

CHAPTER-1

INTRODUCTION

1.1 Economic Growth : The need

An economy is said to grow when the country's *gross domestic product* (GDP) rises. Economic growth is of fundamental importance for all economies. Since virtually all countries experience growth in population over time. So growth in GDP is required simply to maintain current standard of living. In fact, if standards of living are to rise over time, then GDP must grow faster than population.

Economic growth is also critical for **economic development**. Economic development refers to the achievement of a quality of life for the average citizen of a country that is comparable to that enjoyed by the average citizen of a country in a modern economy. Economic development is characterized by such things as high levels of consumption, broad-based educational achievement, adequate housing and access to high-quality health care etc. Achievement of these goals can come about only after long periods of sustained high levels of economic growth.

1.2 Trade and Economic Growth:

International Trade can affect the level of economic growth of an economy. With unemployed resources, an increase in export sales will lead to an overall expansion in production and accompanying fall in unemployment rate. International trade also allows for purchase of capital goods from foreign countries and exposes an economy to technological advances achieved round the globe.

Conversely, economic growth can affect the types of goods a country is able to trade. A technological advance in a country's import-competing sector, could lead to an overall reduction in the volume of trade of a country. Thus, international trade and economic growth are closely related.

1.3 Export-Led Growth (ELG) Proposition:

There are a few economic rationales within the trade theory to support the proposition of 'Export-Led Growth (ELG)'.

First, export growth may lead to an increase in demand for the output of the country concerned and thus cause its real output to rise.

Second, an expansion in exports may promote specialization in the production of export products, which in turn may boost the productivity level and may cause the general level of skills to rise in the export sector. This may then lead to a reallocation of resources from the relatively inefficient non-trade sector to the highly productive export sector. The productivity change may lead to output growth. This effect is sometimes called *Verdoorn's Law*, after P.J Verdoorn who suggested it in 1949.

Third, the outward-oriented trade policy may also give access to advanced technologies, learning by doing gains, and better management practices (e.g., Caves, 1970; Hart, 1983; Krugman, 1987; Ben-David and Loewy, 1996; Lucas, 1988; Rivera-Batiz and Romar, 1990) which may result in further efficiency gains.

Fourth, an increase in exports may loosen a foreign exchange constraint (for instance, McKinnon, 1964; Chenery and Strout, 1996; Esfahani, 1991) which makes it easier to import inputs to meet domestic demand and so allow for output expansion. Outward orientation makes it possible to use external capital for development and tiding over the debt servicing problem. Consequently, export promotion may eliminate controls which usually result in an overvaluation of the domestic currency.

Fifth, export development of certain goods based upon a country's comparative advantage may allow the exploitation of economies of scale that may lead to increased growth. This argument proposes that domestic markets are too small for optimal scale to be achieved while increasing returns may occur with access to foreign markets.

Sixth, export-led growth may be seen as a part of the *'industry life cycle hypothesis'* (e.g., Cornwall, 1977; Yarborough and Yarborough, 1994). This hypothesis describes economic growth as a cycle that begins with exports of primary goods. Over time, economic growth and knowledge change the structure of the domestic economy, including consumer demand, which propels the more technology intensive domestic industry to begin exporting. As domestic demand ebbs, economic growth arises from technologically advanced exports.

Finally, some propose (e.g., Lal and Rajapatirana, 1987) that an outward-oriented strategy of development may provide greater opportunities and

rewards for entrepreneurial activity which is the key to extended growth as it is the entrepreneur who will seek out risk and opportunity.

1.4 Some Discordant Views against ELG Proposition:

The support for export-led growth is not universal. Critics point out that the experiences of export-led growth in the East and Southeast Asian countries are unique in many ways and not necessarily replicable in other countries. The dynamic general equilibrium model of small open LDC developed by Buffie (1992) is supportive of this idea. He holds, whether an export boom acts *as an engine of growth* depends on the structural characteristics of the economy. Again he doubts whether a reliance on exports would result in sustained long-term economic growth in the less developed countries in the face of volatility and unpredictability in the world market (e.g., Jaffee, 1985).

Another issue is whether the markets in developed countries are large enough for absorbing exports from less developed countries (LDCs), or whether trade barriers would impede this route of development (e.g., Adelman 1984 and Cline 1984). Some scholars support the counter development strategy of protectionism or import substitution (e.g., Prebisch, 1950, 1959; Singer, 1950; Bagchi, 1982; Prebisch, 1984; Bruton, 1989; Grabowski, 1994). This involves utilizing a variety of policy instruments (tariffs, quotas, and subsidies) to substitute domestic output for imports. Import substitution can be implemented without impacts from other economies and the benefits in the form of increased employment and output are immediate. Promotion of import substitution industries may also help develop a variety of industries while export promotion may only result in a select number of industries and may lead to a country being stuck producing goods from which the economic gains have been exhausted (e.g., Young, 1991).

