CHAPTER 1
OVERVIEW

1.1 Introduction

This dissertation is an investigation of the long-term behaviour of India’s merchandise exports. The study provides an explanation to the changing behaviour of India’s exports over the period 1960-61 to 1999-2000. While the initial year of the study, 1960-61, coincides with the explicit mention of export promotion as a policy measure in India’s Third Five Year Plan, the choice of the terminal year is driven by the availability of the entire range of variables that go into the analysis of export determination. This duration has not only witnessed the changing export growth trajectory, but also a concurrent shift in India’s development strategy from import substitution-led industrialisation to outward orientation. Such a pattern is also evident in most export-success industrialising countries. However, unlike in many industrialising countries, transition in India has been partial from import substitution to trade and investment liberalisation, and not necessarily to export-led industrialisation.

Prima facie, the behaviour of India’s exports is driven by the industrialisation strategy, be it import substitution or trade liberalisation. With changes in the industrial structure of production following industrialisation,\(^1\) the commodity composition of merchandise exports has undergone changes towards more manufactures. However, the changing policy regimes have varied implications for export performance. World demand in terms of growth, structure and market access is no less important in understanding long run export performance. These supply or demand factors on their own can only determine export behaviour for specific short periods, but cannot explain a long run phenomenon. It is the combination of supply and

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\(^1\) While the share of agriculture in GDP has declined substantially with industrialisation, the increase in the share of industry has been relatively slow. On the other hand, the services sector has emerged predominant.
demand effects that cause long run export performance. In this study on India's long-term export behaviour, both demand and supply factors have been retained for analysis.

This study on factors determining India's exports is, however, not comprehensive. Services exports are not considered here, as they cannot be analysed using the same framework as merchandise exports. The factors that underlie services exports are significantly different from that explain exports of goods. Not only the domestic production conditions for services differ, the global trade regime for services is at variance from that for agricultural and industrial products. Furthermore, a study on India's services exports is constrained by the availability of time comparable disaggregated data.

The Context

Despite persistence of balance of trade deficit in India over the period, other external sector indicators such as export-to-GDP ratio and India's share in world trade have shown improvements after the mid-1980s (see Figure 1.1). The low or declining share till the mid-1980s is a typical feature of an import substituting economy. In this scenario, the economy faces a binding foreign exchange constraint and exports essentially finance imports for development. Even in an open economy, exports are important for relaxing the foreign exchange constraint.  

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2 The balance of trade deficit improved in the 1990s as compared to the 1980s, but remained at 1.44 per cent of GDP between 1991 and 1999. Blecker (1992) is of the view that such structural trade deficit necessarily reflects declining productivity and competitiveness.

3 Conventionally, this perception is based on large trade deficits, and the binding foreign exchange constraint. Further, as Rakshit (1993) argues, the import-financing role of exports holds good in an open economy in the short run given the fixity of foreign capital flows. Even with India's foreign exchange reserves exceeding $100 billion at present, given the composition of reserves, this traditional role of exports remains.
Exports also determine the level of effective aggregate demand and induce growth in a demand-constrained economy. The positive net exports in an open economy have a multiplier effect raising equilibrium income depending on the marginal propensities to save and import. Rakshit (1982) also shows that in a two-sector labour-surplus economy, the effects of international trade on the domestic economy will depend crucially on the nature of the goods exchanged. For instance, if exports consist exclusively of non-agricultural products, there is a positive foreign trade multiplier determining the equilibrium level of non-agricultural output given propensities to spend by peasants, landlords and artisans on domestic and foreign goods. Fosu (1990) provides econometric evidence on dynamic growth effects from certain

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4 Cross-country evidence often shows that exports cause economic growth (see Michaely, 1977; Balassa, 1978). World Bank (1991) has also attributed high growth experience in East Asia to export growth. Panagariya (1993) takes the argument further by making a case for trade policy that promotes exports thereby augmenting productivity essential for growth. However, there is considerable scepticism regarding the observed trade-GDP growth relationship (Rodriguez and Rodrik, 1999). The causality is also found to be weak for India (see Marjit and Ray Chaudhuri, 1997).

5 Dornbusch (1980). Bhaduri (1986) shows that the foreign trade multiplier depends on the import propensities of consumption and exports and the share of profit in these sectors.
manufactured exports rather than the traditional labour-intensive exports in developing countries. Export market diversification to fast growing countries, according to Arora and Vamvakidis (2004), also has significant growth-inducing effect across countries.

1.2 Theoretical Perspectives on Export Growth

1.2.1 Elasticity Pessimism, Development Strategy and Export Growth

Post-war development strategy in most developing countries has often been inward looking. This perception was derived from the Prebisch-Singer hypothesis predicting that primary good exporting developing countries would face a secular deterioration in their terms of trade. The Prebisch-Singer thesis is premised on the three basic assumptions of shifting demand composition with growth, profits in non-competitive manufacturing industries in the producing country, and the decline in share of primary goods in the international market with new synthetic substitutes. Even diversification to manufactured exports does not have significant export growth potential.6 While Prebisch's empirical demonstration is found to have been faulty, there is overwhelming evidence on the declining terms of trade faced by developing countries.7 For instance, developing countries in general, besides primary exporting developing countries, witnessed decline in terms of trade during the 1980s when primary prices crashed. This view tends to suggest that price elasticity of demand for developing country exports is low and thus the scope for export promotion in developing countries is

6 Often higher income and price elasticity of demand for manufactures as against primary exports from developing countries are provided as rationale towards diversification of exports towards manufactures in developing countries. However, Sarkar and Singer (1991) show that the terms of trade for developing countries' manufactures have deteriorated as much as those for primary products, and the scope for developing country export growth continues to remain limited.

