India's Foreign Trade in the Globalization Era

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ABSTRACT

The paper examined the balance of trade experience of the Indian economy during the globalization era. It also analyzed the relationship between growth and instability in both exports and imports and their diversification. The findings suggest that India has been very successful in improving its foreign trade during the globalized regime. Both exports and imports have increased, but the increase of imports is much higher in contrast to its exports and hence trade deficit has been growing in the economy. Examining the growth and instability for both exports and imports, the findings suggest that they are positively related to each other during the pre-globalization era and negatively related to each other during the post-globalization era. The paper also finds some diversification in foreign trade, which is with respect to country-mix as well as commodity-mix. The paper finally suggests that there is need of further improvement in India's foreign trade and that requires more and more openness in the foreign trade sector.

Introduction

Globalization has become very fashionable and extensively used today in all over the world. It means diverse things to diverse people and has set in a route of far-reaching change that is affecting everybody (ILO, 2004). It is a process that draws countries out of their insulation and makes them join with the rest of the world in its march towards a new world order (Kapila, 2002). It is an extension of economic transactions and the association of economic activities across the political boundaries of the states (Nayyar, 2002). To put in other way, globalization is a total mind-set in which the entire world becomes a single market so that the corporate strategy is based on the dynamics of global business environment.

The process of globalization is not something new; indeed its process has been going on for a long time. There are several differences between globalization today and globalization in the past. It is mostly with respect to scale, force, and speed. According to Stiglitz (2000), globalization is viewed as a natural process of historical change and is a possible path for the future world economy, which supposedly will increase wealth and prosperity for all countries in the globe. In India, globalization is evident in terms of policy changes since the beginning 1990's and these changes have taken place at three different levels such as global, national and sectoral level. But the first and foremost development is the globalization process at the international level. This ensures a closer integration of the countries and peoples of the world and that has been brought about by enormous reduction in costs of transportation and communication.

Usually globalization manifests itself in three various forms such as an increase in international trade, financial flows and foreign direct investment (Loots, 2002; Nayyar, 2002; Majumder, 2003). But the flows of trade and finance bore the testimony to radical metamorphosis in its total scope and spectrum on account of the onset of globally coined business jargon. Among the many changes in foreign trade and finance spheres, the changes in foreign trade are significantly noticeable. This is because multilateral trading has gained currency under the aegis of World Trade Organization (WTO). Although the contradictions are galore with respect to multilateralism amidst the surfacing of inter, intra and regional trade gaping, yet the hard reality is that besides the multilateral trading, regional and Free Trade Accord (FTA) have come to stay on the global economic plane. The basic philosophy and tenet behind this is to promote inter and intra regional trade among the countries and

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thereby, to faster economic cooperation, growth and development (Azad and Fayaz, 2004).

The new economic policy also made clear that India can grow faster as part of the world economy and not in isolation. India's trade policy, therefore, aimed to create an environment that would provide strong impetus to exports and make exports profitable. The package of trade policy reforms announced in the year 1991 aimed at access to high technology and world market. The reforms aimed at strengthening export incentives, eliminating a substantial volume of import licensing and optimal import compression in view of the balance of payment situation (Bhattacharyya, 1993). But the present paper seeks to examine the trade behaviour of India during globalization era. It also attempted to find out the relationship between growth and instability of both exports and imports and their diversification.

The rest of the paper is organized into five different sections. Section II discusses the importance of foreign trade in the economy. Section III discusses the trends of foreign trade in India. Section IV analyzes the diversification of India's foreign trade. And the final section offers the concluding remarks.

Foreign Trade: The Importance in the Economy

Foreign trade plays a paramount role in the economic development of a country and acts as an engine of economic growth (Robertson, 1949). It accelerates economic growth of a country by bringing new ideas, new technologies and new tastes that, in turn, stimulate innovation. Foreign trade is a treasure house of static and dynamic gains for the economy. It enables an economy to complement development of industrial or agricultural structure and ensures diversified consumption for its people. Trade is instrumental in equalizing factor prices and hence, can allocate resources in an efficient way. It promotes capital formation and brings sectoral and external economies in the industrial activities of the country (Balass, 1978; Feder, 1983; Ram, 1985). It bestows economies of scale and enables a country to produce those goods, which are economical, competitive and based on rational cost proportions. Trade strengthens the relationship (both economically and politically)with other trading countries and provides an opportunity to enter into customs union that brings forth trade creating and trade diverting benefits. It promotes the hidden talents on entrepreneurs and thus, augments the comparative advantages in a country. It provides access to scarce resources, which is barely needed to promote economic growth, such as raw materials, machinery, capital goods and intermediary producer goods.