Some argue (e.g., Cordon, 1987) that financing development through import substitution may be politically attractive as tariffs may raise taxes in a hidden fashion. Grossman and Helpman (1991) show that use of tariffs may benefit countries with a comparative disadvantage in key sectors (R&D for instance) and lead to greater growth. Advocates of selective import protection also prevail (e.g., Taylor, 1988) and empirically many countries promote exports in one or more sectors while protecting others. Export promotion and import substitution strategies may well be complementary and the latter may be a necessary step for export-based growth [Grabowski (1994) and Hamilton and Thompson (1994)].

1.5 Growth-Led Export (GLE) Proposition:

There is also potential for **Growth -led Export (GLE)**. Bhagwati (1998a) postulates that GLE is highly likely, unless anti-trade bias results from the growth -induced supply and demand. Neoclassical trade theory supports this (e.g., Findlay, 1984) proposition that other factors, aside from exports, are responsible for output growth (e.g., primary input growth and /or factor productivity growth). A **growth-led exports** (GLE) orthodoxy has been justified by Kaldor (1964), Lancaster (1980), Krugman (1984) and Stavrinos (1987). According to them, economic growth leads to enhancement of skills and technology resulting in increased efficiency and comparative advantages for the country which facilitate exports. Market failure, with subsequent government intervention, may also result in **GLE (Growth-Led Exports)**.

1.6 Proposition of Feedback Relationship:

A feedback relationship between exports and economic growth is an interesting prospect. Helpman and Krugman (1985) postulate that exports may rise from the realization of economies of scale due to productivity gains. The rise in export may further enable cost reductions which may result in further productivity gains. Bhagwati (1988a) conjectures that increased trade (irrespective of cause) produces more income, and more income leads to more trade and so on.

1.7 Proposition of Independence:

Pack, (1988, 1992) and Yaghmaian, 1994) hold that there exists no causal relationship between exports and economic growth. The growth paths of the two time series are determined by other unrelated variables in the economic system .

1.8 Variants of Hypotheses:

All these deliberations indicate that the relation between export and economic growth is really complex and economists differ among themselves on this issue. There are five schools of thought regarding the relationship between export growth and income growth. These are as follows:

(i) Export-Led Income Growth Hypothesis:

It is argued that export growth leads to income growth. Consequently, this hypothesis indicates *Uni-directional Granger Causality running from export growth to income growth*.

(ii) Income-led Export Growth:

This view postulates that income growth is the main source of export growth in any economy. Consequently, *there exists Uni-directional Granger Causality running from income growth to export growth*.

(iii) Income-Led Export Growth Led Income:

This hypothesis holds that, there exists a '*Two-Way Linkage*' between income growth and export growth. In such relationship the income growth occurs initially and then it leads to export growth. Export growth subsequently leads to further growth in income. Thus there exists a *Bi-directional Granger Causality between income growth and export growth where initial causal impulse comes from income growth*.

(iv) Export Growth-Led Income Growth-Led Export Growth:

This hypothesis states that there exists a '*Two-Way Linkage*' between export growth and income growth. In such relationship export growth occurs initially and then it leads to income growth. Income growth, in turn, causes further growth in export. Thus, *there exists a 'Bi-directional Granger Causality between export growth and income growth where initial causal impulse comes from export growth*.

(v) Independence:

This hypothesis holds that *there exists no Granger Causality between export and economic growth*. Consequently, these variables are *independent* of each other.

1.9 Income-Export Relationship in South Asian Countries:

Empirical study of income-export growth relationship has received greater importance in recent years. It arises from the fact that achieving high income growth rate is considered to be the main objective and task for the government of a country. As a matter of fact, the prime objective of the economic

management in the South Asian Countries is to attain and maintain high income growth rate.

The South Asian Countries are basically 'developing' nations. These are trying to get out of the 'vicious circle of poverty' through attainment of higher income growth. Such growth is necessary for ensuring economic development and distributional justice. These countries, after the formation of the SAARC in 1987, have been stressing upon impressive economic growth for the years to come.

Again the South Asian Countries have undertaken economic reforms in early 1990s with outward-orientation of the economy. These countries have also been stressing upon expansion of bilateral and multi-lateral trade relations with other members of the SAARC.

These countries again have been suffering from '*adverse*' current Accounts situations. Expansion of trade among these countries basically presents an attempt for raising the volume of export. This is so because export growth is being considered an instrument of ensuring economic growth. Again with change in economic policies, income-export relationship may also be expected to undergo changes. This indicates for the possibility of a structural shift in such relationship. The estimation of such export and economic growth relationship, therefore, may present an account of dynamic relations between these two variables in South Asian Countries.

