compiled from RBI Handbook of statistics 2011.

At the outset, India's comparative advantages are located in textiles, food and agriculture, jewellery and iron and steel. However, some shift has occurred in recent years, more specifically after 2000-01, with chemicals, petroleum products and transport equipment moving towards the comparative advantage groups. The main disadvantages in manufacturing industry is located in machinery, but within this industry auto parts is being shifted to comparative advantage group. Other products in comparative disadvantage groups are crude oil, computer hardware, telecommunication equipment, basic organic chemicals, non-edible agricultural products, specialized machines and precision instruments.

From the commodity composition of exports, it appears that high skill, technology-intensive products of India are made of chemicals and pharmaceutical products. Whereas in case of other Asian countries computer equipment and electronic components dominate (*see Table 16*). This trend was prevalent in 2001 and it has changed to some extent in case of India with the production of electronics and computer equipment. However, in most of the other countries such as Thailand, Malaysia, and China, exports of electronics and computer equipment goods are

strongly linked to production sharing with the industrialized countries which produce and export parts and components. The Asian countries import components and assemble them and export final goods. This process has not taken place in India.

Table 16
Commodity Composition of Exports with High Skill and Technology Intensity by India and Other Asian Countries in 2001 (in% of total manufactured exports of each country)

	<i>India</i>	<i>Thailand</i>	<i>Philippines</i>	<i>Malaysia</i>	<i>China</i>
Basic organic chemicals	6	2	0	2	1
Pharmaceuticals	3	0	0	0	1
Paints	2	0	0	1	0
Toiletries	1	1	0	1	0
Computer equipment	1	17	26	25	10
Precision instruments	1	1	1	1	1
Basic inorganic chemicals	1	0	0	0	1
Electronic components	0	9	40	26	1
Telecommunication equipment	0	4	4	8	5
Optics	0	2	1	1	2
Clock making	0	1	1	0	1
Consumer electronics	0	3	1	9	4
Total	15	40	74	74	27

Source: Sophie Chauvin and Francoise Lemoine (2003), "India in the World Economy: Traditional Specializations and Technology Niches", *CEPII*, No. 203-09, August.

It appears that India's manufacturing industry has remained on the sidelines of globalization. This phenomena explains the slow structural changes and technological upgradation of the foreign trade. India's position in international trade is by and large based on "horizontal" specialization which confirms that India's comparative advantage in most sectors covers the whole process of production (from upstream to downstream stages). In case of China, most sectors shift from comparative advantages in upstream stages of production to a comparative advantage in final goods production.

India was one of the first in Asia to recognize the importance of effectiveness of the Export Processing Zone (EPZ) model in promoting exports. The first EPZ was set up in Kandla in 1965. However, the EPZ's were not able to emerge as the effective instruments for export promotion due to multiplicity of controls and clearances, absence of world class infrastructure and an unstable fiscal regime with a view to overcome these defects and attract larger FDI. Thus the EPZ schemes were altered and the Special Economic Zones (SEZ's) policy was announced in 2000. The SPZ Act was passed in 2005. This scheme was intends to make SEZ's an engine for

economic growth supported by quality infrastructure, complimented by an attractive fiscal package with single-window clearance mechanism. The concept was based on the export-led industrialization strategy. The spin-off effect would be the creation of employment and development of infrastructure.

In the span of last four years, the formal approval has been granted for setting up of 571 SEZ's, out of which 346 have been notified. A total of 105 SEZ's are exporting at present, out of these 65 are information technology (IT) and information technology enabled services (ITES), 15 multi-product and 25 other sector-specific SEZ's. The total units in these SEZ's is 2761. Out of the total employment of 4.9 lakh persons in SEZ's, an incremental employment of 3.56 lakh persons was generated after February 2006 when the SEZ Act came into force. Almost the double the number obtain indirect employment outside the SEZ's as result of the operations of SEZ units. The export from SEZ's have increased by 121.4 per cent to Rs. 2,20,711 crores in 2009-11 (see table 17).

Table 17
Exports from Special Economic Zones.

<i>Years</i>	<i>Value of Export (Rs. Crores)</i>	<i>Growth Rate over previous year (in %)</i>	<i>Share in Total Exports (in %)</i>
2003-04	13,864	39	4.72
2004-05	18,314	32	4.89
2005-06	22,840	25	5.00
2006-07	34,615	52	6.05
2007-08	66,638	93	10.16
2008-09	99,689	50	11.86
2009-10	2,20,711	121.4	26.1

Source: Economic Survey, 2010-11, Govt. of India.

The relative performance of India's SEZ's is poor as compared to other East and South-East Asian countries and China in particular. The exports of SEZ's grew at a higher pace that is in the vicinity of 59 per cent per annum between 2003-04 to 2009-10, but their share in the total exports reached 26.1 per cent in 2009-10. The employment generation has not been satisfactory but FDI remained low. In China the Special Economic Zones (and the special open areas) accounted for 36 per cent of total exports in 2010. The unimpressive performance of SEZ's in India was mainly due to locational factors and inadequacy of infrastructural facilities. Their capacity to attract FDI has remained low. India's geographical location is also constrains the growth of SEZ's.

An analysis based on narrower definition of high-tech goods confirms that high-tech contents of India's foreign trade is relatively low. In 1997-99, high goods accounted for 4 per cent of India's total exports, a proportion much smaller than China's exports (9 per cent)⁴⁰. High-tech content proportion increased to nearly 8 per cent in 2007-08, whereas the same increased in China to 21 per cent in 2007⁴¹. The reason can be found in the nature of India's imports. The two categories of products which are the main channel of high technology transfer in international trade are parts and components of capital goods, they occupy only 9.7 per cent of imports in 2007-08. India's imports are largely dominated by semi-finished products. Their specialization in high-tech goods follows different sectoral pattern. China's high-tech exports are concentrated in ICT products: electronic goods and computer equipment which was 85 per cent of its high-tech exports in 2004. India's high-tech exports are concentrated in chemicals, in fact pharmaceutical products (See table 18).

Table 18
India and China: Product Composition of High-tech Exports
(in % of high-tech exports), 2004

<i>Product categories</i>	<i>India</i>	<i>China</i>
Radio, T.V & telecom. equipment	10	61
Office machinery and equipment	6	25
Medical, precision & optical equipment	8	6
Chemical and chemical products	67	4
Other high-tech products	9	3

Source: Francoise Lemoine and Deniz UnalKesenci (2007), "China and India in International Trade: from Laggards to Leaders?" CEPII, No.2007-19, November.

India's specialization in high-tech products has followed a different pattern from many other countries. In the wake of legislation passed in the 1970's, which ended the application of international law on patents, and replaced it by legislation aimed at facilitating the acquisition of foreign technology, India has developed powerful domestic companies in pharmaceutical sector, with strong presence in both domestic and foreign markets. India has become the world's top exporter of generic medicines (27 per cent of the global market) and Indian companies have captured the local market in pharmaceutical products (over 70 per cent). This industry is based on highly qualified personnel integrated into international networks, high quality public

⁴⁰ Sophie Chauvin and Francoise (2003), India in the World Economy: Traditional Specializations and Technology Niches, CEPII, No. 203-09 August.

⁴¹ According to World bank (WDI data base), high-tech goods accounted for 30 per cent of China's manufactured exports in 2004 and India's share was 5 per cent in the same year.

research institution and benefits from the large domestic market. The local pharmaceutical industry (including both national and foreign companies) meets 81 per cent of the domestic demand for drugs and exports nearly 32 per cent of domestic production. In 2005, Indian patent law was revised and put in line with the TRIP's agreement, a change that induces the pharmaceutical firms to move beyond imitation towards innovation. The new legislation stimulates the development of R&D and innovation in the pharmaceutical industry both in Indian companies and foreign affiliates. The R&D expenses of Indian pharmaceutical firms, on an average are still low, which is around 4 per cent of sales.

XIV. Rise of Services Sector Exports

While India's manufacturing exports lag far behind those of other Asian emerging economies both in quality and quantity, but in services, India's exports are rapidly catching up. The share of India in world exports of services increased from 0.6 per cent in 1990 to 1.2 per cent in 2001 and went further up to 2.8 per cent in 2008, while during the same period, its share in global exports rose from 0.5 per cent in 1990 to 0.7 per cent in 2001 and to 1.1 per cent in 2008. The rapid growth of service sector observed in the domestic economy has thus been associated with an increased competitiveness in world markets. Services accounted for 20 per cent of India's exports in 1990 and in 2008 it has accelerated to 59.2 per cent. Indian services exports have been driven by business services (includes software) and account for 67.8 per cent of the total service exports in 2008 (see Table 19). Since 1999, India is the second largest exporter of business services among the emerging Asian economies.

Table 19
India's Trade in Services (US \$ million)

	<i>Credit</i>		<i>Debit</i>		<i>Balance</i>	
	<i>1990</i>	<i>2008</i>	<i>1990</i>	<i>2008</i>	<i>1990</i>	<i>2008</i>
Transport	960	11318	-3417	-13668	-2457	-2350
Travel	1557	11832	-393	-9603	1164	2229
Banking & insurance	123	5607	-345	-4669	-222	938
Business services*	1968	65559	-1716	-19514	252	46045
Other services**	16	2423	-219	-1004	-203	1419
Total	4624	96739	-6090	-48458	-1466	48281

Source: RBI, Handbook of Statistics, 2009

Notes: * includes software also

** includes communication services.

Since the mid-1990s, software and computer services have been the most dynamic components of Indian exports. By 2008-09 software accounted for 46.4 per cent of the total services exports or 26.8 per cent of merchandise exports. In 2007, India's share in world computer services accounted for 20.9 per cent, next to that of EU (extra). India now has become the leading exporter of software services, ahead of Ireland and the US. Software exports take different channels. On-site services are delivered on the Client's site itself; off-site software services are developed in India

and then exported, either in physical terms (disks) or for the bulk of them, on non-physical terms (satellites or e-mails). The bulk of export services takes place in the latter form. While physical software exports are reported as part of the merchandise exports, non-physical exports (on-site and off-site services) as part of the non-factor services in the balance of payments.

The IT and BPO industries have a large growth potential. The addressable market in global off-shore IT industry is estimated to be the order of \$220-250 billion and in the BPO segment to be \$160-190 billion. The worldwide technology and related services spending crossed \$1.6 trillion in 2007 and it is likely to cross \$2.2 trillion in 2011. The growth in global outsourcing is expected to outpace growth in spending and is expected to rise to \$120-140 billion in 2011. Indian IT-BPO revenue may achieve the target of \$60 billion in exports and the domestic market may add another \$13-15 billion to it. The direct employment has risen from 230,000 in 1998-99 to nearly 2 million in 2007-08 of which export segment accounted for over 1.5 million. IT and BPO service revenue has risen to over 4 per cent of the GDP in 2007-08. This explains the phenomenal growth of this industry in building up India's service economy.

XV. Relationship Between Economic Growth and Export Growth

The relationship between exports and economic growth is an important issue from the point of view of economic policy and structural changes in the economy. It is because if exports cause growth (export led growth or ELG) through export promotion policies such as export subsidies or exchange rate depreciation will enhance growth. The positive externalities promote economic growth. The reverse side of this argument is that economic growth promotes export growth relies on the fact that gains in productivity give rise to comparative advantages in certain sectors that lead to export growth.

The foreign sector till 1990 constitute a small segment of the Indian economy. This indicates a minor role to exports in economic development. However, it is important to recognize that the size of the export sector in India does not by itself exclude the possibility of export led growth. The relationship between export performance and growth does not arise merely because exports are part of GDP. However, to some extent the export relieves a pressure on balance of payments crunch. The liberal trade regime helps the economy to reap the benefits of comparative advantage. India till 1985 followed the strict import substitution policy. This policy in effect failed the industrial policy and the rapid escalation import bill and balance of payment deficits. This situation compelled India to shift to an export-oriented and outward- looking strategy.

The export-led growth hypothesis, as it pertains to India has been examined by Nandi and Biswas (1991)⁴² , Sharma and Dhakal (1994)⁴³ , Mallick (1996)⁴⁴, Dhawan and Biswal (1999)⁴⁵, Nidugala (2001)⁴⁶ and Anwar and Sampath (2000)⁴⁷ .