Foreign trade is supposed to ban indirect transfer of capital often through MNCs. It improves the allocative efficiency of nations through international specialization in the production of goods and services. It provides and promotes an atmosphere of healthy competition among trading nations by checking monopolies and restrictive trade practices. It also widens the horizons of consumption possibility frontiers of the countries far in excess of domestic production constraints. There is increasing choice of the consumers in the trading regime, as different varieties for the same good (differentiated products) are available in an open economy. Foreign trade is supposed to bring growth oriented structural changes in the economy by changing the composition of GNP, employment and consumption. Moreover, foreign trade is considered to be a better alternative to foreign aid, foreign direct investment and portfolio investments. This is because the latter are mostly politically vulnerable (Krishnamoorthy and Reddy, 2002).

Apart from the above mentioned benefits accruing to individual countries, the world as a whole also benefits from international trade. The world production of every commodity is maximized through international allocation of resources. There is greater international equality in real incomes, factor prices and consumption levels and consequently in welfare levels across countries of the world. The relative wage levels would change both in the labour abundant countries as well as in the capital abundant countries, which equalizes real wages of labour in all the trading nations. For this reason, classical and neoclassical economists considered that free trade is the first best policy to promote economic growth. To sum up, foreign trade plays a multilateral role in economic growth and hence, it is an urgent need for a country to boost its trade and integrating the same with rest of the world.

Trade relation between countries is not a new concept and was traced back to the inception of human civilization. But these relations were limited during those days, which are mostly due to lack of infrastructure, besides host of other factors. With the passage of time, the trade between and among the countries have been gradually developed along with increased technological advancement. Indeed after the World War II, trade volume increased by leaps and bounds and world trade witnessed an extraordinary growth. The increase in the value, volume and diversification of world trade are mainly due to the advancement of technology, infrastructure and an affect of globalization. It is true that lots of policies had been formulated during the age of globalization to make the economy more competitive, efficient and outward oriented (Ahmed and Rustagi, 2004). But developing countries were not able to derive the benefits by this growth till 1972, which was due to lower growth rate of their exports. India also felt these worldwide changes and the revolution in the sphere of technology and adopted a steady policy to enhance its trade relation with the countries of the world (Khan and Fayaz, 2004). In the subsequent section, we examine the trends of India's foreign trade in the globalization era.

India's Foreign Trade in the Pre- and Post-Globalization Era

India, for a long time, had been the exporter of primary goods and the importer of the finished goods from the western world. In order to improve her balance of trade position, the country adopted import-substitution trade policy since independence and continued up to the early 1970s. The logic behind this policy was to build a strong manufacturing sector and this could only be possible by protecting the manufacturers of domestic products from the foreign competition. Naturally, we had ignored primary-export-led growth strategies in favour of import-substitution development strategies. We thought that these policies would promote rapid industrialization and development by erecting high barriers to external goods to encourage domestic producers. These policies applied to infant industry argument for protection to some targeted industries. The infant industry argument assumes that a country may have a potential comparative advantage in a good, but because of lack of technical know-how and the initial small level of output, the industry will not be set up or if already set up, can not compete successfully with more established foreign firms. Temporary trade protection is then justified to establish and protect the home industries. Since mid 1970s the policy of import-substitution was more effective along with export promotion policy (Bhuimali and Sarkar, 2004).

In the 1980s, India started its first phase of globalization during the regime of Prime Minister Rajiv Gandhi. He took initiatives to liberate Indian economy from internal shackles in the form of removal of different restrictions. During this phase, Indian economy resorted to process of modernization vis-à-vis development in the field of telecommunication, computerization and up-gradation in the production process. These changes has been boosted exports on the one hand and increased imports of capital goods on the other hand. But mid eighties onwards, the phenomenal growth was witnessed in the sphere of infrastructure and other core sectors of the economy except some hiccups during 1990s, which was due to political instability and that resulted India to adopt the structural adjustment policy with concomitant policy packages domestically (Khan and Fayaz, 2004).