7 For instance, refer to Sapsord et al. (1992) and Sarkar and Singer (1991).
limited. Apart from elasticity pessimism, a declining terms-of-trade can be immiserising as well. Further, a decline in a developing country’s exports prices imply that to maintain the same rate of economic growth relative to developed country, the former has to save a higher proportion of its income. In such situations of declining purchasing power of primary exporting countries, there is some merit of import substitution and industrialisation by restricting or modifying the pattern of international trade.

Most developing countries adopted import substitution in their endeavour to develop while facing foreign exchange constraints in the immediate post-war period. India also opted for import substitution in the mid-1950s.\(^8\) Under import substitution, the barriers to trade are essentially in terms of tariffs and quotas and they vary according to the good. Import substitution, thus, advocates protection and for an active role of the state in economic development. With import substitution, there are the dynamic possibilities of learning by doing,\(^9\) beneficial spillovers to other industries and with increasing returns to scale the pattern of comparative advantage can be shifted towards manufactures.

However, import substitution by itself has not led to promotion of exports from developing countries.\(^10\) While high tariff rates have led to increases in the costs of production, high effective rates of protection during import substitution resulted in overvalued exchange

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\(^8\) Initially, in the post-war period and independence in 1947, India had a fallback a positive sterling balance, which gradually eroded by the mid-1950s, and India started facing a foreign exchange crunch. Import substitution in India was initiated to increase the investment capacity and become less externally dependent.

\(^9\) The experience of Japan illustrates that import substitution was essentially a process of learning leading to productivity improvements (Bruton, 1988).

\(^10\) Also, Malan and Wells (1984) argue that import substitution is inappropriately premised on the notion of a binding foreign exchange constraint as the shortage implies an overvalued exchange rate, government intervention in foreign trade, or inconsistencies between the targets of income and export growth.
rates\textsuperscript{11} and created biases against exports.\textsuperscript{12} Little, Scitovsky and Scott (1970) also find that encouragement to industries through protection has resulted in higher effective rates of protection than nominal ones and often they are negative reflecting that inputs to industries were more protected than output. Higher domestic prices that follow protection result in higher domestic profitability relative to exports and add to the biases against exports. Also, with increased import substitution, the domestic market often induce to shift to activities that do not conform to the country’s comparative advantage and also “circumscribe the possibilities of the economies of scale.”\textsuperscript{13} Thus, in an import-substituting regime, exports need to be promoted through export promotional measures such as fiscal incentives to neutralise the biases against exports.\textsuperscript{14}

In contrast, by refuting elasticity pessimism, Balassa (1971), Bhagwati and Desai (1970), Bhagwati and Srinivasan (1975), Krueger (1978) and Srinivasan and Bhagwati (1999) show that developing countries benefit and emerge as export successes by adopting an outward-oriented development strategy. The strategy of outward orientation, as against an inward-looking one, is defined in terms of increasing trade dependence and reliance on external competition to optimise resource allocation, minimise price distortion and hence,

\textsuperscript{11} Shatz and Tarr (2000) provide evidence on overvalued exchange rate and its impact consequent upon varying degrees of protection across countries.

\textsuperscript{12} These are observations of Little, Scitovsky and Scott (1970) are based on a detailed study of Argentina, Brazil, India, Mexico, Pakistan, Philippines and Taiwan. The biases against exports in terms of high cost and overvalued currency adversely affect manufactured exports, as discouragement to primary exports existed in terms of declining prices and lower exportable surplus (Balassa, 1981 a).

\textsuperscript{13} This argument by Balassa (1988) is a follow-up of the earlier ones by Little, Scitovsky and Scott (1970).

\textsuperscript{14} India, Brazil, and Korea, among others, practised such a route to export promotion.
maximise export growth. For outward orientation to be operative, trade liberalisation\textsuperscript{15} is a precondition along with a prudent exchange rate regime. Trade liberalization\textsuperscript{16} thus removes discriminatory quantitative restrictions and reductions in tariff rate, and a neutral exchange rate regime (see Bhagwati, 1988 b). While trade liberalisation weakens domestic monopolies and improves competition,\textsuperscript{17} and reduces the gap between domestic and external marginal revenues, exchange rate management in terms of depreciation of overvalued currency increases unit value realisation of exports and hence raises the opportunity cost of domestic sales. For trade liberalisation, the literature most often argues that devaluation of the overvalued currency is the first step.\textsuperscript{18} However, Kaldor (1978) based on industrial country experience show that export performance is impervious to large changes in effective exchange rate.

In a developing country context, trade liberalisation, as Bose (1993) argues, also leads to higher exports under conditions of monopoly in developing countries. In this case, it is export vis-à-vis domestic profitability which induces a firm in the domestic market to export. It is found that if foreign price is higher than marginal cost of expanding production, then the monopolist sells a part of his produce in the international market. Thus, liberalisation in terms of exchange rate depreciation increases the opportunity cost of domestic sale and thereby inducing exports. Further, relaxation of capacity constraint through delicensing induces a domestic monopolist to export. With full liberalisation, in terms of removing artificial trade 

\textsuperscript{15} Even though Chakraborty (2002) shows that trade liberalisation and trade reforms as terminology are used by different schools of thought, they are essentially the same. In this study they are used interchangeably to imply changes in trade policy regime.

\textsuperscript{16} For an extensive review of the analytical issues involved with protection and liberalisation, see Corden (1987), Edwards (1993), and Rodrik (1995, 1996). Panagariya (2002) provides one of the most recent discussions on trade reforms in Asia.