⁴² Nandi, S. and B. Biswas, (1991), "Export and Economic Growth in India: Empirical Evidence", Indian Economic Journal, Pp. 53-59

⁴³ Sharma, S. and D. Dhakal,(1994), "Causal Analyses Between Exports and Economic Growth in Developing Countries", Applied Economics, 6,Pp1145-1157.

⁴⁴ Mallick, S.K. (1996), "Causality between Exports and Economic Growth in India: Evidence from Cointegration Based Error Models", Indian Journal of Economics, 76, 302, Pp. 307-320

⁴⁵ Dhawan, U. and B. Biswal (1999), "Re-examing Export-Led Growth Hypothesis for India:

Nidugala finds that exports had a crucial role in influencing the GDP growth in the 1980's. Anwar and Sampath finds that exports and economic growth in India are cointegrated but do not find any strong evidence of causality from exports to economic growth or vice-versa. Raju and Kurien⁴⁸ with Granger causality test on time-series data finds that Exports and GDP are "weekly" cointegrated for the period 1960-1992, which is a pre-liberalization period. The export performance was an important cause of growth does not by itself explain how exports could have contributed to economic growth in India directly by relieving severe import constraints, especially in vital capital goods industries. Indirectly exports may have eased the balance of payments crunch to some extent and undertake structural adjustment programmes in response to trade shocks of the 1970s and 1980s. There is no definite conclusions for the whole period of 1950 to 2008.

The GDP growth rate and export and import growth rates do not show any consistent positive relationship during the period 1951-52 to 1959-60. The export growth rate for the period on an average was 1.05 per cent and import was 6.93 per cent. At the same time, GDP grew by 3.73 per cent. Export basket consists of mainly primary products. The situation was more or less the same for which grew by 3.91 per cent on an average in the period 1960-61 to 1969-70. However, the export growth picked little more and it was 3.5 per cent and imports declined to 0.80 per cent in the above mentioned period. In the ensuing period 1970-71 to 1979-80, the GDP growth rate declined to 3 per cent and whereas exports and imports grew by 16 per cent and 20 per cent per annum on an average respectively. The decade was beset with number of problems namely first oil shock, global recession and exchange rate instability to mention a few. It was the period India begun exporting many new products, particularly the engineering items.

Restrictive import policy and export pessimism did not help the export growth in the decade 1980's. However, there was a gradual depreciation of rupee

Multivariate Cointegration Analysis", *Applied Economics*, 31, Pp. 525-530.

⁴⁶ Nidugala, G.K. (2001), "Export and Economic Growth in India; An Empirical Investigation, *Indian Economic Journal*, 47(3), Pp. 67-78.

⁴⁷ Anwar, M.S. and R.K. Sampath (2001), "Exports and Economic Growth' *Indian Economic Journal*, 47(3), Pp. 79-88.

⁴⁸ Raju S. and Jacob Kurien, (2005), "Exports and Economic Growth in India: Cointegration , causality and Error Correction in Modeling", *The Journal of Economics and Business*, June, 2005.

which enabled exports to pick up some extent. The GDP growth broke away from “Hindu rate” growth and grew in the vicinity of 5.5 per cent per annum on an average but export and import growth rate fell to 8 per cent and 7 per cent respectively. However, the current account deficit increased. In the decade of 1980s ratio of exports to imports decreased 0.64 from 0.87 in 1970s. The lowest export to import ratio was registered in 1980-81, 1981-82 and 1985-86 (see Annexure 3). Decade 1990s saw rise in GDP, export and import growth rates with gradual and calibrated economic reforms on trade policy front. The GDP, exports and import growth rates further accelerated in 2000s. This can be seen from the following table 20.

Table 20
GDP, Export and Import Growth Rates During Decades (in %)

<i>Periods</i>	<i>GDP</i>	<i>Export</i>	<i>Import</i>
1951-52 to 1959-60	3.73	1.05	6.93
1960-61 to 1969-70	3.91	3.50	0.80
1970-71 to 1979-80	3.02	15.84	20.08
1980-81 to 1989-90	5.46	8.04	7.17
1990-91 to 1999-2000	5.72	8.63	9.64
2000-01 to 2008-09	7.29	20.02	23.03

Source: Data from Economic Survey 2009-10, Government of India. Also see Annexure VII and Graph 8 and 9)

In the post reform period, both rise in exports and imports growth rates contributed to the enhancement of GDP. During period 2000-01 to 2008-09, the high export and import growth rate pushed up the GDP growth rate to over 7 per cent from the previous level of 5.72 per cent. This fact is also evident from the share of external trade to the GDP. It may be observed from table 20. The share of exports to GDP was 6.32 per cent in 1990-91 and it shot up 16 per cent in 2008-09 and that of imports in the same period increased from 8.39 per cent to 26.29 per cent. The import growth has been faster in the decade 2000. This clearly indicates that Export and import growth has a positive effect on GDP.

Table 21
Share of exports and Imports to GDP (in %)

<i>Period</i>	<i>Exports to GDP</i>	<i>Imports to GDP</i>	<i>Total trade to GDP</i>
1990-91	6.32	8.39	14.71
1995-96	9.82	11.33	21.15
2000-01	10.58	11.99	22.57
2008-09	16.08	26.29	42.37

Source: Calculated from data from Economic Survey, 2009-10.

Yet other important feature of India's foreign trade is the lagging exports in relation to imports from 1950-51 to 2008-09 except for the years 1972-73 and 1976-77. For these two years the ratio was 1.06 and 1.01 and for the year export to import ratio was lowest in 1980-81. The balance of payments deficit has been rising alarmingly in the recent years (see *Annexure VIII and Graph X*).

XVI. Relationship between Trade and Employment

The trade and employment literature shows that there are two direct channels through which trade can affect employment. The import of intermediate inputs may affect employment. Trade liberalization facilitates the import of large varieties of inputs and it increases the elasticity of substitution with respect to all other inputs. This is called the “substitution effect”⁴⁹. Increased exports have also a positive effect on the level of output, tending to increase employment⁵⁰. This second channel is called “scale effect”, which helps to increase employment. There are various studies which have come to different conclusions based on the situation in which the economy was placed during the trade liberalization period.

The issue of trade and employment did not receive much attention in the past. There are limited attempts to address the employment issue with trade reforms. Rashmi Banga⁵¹ found that export-orientation of industry have significant positive effect on employment. The period of study is limited to 1991-92 to 1997-98. Sen (2009)⁵² did not find any significant effect of export orientation and import penetration on employment for the period 1975-1999. He concludes that international trade may have much less positive impact on manufacturing employment and may not to be the major source of job creation for Indian unskilled labour. Golder (2009)⁵³ found that trade liberalization raises labour demand elasticity in Indian industries, the estimated elasticity for post-reform period is found to be lower than that for the pre-reform period. The study of Uma Shankaran, Vinoj

⁴⁹ Hasan, Rana, D. Mitra and K.V. Ramaswamy (2007), “Trade Reforms, Labour Regulations and Labour Demand Elasticities: Empirical Evidences from India”, *The Review of Economics and Statistics*, 89(3), Pp466-481

⁵⁰ Sen Kunal (2008), “International Trade and Manufacturing Employment Outcomes in India- A Comparative Study, Research Paper, No:2008/87, UNU-WIDER.

⁵¹ Rashmi Banga (2005), *Liberalization and Wage Inequality in India*, W.P..No.156, Indian Council for Research on International Economic Relations, New Delhi.

⁵² Sen, Kunal, (2009), *Trade Policy, Inequality and performance of Indian Manufacturing*, Routledge Advances in South Asia

⁵³ Golder, B. (2009), “Trade Liberalization and Labour Demand Elasticity in Indian Manufacturing”, *Economic and Political Weekly*, Vol. XLIV, No. 34, August 22.

Abraham and K.J. Joseph (2009)⁵⁴ confined to the liberalization period of 1991 to 2004-05 indicates that in the pre-reform period, there was a decrease in employment growth by 0.39 per cent per annum during 1980-81 to 1989-90. However, during the same period India's exports showed higher growth of 18.72 per cent and imports 8.7 per cent (see table 18). The post-reform period shows that increased employment growth of 0.70 per cent per annum during 1990-91 to 2004-05. During this period export growth has reduced and import growth has increased. When these periods are sub-divided all variables change (see table 18). In the initial phase 1990-91 to 1996-97 employment has increased but in the latter period 1997-98 to 2004-05 it has declined to -0.63

Table 22
Indicators of India's Manufacturing Employment, Export and Import Performance

<i>Period</i>	<i>Average annual growth rates</i>		
	<i>Employment</i>	<i>Exports</i>	<i>Imports</i>
1980-81 to 1989-90	-0.39	18.72	8.71
1990-91 to 2004-05	0.70	11.39	12.24
1990-91 to 1996-97	3.44	13.04	17.30
1997-98 to 2004-05	-0.63	15.78	16.19

Source: Uma Shankaran (2009).

Uma Shankaran's analysis of employment growth of two digit industries indicate that growth has been widely varying across industries (see table 19). Among the 22 industries 7 shows negative employment growth between 1990-91 to 2004-05. These seven industries account for 36 per cent of the employment in the period. Remaining 15 industries show positive employment growth; 6 of them fall under less than one per cent growth and 9 industries employment growth rate is more than one per cent per annum. This accounted for 25 per cent of employment share. Table 22 shows that in 13 industries import growth is higher than export and having lower employment growth.

The textile industry which has 17 per cent employment share among the manufacturing industries and labour intensive shows 15 per cent growth in imports which higher than export growth of 9.83 per cent and negative employment growth of -0.3 per cent per annum. This industries labour intensity also declined 0.69 per

⁵⁴ Shankaran, Uma, Vinoy Abraham, and K.J. Joseph, (2009), "Impact of Trade Liberalization on Employment: The Experience of India's Manufacturing Industries", Mimeo, Centre for Development Studies, Trivandrum.

cent and capital intensity increased by 1.87 per cent. Similar is the case with food and beverage industry. In the post-liberalization period Indian industries are moving from labour intensive exports to capital intensive exports which reduces labour demand.

Table 23
Industry-wise Annual Rates of Growth in Employment and Employment Elasticity in Manufacturing Industries (1990-91 to 2004-05)

<i>NIC Codes</i>	<i>Industries</i>	<i>Employment</i>	<i>Real Export</i>	<i>Real Imports</i>
15	Food & Beverages	0.99 (0.30)	5.38	16.77
16	Tobacco	0.28 (0.04)	5.83	18.21
17	Textiles	-0.31 (-0.18)	9.83	15.01
18	Wearing Apparel	8.74 (1.29)	7.55	30.05
19	Leather	3.17 (0.42)	12.19	19.59
20	Wood	-2.24 (0.95)	6.02	12.90
21	Paper	1.33 (0.28)	22.56	9.56
22	Publishing and Printing	0.82 (0.11)	20.51	28.77
23	Coke & refined petroleum	1.21 (0.10)	24.32	2.29
24	Chemicals	1.74 (0.24)	15.62	8.63
25	Rubber and Plastics	4.34 (0.44)	14.33	17.62
26	Other non-metallic minerals	0.86 (0.19)	15.21	13.01
27	Basic Metals	-1.26 (-0.16)	17.51	19.06
28	Fabricated metal products	0.01 (0.00)	14.60	14.02
29	Machine and Equipment	-0.87 (-0.15)	15.16	3.96
30	Office accounting, Computers	-2.73 (-0.94)	12.91	25.54
31	Electric Machinery	0.89 (0.24)	17.66	14.90
32	Radio and Television	-1.44 (-0.35)	13.27	22.41
33	Medical, precision, and optical equipment	1.62 (0.17)	21.89	13.01
34	Motor vehicles, trailers etc.	3.58 (0.44)	12.63	10.28
35	Other transport equipment	-5.27 (-1.02)	12.10	17.63
36	Furniture manufacturing n.e.c	5.93 (0.51)	4.48	33.35
	All Industries	0.70	11.37	12.24

Source: Uma Shankaran, opp. Sited. Note: figures in parenthesis are employment elasticity. It express the percentage in employment growth for a percentage change in growth of output.