The full phase of economic reforms, which began in 1991, had considerable impact on the balance of payments position of the country and made U-turn in various socio-economic activities. Some efforts had also been made to improve the export and import position of the country. In fact, imports being liberalized in order to bring technological up-gradation. According to Singh (2003), the reform process of the 1990s brought about significant changes in the exchange rate and trade policy framework and marked the policy recognition of the gains of trade as emphasized in the theoretical models of international trade. The liberalization reforms were initiated with an immediate resort to devaluation followed by significant policy changes aimed at ensuring outward-orientation of trade. The quantitative and tariff restrictions on trade, which resulted in rent seeking and market distortions, had been significantly reduced and the economy moved towards a market-oriented regime. These policy reforms substantially improved both domestic and external sector scenario.

The fundamental objectives of India's globalization in the 1990s are to boost economic growth and to reduce poverty. But post-globalization has been evolutionary and incremental in nature. There had been cases of delays and reverses, resulted stalling of reforms in India in some areas for some time. This was probably due to interplay of forces of democratic politics and coalition governments and the existence of different pressure groups that were operating with robed interests. Despite these problems, India has been successful in moving ahead to open up its economy to the rest of the world and preparing itself to transform through further economic reforms for emerging as a significant player in the global economy by 2020 (Wadhva, 2003). So far as the performance of Indian economy is concerned during the globalization era, there is mixed reactions in the form of notable failures and achievements. On the notable failures, growing revenue deficit as well as fiscal deficits, declining trends of tax revenue, low importance to social sector, regional variation in infrastructure, jobless growth, etc. are most celebrated one. On the notable achievements, foreign trade, balance of payments, inflows of external finance, accretion of foreign exchange reserves, stable inflation, sectoral diversification on economic growth, etc. are most prominent (See Table 1). But as per our objective of this study, we highlight the features of India's foreign trade only. To analyze the same, we have taken the periods from 1980-81 to 2003-04 and divided them into two parts: first, from 1980-81 to 1990-91 and that's called as pre-globalization era; second, from 1991-92 to 2003-04 and that's called as post-globalization era.

Foreign Trade in the Pre- Globalization Era

The foreign trade under pre-globalization era is presented in Table 2. It reflects that total exports of the country have increased from a low of Rs. 6710.7 crores in 1980-81 to a high of Rs. 32558.0 crores in 1990-91. But it happened with large-scale fluctuations. While the growth rate of exports has been negative (7.2%) in 1985-86, a high positive (36.7%) growth rate has found in 1989-90. On the other side, the amount of imports has increased from a low of Rs. 12549.2 crores in 1980-81 to a high of Rs. 43192.9 crores in 1990-91 and its fluctuation varies from a low of 2.2% in 1986-1987 to a high of 26.9% in 1988-89 (See Figure 1). Though there is increase of both exports and imports, the magnitude of later is considerably high in contrast to former. This resulted in deficit in trade balance in the economy (See Table 2). We have also observed the trends of exports as well as imports as a percentage of GDP. The findings suggest that both have been gradually increasing in the Indian economy. The export-GDP ratio has increased from 4.9% in 1980-81 to 6.2% in 1990-91. On the contrary, import-GDP ratio has been fluctuating at an average of 9% during the pre-globalization era and is substantially higher to export-GDP ratio. We have also observed the amount of exports as a percentage of imports and it has increased from 53.6% in 1980-81 and to 75.4% in 1990-91 (See Table 2).

Foreign Trade in the Post- Globalization Era

India's foreign trade under post-globalization period has also been increasing, though there is little bit difference in comparison to pre-globalization era. The amount of exports has increased from a low of Rs. 44041.8 crores in 1991-1992 to a high of Rs. 293367.0 crores in 2003-04 and it is about seven-fold increase in the past 12 years. On the contrary, the amount of imports has increased from a low of Rs. 47850.8 crores to a high of Rs. 359108.0 crores during the same period (See Table 3) and it is about eight-fold in the last 12 years. There is also considerable variation in the annual growth rates of exports and imports. While the percentage change of export varied from a low of 2.7% in 2001-02 to a high of 29.9% in 1993-94, import varies from a low of 6.2% in 2001-02 to a high of 36.4% in 1995-96 (See Figure 2). There is as usual India's export and its growth, which is lagging behind that of imports. Hence the trade balance is negative through out the years in the post-globalization era. But the negative trade balance has also been increasing over the years both in absolute terms as well as in relation to total trade. The export-GDP ratio varied from 7.3% in 1991-92 to 9.8% in 2001-02 and the import-GDP ratio varied from 8.3% to 13.0% during the same period. But the amount of exports as a percentage of amount of imports has declined from 92.0% in 1991-92 to 81.5% in 2003-04 (See Table 3). This clearly indicates that the amount of imports is much higher in contrast to exports in the post-globalization era.