\textsuperscript{17} From Japanese and Korean experience, Amsden and Singh (1992) show that there are alternate ways to competition and gain dynamic efficiency.

\textsuperscript{18} See Corden (1993), for instance.
barriers, domestic monopolies are weakened resulting in narrower gap in marginal revenues between domestic and international markets and exporting becomes an equally attractive proposition as domestic sale. However in the presence of market imperfections, as is often viewed in the literature, trade reforms do not unambiguously led to higher exports as is found under competitive market conditions.\textsuperscript{19}

The changes in development strategy, through resource allocation effects, are also expected to lead to shifts in export composition. For instance, Bhattacharjea (1995) argues that even if trade liberalisation is limited to a reduction in tariff, it does not benefit exports of a product, through resource allocation effects and reduction in the cost of imported inputs it necessarily benefits exports of some other products. Thus, inherent in this argument, is the emergence of new exportables with liberalisation and a consequent change in the export composition. Such a changing pattern of exports is observed in many developing countries (see Meller, 1995; Ocampo and Viller, 1995).

\subsection*{1.2.2 Outward Orientation}

The East Asian economies, which were followed by Southeast Asian economies and China, witnessed substantial export growth.\textsuperscript{20} While labour-intensive exports grew from these economies in accordance with their comparative advantage, there has been significant growth

\textsuperscript{19} See Bhagwati (1988 a), Marjit and Sarkar (1995) and Bhattacharjea (1995), among others. For instance, Bhagwati (1988 a) shows that under market conditions of discriminating monopolists, protection induces export expansion. In a similar vain, Marjit and Sarkar (1995) shows that, in case of monopolist discriminating between domestic market and exports, tariff reduction decreases exports, while trade liberalisation in terms of quota relaxation increases exports. However, Bhattacharjea (1995) refutes the Marjit-Sarkar claim by demonstrating that tariff induced protection promotes exports only over a certain range.

\textsuperscript{20} This is based on the evidence provided by Lall (1981, 1998).
in the exports of high technology products.\textsuperscript{21} The explanations most often offered for the East Asian export success are: (a) adoption of outward oriented strategy and simulation of a near free-trade conditions for exporters, (b) keeping prices right, and (c) maintenance of an economic climate favourable for private foreign investments.\textsuperscript{22} However, outward orientation may not lead to successful export promotion. A World Bank (1993) study, based on cross-country data, points out that outward orientation by itself does not necessarily lead to growth of exports. Rodriguez and Rodrik (1999) show that there is very little evidence on the beneficial effects of outward orientation on economic growth, and on export growth in particular, and there is hardly any convincing evidence on the differential impact of outward orientation across economies. An outward oriented strategy may fail to allocate resources resulting higher export growth on account of the initial conditions and structural constraints prevailing in the domestic economy and the world economy.\textsuperscript{23} Explaining export growth in terms of outward orientation alone also misses very important aspects of the development process. Alternative accounts attribute East Asian export growth to government's dual policy of discipline and support, rather than liberal market policies alone.\textsuperscript{24}

In particular, during import substitution, the government resorted to extensive intervention in all stages of the import cycle, controlling importers, imports and taxes levied

\textsuperscript{21} Mani (2000) shows that growth of such exports across countries is not necessarily a statistical artifact.


\textsuperscript{23} Apart from raising doubts on allocative efficiency, Streeten (1982) cites inadequate devaluation, inflation and lack of political commitment as reasons for the failure of outward orientation in raising exports.

upon imports,\textsuperscript{25} apart from measures for export promotion and provision of necessary infrastructure in Korea. The big businesses responded positively to the signals provided by the government, acquired dynamic comparative advantage through learning and became key to high export growth.\textsuperscript{26} Additionally, the 'top down' organisational structure and effective governance contributed to the growth of exports from Korea.\textsuperscript{27}

During import substitution in the 1950s, export growth from Taiwan remained high. Economic reforms in the late 1950s sought to overcome the small size of the domestic market. Exports of manufactures, mostly by small firms, resulted in a more competitive environment. Moreover, export profits were re-invested for further productive activity under state guidance. As a result investments in heavy engineering and chemicals were undertaken and the export portfolio was diversified. As distinct from sectoral policies, functional policies have been pursued in Taiwan to achieve international competitiveness. Further, state intervention in trade included bringing international demand and domestic supply together. Thus, Wade (1990) concludes that liberalisation of trade regimes is a necessary condition for high export growth and a sufficient condition is strategic state intervention.

Import substitution continued in the Latin American economies of Brazil, Argentina

\textsuperscript{25} Leudde-Neurath (1988) narrates that the state intervened in granting licenses to engage in foreign trade. There were discretionary licensing agreements in the form of special laws for permission to import, import area diversification, and surveillance measures since 1978. In addition, there were import rules specifying inspection requirements. Import regulation through control of foreign exchange was also in practice.

\textsuperscript{26} Amsden (1989) recounts that the state facilitated adaptation of foreign technology and helped acquiring dynamic technological capability by firms. The enterprises responded through their investment decisions and by maintaining productivity.

\textsuperscript{27} Leudde-Neurath (1988) describes that 'top down' state intervention in Korea worked through three levels: the President of Korea who set the policy framework; the ministries and government organizations such as Export Promotion Board; and the producers' association who functioned as agents of the government.
and Mexico despite changes in the international economic environment in the 1970s. Simultaneously, policies to promote manufactured exports were also initiated by the mid-1960s, which was followed by significant export expansion. Diaz-Alejandro (1988) is of the view that such change in policy towards export promotion was a move in the right direction. Export incentives, however, partially compensated for an overvalued exchange rate, high domestic taxation and other discriminatory policies.