In case of negative employment growth it may be observed that other transport equipment (NIC 35) and office, accounting and computing machinery (NIC 30) are the sectors that shows the first and second largest employment reduction by -5.27 and 2.73 per cent per annum during 1990-91 to 2004-05. These industries annual average import growth of 17.63 and 25.54 per cent is higher than their export growth of 12.10 and 12.91 per cent and their labour intensity has decreased to 0.64 and 0.54 respectively. The industries which are having higher export growth than import growth did not reflect in their employment growth. The case in point is coke, refined petroleum products and nuclear fuel (NIC 23). These industries export did

not indicate the employment growth. Besides these industries output fall under high technology and low labour intensive industry. Therefore, the capital intensive nature of the production of this industry may have lead to contraction in employment even though the exports performed well. Similar is the case with paper and paper products (NIC 20). The capital intensity increased in this industry too. It appears that increased global competition compelled industries to move away from labour intensive method of production to capital intensive method of production.

Investigating the impact of liberalization Rashmi Banga (2005) observes that the Indian trade liberalization does not have significant impact on manufacturing industries employment during the period 1991-92 to 1997-98. Employment may be affected by many factors such as technological change, labour market inflexibilities and macroeconomic changes etc. The study of Das, Wadhawa and Kalita (2009)⁵⁵ shows that during the one and a half decade of economic reform period, the relative importance of labour intensive industries in output has declined. They find a continuous decline in labour intensity across all labour intensive industries. Labour intensity ratio for the selected industries declined from 0.72 in 1990-91 to 0.30 in 2003-04. In fact, the labour intensity ratio declined both for capital intensive and labour intensive industries as well in the post-reform period. This may be due to access capita and new labour technologies.

Uma Shankaran (2010) in her study finds that import penetration has a significant negative impact on employment (1% increase in import penetration leads to -0.039% reduction in industries total employment). This is due to substitution effect. Contrary to the theory, the relationship between export intensity and employment are negative (1% increase in export intensity reduces employment by 0.096%). The negative effect of export intensity on employment is the increased capital intensiveness or high technology nature of exports of manufactured products. The organized manufacturing sector which could provide secured jobs are facing jobless growth in the post-liberalization period. The jobless growth is coincided with India's integration with the global economy and induced trade liberalization efforts of the WTO. The unskilled labour is not getting absorbed in the manufacturing sector

⁵⁵ Das, D.K, Deepika Wadhwa, and Gunajit Kalita, (2009), "The Employment Potential of Labor Intensive Industries in India's Organized Manufacturing" W.P.No.236, ICRIER, New-Delhi.

because the process of production moving toward capital and technology intensive method of production.

XVII. Can India Skip Industrialization Phase?

Ever so often a question is posed: whether can India skip the industrialization phase? Many reasons support this view that it is both desirable and possible that Indian economic growth continues to be driven by services in the long run⁵⁶. India enjoys a strong comparative advantage in many areas, particularly in software. Many of the services areas to be built, should do so on their intrinsic strength and exploit the enormous growth potential services, given the expanding domestic and world demand, driven by demand of upper income groups and outsourcing strategy of firms associated with the splintering of the production process and liberalization of international trade. However, the question arises whether India should maintain in the future the growth pattern it has followed in the last twenty years. First, past growth has failed to generate an increase in employment (jobless growth). The fast growing services have been those with low potential for employment as well as those with high productivity and efficiency gains. The sectors with large potential for employment have recorded a relatively low growth. Second, India's revealed comparative advantage in services may well be the result of the distortions in the economic systems and structures. The development of services has benefited from the fact that the sector was less regulated, more open to FDI and less constrained by lack of infrastructures. Finally, there is a risk that the demand for skilled labour is rapidly growing and export-oriented services may impede the very development of labour-intensive sectors because of the shortage and high wages of the skilled labour⁵⁷.

At the outset, it appears that India needs a more balanced economic growth that will provide jobs to the large number of low skilled working population and would be compatible with less inequality in income distribution, avoid the risk of inflation and balance of payment deficit. The sustainable growth requires large-scale

⁵⁶ Srinivasan, T.N. (2006), India, China and the World Economy, Stanford Centre for International Development, Working Paper, No: 286, July.

⁵⁷ Kochhar, K., U. Kumar, R. Rajan, A. Subramanian and I. Tokatlidis (2006), "India's Pattern of Development: What Happened and What Follows?" IMF Working paper, WP/06/22.

investment in infrastructures (roads, railways, ports, communication, irrigation, power, urban and rural reconstruction), which would directly absorb large number of workers. This will also remove some disadvantages faced by the producers in agriculture and industry and raise the allocative efficiency of investment and resource use. This policy would favour the growth of services with strong backward and forward linkages and make the development of services and industry complementary.

The 11th Five Year Plan (2007-2012) is in line with this vision and aims at achieving a faster, more broad-based and inclusive growth. Taking into account the acceleration of economic growth since 2003, it targets an average growth of 9 per cent a year from 2007 to 2012. The plan considers that India cannot afford to neglect manufacturing industry and place the growth rate of this sector 12 per cent per annum in the 11th Five year Plan. To overcome the obstacle to the industrial growth, plan emphasises the need to phase out the reservation of many labour-intensive industries from the small-scale sector, to improve skill formation and physical infrastructures. The investment rate which has risen from 24 per cent in 2000 to 37.7 per cent in 2008 and has underpinned industrial growth, is expected to stabilize at this level and large share of investment should be devoted to the development of physical infrastructure.

The working age of population will continue to increase up to 2035 in case of India, which underlines the need for a labour-intensive growth and larger employment opportunities need to be created in industrial sector. The skill formation is a prerequisite. It is likely that India may continue to benefit from low labour costs. India may not follow the Chinese model to become the “workshop of the world”. The Chinese model is associated with heavy energy and environment costs and social strain which is incompatible with Indian democratic system. India needs to grow faster and ensure that the growth is employment-intensive. In an economy with large surplus labour and rapidly growing labour force, the objective of the development should be employment generation.

XVIII. Conclusions

The pre-reform period did not see much of structural changes in the foreign trade particularly, the export sector. However, there has been some significant changes in import, specifically high imports of petroleum products and machinery and equipments. The post-reform period witness significant changes in the trend, pattern and structure of external trade. The ascertain that trade liberalization would help diversification of the structure of export sector and output in favour manufactured goods has not materialized. The changes in the pattern of specialization in exports is more or less in conformity with changes in pattern of production. The share of the manufacturing has marginally fallen in the GDP and significantly declined in the share of exports (see *Annexure VIII*). The growth of services was more pronounced in GDP growth and is reflected in the increasing share of services in exports. The share of primary products has fallen in exports and that of petroleum products showed an increase. This very fact indicates that in near future India may emerge as an Asian “petroleum hub”. Another notable aspect of India’s recent export growth is the relative poor performance of the textile sector. This shows that India is not able to get full benefits from the removal of the MFA. India may its comparative advantage to other developing countries. In the post-reform period, imports grew at a faster rate than exports and leading to huge deficits in current account payments.

There has been little change in India’s merchandise export structure till 1995-96 but some significant changes have occurred in the later years. The shift has not been drastic. The share of primary commodities has declined and share of clothing chemicals and engineering products has increased, however, these shifts are not far-reaching. Four resource and labour-intensive products food products, non-metallic mineral manufactures (gems and jewellery), textiles and clothing jointly continue to account for about half of India’s merchandise exports. This structure indicates early stages of industrialization. The number of important trade policy reforms have been implemented after 1991, the main changes began to occur after a decade and some of them are yet to occur.

India's two policy instruments, namely price controls and reserving market segment for small-scale firms have had considerable, but widely varying impact on the composition of exports. It is often argued that relatively small share of labour-intensive manufactures in India's exports is partly due to reserving of market segments for small firms. The small firms in labour-intensive manufacturing sectors are neither innovative nor agents of industrial diversification. This relegated India to mass markets that require long production runs and goods of standard quality. As a result, the share of clothing in exports has remained relatively small. In spite of this relative abundant supply of low-skilled labour gives it a comparative advantage for the production of labour-intensive manufactures.

The introduction of price-ceilings on the domestic market seems to have had a positive impact on exports of pharmaceuticals. These ceilings tends to make exports more profitable and provide an incentive for domestic pharmaceutical firms to engage in export activities. It helped to boost innovation because local firms that manufacture new medicines on the basis of indigenous technologies were exempted from price controls for five years. Domestic innovativeness in pharmaceutical industry owes most to the Indian Patent Act of 1970. The act facilitated the acquisition of foreign technology as it protected production processes but not products (it permitted reverse engineering, whereby molecules can be reconstructed using production techniques that are different from the inventors technique). This enabled India to become the world's leading exporter of generic medicines. The export prospects for India's pharmaceutical industry depend to a large extent on the effects of the new Patent (third amendment) Act 2005. India changed the patent legislation to comply with its WTO obligations under the WTO agreement on Trade Related Aspects of Intellectual Property Rights (TRIP's). The new Act provides for the granting of product patents. However, it only affects newly invented medicines, whereas specific regulations apply to those medicines that were invented between 1995 and 2005. India was allowed to delay the patenting of pharmaceutical products until 2005, but had to establish a system (mail box) for receiving and filing patent applications starting in 1995. If the applications are accepted the companies can produce such medicines after making a payment to the patent holder.

In a number of products, India does hold a higher RCA (revealed comparative advantage) value but her share in the world exports of these products are lower. It indicates that the comparative advantage does not automatically translate into high market shares if there are some impediments in fully exploiting its comparative advantage. This signifies the structural changes occurred in India are not very high. This shows that certain bottlenecks (such as poor physical infrastructure) and policy induced rigidities in the factor markets (such as those in the organized labour market) stand in the way of resource allocation process and export activities in India. These constraints notwithstanding, exports of large majority of products have expanded since 1990s from India. This is mainly due to growing intra-industry specialization under trade liberalization. The resource allocation under trade liberalization is not causing a polarization wherein certain industries are forced to vanish while certain other industries gain prominence. Greater intra-industry specialization would imply that trade liberalization entails a lower adjustment costs than what generally perceived. One point strongly emerges is that India failed to take advantages of growing international fragmentation of production process in manufacturing industries. The opportunities are missed by India due to infrastructural bottlenecks and rigidities in the labour market. The policy reforms are called for in labour market, facilitation of investment in infrastructure and further reduction in non-tariff barriers. These policy changes are imperatives to induce MNCs to conduct FDI of the “vertical type “and augmenting the process of integrating the Indian industry with fragmented structure of global production activities.

Indian economy has not yet fully opened to international trade and FDI as compared to emerging Asian economies and China. It is characterized by a shallow integration with the world economy. This may be attributed to several factors. The belated opening up policy at least partially explains why India’s foreign trade lags behind. The barriers to trade have remained relatively high, besides, in the domestic economy, institutional obstacles (reservation policy) and structural factors (high energy costs and lack of infrastructure) have dampened the rise of competitive industries and attractiveness of FDI. Eventually, its geographic location does not provide dynamic regional environment and keeps away from strong regional integration process.

By and large, Indian manufacturing industry has remained on the periphery of globalization. India has not taken the advantage of international segmentation of production process which has reshaped the industrial specialization of many countries in Asia. India's foreign trade in manufacturing underwent limited structural changes over the last twenty years or so but it is still based on traditional complementarities. Exports are still heavily dominated by labour-intensive products, characterized by a slow growing international demand and protected markets.

The technology content of India's trade is low by international standards, but it has built up a strength in technology niches. India's high-tech manufactured exports are concentrated in chemical and pharmaceutical industries. The export competitiveness in pharmaceutical products is based on strong domestic capacities to assimilate and replicate foreign technology and on its endowment in skilled labour. Besides, India has made a breakthrough in international trade in IT and software services and is now competing with developed countries. In contrast with Asian latecomers, India's high-tech exports rely mainly on domestic technical capabilities and on local human capital, and not on assembly of high-tech components into final products.