Growth and Instability of India's Foreign Trade

Here we have observed the relationship between growth and instability of India's foreign trade in the pre- and post-globalization era. For this, we have taken the data set of 22 years from 1980-81 to 2000-01 for exports as well as imports and grouped into two parts (each part consist of 11 years). First part follows 1980-81 to 1990-91 and is referred as pre-globalization and second part follows 1991-92 to 2000-01 and is referred as post-globalization era. For growth, we used compound growth rate (CGR) and that's calculated by fitting the exponential trend equation:

$$Y = aí^{t} \qquad (1)$$

Where, Y = dependent variables (exports/imports); a = Constant; í = Regression coefficients; t = time and varies 1, 2…………n.; and , CGR = (Antilog of í -1)*100.

And to test the significance of the CGR, we used t-statistics. It is calculated by $t^* = r / S.E.(r)$, where r represents compound growth rate and S. E. (r) represents standard error of the compound growth rate. The term t^* is represented as calculated t-statistics, which is distributed with (n-2) degrees of freedom.

For instability of exports and imports over the years, we have calculated trend instability indices for both linear trend and exponential trend function. The formula used for the same is as follows:

$$LTII / ETII = Sqrt\,[(e^2/n)/Y] * 100 \qquad (2)$$

Where, LTII: Linear Trend Instability Indices; ETII: Exponential Trend Instability Indices; e^2 = Error sum squares; n = Total no. of observations and Y = Average of dependent variables

The calculated results are reported in Table 4. The results ensured that the compound growth rate of exports has increased at a rate of 16.14% during the pre-globalization period (i.e. from 1980-81 to 1990-19991) and at a rate of 16.56% during the post-globalization era. On the contrary, the compound growth rate of imports has grown at an average rate of 12.42% during the pre-globalization era and 17.97% during the post-globalization era. They are all statistically significant at 1% probability level, which is judged through the values of t-statistics. Coming to instability, both exports and imports seemed to have declined sharply both in terms of Linear Trend Instability Indices (LTII) and Exponential Trend Instability Indices (ETII). In the case of LTII, exports instability has reduced from 22.41% during pre-globalization era to 6.83% during the post-globalization era. In contrast, ETII for exports has reduced from 11.47% during the pre- globalization era to 6.24% during the post- globalization era. Similarly, LTII for imports has reduced from 16.77% during the pre- globalization era to 4.91% during the post-globalization era and ETII for imports has reduced from 7.77% during the pre- globalization era to 6.16% during the post- globalization era. The above results indicate that growth and instability are negatively associated with each other.

However, comparisons of growth and instability between exports and imports during the periods have something divergent results. In the pre- globalization, growth and instability are positively shown, whereas it is negatively shown in the post-globalization era. As indicated by Table 4, during the pre globalization period, exports grew at a higher rate (16.14%) than imports (12.42%) but the former was subject to a higher degree of instability than the latter. Both LTII and ETII have confirmed this. The LTII for exports (22.41%) is higher than that for imports (16.77%). Likewise, the ETII for exports is 11.47%, which is higher than that for imports at 7.77% in the same period. Similarly the inverse relation between growth and instability has been confirmed during the post-liberalization era. The compound growth rate of exports is 16.56% during the pre-globalization era and is lower to compound growth of imports (17.97%) during post-globalization era. On the other side, the instability of exports (LTII = 6.83%; ETII = 6.24%) is lower to the instability of imports (LTII = 4.91%; ETII = 6.16%) during the same period.

Diversification of India's Foreign Trade in the Pre- and Post- Globalization Era

The term 'diversification' is interpreted differently by different economists. It simply represents a transformation of trading with respect to one country to another and one commodity mix to another commodity mix. In fact, the diversification of India's foreign trade from the point of view of commodities is a significant factor in India's economic development, which will also provide the economy with greater flexibility in adapting the structure of its production to change in market conditions. The diversification of foreign trade has a vital solution to increase the volume of trade, employment and thus, economic growth. In this section, we briefly examine the same in the context of Indian economy during the pre- and post- globalization era.