High export growth in post-1978 China is often attributed to economic reforms (see Hsu, 1989). The reforms led to a shift in the direction of investment flows leading to the growth in light industry and agriculture, raising the economy's export capability. However, this was accompanied by commensurate government intervention for promoting exports. With rising competition in the world market, China's comparative advantage has been derived from specific government interventions, which include economic measures regulating foreign trade and achieving export-import targets according to foreign-trade plans. Some foreign trade decision-making powers are decentralised to lower-level institutions. The central government has also resorted to adjusting incentives to enterprises and local governments influencing their foreign trade decisions, which in turn determined the efficiency of these agencies in trading.

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28 The overvaluation of the real exchange rates in the Latin American economies continued in the 1960s despite many countries adopting a crawling peg exchange rate system. Protection was mainly in terms of high tariff and non-tariff barriers (Cardoso and Helwege, 1992). Import substitution continued with production changing from simple manufactures to intermediates and capital goods.


30 The trading enterprises and local governments in China are encouraged by the profit sharing scheme to pursue profits and by the retention scheme to expand exports. The incentives scheme discriminated in favour of enterprises that are engaged in export activity.
Export Promotion: Some Evidence

There is evidence across countries which shows that targetted state intervention created the advantage required for sustained export sector. In many countries prudent exchange rate management has often been given due consideration to adjust for overvalued exchange rates. Multiple exchange rates were brought to a unified rate in Taiwan during the mid-1960s and China changed from a dual exchange rate regime to a unified rate one in 1985.\(^{31}\) This led to a real depreciation of the domestic currency in both economies, with exchange rates remaining stable over time. Despite depreciation, anti-exports bias exists with the Yuan being overvalued.\(^{32}\) Often direct subsidies or other fiscal measures are used across countries to take care of the overvalued exchange rate. The experience of successful exporting countries reveals that exchange rate management is a necessary condition for export growth, while the sufficiency condition appears to be strategic intervention in the foreign trade sector.

The Taiwanese trade strategy was two-pronged: export promotion on one hand and selective protection of domestic industry on the other\(^{33}\), with exports being promoted by both price and non-price incentives specific to the sector. From the 1970s, the thrust of export promotion changed from direct incentives to export marketing and quality control.\(^{34}\) The Korean policy for export promotion has been in terms of performance related subsidies. The Brazilian strategy has been to promote manufactured exports\(^{35}\) from the mid-1960s through a

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\(^{31}\) In China, since 1985, attention is paid to exchange rate adjusting to domestic and international price changes to encourage exports (Wang, 1993).


\(^{33}\) The effective rates of protection in Taiwan are lower compared to many other countries. However inter-industry variation exists, indicating bias towards exports or import substitution. (Wade, 1990)

\(^{34}\) This change in direction of export promotion was a response to, as Wade (1990) notes, persistent surplus balance of trade and the increase in foreign exchange reserve.

\(^{35}\) Savasini (1978).
wide scheme of subsidies, but was not targeted. However, such fiscal measures often failed to compensate for the overvalued exchange rate.

In Taiwan, the disincentives to exports were reduced through measures such as the reduction in tariff and non-tariff barriers to an uniform level for most inputs and the introduction of a system of tax-rebate for export production. The export sales are also entitled to preferential tax treatment. Along with fiscal incentives, concessional export credit were also provided in Taiwan in the initial phases of export growth. The system of concessional credit continued but from alternate sources such as Japanese trading firms and local large upstream firms. Korea often used a directed credit system. In Brazil, subsidised finances was supplied to exporting firms by official banks in terms of lower interest rates, but it was not uniform across products. The specific schemes introduced in China are profit sharing scheme and the foreign exchange retention scheme, which entail the enterprises to invest in areas where profits can be maximised. This profit sharing is intended to motivate enterprises to expand their exports so that foreign exchange will be available for the import of foreign technology.

Foreign exchange entitlement quotas are provided in proportion to the excess of their foreign exchange earnings over the previous year's earnings or over certain contractual targets. From 1988 onwards, the entitlement quota has been made differential varying across commodities and across spatial location of enterprises. The government in Taiwan has set up export processing zones since the mid-sixties. The Chinese trade policy has been directed towards special incentive programmes for exports through establishing four special economic zones (SEZ) giving preferential treatment and border facilities for foreign trade. The creation

36 These rebates, however, are not availed of by small firms who are mostly engaged in exports, but pass on their export document to input suppliers.
of these zones in both the economies involves growth of foreign investment and trade to overcome the inertia of the domestic market demand and low competitiveness of products with obsolete technology. Due to the low foreign exchange earnings of SEZ's, Chinese government has resorted to infrastructural development and efforts to increase the size of investment in export-oriented industries.

The state in most economies set up agencies looking into the quality of products, testing for goods such as electronic goods and acting as a catalyst in establishing buyer-seller relation in the foreign trade market. In Taiwan, the China External Trade Development Council (CETRA) promoted exports by providing information and carrying out market research. However since 1980, the orientation of CETRA changed to building up economic relations and diversifying Taiwan's trading partners. In China, foreign trade has been decentralised with delegation of foreign trade decision-making power to lower administrative and enterprise levels. The retention procedure was introduced for provincial enterprises.