Annexure I(A)
Composition of India's Exports 1950-51, 1960-61 and 1970-71 (share in %)

<i>Product categories</i>	<i>1950-51</i>	<i>1960-61</i>	<i>1970-71</i>
1 Agricultural and allied products	24.61	44.28	31.71
1.1 Coffee	-	1.10	1.62
1.2 Tea and mate	13.38	19.32	9.65
1.3 Edible oil and oil cake	4.23	2.15	3.59
1.4 Tobacco	-	2.52	2.12
1.5 Cashew kernels	1.43	2.97	3.74
1.6 Spices	3.42	2.67	2.51
1.7 Sugar and molasses	-	4.46	1.92
1.8 Raw cotton	0.83	1.86	0.94
1.9 Rice	-	-	0.34
1.10 Fish and fish preparations	-	0.74	1.92
1.11 Meat and meat preparations	-	0.15	0.20
1.12 Fruits, vegetables and pluses (excluding cashew kernels and processed food and juices)	-	0.97	0.79
1.13 Miscellaneous processed foods (including processed fruits and juices)	-	0.15	0.30
2 Ores and minerals	3.59*	8.81	10.68
2.2 Iron ore	-	2.67	7.63
3 Manufactured goods	46.05	45.32	50.27
3.1 Textile fabrics and manufactures (excluding carpets handmade)	19.72	11.37	9.45
3.1.1 Cotton yarn, fabrics, made up etc,	-	10.10	9.26
3.1.2 Readymade garments of all textile materials	-	-	1.92
3.2 Coir yarn and manufactures	-	0.96	0.84
3.3 Jute manufactures	18.15	21.03	12.41
3.4 Leather and leather products	5.85	4.38	5.22
3.5 Handicrafts (including carpets handmade)	-	1.71	4.73
3.5.1 Gems and jewellery	-	-	2.90
3.6 Chemicals and allied products	-	1.1	1.92
3.7 Machinery, transport and metal manufactures (including iron and steel)	-	3.42	12.85
4. Mineral fuels and lubricants (including coal)	-	1.1	0.84

Note: * For 1950-51 includes coal, mica and manganese ore. From 1960-61 onwards coal is excluded.

Source: RBI Handbook 1952-53, 1926-63 and 1972-73.

Annexure I(B)
Composition of India's Exports 1980-81 to 2008-09 (share in %)

	<i>Product Categories</i>	<i>1980-81</i>	<i>1990-91</i>	<i>2000-01</i>	<i>2007-08</i>	<i>2008-09</i>
I	Agriculture and allied products of which	30.65	19.41	14.04	9.93	9.13
1.1	Coffee	3.19	0.78	0.58	0.29	0.27
1.2	Tea and mate	6.34	3.29	0.97	0.31	0.32
1.3	Oil cake	1.86	1.87	1.01	1.24	1.21
1.4	Tobacco	2.10	0.81	0.43	0.29	0.41
1.5	Cashew kernel	2.09	1.37	0.93	0.34	0.35
1.6	Spices	0.17	0.73	0.79	0.66	0.74
1.7	Sugar and molasses	0.59	0.12	0.25	0.86	0.53
1.8	Raw cotton	2.46	2.60	0.11	1.35	0.34
1.9	Rice	3.33	1.42	1.45	1.79	1.31
1.10	Fish and preparations	3.23	2.95	3.13	1.05	0.83
1.11	Meat and preparations	0.82	0.43	0.72	0.57	0.63
1.12	Fruits, vegetables, pulses	1.19	0.66	0.79	0.62	0.66
1.13	Processed foods and juices etc,	0.53	0.65	0.54	0.33	0.37
II	Ore and minerals (excl. Coal)	6.16	4.60	2.03	5.55	4.17
2.2	Iron ore	4.53	3.22	0.80	3.56	2.55
III	Manufactured goods of which	55.83	72.92	78.95	64.13	66.44
3.1	Textile fabrics and munf.	13.89	20.98	-	-	-
3.1.1	Cotton yarn, fabrics, made-up	6.08	6.45	7.87	2.85	2.22
3.1.2	Readymade garments	8.20	12.32	12.52	5.94	5.90
3.2	Coir yarn and mnuf.	0.26	0.15	0.11	0.10	0.08
3.3	Jute munf.	4.91	0.92	0.46	0.20	0.16
3.4	Leather and leather munf.	5.81	7.99	4.38	2.08	1.87
3.5	Handicrafts (incl. handmade carpets)	14.19	18.94	2.50*	0.88	0.57
3.5.1	Gems and jewellery	9.22	16.12	16.57	12.06	15.09
3.6	Chemicals and allied products	3.47	6.48	11.23	10.65	10.06
3.7	Machinery, transport, metal manf. (incl. Iron and steel)	12.31	11.89	15.56	22.82	25.45
4	Mineral fuels and lubricants (incl. Coal)	0.41	2.91	4.33	17.80	14.94

Annexure II(A)
Composition of India's Imports 1950-51, 1960-61 and 1970-71 (share in %)

<i>Product categories</i>	<i>1950-51</i>	<i>1960-61</i>	<i>1970-71</i>
1. Food and live animals (excluding raw cashew)	15.48*	19.08	14.85
1.1 Cereals and cereal preparations	12.96**	16.15	13.04
2. Raw materials and intermediate munf.	36.57***	46.96	54.39
2.1 Cashew nuts (unprocessed)	-	-	1.80
2.2 Crude rubber (including synthetic and reclaimed)	-	0.98	0.23
2.3 Fibres	23.85	9.01	7.77
2.3.1 Synthetic regenerated fibres (manmade fibres)	-	-	0.56
2.3.2 Raw wool	0.90	0.08	0.93
2.3.3 Raw cotton	16.17	7.31	6.06
2.3.4 Raw jute	4.42	0.72	-
2.4 Petroleum, oil and lubricants	6.65	6.16	8.33
2.5 Animal and vegetable oils	-	0.42	2.36
2.5.1 Edible oil	-	0.34	1.43
2.6 Fertilizers and chemical products	3.53	7.86	13.23
2.6.1 Fertilizers and fertilizer munf.	-	1.55	5.23
2.6.2 Chemical elements and compounds	1.48	3.48	4.16
2.6.3 Dying, tanning and colouring materials	2.05	0.08	0.56
2.6.4 Medical and pharmaceutical products	1.60	0.89	1.48
2.6.5 Plastic materials, regenerated cellulose and artificial resins	-	0.81	0.51
2.7 Pulp and waste paper	-	0.64	0.74
2.8 Paper, paper board and munf.	-	1.06	1.53
2.9 Non-metallic mineral munf.	-	0.55	2.04
2.9.1 Pearls, precious and semi-precious stones, worked & unworked	-	0.08	1.53
2.10 Iron and steel	-	10.96	8.97
2.11 Non-ferrous metals	-	4.21	7.31
3. Capital goods	23.10	31.75	24.70
3.1 Manufactures of metal	2.30	2.04	0.71
3.2 Non-electric machinery, machine tools etc	14.04	18.10	15.77
3.3 Electric machinery, apparatus etc,	1.52	5.10	4.30
3.4 Transport equipment	-	6.92	4.07

Notes: * include fruits and vegetables and spices.

** includes grains, pulses and flour.

*** includes textile manufactures, drugs and medicines and raw hides and skins.

Annexure II(B)
Composition of India's Imports (share in%)

	<i>Product categories</i>	1980-81	1990-91	2000-01	2007-08	2008-09
I	Food and live animals	3.03	-	-	-	-
1.1	Cereals and preparations	0.80	0.42	0.04	0.28	0.02
II	Raw materials and intermediate manufactures	77.77	59.25	53.37	54.56	57.54
2.1	Cashew nut (unprocessed)	0.07	0.31	0.42	0.17	0.19
2.2	Crude rubber	0.25	0.52	0.30	0.31	0.28
2.3.1	Synthetic and regenerated fibres	0.77	0.13	0.12	0.05	0.05
2.3.2	Raw wool	0.35	0.42	0.20	0.11	0.07
2.3.3	Raw cotton	-	-	0.51	0.09	0.12
2.3.4	Raw jute	0.01	0.05	0.04	0.02	-
2.4	Petroleum, oil and lubricants	41.94	25.04	30.97	31.68	30.07
2.5.1	Edible oils	5.40	0.76	2.64	1.02	1.13
2.6.1	Fertilizers and fertilizer munf.	6.52	4.09	1.31	2.01	4.27
2.6.2	Chemical elements, compounds	2.85	5.30	0.67	0.65	0.69
2.6.3	Dyeing, tanning, colouring met.	0.16	0.39	0.38	0.30	0.27
2.6.4	Medicals, pharmaceutical pro.	0.67	1.08	0.75	0.67	0.62
2.6.5	Plastic materials	0.9	2.53	1.10	1.47	1.30
2.7	Paper and waste paper	0.14	1.06	0.56	0.31	0.26
2.8	Paper, paperboard, munf.	1.49	1.06	0.87	0.57	0.58
2.9	Non-metallic munf.	4.42	-	0.34	-	-
2.9.1	Pearls, precious and semi-precious stones	3.32	8.65	9.57	3.17	5.45
2.10	Iron and steel	6.79	4.89	1.55	3.46	3.12
2.11	Non-ferrous metals	3.81	2.55	1.07	8.50	9.07
III	Capital goods	15.22	24.23	10.95	19.03	15.50
3.1	Manufacture of metals	0.71	0.70	0.77	1.06	1.07
3.2	Non-electrical machinery, appliances, tools	8.68	9.82	7.33	8.77	7.82
3.3	Electrical machinery, apparatus	2.07	3.94	0.96	1.20	1.21
3.4	Transport equipment	3.76	3.87	1.89	8.0	4.35

Annexure III
Direction of India's Exports 1960-61 to 2007-08 (Share in%)

	1960-61	1970-71	1980-81	1990-91	2000-01	2006-07	2007-08
OECD	66.1	40.1	46.6	53.5	52.7	44.0	41.3
EU	36.2	18.4	21.6	27.5	22.7	21.3	21.2
U.K	26.9	11.1	5.9	6.5	5.2	4.4	4.1
Germany	3.1	2.1	5.7	7.8	4.3	3.2	3.1
France	1.4	1.2	2.2	2.4	2.3	1.7	1.6
Belgium	0.8	1.3	2.2	3.9	3.3	2.8	2.4
Netherlands	1.3	0.91	2.3	2.0	2.0	2.1	3.2
Italy						2.9	2.6
Sweden							1.6
U.S	16.0	13.5	11.1	14.7	20.9	14.9	12.7
Canada	2.7	1.8	0.9	0.9	1.5	0.9	0.8
Australia	3.5	1.6	1.4	1.0	0.9	0.2	0.7
Japan	5.5	13.3	8.9	9.3	4.0	2.2	2.4
Russia	4.5	13.7	18.3	16.1	2.0	0.7	0.6
Iran	0.8	1.7	1.8	0.4	0.5	1.2	1.2
Kuwait					0.4	0.5	0.4
Saudi Arabia					1.8	2.0	2.3
Singapore						4.8	4.5
Malaysia							2.4
Indonesia							1.9
China						6.6	6.6
R.Korea						2.0	1.8
UAE						9.5	9.6
Hong Kong						3.7	3.9

Source: Economic Survey, Government of India, Various years.

Annexure IV
Direction of India's Imports 1960-61 to 2007-08

	1960-61	1970-71	1980-81	1990-91	2000-01	2006-07	2007-08
OECD	78.0	63.8	45.7	54.0	39.9	40.0	38.5
EU	37.1	19.6	21.0	29.4	39.9	40.0	38.5
UK	19.4	7.8	5.8	6.7	6.3	2.2	2.0
Germany	10.9	6.6	5.5	8.0	3.5	6.7	3.9
France	1.9	1.3	2.2	3.0	1.3	2.2	2.5
Belgium	1.4	0.7	2.4	6.3	5.7	2.2	1.7
Netherlands	0.9	1.2	1.7	1.8	0.9	0.6	0.8
Italy						1.4	1.6
Sweden						1.0	0.8
Switzerland						4.8	3.9
U.S	29.2	27.7	12.9	12.1	6.0	6.6	8.4
Canada	1.8	7.2	2.6	1.3	0.8	0.8	0.8
Australia	1.6	2.2	1.4	3.4	2.1	3.6	3.1
Japan	5.4	5.1	6.0	7.5	3.6	2.4	2.5
Russia	1.4	6.5	8.1	5.9	1.0	1.1	1.0
Iran	2.6	5.6	10.7	2.4	0.4	0.4	4.3
Kuwait			2.7	0.8	0.2	3.1	3.1
Soudi Arabia	1.3	1.5	4.3	6.7	1.2	7.0	5.4
Nigeria						3.7	3.0
South Africa						1.3	1.4
Singapore						2.9	3.2
Malaysia						2.8	2.4
Indonesia						2.2	1.9
China						9.1	10.8
UAE						4.5	7.7

Source: Economic Survey, Government of India, Various years.