As a vast economy, India always tries to export a large number of commodities to the rest of the world. This product mix always changes over time and mostly due to both the market conditions and the technological changes. The market conditions are more external and are determined by the demand of the rest of the world and also through the changing product mix of India (i. e. determined by taste-cum-demand pattern). In other words, the demand is determined by the specific changes in taste pattern along with the changing commodity composition-cum-income pattern in the destination countries. But the amount of exports is not only demand driven but also supply-driven too. We look here at the current commodity basket and hence, the potentiality of that basket to be promoted as exports. Thus, some products at some stage become dynamic products in export space (Majumder, 2003).

In the cross-country comparison, India's export trade during the initial phase of planning was with UK, other commonwealth countries and USA. Of the total exports of India in 1951-52, about 27% used to go to UK, 18.6% to USA, 2.2% to Japan, 1.2% to USSR and 5.9% to EU (Mathur, 2000). But with respect to time, the share of India's foreign trade with UK has been declined and other hand, its share with USA and other EU has been increased. The major destination countries for India's export are the Developed Market Economies (DMEs). Among them, European Union (EU) is the single destination and has the largest share and the exports accounted for around one-fourth. Again within the EU, the share of UK, Germany, France, Italy, Belgium and Netherlands are substantially high. These six countries absorb the most of the exports from India that goes to the EU. Most of India's export goes to the DMEs the real categories of which is the OECD, the Industrial Triad and within Triad, the EU. The share of OECD in India's export varied between half and two-third of India's total exports to the rest of the world. The share of the "Triad", in year-wise, is a little behind that of the OECD. In short, the share of EU in India's exports during 1960-2001 varied between one-fifth and one-third of India's total exports to the rest of the world (See Table 5).

On the imports side, India's total imports from the rest of the world are one-fourth and most of the India's import is also from DMEs. As mentioned above, these DMEs are functionally the countries in the OECD, the Industrial Triad, etc. The EU, Japan, and the US constitute the "Triad" and the "Triad' share in India's import is a little less than the share of the OECD. The members of the EU are also the members of the OECD. These are also the countries, which dominate the share in OECD. The major countries are also UK, Germany, France, Belgium and Netherlands. India's import share from these countries, however, declined during 1960-61 to 1999-2000. For OECD countries, this decline is from 80% to 40%. For the Triad, this decline is 70% to 30%. For the EU, it varied between one-third and one-fourth of India's imports from the rest of the world. The share of LDCs in imports from India during the same period increased from around one-sixth to less than one-fourth (See Table 6).

With regards to composition, India's foreign trade after independence and during five-year plans underwent a significant change. Goods that India used to export previously are now in imports list. So far as India's export is concerned, the major are traditional items like tea, jute, cloth, leather, iron, cashew and spices and variety of finished goods like capital goods (machineries), engineering goods, chemicals, chemicals products, ready-made garments, gems, processed foods, handicrafts, etc. But over the years especially in the globalization era, the share of conventional exports in the total exports has decreased and on the contrary, the share of finished goods, iron and steel, engineering goods, jewellery and gems increased substantially. In the imports side, the major items are primary products like food grains, wool, cashew nuts, edible oils, etc. as well as manufacturing products like petroleum, fertilizers, steel, iron, non-ferrous metals, industrial raw materials, machinery, capital goods, chemicals, etc. While the share of primary products to total imports has declined since the time immemorial, the share of manufacturing goods has increased considerably (GOI, 2004-05).

V. Conclusion

Over and above discussion, it is evident that India's trade performance in the globalization era is quite impressive. Both exports as well as imports have registered an encouraging trend, but the increase of imports is much higher in contrast to its exports and hence, trade deficit has been increasing in the economy. This is mostly due to the growing demand for petroleum products and their inabilities to compete in the western markets despite the opportunities are available during the globalization era. Moreover, its share in the world trade has not only low but also gone down and also relatively low in comparison to other emerging Asian countries. Examining the growth and instability of exports and imports, the paper found that they are negatively associated with each other. While the growth of exports and imports has increased, instability has declined considerably. But the picture is divergent, if you compare the growth and instability during the pre- and post- globalization era. While growth and instability are positively shown in the pre-globalization era, they are negatively shown in the post-globalization era.

India also received some kind of diversification in the foreign trade during the pre- and post-globalization era. It is visible in the country-wise as well as commodity-wise. The major destination countries for India's export are the Developed Market Economies (DMEs). Among them, European Union is the single destination that has the largest share; it accounted for around one-fourth of country's total exports. Similarly the major destination countries for India's import are also DMEs and among them, the major countries are UK, Germany, France, Belgium, Netherlands, USA and Japan. Their share is about three-fourth of country's total imports. In the commodity-wise, the share of conventional exports to total exports has decreased and on the contrary, the share of finished goods, iron and steel, engineering goods, jewellery and gems increased substantially. In the imports side, major items are primary products such as food grains, wool, edible oils, etc. and manufacturing products like petroleum, fertilizer, capital goods, etc. While the share of primary products to total imports has declined, the share of manufacturing products to total imports has increased.