The organisational structure of China's foreign trade was reformed in 1984 with the Ministry of Foreign Trade (MOFERT) restricted to overall trade-policy planning: an executive plan issued to foreign trade bureaus and corporations consists of a directive and a guidance plan that assigns specific quantitative export targets to sectors, industries or enterprises involving the export of heavy industry product and import of intermediates and machinery and lays down industry-specific export earning and import-spending limits for ministries and local governments empowering them to engage in foreign trade directly through foreign trade corporation.

Thus, targetted export promotion has often been in terms of setting export targets for the enterprises on the one hand and providing incentives in terms of subsidies and access to cheaper raw materials on the other, irrespective of the economy.
The Lessons Learnt

From the previous discussion it is evident that conditions for outward orientation, by itself, does neither promote export nor guarantee growth of the economy. The economies of East and Southeast Asia and China have resorted to specific sectoral targeting in terms of import substitution and export promotion. The state in these economies created the environment for the sectors to respond positively. Subsidies were given to improve competitive positions in the world market and incentives were performance related. The East Asian economies were market-oriented in the sense that the growth initiative primarily rests with the enterprises which were profit-oriented, but the state guided the market.37 Further, as Amsden (1989) has shown, Korean export growth was on account of positive learning effects. East Asia. However, the mainstream theoretical trade literature, especially the neo-technology or neo-factor endowment theory, fails to acknowledge the role of government in promoting learning and its effects on export growth.

The experience of Latin American economies with export growth was different from that of East Asia. Ranis (1987) provides an instructive comparison. The growth process in the East Asian economies moved from primary import substitution to primary export substitution. Later, these economies shifted to secondary import substitution along with secondary export substitution producing intermediate and capital goods both for the home market and exports, with the latter products substituting earlier generation exports. However, the Latin American path was different. These countries moved from primary import substitution to secondary import substitution, without any fundamental change in exports.

Thus, export success in economies is not due to either export-promotion or inward

37 White and Wade (1988) argue that while the government does not directly intervene in production, the enterprises are guided by the profit-maximization principle.
orientation, but an optimal mix of the two being brought about through a combination of state intervention and the market. In these economies import substitution and export promotion has been pursued concurrently, though in different sectors. Thus, for higher export growth, specific export promotion policies are required in addition to general outward orientation.

Even though export promotion is perceived in terms of neutrality of incentives between home and the foreign markets in the mainstream literature, cross-country evidence shows that state intervention has created the necessary competitive advantage essential for the export growth. Specific export promoting instruments adopted by economies include setting export targets for the enterprises on the one hand and providing incentives in terms of subsidies and access to cheaper raw materials on the other. In addition, export promotion was often by way of tax exemptions or preferential tax treatment for export activity, concessional export credit, export profit sharing and foreign exchange retention schemes, foreign exchange entitlement schemes and setting up of special economic zones. 38

1.2.3 Two Views on India's Exports

The vast literature on India's export performance has broadly emerged as two schools of thought. One view explains export behaviour in terms of policy regimes and biases therein, that impact exports via relative prices. The other view argues the preponderance of world demand and also demonstrates the irrelevance of relative prices as the factor underlying export behaviour. These studies have, however, analyzed export performance from different perspectives and hence, have arrived at different results. The earlier studies by Patel (1959), Krueger (1961), Singh (1964), Cohen (1964), Banerji (1975) and Wolf (1982) analyzed India's 38 As most of these export promotion policies are not WTO consistent and have thus become redundant, so I have provided a brief account of these policies.
export performance in the context of binding foreign exchange constraint or India’s comparative advantage. Nayyar (1976) evaluates export performance in the 1960s when concerted export promotion policies were initiated. Later, Nayyar (1988) analyses export behaviour for a period when both the domestic and the world economies witnessed high inflation and the exchange-rate regime changed. Subsequent studies on export performance are in the context of changing development strategy.\(^{39}\) In particular, Rajaraman (1990, 1991 and 1993) and Sarkar (1994, 1997) examined export performance against a depreciating real currency, although real exchange rate is measured differently in the two sets of studies. These studies attribute export performance to either policy regimes or demand effects, as is often the case with studies analyzing short and medium-term performance.

**Policy Regimes and Export Growth**

Singh (1964)\(^{40}\) identifies the relative importance of external and domestic factors in explaining stagnating export performance. The study explains behaviour of disaggregate exports, which enjoyed monopolistic and oligopolistic positions in the external market, in terms of demand deficiency, and also in terms of rising domestic price and declining quality. In case of products where India is a marginal exporter, the limit was set by the ability of the country to supply goods at the ruling world prices. On the whole, Singh’s (1964) analysis shows that supply effect remained critical to export performance.

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\(^{40}\) Singh (1964) was in response to the analysis by Patel (1959). The study was on the lines of Krueger (1961), which suggested that supply elasticities and supply side factors deterred India’s export growth.
The restructuring of India's exports towards capital-intensive commodities following industrialisation, however, could not arrest their declining performance. Banerji (1975) finds, such changes in commodity composition during the import substituting policy regime involved high domestic resource cost and thus lower competitive advantage. Bhagwati and Srinivasan (1975) and Panchamukhi (1978) also subscribe to this view. In the same tune, Wolf (1982) finds that Indian import substituting trade and industrial policies provided the main explanation of overall export performance.