Annexure V(A)
Export Factor Intensity - GroupWise
Share of different commodities in total exports (percentage)

	1980	1981	1987	1988	1996	1997	2000	2001	2002	2003	2004	2005	2006	2007
All Food Product	7.15	8.34	6.14	5.32	6.35	6.25	0.91	5.1	4.84	3.39	2.79	2.71	2.43	2.3
Agricultural Raw Materials	22.23	23.64	15.25	12.79	15.16	13.19	4.91	9.3	8.35	7.64	6.42	5.75	5.6	5.6
Minerals, ores and Metals	8.76	6.98	5.33	6.63	3.87	3.22	2.19	3.15	4.22	4.42	7.54	7.6	8.98	8.74
Fuels	0.41	0.41	4.44	2.71	1.74	1.16	4.57	5.91	5.97	6.62	10.03	13.42	17.61	19.88
<i>Labour- and resource-intensive manufactures</i>	39.51	35.49	49.96	51.17	44.44	48.08	55.86	50.63	49.4	45.01	38.69	37.38	31.21	31.8
<i>Low-skill and technology-intensive manufactures</i>	3.51	3.29	1.48	1.89	5.36	5.47	5.51	6.3	8.12	9.12	10.72	9.01	9.4	8.71
<i>Medium-skill and technology-intensive manufactures</i>	4.88	5.35	3.42	3.54	3.22	2.72	6.24	4.21	4.63	6.49	7.03	7.42	7.89	6.46
<i>High-skill and technology-intensive manufactures</i>	4	4.19	6.59	8.36	11.85	12.35	12.15	9.7	8.93	10.08	9.14	9.96	10.1	9.38
<i>Other manufactures</i>	9.55	12.31	7.38	7.58	8.01	7.55	7.65	5.69	5.54	7.23	7.63	6.76	6.79	7.08

Annexure V(B)
Export Factor Intensity-Commodity wise

	1980	1988	1996	2000	2001	2002	2003	2004	2005	2006	2007
All Food Product	7.2	5.4	6.4	0.9	5.2	4.9	3.4	2.8	2.7	2.4	2.3
Agricultural Raw Materials	22.5	12.9	15.3	5.0	9.4	8.4	7.7	6.5	5.8	5.6	5.6
Minerals, ores and Metals	8.9	6.7	3.9	2.2	3.2	4.3	4.5	7.6	7.6	9.0	8.7
Fuels	0.4	2.7	1.8	4.7	6.0	6.0	6.7	10.1	13.5	17.6	19.9
Textiles	3.4	2.0	8.1	9.8	4.5	4.4	4.2	3.0	3.5	3.8	4.0
Clothing	21.2	20.0	16.2	26.3	24.0	22.7	20.5	16.3	16.4	13.6	12.5
Foot Wear, Leather and Travel Goods	6.8	6.8	4.4	3.9	4.1	3.5	3.4	2.9	2.6	2.4	2.5
Non-metallic mineral manufactures	8.5	22.7	16.2	16.8	18.5	19.3	17.4	16.9	15.0	11.4	12.8
Iron and Steel	1.0	0.7	3.3	2.3	2.9	4.7	5.0	7.0	5.4	6.0	6.5
Fabricated metal products	1.2	0.6	1.2	2.6	2.4	2.2	2.4	2.1	1.9	1.8	1.8
Simple transport equipment	1.3	0.6	0.9	0.7	1.1	1.3	1.8	1.8	1.7	1.6	0.4
Ships and boats	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.4	1.1	1.0	1.1
Rubber and plastic products	0.3	0.4	0.0	1.1	1.6	1.8	1.8	2.1	1.5	1.7	1.5
Non-electrical machinery	0.9	0.6	0.0	1.0	0.4	0.4	0.7	0.9	0.9	1.2	1.3
Electrical machinery excluding electronics	1.2	1.2	0.4	0.7	0.0	0.0	0.8	0.7	1.0	1.2	1.3
Road motor vehicles	1.4	0.7	1.9	1.8	1.3	1.5	2.1	2.2	2.6	2.4	2.4
Industrial chemicals	0.7	2.1	4.5	3.5	3.1	3.4	4.1	3.9	4.4	4.3	4.3
Pharmaceuticals	1.6	2.4	4.6	4.5	4.6	5.0	4.7	4.1	4.1	4.1	4.5
Ships, boats(including hovercraft) and floating structures	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.4	1.1	1.0	1.1
Electronics	0.6	1.0	0.0	1.2	0.7	0.7	0.6	0.5	0.5	0.5	0.0
Computers and office machines (less parts thereof)	0.3	2.2	2.1	2.4	1.4	0.0	0.3	0.3	0.4	0.6	0.6
Parts and components	0.9	0.8	0.8	0.7	0.0	0.0	0.5	0.4	0.5	0.6	0.0
Other Manufactures	9.7	7.6	8.1	7.8	5.8	5.6	7.3	7.8	8.0	8.2	7.1

Annexure VI(A)
Import factor Intensity-Group-wise

	1980	1981	1987	1988	1996	1997	2000	2001	2002	2003	2004	2005	2006	2007
All Food Product	9.7	8.7	8.9	8.3	4.8	5.4	8.1	10.5	10.6	10.6	7.5	5.6	7.0	17.3
Agricultural raw materials	0.0	0.3	1.4	2.0	1.2	1.5	3.3	4.3	1.4	2.0	1.8	1.4	1.2	3.3
<i>Minerals, ores and metals</i>	6.3	6.3	7.2	7.7	8.6	13.3	5.6	6.9	4.4	4.3	5.9	6.5	10.7	25.8
Fuels	50.4	48.7	21.7	18.9	33.5	27.3	13.4	12.0	12.6	9.6	13.4	15.9	15.1	44.9
Labour and resource-intensive manufactures	9.0	9.2	7.8	6.6	14.9	17.3	5.6	13.1	13.6	5.6	24.8	5.8	24.2	25.1
Low-skill and technology-intensive manufactures	6.5	8.5	6.9	7.3	4.4	4.2	3.7	3.8	3.1	7.1	7.2	9.4	10.1	8.6
Medium-skill and technology-intensive manufacture	7.2	8.6	12.1	9.5	9.9	9.4	7.4	4.1	5.4	5.7	6.0	7.2	7.9	13.2
High-skill and technology-intensive manufactures	12.7	11.9	28.7	30.7	27.0	27.7	34.7	34.9	37.6	38.5	37.0	38.1	37.3	44.7

Annexure VI (B)
Import Factor Intensity-Commodity-wise

	1980	1988	1996	2000	2001	2002	2003	2004	2005	2006	2007
All Food Product	9.7	8.3	4.8	8.1	10.5	10.6	10.6	7.5	5.6	7	7.3
Cotton	0	0.4	0	1.2	1.9	0	0	0	0	0	0
Rubber	0	0.3	0.4	0	0	0	0	0	0	0	0
Cork and wood		1.3	0.7	2.1	2.3	1.4	2	1.8	1.4	1.2	1.4
Minerals, ores and metals	1.9	4.5	2.5	1.2	3.6	2.6	2.4	3.8	4.5	8.9	7.8
Metalliferous ores and metal scrap	0	0.4	2	0	0	0	0	0	0	0	0
Non-ferrous metals	4.4	2.8	4.1	4.4	3.3	1.8	1.9	2.2	2	1.8	3
Fuels	50.4	18.9	33.5	13.4	12	12.6	9.6	13.4	15.9	15.1	18.9
Textiles	1.9	1.4	1.1	0	1.2	1.2	0	0	0	0	0
Cork,wood and paper product	0	1	0.7	1.3	1.3	1.3	1.2	1	0.9	0.9	0
Non-metallic mineral manufactures	5.3	13.1	8.9	22.4	20.9	22.6	20.9	20.2	14.9	10	0
	7.2	4.2	13.2	4.3	10.7	11.2	4.4	23.8	4.9	23.4	25.1
Iron and Steel	6.4	6.8	3.6	2.2	1.3	1	3.1	3.5	5	6.5	0
ships and boats	0.1	0.5	0.8	1.6	2.6	2.1	4.1	3.8	4.4	3.6	3.6
Non-electical machinery	2.1	1.9	0.6	2.4	0	0	0	0	0	0	0
Electical machinery,excluding electronics	5.1	7.6	9.3	5	4.1	5.4	5.7	6	7.2	7.9	13.2
Industrial chemicals	10.5	14	13.3	15.8	15.5	13.5	14	13.7	14.1	13.9	15.4
Electronics	0.6	3.4	1.6	4.1	4.2	4.3	4.1	3.4	3.1	3.2	3.5
Communications equipment(less parts thereof) and household equipment	0.3	1.7	0.7	3	3.9	7.6	9	8.7	9.6	9.4	11.2
Computers and office machines (less parts thereof)	0.8	4	4.5	8.7	7.9	8	8.1	7.9	8.1	7.6	8
Parts and components	0.4	7.6	6.9	3.1	3.4	4.2	3.4	3.3	3.2	3.2	6.7

Annexure VII
GDP, Export and Import Growth Rates, 1951-52 to 2008-09 (in %)

<i>Period</i>	<i>GDP</i>	<i>Export</i>	<i>Import</i>	<i>Period</i>	<i>GDP</i>	<i>Export</i>	<i>Import</i>
1950-51	2.5	17.4	45.5	1980-81	7.2	6.8	40.2
1952-53	2.9	-18.7	-20.5	1981-82	5.5	2.6	-4.4
1953-54	6.1	-8.1	-13.1	1982-83	2.6	4.6	-2.6
1954-55	4.2	10.7	13.8	1983-84	7.8	3.8	3.5
1955-56	2.7	3.4	11.3	1984-85	3.8	4.5	-5.9
1956-57	5.7	-1.3	8.0	1985-86	4.2	-9.9	11.5
1957-58	-1.3	-7.0	23.4	1986-87	4.3	9.4	-2.1
1958-59	7.5	4.1	-12.0	1987-88	3.3	24.1	9.1
1959-60	2.0	10.2	6.0	1988-89	9.8	15.6	13.6
1960-61	7.0	0.2	16.7	1989-90	6.1	18.9	8.8
1961-62	3.0	2.6	-3.1	1990-91	5.0	9.2	13.5
1962-63	2.0	4.1	4.0	1991-92	1.4	-1.5	-19.4
1963-64	5.1	15.4	7.8	1992-93	5.4	3.8	12.2
1964-65	7.5	2.5	10.0	1993-94	5.9	20.0	6.5
1965-66	-3.7	-0.5	4.7	1994-95	6.5	18.4	22.9
1966-67	1.0	-3.8	-0.7	1995-96	7.3	20.8	28.0
1967-68	8.0	-2.6	-9.1	1996-97	8.1	5.3	6.7
1968-69	2.7	12.7	-5.4	1997-98	4.5	4.6	6.0
1969-70	6.5	4.4	-16.9	1998-99	6.7	-5.1	2.2
1970-71	5.0	8.8	3.5	1999-2000	6.4	10.8	17.2
1971-72	1.0	6.0	13.0	2000-01	4.0	21.0	1.7
1972-73	-0.3	18.4	-1.1	2001-02	6.0	-1.6	1.7
1973-74	4.7	25.8	55.7	2002-03	4.0	20.3	19.4
1974-75	1.3	30.1	50.7	2003-04	8.5	21.1	27.3
1975-76	9.1	11.8	7.4	2004-05	7.5	30.8	42.7
1976-77	1.3	23.3	-6.7	2005-06	9.5	23.4	33.8
1977-78	7.6	9.8	23.9	2006-07	9.7	22.6	24.5
1978-79	5.5	10.5	18.0	2007-08	9.6	29.0	35.5
1979-80	-5.0	13.9	36.4	2008-09	6.8	13.6	20.7

Source: Economic Survey, 2009-10, Government of India.