Over and above, the paper finally suggests that there is need of further improvement in India's foreign trade since its share in the world trade is very low. This calls for more and more globalization in the foreign trade sector. It follows with removal of quantitative restrictions, simplification and rationalization of tariffs, reduced export restrictions, etc. In a nutshell, the trade related policies are required to be more transparent with more openness in the Indian economy.

References

Ahmed, S. and Rustagi, P. (2004). "India's Export of Agro and Food Products to Gulf Co-operation Council (GCC): A Study for the Period of 1991-2001", *Indian Journal of Social and Economic Policy*, 1 (1): 127-135.

Azad, I. And Fayaz, M. (2004). "India's Trade with SAARC in Globalized Trade Regime", *Banking Finance*, 17 (8): 5-12.

Balass, B. (1978). "Exports and Growth: Further Evidence", *Journal of Development Economics*, 52 (2): 181-189.

Bhattacharyya, B. (2003). "Perspectives on India's Foreign Trade", *Yojana*, 37 (1): 54-57.

Bhuimali, A. and Sarkar, B. (2004). "India's Trade Performance in the Post-Liberalization Era", *Indian Journal of Social and Economic Policy*, 1(1): 117-125.

Feder, G. (1983). "On Exports and Economic Growth", *Journal of Development Economics*, 5 (1): 59-73.

ILO (2004). Report on World Commission on the Social Dimension of Globalization. Geneva: International Labour Organization (ILO).

GOI (2004-05). Economic Survey, Ministry of Finance. New Delhi: Government of India.

Kapila, U. (2002). "Globalization and the Indian Economy", in Kapila R. and Kapila, U. (eds.), *India's Economy in the 21st Century*. New Delhi: Academic Foundation.

Khan, A. Q. and Fayaz, M. (2004). "Niche for Indian Foreign Trade in Globalizng Regime", *Banking Finance*, 17 (9): 5-17.

Krishnamoorthy, D. and Reddy, V. V. S. (2002). "Growth and Instability in India's Foreign Trade: A Comparative Analysis of Pre and Post- Liberalization Periods", *Artha Vijnana*, 54 (3-4): 349-366.

Loots, E. (2002). "Globalization, Emerging Markets and the South African Economy", *South African Journal of Economics*, 70 (2): 123-132.

Majumder, B. (2003). "India's Trade-Link with The European Union: Facts and Possibilities", *Management and Change*, 7 (1): 49-73.

Mathur, B. L. (2000). Economic Policy and Development. Jaipur: RBSA Publications.

Nayyar, D. (2002). Governing Globalization: Issues and Institutions. New Delhi: Oxford University Press.

Ram, R. (1985). "Exports and Economic Growth: Some Additional Evidence", *Economic Development and Cultural Change*, 33 (2): 415-425.

Robertson, D. H. (1949). "The Future of International Trade", in *Readings in the Theory of International Trade*. Blankiston: AEA & Co.

Table 1: A Macro Economic Profile of India

Items	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
X_1	5.60	1.30	5.10	5.90	7.30	7.30	7.80	4.80	6.50	6.10	4.40	5.60	4.40	6.00	6.30
X_2	6.76	-1.22	4.09	5.20	10.20	11.60	7.10	4.30	3.70	4.80	6.60	3.30	6.10	na	na
X_3	13.72	-12.32	9.28	5.83	22.92	11.10	-1.00	7.70	0.70	20.30	-1.40	3.00	na	na	na
X_4	26.30	22.60	23.60	23.10	26.00	26.90	24.50	24.60	22.60	25.20	24.00	23.70	23.9	24.0	25.0
X_5	23.10	22.00	21.80	22.50	24.80	25.10	23.20	23.10	21.50	24.10	23.40	24.00	24.50	24.10	25.2
X_6	-3.50	-0.34	-1.71	-0.42	-1.05	-1.65	-1.19	-1.37	-0.96	-1.05	-0.54	0.29	0.6	0.10	0.20
X_7	2.27	1.46	1.59	3.54	2.84	1.31	2.96	2.47	2.01	2.48	1.86	1.99	2.57	na	na
X_8	-0.40	1.43	0.33	3.18	1.44	-0.82	1.52	0.94	0.95	1.38	1.31	2.46	3.35	na	na
X_9	11.81	15.71	11.58	9.63	12.5	8.1	4.6	4.4	5.9	3.3	7.20	3.6	2.8	5.0	5.0