Bhagwati and Srinivasan (1976), Panchamukhi (1978) and Mishra (2000) observe that lack of export growth was due to anti-export bias and overvalued exchange rate in a protected economy. In addition, the policies created a lopsided industrial structure with lack of scale economies, and also restricted imported inputs required for manufacturing. These studies show that limited liberalisation of the late 1960s led to promotion of exports. Banerji (1975) finds that improved export performance from the mid-1960s was the result of effective devaluation coupled with a host of export promotional measures. However, the export promotion policies were selective for few products such as engineering goods and chemicals, which have relatively less export potential (Banerji, 1975; Nayyar, 1976). Wolf (1982) also observes that export incentives were inadequate and highly varying across products.

Nayyar (1976) also shows that the deficiencies in domestic economic structure resulted in rising costs and prices of traditional manufactures. During the 1970s and 1980s, rising costs and prices are due to low productivity levels, domestic demand squeeze, infrastructural constraints on sectors and various other non-price factors (Nayyar, 1988). Along with rising costs and prices, rising domestic demand coupled with higher profitability of the home market

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41 Liberalisation episode of the 1960s includes devaluation of 1966, decontrol of certain imports, and removal of export ban on certain commodities. This was, however, short-lived.
that pre-empted a growing proportion of the total output to be exported.\textsuperscript{42} These studies show that supply constraints to export performance were multidimensional, which is mainly on account of import substitution and protectionist policies.

\textit{World Demand versus Relative Prices}

As against the effectiveness of development strategy and real effective exchange rate as an instrument for export promotion, various other studies provide an explanation to export behaviour in terms of world demand. Patel (1959) argues that changes in demand pattern of developed countries from agricultural to petroleum and mineral products and lack of commensurate growth in demand from other countries hindered Indian exports growth during the 1950s. Similarly, Nayyar (1976) shows that only some exports such as cashew kernels, iron ore, chemicals and engineering goods while the exports of jute products, cotton textiles, tea, tobacco, manganese ore and mica during the 1960s were determined by world demand. Nayyar (1988) re-affirms his earlier position that the spurt in exports in the 1970s was on account of rapid expansion in world trade during the period through the emergence of new markets and boom in price of primary articles in the world market. Further, Nayyar (1988) observes that the external constraints on India's export performance acquired greater significance in the 1980's due to increasing protectionism in the industrialized countries and the near stagnation in international trade flows leading to price and non-price competition in major markets. This argument, however, contradicts the ones put forth by Banerji (1975) on smaller role of world demand in export determination. Virmani (1991) further notes that the growth of world income and trade has immediate and also permanent effects, which are found to be much stronger for

\textsuperscript{42} Bhagwati and Srinivasan (1976) and Wolf (1982). Virmani (1991), however, finds that domestic demand for manufactures affect manufactured export prices.
manufactured exports than primary ones. Most of these studies show the preponderance of world demand effects and the irrelevance of real exchange rate in export determination.

With respect to price effects, Virmani (1991) finds that there is more than proportionate change in the value of manufactured exports due to changes in real effective exchange rates. The study further finds that for depreciation of the same magnitude, these changes are smaller in case of primary exports. Studies by Rajaraman (1990, 1991, 1993) also show that disaggregate exports are significantly price responsive. However, Lucas (1988) finds that price sensitivity varies greatly across exported products. Nayyar (1976, 1988) and Ghosh (1990) carry this argument forward by showing that despite depreciation, real effective exchange rate of the rupee did not determine exports significantly and that, devaluation of 1966 was not effective and the depreciation between 1970 and 1985 was not sufficient to guarantee improvement in export earnings. During the 1990s, Sarkar (1997) shows that ineffectiveness of exchange rate in export promotion was on account of exchange rate appreciation during a large part of the period. Further, Sinha Roy (2001 a) shows that real exchange rate aided export growth only in years of growing world demand.

These studies bring forth certain crucial issues relating to studies on export behaviour. They describe Indian export pattern for different periods of time usually covering a particular decade. These studies, thus, establish the dominance of a single factor specific to a short period rather than an interplay of different factors. These determinants, however, may not hold good for the longer period of 1960 to 1999 and thus fail provide an effective explanation for export growth from India in the long run. Secondly, though exports link the domestic with the

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43 For instance, Patel (1959) analyses export performance for the period 1928 to 1958; Singh (1964) for the 1950s; Banerji (1975), Bhagwati and Srinivasan (1976) and Panchmukhi (1978) cover the period between 1950 and 1970; Nayyar (1976, 1988) together cover 1960 to 1985 and Wolf (1982) for the 1970s. Virmani (1991) also covers a period upto the mid-1980s. Thus, these studies are complementary in coverage.
world economy, most of the studies have not taken account both the demand and supply sides of export simultaneously. Thirdly, some of the studies view the effectiveness of export policy, but they fail to portray the biases and failures of development strategy affecting export growth in the long run. Finally, these studies, except Singh (1964) and Nayyar (1976), do not take into account the market structure of the domestic and the international markets.

1.3 The Objective of the Study and a Summary of Findings

This is a study to provide an explanation for the accelerating growth behaviour of India’s merchandise exports in terms of underlying factors over the period 1960-1999. Development strategy changed in a significant way from import substitution to trade liberalisation during these years, and the industrial sector grew in phases with the evolution of a wide industrial structure. These changes in economic policy suggest an explanation of export behaviour in terms of development strategy. Furthermore, growth in world trade took place in addition to changes in the institutional structure that governs world trade. The approach to the study is guided by the view that supply factors are important in determining long run behaviour of India’s merchandise exports, but demand effects also need to be taken into consideration. The thrust of this study is in terms of an econometric investigation of India’s export behaviour, estimating responsiveness with respect to price and various other demand and supply scale factors. The post-reforms export performance is then understood in terms of the factors that delineate long-run export performance.