Annexure VIII
Trends in Export, Import, Trade Balance and Ratio of Export to Import

	<i>Exports</i>	<i>Imports</i>	<i>Trade Balance</i>	<i>Ratio of Export to Import</i>
1950-51	1269	1273	-4	0.9969
1951-52	1490	1852	-362	0.8045
1952-53	1212	1472	-260	0.8234
1953-54	1114	1279	-166	0.8710
1954-55	1233	1456	-223	0.8468
1955-56	1275	1620	-345	0.7870
1956-57	1259	1750	-491	0.7194
1957-58	1171	2160	-989	0.5421
1958-59	1219	1901	-682	0.6412
1959-60	1343	2016	-674	0.6662
1960-61	1346	2353	-1007	0.5720
1961-62	1381	2281	-900	0.6054
1962-63	1437	2372	-935	0.6058
1963-64	1659	2558	-899	0.6486
1964-65	1701	2813	-1111	0.6047
1965-66	1693	2944	-1251	0.5751
1966-67	1628	2923	-1295	0.5570
1967-68	1586	2656	-1071	0.5971
1968-69	1788	2513	-726	0.7115
1969-70	1866	2089	-223	0.8933
1970-71	2031	2162	-131	0.9394
1971-72	2153	2443	-290	0.8813
1972-73	2550	2415	134	1.0559
1973-74	3209	3759	-549	0.8537
1974-75	4174	5666	-1492	0.7367
1975-76	4665	6084	-1420	0.7668
1976-77	5753	5677	77	1.0134
1977-78	6316	7031	-715	0.8983
1978-79	6978	8300	-1322	0.8407
1979-80	7947	11321	-3374	0.7020
1980-81	8486	15869	-7383	0.5348
1981-82	8704	15174	-6470	0.5736
1982-83	9107	14787	-5679	0.6159
1983-84	9449	15311	-5861	0.6171
1984-85	9878	14412	-4534	0.6854
1985-86	8904	16067	-7162	0.5542
1986-87	9745	15727	-5982	0.6196
1987-88	12089	17156	-5067	0.7047
1988-89	13970	19497	-5526	0.7165
1989-90	16612	21219	-4607	0.7829
1990-91	18143	24075	-5932	0.7536
1991-92	17865	19411	-1546	0.9204
1992-93	18537	21882	-3345	0.8471
1993-94	22238	23306	-1068	0.9542
1994-95	26330	28654	-2324	0.9189
1995-96	31797	36678	-4881	0.8669
1996-97	33470	39133	-5663	0.8553
1997-98	35006	41484	-6478	0.8438
1998-99	33218	42389	-9171	0.7836

	<i>Exports</i>	<i>Imports</i>	<i>Trade Balance</i>	<i>Ratio of Export to Import</i>
1999-2000	36822	49671	-12849	0.7413
2000-01	44560	50536	-5976	0.8817
2001-02	43827	51413	-7586	0.8524
2002-03	52719	61412	-8693	0.8584
2003-04	63843	78150	-14307	0.8169
2004-05	83535	111516	-27982	0.7491
2005-06	103092	149167	-46076	0.6911
2006-07	126361	185749	-59388	0.6803
2007-08	162904	251439	-88535	0.6479
2008-09	185295	303696	-118401	0.6101

Source: Director General of Commercial Intelligence & Statistics a Growth rate on provisional over revised basis and based on Department of Commerce methodology.

Note: (a) For the years 1956-57, 1957-58, 1958-59 and 1959-60, the data are as per the Fourteenth Report of the Estimates Committee (1971-72) of the erstwhile Ministry of Foreign Trade.

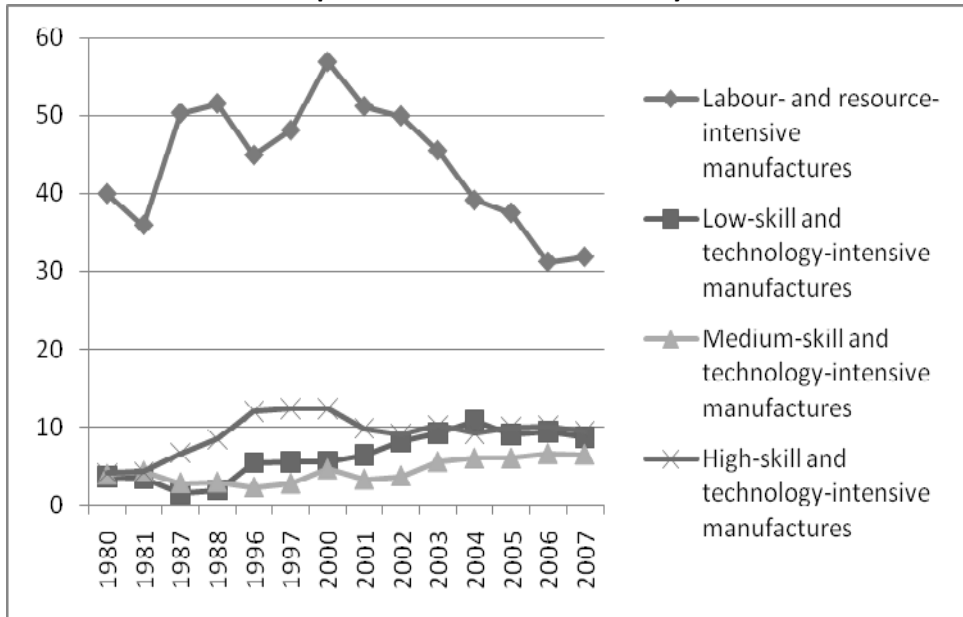
(b) Export, Import and Trade Balance are in US \$ million.

Annexure IX Manufacturing Value Added (MVA), Industry, and Exports (in %)

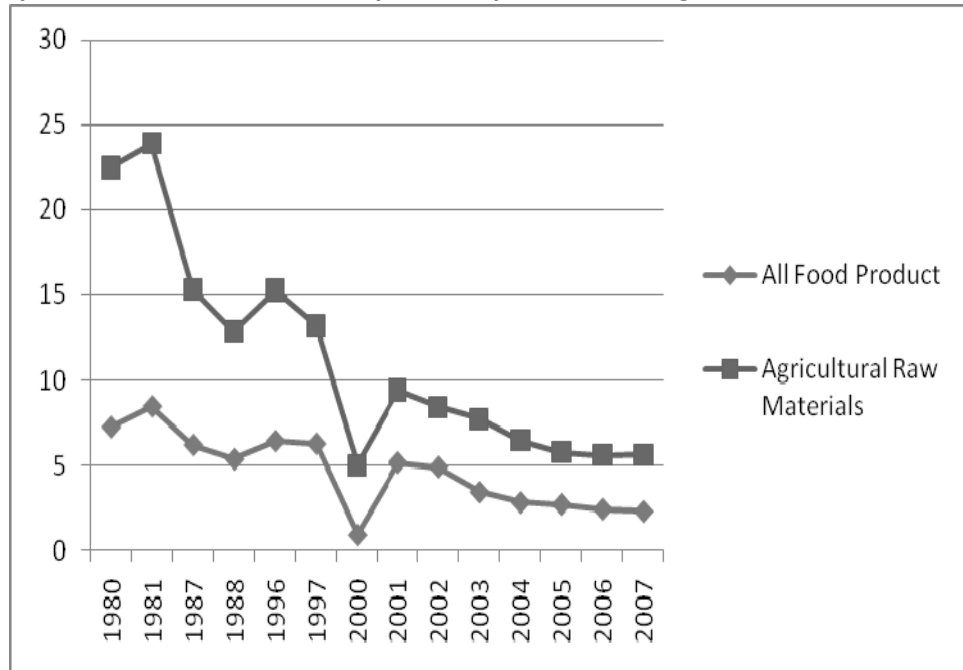
<i>Years</i>	<i>MVA/Industry</i>	<i>MVA/GDP</i>	<i>Exports/GDP</i>	<i>Munf. exports/Total Exports</i>
1970-71	81.73	12.62	0.32	53.33
1975-76	79.83	12.81	0.73	51.22
1980-81	79.23	13.82	1.05	59.65
1985-86	77.83	14.42	1.34	58.67
1990-91	75.50	14.95	3.00	71.62
1995-96	76.33	16.21	7.61	74.69
2000-01	76.37	15.26	10.92	77.05
2005-06	76.55	15.28	17.45	70.39
2006-07	77.45	16.01	19.93	67.20
2007-08	78.15	16.17	21.31	62.07
2008-09	78.25	15.64	25.65	66.02
2009-10	78.57	16.13	23.99	

Source: Handbook of statistics on Indian Economy, RBI, 2008-09 & 2009-10.

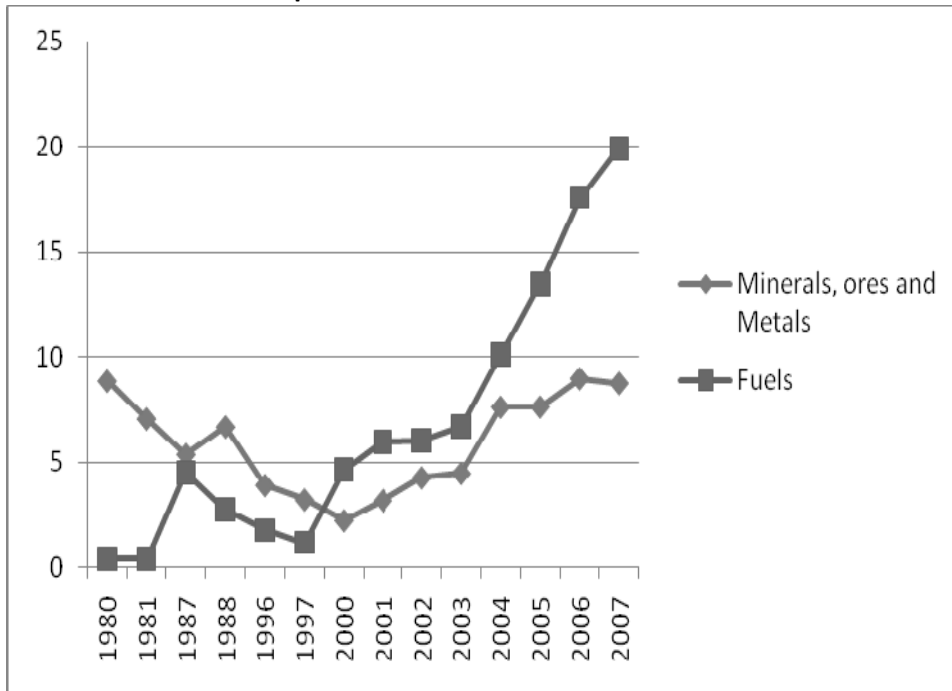
Graph 1
Export Trends in Factor Intensity



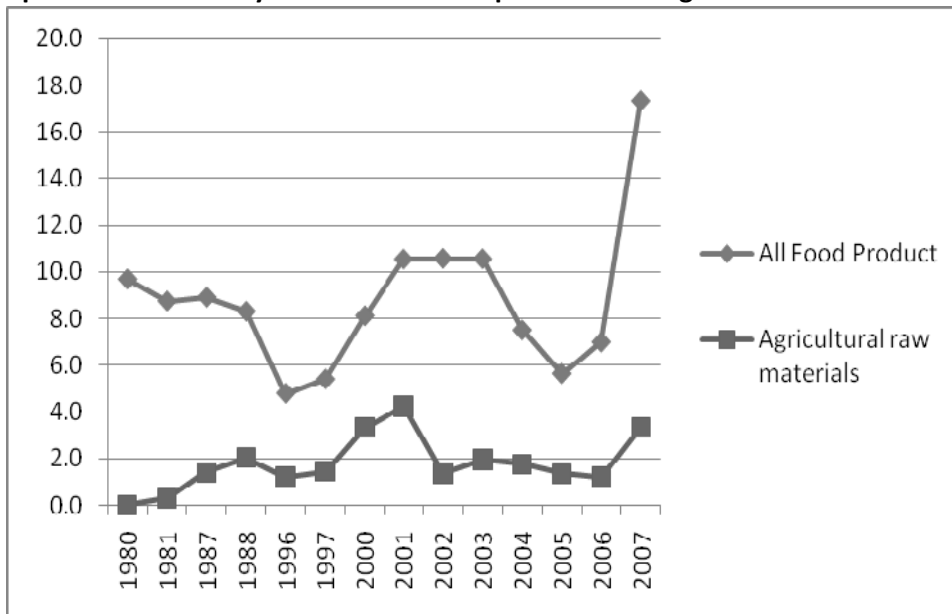
Graph 2
Export Trends in Factor intensity of Food products and Agricultural Raw materials