Note: X_1: GDP growth; X_2: Industrial growth; X_3: Investment growth; X_4: Investment as a percentage of GDP; X_5: Saving as a percentage of GDP; X_6: Current account balance as a percentage of GDP; X_7: Capital account balance as a percentage of GDP; and X_8: Reserves accretion as a percentage of GDP; X_9: Inflation rate in percentage.

Source: RBI, Hand Books of Statistics, 2002-03; GOI, Economic Survey, 2003; Asian Development Outlook, 2003

Table 2: India's Foreign Trade during the Pre-Globalization Era

Year	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
1980-81	6710.7	4.6	12549.2	37.0	-5838.5	4.9	9.5	53.6	0.45
1981-82	7805.9	16.3	13607.6	8.40	-5801.7	4.9	8.9	57.4	0.44
1982-83	8803.4	12.8	14292.7	5.00	-5489.3	5.1	8.9	61.6	0.54
1983-84	9770.7	11.0	15831.5	10.8	-6060.8	4.9	8.2	61.7	0.54
1984-85	11744.0	20.2	17134.2	8.20	-5390.5	5.2	8.1	69.2	0.55
1985-86	10895.0	-07.2	19657.7	14.7	-8763.1	4.4	8.1	55.4	0.50
1986-87	12452.0	14.3	20095.8	2.20	-7643.8	4.1	7.7	62.0	0.47
1987-88	15674.0	25.9	22243.7	10.7	-6570.0	4.9	7.7	70.5	0.48
1988-89	20232.0	29.1	28235.2	26.9	-8003.7	5.2	8.6	71.7	0.49
1989-90	27658.0	36.7	35328.4	25.1	-7670.0	6.2	8.9	78.2	0.55
1990-91	32558.0	17.7	43192.9	22.3	-10635.0	6.2	9.4	75.4	0.54

Note: X_1: Amount of Exports (in Rs. Crores); X_2: Change in Exports (in percentage); X_3: Amount of Imports (in Rs. Crores); X_4: Change in Imports (in Percentage); X_5: Trade Balance (in Rs. Crores); X_6: Exports as a Percentage of GDP; X_7: Imports as a Percentage of GDP; X_8: Exports as a percentage of Imports; X_9: India's exports as a percentage of World Exports; and Figures are in crores rupees.

Source: Hand Book of Statistics on Indian Economy, Reserve Bank of India, Mumbai; and International Financial Statistics, International Monetary Fund, Washington DC.

Table 3: India's Foreign Trade during the Post-Globalization Era

Year	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
1991-92	44041.80	35.3	47850.80	10.8	-3809.0	7.3	8.3	92.0	0.51
1992-93	53688.30	21.9	63374.50	32.4	-9686.2	7.8	10.2	84.7	0.53
1993-94	69751.40	29.9	73101.00	15.3	-3349.6	8.1	9.6	95.4	0.58
1994-95	82674.10	18.5	89970.70	23.1	-7296.6	8.1	10.9	91.9	0.59
1995-96	106353.30	28.6	122678.10	36.4	-16324.8	8.9	12.0	86.7	0.60
1996-97	118817.10	11.7	138919.70	13.2	-20102.6	8.6	12.3	85.5	0.62
1997-98	130100.60	09.5	154176.30	11.0	-24075.7	8.7	12.5	84.4	0.62
1998-99	139753.10	07.4	178331.80	15.7	-38578.7	8.3	11.5	78.4	0.61
1999-00	159561.40	14.2	215236.50	20.7	-55675.1	8.4	12.4	74.1	0.63
2000-01	203571.00	27.6	230872.70	07.3	-27301.7	9.8	13.0	88.2	0.67
2001-02	209018.00	02.7	245199.00	06.2	-36181.0	9.4	12.0	85.2	0.71
2002-03	255137.00	22.1	297206.00	21.2	-42069.0	9.6	12.5	85.8	0.77
2003-04	293367.00	15.0	359108.00	20.8	-65741.0	10.6	13.0	81.7	0.77

Note: All notations are already defined earlier.