The study is based on the various approaches to understanding export performance in developing countries, including the view that development strategy, be it import substitution or outward orientation, has had impact on export performance. One school of thought shows that while import substitution and protection create disincentives for export growth, outward
orientation has beneficial impact and promotes exports. The contrary view holds that outward orientation does not necessarily lead to improved export performance since the economies face deteriorating terms of trade. Furthermore, the beneficial impact of changes in development strategy on export performance holds good only under the restrictive small-country assumption. The debate is, thus, far from conclusive. Similarly, two distinct schools of thought have emerged explaining India's export behaviour. Further, the demand and supply factors individually cannot explain a long run phenomenon, but can only hold good for specific short periods. Existing analyses also neglect the role of the evolving structure underlying the long-run growth process. In understanding India's long-run export behaviour in a demand-supply framework, the underlying structures of world demand and domestic supply are critical for analyses. This empirical study incorporates these essential features. A brief outline of the ensuing chapters and key findings are presented below.

The stylised facts of India's export growth and structure are presented in Chapter 2. For the purpose of analysis, the period under study is divided into three sub-periods based on the observed trend in aggregate exports. While conventional statistical tests confirm the breakpoints in the time series on merchandise exports, the sub-periods also coincide with different phases of world trade, as well as shifts in domestic policies. Growth performance, both at aggregate and disaggregate levels, is appraised using real merchandise exports rather than volume index of exports or exports denominated in dollar terms. The growth rate for each sub-period is calculated in terms of average annual percentage changes as against trend growth rates. Average growth of disaggregate exports is calculated for these three sub-periods, even if the breakpoints differ across product groups. India's export performance is evaluated with respect to other industrialising countries which have also undergone similar shifts in trade policy regimes during the period. The assessment of performance also includes an
understanding of the structure of exports in terms of commodity composition and market direction in a comparative perspective. The observed acceleration of export growth over the period indicates improvements in international competitiveness. The chapter also discusses the improvements in international competitiveness of exports consequent to the accelerated export growth. The analysis on competitiveness is in terms of both price indicators and market share indicators such as the Revealed Comparative Advantage index. These stylised descriptions on growth, structure, and international competitiveness provide the basis for identifying price and other factors in the determination of the country’s export performance.

In Chapter 3, different supply and demand factors underlying India’s export behaviour are discussed. Apart from a preview of India’s policy environment, the changes in trade policy in particular, I carry out a descriptive analysis of the importance of various other supply factors, such as capability, technology, and infrastructure, which are largely governed by the policy environment. Export-to-domestic relative prices indicating relative profitability are also critical to the understanding of supply of exports. An analysis of the demand effects, on the other hand, includes the impact of world demand and real effective exchange rate. The behaviour of world demand for India’s exports is described in terms of import growth of the top fifteen destination countries and the structure of imports in these destination countries. Furthermore, the chapter elucidates the market access restrictions in terms of variety of tariff and non-tariff barriers faced by India’s exports in global trade. Such an analysis is important as these restrictions are primarily on products of India’s export interest. This will testify the hypothesis that India’s export growth is driven by the patterns of world trade. An understanding of export behaviour in terms of real effective exchange rate will show price responsiveness of exports and provide empirical validity for the small country assumption often found in the theoretical trade literature. This hypothesis assumes importance since
exchange rate policies are most often adopted to promote exports and when India’s real effective exchange rate has depreciated almost throughout the period.

An econometric investigation of export determination is carried out in Chapter 4. This is primarily in terms of an explicit export determination model. The chapter is set out by detailing the various econometric methods used in the literature and provides a comparison of results across different methods and an interpretation of the results. The model is specified in terms of a typical three-equation export supply and demand model in line with the literature. Demand is postulated as a function of price of exports, foreign currency price of competing goods, and foreign demand. Export supply is expressed as a function of the price in the world market, domestic prices, and domestic production capacity measured in terms of output. The third equation is the demand-supply equilibrium condition. There are issues relating to specification, identification, normalization, and estimation with respect to the equation system. Even though considerable ambiguity exists with regards to specifying the demand function for exports, the estimation of simultaneous equation model itself shows that the invalidity of the small country assumption. On the supply side, it resembles an imperfect substitutes model. Error-correction mechanism is applied as time-series properties of the variables in the system show that they are integrated of order one, I(1). In order to arrive at correct estimates of the error-correcting system, the systems method – Full Information Maximum Likelihood method – is applied as opposed to the usual practice of using single equation techniques. An interpretation of export behaviour is provided in terms of supply and demand effects.

Apart from providing an understanding of the behaviour of aggregate exports, the study makes a detailed analysis of manufactured exports at the disaggregate level. This is done by using the same model based on the assumption that the underlying demand and supply conditions are broadly similar for different product groups. These include chemicals and allied
products, machinery and transport equipment, textile and garments, leather and leather manufactures, and iron and steel, which account for more than a half of total exports. Apart from variance in demand conditions across product groups, supply characteristics differ between groups of manufactured goods. Even though characterization of scale of production and price formation in the case of manufactured goods is different from that for aggregate production, the basic model consisting only of relative prices and the scale variables is suitable for aggregate exports as well as disaggregated manufactures. There could perhaps be a more appropriate structure of the model based on conditions of production, but it would make a comparison of results across product groups difficult.