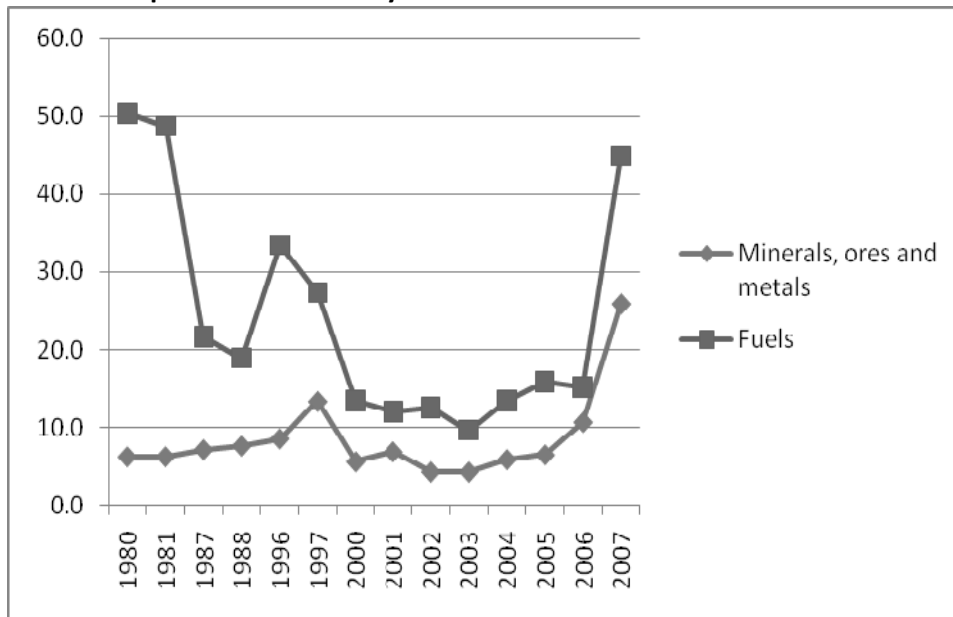
Graph 3
Trends in Exports of Mineral Ores and Metals and Fuels



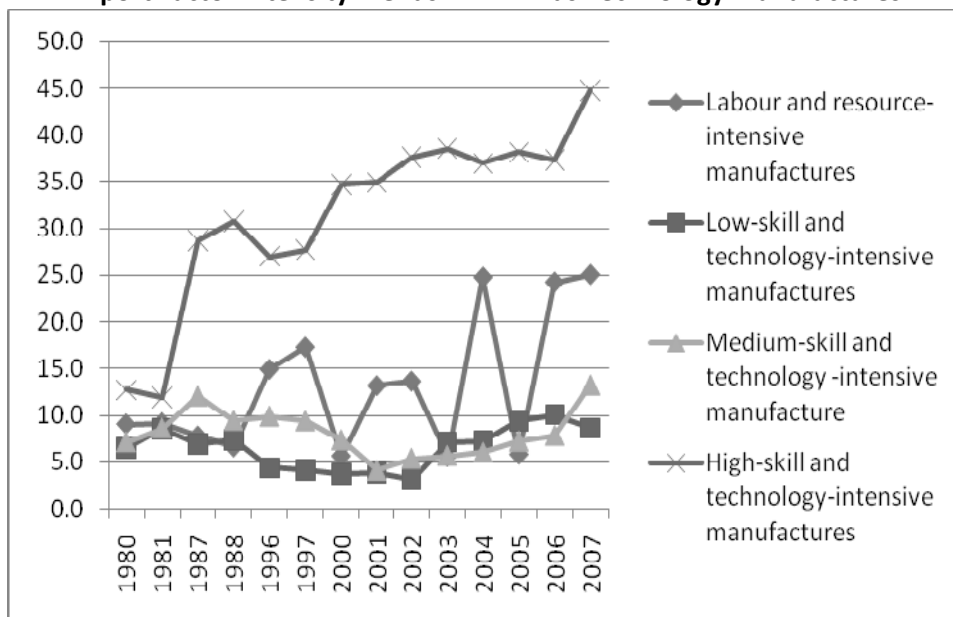
Graph 4
Import factor Intensity Trends in All food products and Agriculture Raw materials



Graph 5
Import Factor Intensity in Mineral ores and Metals and fuels

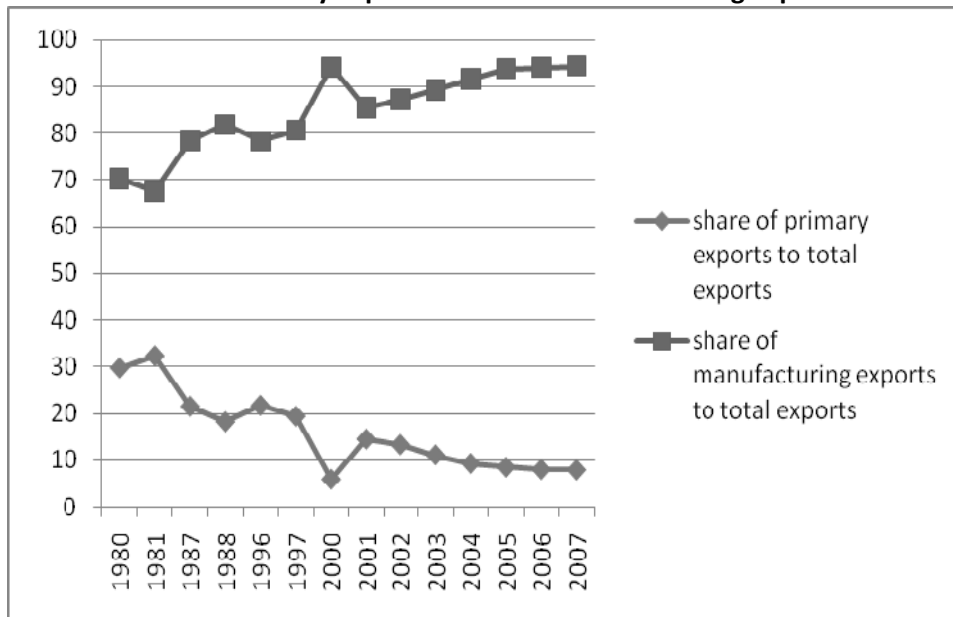


Graph 6
Import Factor Intensity Trends in All kinds Technology Manufactures



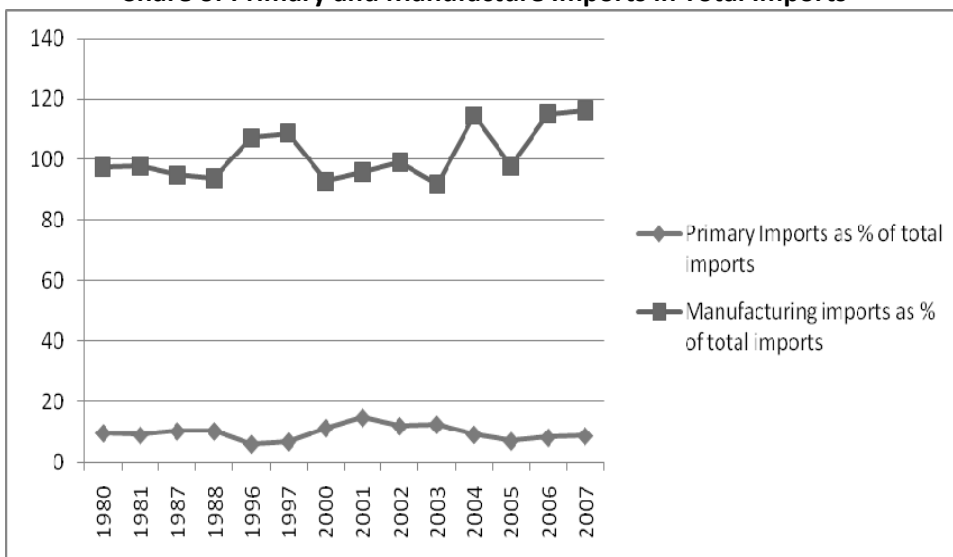
	1980	1988	1996	2000	2001	2002	2003	2004	2005	2006	2007
share of primary exports to total exports	29.7	18.2	21.7	5.9	14.5	13.3	11.1	9.3	8.5	8.0	7.9
share of manufacturing exports to total exports	70.3	81.8	78.3	94.1	85.5	87.2	89.3	91.6	93.7	94.0	94.3

Graph 7
Share of Primary Exports and Share Manufacturing Exports

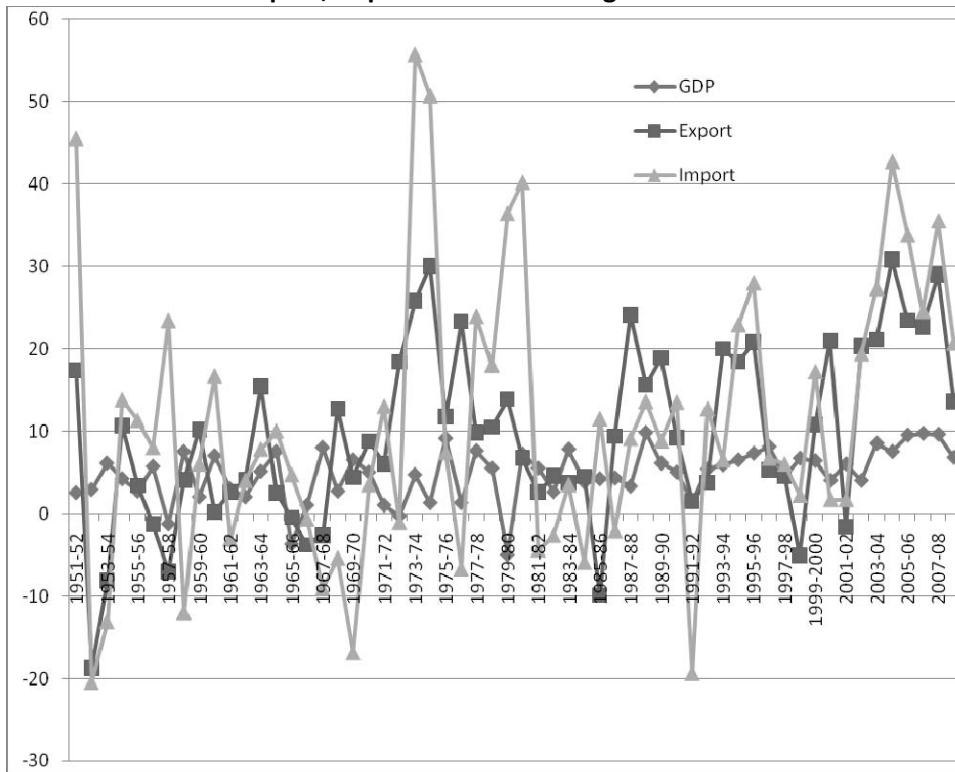


	1980	1988	1996	2000	2001	2002	2003	2004	2005	2006	2007
Primary Imports as % of total imports	9.7	10.3	6.0	11.4	14.8	12.0	12.5	9.2	7.0	8.2	8.7
Manufacturing imports as % of total imports	97.5	93.8	107.2	92.9	95.9	99.2	91.8	114.5	97.9	115.2	116.4