1.10 Objective of the Study:

Under this controversial theoretical framework, we seek to enquire empirically into the relationship between income growth and export growth in Sri Lanka, a member country of the SAARC. Sri Lanka is an important member of the SAARC and has been stressing upon expanding trade relations with other member countries. Sri Lanka, a sea-locked country, has been bountifully blessed with a scope of successfully carrying on international trade at a cheaper cost. Consequently export promotion exercises constitute a noticeable economic program for this country.

This perspective of the economy fascinates the imagination of researchers to enquire into the contribution of export growth into its economic growth and vice versa. We, therefore, seek to study the relation between economic growth and export growth in this economy. With this end in view, we present in brief the salient features of the economy of Sri Lanka

1.11 The Economy of Sri Lanka:

With an economy of \$80.58 billion, and a per capita GDP of about \$4,700, Sri Lanka has mostly enjoyed strong growth rates in recent years. Sri Lanka began to shift away from a socialist orientation in 1977. Since then, the government has been deregulating, privatizing, and opening the economy to international competition. Twenty years of civil war has no doubt slowed economic diversification and liberalization. Following the quelling of JVP (Janata Vimukthi Peramuna), increased privatization, reform, and a stress on export-oriented growth helped revive the economy's performance, taking GDP growth to 7% in 1993. Average annual GDP growth was 5.2% over 1991-2000. In 2001, however, GDP growth was negative 1.4%-- the first contraction since independence. The economy was hit by a series of global and domestic economic problems and affected by terrorist attacks in Sri Lanka and the United States. The crises exposed the fundamental policy failures and structural imbalances in the economy and the need for bold reforms.

In 2002, Sri Lanka commenced a gradual recovery. Early signs of a peace dividend were visible through out the economy –Sri Lanka has been able to reduce defense expenditures and begin to focus on getting its large, public sector debt under control. In addition, the economy has benefited from lower interest rates, a recovery in domestic demand, increased tourist arrivals, a revival of the stock exchange, and increased foreign direct investment. In 2002, economic growth bounced up to 4%, helped by strong service sector growth. Agriculture staged a partial recovery. Industrial sector growth, however, faltered for the second consecutive year due to weak demand and lower prices for Sri Lanka's exports. The government was able to exert fiscal control, and inflation trended down.

The future of Sri Lanka's economic health is uncertain. If privatization continues and export orientation strengthens, weakness in government will have less impact on growth. Real growth continued to be in the 4%-6% range beyond 2003 but remained below the 8%-9% growth needed to move quickly into the status of middle- income or newly developed country.

The service sector is the largest component of GDP (54%). In 2003, the service sector continued its strong expansion, fueled primarily by strong growth in telecom and financial services. Manufacturing accounts for about 15.9% of

GDP. Agriculture has lost its relative importance to the Sri Lankan economy in recent decades. It accounts for 20.1% of GDP and provides employment to 33% of the working population.

Exports to the United States, Sri Lanka's most important market (33% of total exports). India is Sri Lanka's largest supplier, with exports of \$835 million in 2002. Other suppliers are Japan, Hong Kong, Singapore, Taiwan and South Korea.

Sri Lanka is highly dependent on foreign assistance, and several high-profile assistance projects were launched in 2003. The most significant of these resulted from an aid conference in Tokyo in June 2003.

1.12 Exports of Sri Lanka:

Clothing and apparel is now the country's leading foreign exchange earner, accounting for over half of export receipts. Sri Lanka's traditional primary exports have been tea, natural rubber, and coconut products, especially desiccated coconut and coconut oil. However, the share of total export earnings accounted for by these three commodities declined steadily from 87% in 1972 to 48% in 1985 and 16% in 1999; tea decreased from its 58% share of total export value in 1972 to a low of 8.2% in 1995. Declining export shares for the country's agriculturally based exports are due to adverse weather conditions in recent years as well as rapid growth in the export earnings of industrial products.

In 1999 garments accounted for 51% of Sri Lankan exports. Other commodity exports are tea (14%), diamonds and other precious gems (2.9%), and coconut products (1.7%). Sri Lanka is the source of a large portion of the world's tea exports (25%).

Main Exports of The Country Consists of tea, Rubber, Coconuts, Garments, Gems, desiccated articles, made-up textiles, coconut fiber, activated carbon, articles of leather, and articles of steel.

1.13 Sectoral GDP Growth, Investment and Savings:

In contrast with the 1990s, real GDP growth since 2002 has been driven by the service sector (mainly transport and telecommunications), while industry has

taken second place due to a considerable slowdown in manufacturing growth. Meanwhile, agriculture has continued to lag and virtually stagnated over the recent period.