Chapter 5, by using the results on export determination in Chapter 4, seeks to provide an explanation to India’s post-reforms export behaviour. The chapter also analyses the observed unsustained pattern of post-reforms export growth – a phenomenon which has not found adequate mention in the literature on India’s exports. As the observed variations are not necessarily short-term in nature, structural and institutional explanations need to be explored. However, there is no consensus in the literature on post-reforms high export growth being attributed to liberalisation per se. The evidence on fluctuating export growth raises doubts on the efficacy of reforms. On the other hand, this analysis is carried out by a description of the turning points in terms of different factors. Given the importance of demand effects in the long-run analysis, real effective exchange rate and world demand are taken into consideration here. The findings of the study highlight the implications for sustained export growth described in Chapter 6.

Finally, before presenting the findings of the study in brief, a word about the database of the empirical investigation is in order. An understanding of the database used is important in interpreting the main results in a more focussed manner. The study builds a consistent dataset
of all variables used in the analysis. It addresses concerns such as comparability over time especially when the classification of the database has undergone several changes. While data on merchandise trade and unit value index of exports are obtained from the Directorate General of Commercial Intelligence Statistics, Calcutta sources, information on GDP and sectoral value-added are sourced from the Central Statistical Organisation. The data on world prices, exchange rate and imports of destination countries are obtained from the International Monetary Fund database. The data used in the econometric exercise are described in somewhat details in a separate appendix.

**The Findings**

The empirical analysis shows that India’s exports have turned around in the mid-1980s after growing at low or moderate rates till then. Performance of most manufactured exports also improved during the period with a change in commodity composition towards manufactures. Long-term changes in structure were observed in terms of exports of chemicals, iron and steel, and leather and manufactures, but textiles and clothing and gems and jewellery have predominated the export basket. However, the pace of change was slow as compared to other industrialising countries. The markets for India’s exports diversified, with Asian developing countries emerging as major destination after 1985-86. Despite markets diversification, the OECD has remained the dominant destination for India’s exports. Along with acceleration in export growth price competitiveness of exports improved, but most export items were at a relative disadvantage. While standardized exports continued to remain competitive, high technology and differentiated products have remained at a comparative disadvantage after 1985. These stylised findings suggest that the step up in performance cannot be attributed to relative prices alone, and non-price scale factors such as world demand and
supply capabilities have played equally important roles.

The modelling of export behaviour as an error-correction process was successful in that significant error correction was found to exist. The results, in general, show the significance of demand factors, price and non-price, and the insignificance of GDP. Supply price elasticity is also found to be high. The only exception to this pattern was textiles and garments exports. The significance of price factors in export performance can be explained in terms of changes in policy regimes, which worked through relative prices. The significance of demand price in export determination is consistent with the depreciation of real effective exchange rate. However, price responsiveness of export demand has varied across export product groups. The improvements in supply-side relative prices have resulted in significance of supply prices in export determination. This shows that export profitability over domestic market is important for domestic producers in their decision to export.

On the demand side, world demand has had a significant important impact. While exports have respond to growing world demand during the upswing, they are constrained during the downswing due to low or declining world demand. However, expansion in world trade during the 1960s and 1970s were mostly intra-developed country trade. Furthermore, persisting market access restrictions have created an asymmetry between India's export structure and the pattern of world demand. The restrictions were particularly binding in case of trade in textiles and other traditional items of exports for which India has had comparative advantage. The study also shows that supply scale effect was positive, but insignificant. Even though import substitution widened the industrial base and created significant supply capability for exports, licensing and various other restrictions inhibited export growth. Trade reforms relaxed these constraints and created an enabling environment for improved trade performance. However, the supply capabilities did not alter substantially after reforms, and thus provide an
explanation to its weak impact on export performance. Other supply factors such as technology upgradation, productivity and scale efficiency improvements, removal of infrastructural bottlenecks and credit constraints, procedural simplifications, and improvements in marketing channels would have resulted in an improved capability to export. However, the study does not make a quantitative assessment of the impact of these supply factors on export performance. On the whole, despite limitations, these results highlight the importance of both demand and supply effects.

However, post-reforms export performance show that depreciations in real effective exchange rate after mid-1980s only provided limited incentives for improved export performance. While exchange rate depreciation could not sustain post-reforms export growth buoyancy, it was only effective in promoting exports in situations of growing demand. Thus, India’s export performance after the mid-1980s cannot be attributed to trade liberalisation per se. The acceleration of export growth since the mid-1980s has been attributed predominantly to changing markets for exports. The addition to demand at the margin from Asian developing countries explained India’s export behaviour to a large extent. The deceleration of growth in these emerging markets after the mid-1990s describes the relative stagnation of exports since then. Second, institutional and structural constraints have imposed a limit on the realisation of potential world demand and resulted in structural immobility of India’s exports. These findings have significant policy implications for sustained export growth.

The present study provides an added dimension to the existing body of literature on export behaviour in the Indian economy. The literature on India’s merchandise exports is a stock of knowledge comprising of earlier descriptive studies as well as recent econometric analyses of export behaviour. Most of these econometric studies are often within the framework of macroeconometric models for the Indian economy or a single equation
estimation incorporating both demand and supply effects. The point of departure of this study is that it adopts an explicit demand-supply framework of analysis, where price and scale factors are treated separately. This study is unique in that it combines both a descriptive analysis encompassing a large number of factors underlying export behaviour and a correct econometric estimation. The use of econometric method verifies alternative hypotheses in a demand-supply framework. The econometric model is found to hold good for aggregate as well as disaggregate exports. The robustness of the findings can also be attributed to the simplicity in model specification and the econometric method used in the estimation. The results are indicative that both supply and demand effects explain long-term export behaviour. Price factors are found to be as important as the scale factor on the demand side in export determination. Evidence of the correctness of the estimates is also in the fact that these significant factors are able to explain post-reforms export growth.