Source: Hand Book of Statistics on Indian Economy, Reserve Bank of India, Mumbai; and International Financial Statistics, International Monetary Fund, Washington DC.

Table 4: Growth Rates and Instability Indices of India's External Trade during the Pre- and Post- Globalization Era

Variable	Pre- Globalization Period			Pre- Globalization Period		
	CGR	LTII	ETII	CGR	LTII	ETII
Exports	16.14 (t = 11.99) (r^2 = 0.94)	22.41	11.47	16.56 (t = 17.74) (r^2 = 0.94)	6.83	6.24
Imports	12.42 (t = 12.11) (r^2 = 0.97)	16.77	7.77	17.97 (t = 18.06) (r^2 = 0.97)	4.91	6.16

Note: CGR: Compound Growth rate; LTII: Linear Trend Instability Indices; ETII: Exponential Trend Instability Indices; t: The values of t-statistics; r^2: Coefficient Determination; and the figures are all in percentage.

Table 5: India's Exports to Countries and Groups (in percentage)

Country/ Years	1960-61	1970-71	1980-81	1990-91	2000-01
OECD	66.1	50.1	46.6	53.5	52.7
Industrial Triad	57.7	45.2	41.6	51.5	47.6
US	16.0	13.5	11.1	14.7	20.9
Japan	5.5	13.3	8.9	9.3	4.0
EU	36.2	18.4	21.6	27.5	22.7
LDCs of which	18.9	26.2	30.3	22.4	37.6
OPEC	4.1	6.4	11.1	5.6	10.9
Other LDCs	14.8	19.8	19.2	16.8	26.7
Others	15.0	24.7	23.1	24.1	9.7
Total (Rs in crores)	642	1535	6711	32553	203571
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

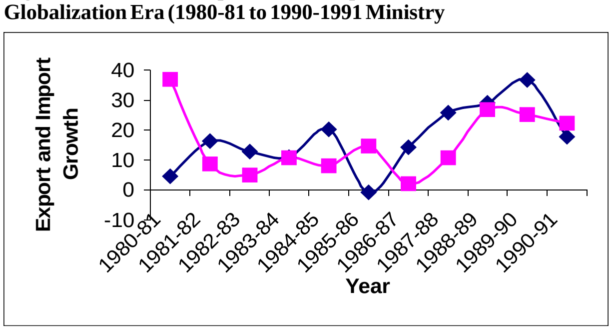
Note: OECD: Functional Expression of the Developed Market Economies (DMEs); LDCs: Low Developing Countries; US: United States; EU: European Union; and OPEC: Organization of Petrol Exporting Countries.
Source: Economic Survey, Government of India, Ministry of Finance, New Delhi

Table 6: India's Imports from Countries and Groups (in percentage)

Country/ Years	1960-61	1970-71	1980-81	1990-91	2000-01
OECD	78.0	63.8	45.7	54.0	39.9
Industrial Triad	71.7	52.4	39.9	49.0	29.4
US	29.2	27.7	12.9	12.1	6.0
Japan	5.4	5.1	6.0	7.5	3.6
EU	37.1	19.6	21.0	29.4	19.8
LDCs of which	16.4	22.3	43.5	34.7	22.6
OPEC	4.6	7.7	27.8	16.3	5.1
Other LDCs	11.8	14.6	15.7	18.4	17.5
Others	5.6	13.9	10.8	11.3	37.5
Total	1122	1634	12549	43198	230873
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

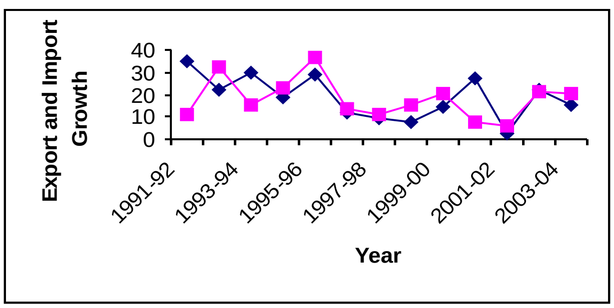
Note: All notations are all defined earlier.
Source: Economic Survey, Government of India, of Finance, New Delhi

Figure 1: India's Export and Import Growth in the Pre-Globalization Era (1980-81 to 1990-1991 Ministry



Note: Black Line Indicates Export Growth and Red Line indicates Import growth.

Figure 2: India's Export and Import Growth in the Post-Globalization Era (1991- 92 to 2003-04)



Note: Black Line Indicates Export Growth and Red Line indicates Import growth.