The industrial sector, which contributes about 26% of GDP, has recovered slowly with growth averaging 3.6% in 2002-2004. This growth record is well below the rates achieved in the 1990s (6.8% on average) which in turn reflected strong manufacturing growth (8.1% on average). A primary reason is that the global economic slowdown during 2001-02 has limited the demand for Sri Lanka's manufactured exports, especially for textiles and garments, which are the country's largest export category. By 2004, textile and garment exports at about US\$2.8 billion were below the levels attained in 2000 (US\$3 billion).

The service sector, which accounts for about 55% of GDP, has been on the upswing in the course of the past three years growing by over 7% in 2002-04 compared to the average annual growth of 5.6% recorded in the 1990s. The telecommunication sub sector has been at the forefront of this growth performance, reflecting the participation of the private sector in expanding the telecommunications network and provision for higher value added services growing on average by 25% the last three years. Healthy growth in transport, trade, and banking and real estate have also contributed to the expansion of the sector.

Agriculture (including forestry and fisheries) has continued to lag behind other sectors and virtually stagnated during 2002-2004, compared to an average growth of 2.5% during the 1990s. A drought in 2004 contributed to a 0.7 contraction in value added. The poor performance of the sector reflects its concentration on a few crops: paddy, tea, rubber, coconut and a small number of other field crops. This concentration entails high risks and makes the sector highly vulnerable to weather conditions. Infrastructure bottlenecks continue to hamper the distribution of agriculture produce, and unpredictable tariff adjustments create uncertainty and discourage long-term investment in the sector.

Gross domestic investment remained somewhat subdued at around 22% of GDP in the immediate years after the ceasefire, but gained momentum in 2004 reaching an estimated 25% of GDP.

Table -1
Sectoral GDP Growth Rates 1990-2004

	1990- 2000 average	2001	2002	2003	2004
Agriculture Sector	2.5	-3.4	2.5	1.6	-0.7
Industrial Sector	6.8	-2.1	1.0	5.5	5.2
Manufacturing	8.1	-4.2	2.1	4.2	5.1
Construction	5.2	2.5	0.8	5.5	6.6
Services Sector	5.6	-0.5	6.1	7.9	7.6
Transport, Storage and Communication	6.4	3.8	7.6	10.2	13.7
Wholesale and Retail Trade	5.5	-6.7	5.6	7.3	5.7
Banking, Insurance, and Real Estate	7.7	7.9	11.1	10.6	6.6
Public Administration and Defense	3.5	1.0	0.0	0.6	2.0
GDP	5.3	-1.5	4.0	6.0	5.4
National Saving	19.8	20.3	19.5	21.3	-
Total Investment	25.2	22	21.3	22.3	25.0
Foreign Direct Investment(\$Mn)	164	172	197	229	227
Of which privatization proceeds	39	90	5.0	30	10

Source : IMF World Economic Out Look Database.

1.14 Specific Issues Under Study:

The present study seeks to enquire into

- (i) the existence of long-run equilibrium relationship between income growth and export growth in Sri Lanka
- (ii) the stability of such long-run relationship
- (iii) the nature and direction of causality between income growth and export growth in the economy of Sri Lanka.

1.15 Plan of the Study:

Chapter – 2 represents the review of literature.

Chapter – 3 deals with methodology used in the study.

Chapter – 4 is devoted to the study of the Stationarity of datasets and the Co-integration between export growth and economic growth.

Chapter – 5 involves the study the stability of the long-run relationship between income growth and export growth. The stability of such relationship has been examined through the estimation of the Vector Error Correction (VEC) Model.

Chapter – 6 consists in the study with the *Vector Autoregressive Model (VAR)*. This model treats all variables symmetrically without making reference to the issue of dependence versus independence.

Chapter – 7 presents intervention analysis through the study of *Impulse Response Functions* for export growth and economic growth in Sri Lanka .

Chapter – 8 deals with the intervention analysis through the study of *Variance Decompositions*. *Variance Decomposition* helps separate the variations in an endogenous variable into some component shocks.

Chapter –9 is devoted to examine the *Granger Causality* between economic growth and export growth.

Chapter –10 presents Spectral Analysis for further confirmation of Granger

Causality. '*Spectral Analysis*' is a powerful tool for inspecting cyclical phenomenon and highlighting lead-lag relations among series. It also provides a rigorous and versatile way to define formally and quantitatively each series components and by means of filtering, it provides a reliable extraction method. In particular, '*Cross Spectral Analysis*' allows a detailed study of the correlation among series.

Chapter –11: presents summary of findings and observations in different Chapters along with concluding remarks.