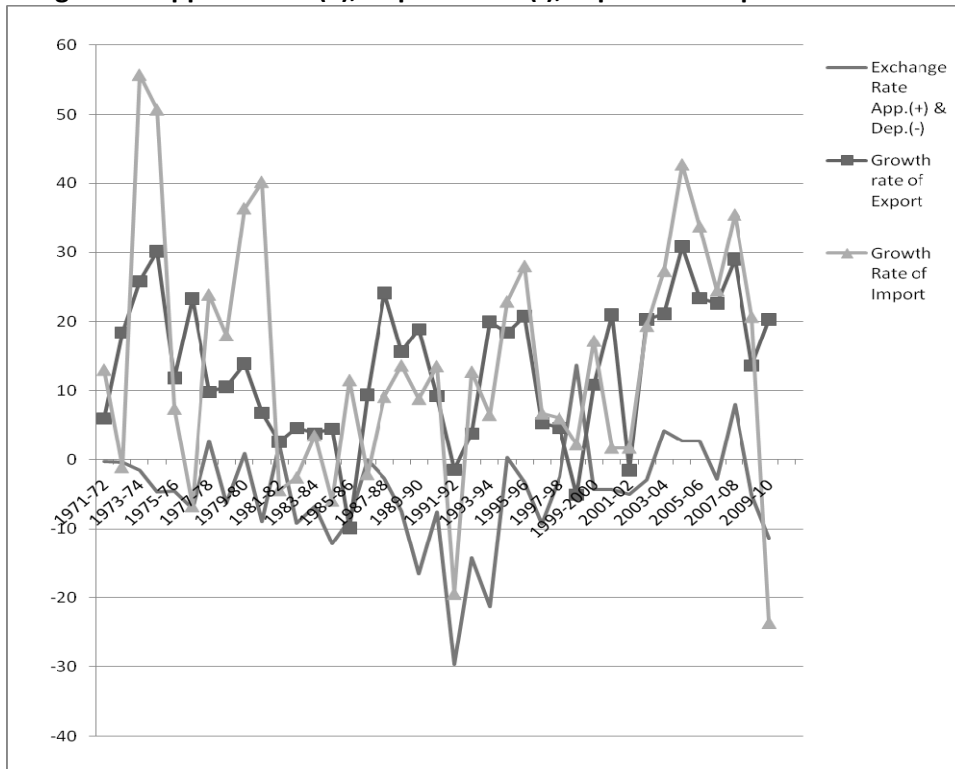
Graph 8
Share of Primary and Manufacture Imports in Total Imports



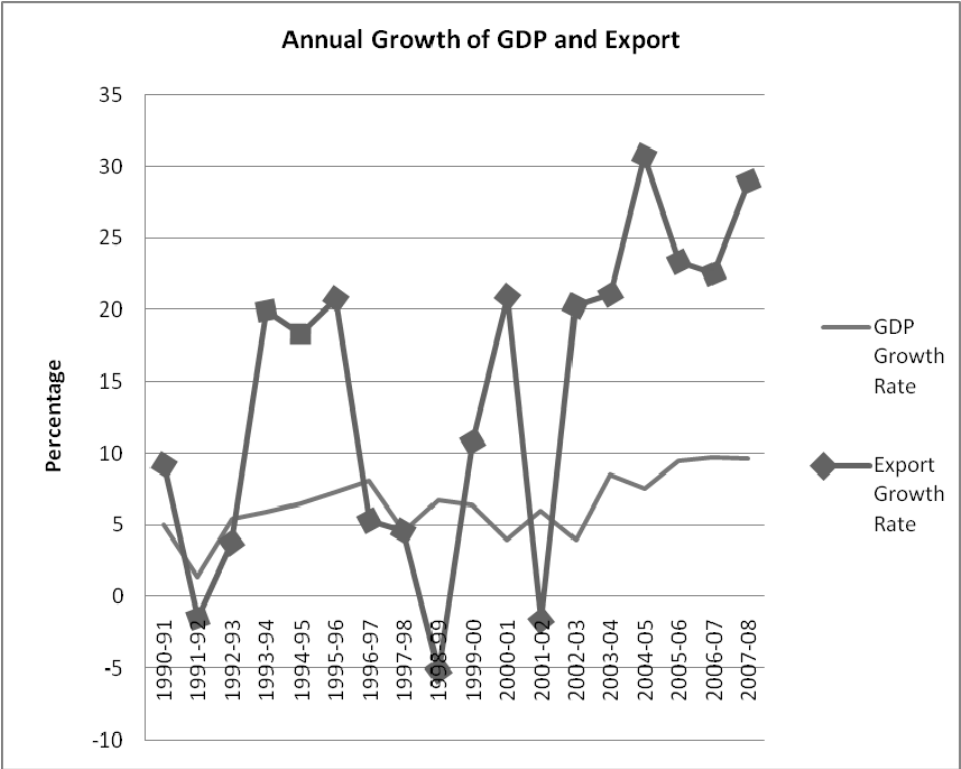
Graph 9
Growth of Export, Import and GDP during 1951-52 to 2008-09



Graph 10
Exchange Rate Appreciation (+), Depreciation (-), Export and Import Growth Rate (%)



Graph 11
GDP and Export Growth Rates



References

- Aksoy, M.A. and F.M. Etori, (1992), Protection and Industrial Structure in India, Policy Research Working Paper Series No. 990, Washington, World Bank.
- Banga, R, (2006), Statistical Overview of India's Trade in Services: in Rupa Chanda (ed.), Trade in Services and India: Prospect and Strategies, p.p. 15-49, Centre for Trade and Development, Wiley-India, New Delhi.
- Bhagwati, J. N. and Padma Desai (1970), "India: Planning for Industrialization", Oxford University Press, Bombay.
- Bhagwati J. (1962) "Indian Balance of Payments Policy and Exchange Auctions", Oxford Economic Papers, February.
- Bhagwati, J. (1964), "On the Under invoicing of Imports", *Bulletin of Oxford University Institute of Economics and Statistics*, Vol. 26, November.
- Bhagwati, J. (1965), 'Why Export Receipts Lag Behind Exports', *Economic Weekly*, Vol: 27, 24 July.
- Bhagwati, J.N. and Srinivasan, T.N. (1975), Foreign Trade Regimes, and Economic Development: India, National Bureau of Economic Research (NBER) New York.
- Bhagwati, Jagdish (1993), Indian Economy: The Shackled Giant, Clarendon Press, 1993.
- Bosworth, B., Collins, S.M. and A. Virmani (2007), Sources of Growth in the Indian Economy, NBER Working Paper, W 12901.
- Brian Copeland and Aditya Mattoo (2008), "The Basic Economics of Services Trade" (ed.) Aditya Mattoo, Robert M. Stern and Gianni Zanini, Handbook of International Trade in Services, Oxford University Press, New York, 2008.
- Chanda, R., (2005a), "Trade in Financial Services: India's Opportunities and Constraints", Working Paper No. 152, ICRIER, New Delhi.
- Chanda, R., (2002), Globalization of Services: India's Opportunities and Constraints, Oxford University Press, New Delhi
- Cohen, B (1964), "The Stagnation of Indian Exports, 1951-1961", *Quarterly Journal of Economics*, November.

- Das, D.K., (2003), Manufacturing Productivity under Varying Trade Regime: India in the 1980s and 1990s, ICRIER, New Delhi, Working Paper 107.
- Desai, Ashok, (2001), "A Decade of Reforms", *Economic and Political Weekly*, Vol; 36, No. 50 December
- Desai, Padma, (1969), "Alternative Measures of Import Substitution", *Oxford Economic Papers*, November.
- Eckaus, R.S. and K Parikh (1968), *Planning for Growth*, Cambridge: MIT Press.
- Eichengreen, B and P. Gupta(2009), Two Waves of Service Growth, NBER Working Paper No: 14968.
- Eichengreen, B and P. Gupta (2010), Services Sector Growth: India's Road to Economic Growth, ICRIER, Working Paper No: 249, New Delhi.
- Garry Pursell, Nalin Kishor, and Kanu Priya Gupta (2007), Manufacturing Protection in India Since Independence, ASARC Working Paper 2007/07.
- Gordon, J. and P Gupta, (2004), Understanding India's Services Revolution, Working Paper No. WP/04/171, International Monetary Fund, Washington.
- Government of India (2008 and 2009), *The Economic Survey*, New Delhi.
- Gupta, P., R. Hasan and U. Kumar, (2008) What Constrains Indian Manufacturing?, ICRIER Working Paper No. 211, New Delhi.
- Hazari, B.R. (1967), "The Import Intensity of Consumption in India", *Indian Economic Review*, October.
- Hazari, R.K. (1966), "Structure of the Corporate Sector", Asia Publishing House, Bombay.
- Joshi, V and I.M.D. Little, (1994), *India: Macroeconomics and Political Economy 1964-1991*, Oxford University Press, New Delhi
- Kalpana Kochhar, Utsav Kumar, Raghuram Rajan, Arvind Subramanian, and Ioannis (2006), "India's Pattern of Development: What Happened, What Follows"?, IMF Working Paper, WP/06/22.
- Krishnamurthy, K and Sastry, D.U. (1968), "Inventories in the Organized Manufacturing Sector or the Indian Economy", Institute of Economic Growth, Delhi.

- Mattoo, A. and Pierre Sauve (2008), "Regionalism in Service Trade" (ed.) A Mattoo, Robert M. Stern and Gianni Zanini: Handbook of International Trade in Services, Oxford University Press, New York.
- Mihir Pandey (2004), Impact of Trade Liberalization in Manufacturing Industry in India in the 1980s and 1990s, ICRIER Working Paper No. 140, New Delhi.
- Nagraj, R. (2003), "Foreign Direct Investment in India in the 1990s: Trends and Issues", *Economic and Political Weekly*, Vol. 38, No. 17, April 26.
- Nayyar, D. (1976), India's Export and Export Policies in 1960's, Cambridge University Press.
- Padma, Desai, (1970), Tariff Protection and Industrialization: A Study of the Indian Tariff Commissions at Work, Hindustan Publishing Corporation, Delhi.
- Panagaria, A. (2004), India's Trade Reform, in (ed.) S. Bery, B. Bosworth and A Panagaria, Indian Policy Forum, Vol. 1, 1-57.
- Panchmukhi, V.R. (1979), Trade Policies in India; A Quantitative Analysis, Concept Publishing, New Delhi.
- Raj, K.N., (1966), Food, Fertilizer and Foreign Aid, *Mainstream*, 30, April.
- Rakshit, M., (1994): Issues in Structural Adjustment of Indian Economy (in ed.) Edmor L. Bacha.
- Rodrik, D. (1992a), The Limit of Trade Policy Reform in Developing Countries, *Journal of Economic Perspectives*, 6, 87-105, Washington.
- Sarah Y. Tong (2008), "Comparative Trade Performance of China and India", EAI background Brief, No. 398
- Sen, S and R.U. Das (1992), Import Liberalization as a Tool of Economic Policy in India – A Perspective from the Mid 1980s to December 1991, in B. Debroy (ed), Global and Indian Trade Policy Changes, Commonwealth Publishers.
- Shafaeddin, S.M. (2005), "Trade Liberalization and Economic Reform in Developing Countries: Structural Change or De-Industrialization"? UNCTAD, Discussion Paper No: 179.
- Singh Manmohan, (1964), India's Export Trends, Oxford: Clarendon Press

Uma Sankaran, Vinoj Abraham and K.J. Joseph (2007), "Impact of Trade Liberalization on Employment: The Experience of India's Manufacturing Industries", Centre for Development Studies, Trivandrum.

Vakil, C.N., (1966), The Devaluation of the Rupee, Lalvani Publishing House, Bombay.

Vittorio Valli and Donatella Saccone (2008), "Structural Change and Economic Development in China and India", *The European Journal of Comparative Economics*, Vol. 6, No. 1, pp. 101-129.

Wolf, M. (1982), India's Exports, Oxford University Press for World Bank.

WTO (2007), Trade Policy Review, Report by the Secretariat India, WT/TPR/S/182/Rev.1.24, July 2007.