1. IMPORTANCE OF TOPIC: SPECIFIC AIMS AND OBJECTIVES

1.1 Introduction

Trade plays a very important role in a country's economic growth and hence its economic development. This is evident in the economic performance of the developed economies and in some developing countries which have pursued an export promotion strategy. Export promotion is associated with externalities such as allocational gains, increasing the rate of capital formation and improving factor productivity growth (Kavoussi, 1985). For most less developed countries (LDCs) export revenue has provided foreign exchange earnings to finance their import requirements at a time when external financing was declining and particularly when there was little or no savings of foreign exchange to be gained by pursuing an inward oriented strategy. As a consequence, the use of export oriented strategies have become more popular in the 1980s compared to the 1970s.

1.1.1 Definitions

Outward orientation is a strategy that encourages production for the export market as well as the local market (World Bank, 1987). Therefore, a country that is outward oriented is more open to trade and has less controls. Although countries may have different policies, their common features of this strategy are there is at least as much incentive to earn as to save foreign exchange and that incentives to export are not discriminatory across commodity groups (Krueger, 1985). The terms "export-led growth", "outward oriented" and "export promotion" are all used to describe policies that encourage export production.

Inward orientation on the other hand is a strategy that encourages domestic production for the home market. Generally, it implies that a few goods and services which were previously imported are now produced at home. Since it encourages production for the domestic market policies tend to discriminate against exports so to protect domestic producers. It is therefore associated with high levels of protection. According to theory, protectionist policies impose costs on the economy because they favour industrialisation over agricultural production.

1.2 Historical View

The 1950s and 1960s periods were characterised by free trade and capital flows (Krueger, 1985). Thomas (1988) described this pattern of trade as the classical pattern of specialisation. This specialisation pattern was reinforced by political history through the expansion of colonialism and imperialism. Colonial powers used their colonies as providers of raw material, (often primary products through mining and plantation development), needed for their industrial revolution.

The fall of colonial administration after World War II (WWII) resulted in the emergence of many independent country states. This meant that there was a new political world order and that the newly independent states could now choose their own trade strategy, that is, either import substitution, export oriented (Thomas, 1988) or a mixture of both. The question was whether the specialisation of dependent nations on the production of primary products and low level of industrial development provided an economic basis for trade.

1.3 The Problem

The debate on the relative merits of the two strategies is an old one and far from over. Trade optimists contend that liberal trade policy generates a rapid expansion of exports and a high rate of economic growth (Kavoussi, 1985). However, the debt crisis of the 1980s, recession of the world economy and the continuing depression of prices for primary commodities have revived export pessimism afresh. There has been little evidence of "trickle down" effects. Statistical figures show that the problems of poverty, chronic unemployment and under-employment, uneven distribution of incomes, malnutrition, famine and many other characteristics of economic and social underdevelopment are just as widespread in poor countries as they were a decade ago (Maizels, 1968).

Trade pessimists therefore argue that present day conditions do not induce economic growth in the case of poor developing countries. The recession created deteriorating terms of trade for most developed nations which prompted them to increase their own protective measures. Developing countries retaliated by increasing their protective measures, and as already mentioned, protection does not favour the trade of primary goods in which LDCs have comparative advantage.

1.4 The Importance and Objectives of the Study

Empirical studies on the effect of export growth on economic performance have been carried out on almost all developing country regions for instance the South American countries, countries from the African continent and Asian countries except for developing countries of the South Pacific region. The sizes, natural resource endowments and geographical locations of South Pacific nations relative to each other and to the rest of the world are interesting factors to note when considering their roles in world trade.

The South Pacific countries depend on a narrow range of primary products for export earnings. Their limited resource base (a factor of the island sizes and recent development) and distance from main world markets, make it interesting to study the implications of these factors on the trading prospects of the islands and their link to economic growth.

This research therefore aims to examine the relationship between trade orientation and economic performance and whether outward orientation as prescribed by the economists apply to Pacific island countries. Given these two aims, it is the intention of this study to provide some guidelines for policymakers in Pacific island countries when formulating policies related to the growth and development process of their economies. Due to data constraints the study is limited to Fiji and Papua New Guinea (PNG).

1.5 Hypotheses

(i) Based on the problem and objectives of this research it is hypothesised that an outward oriented strategy is positively correlated with high economic growth.

(ii) Given that the countries understudy belong to the same geographical location referred to as the South Pacific, it is hypothesised that they do not function as independent economies.

1.6 An Outline of the Study

This study consists of six chapters. Chapter one provides background information on the study, together with the details of the study's objectives and hypotheses. The second chapter provides an outline of the trade orientation literature. Firstly, it presents the fundamental international trade theory and the gains associated with trade. Secondly, it

describes the characteristics associated with each trade strategy. Thirdly, an attempt is made to summarise and give a critical evaluation on previous empirical studies and their conclusions on the subject of trade orientation and growth. Chapter three presents an overview of the islands included in the study and identifies the trade strategies according to the existing economic policies and several methods for the period understudy. The method of analysis to be employed to examine the relationship between trade orientation and economic growth is described in chapter four. The discussion of the results are presented in chapter five while the final chapter will provide some concluding remarks on the findings of the study and implications for the formulation of policies in South Pacific countries.

2. TRADE ORIENTATION LITERATURE

2.1 Introduction

There are two schools of thought emerging from the trade orientation literature: the first is outward orientation (export oriented) and the second school of thought is inward orientation (import substitution) (Meir, 1985). The purpose in this chapter is to provide a comprehensive survey of the existing literature on trade orientation and economic performance. This chapter also provides a summary and critique of previous emipirical studies on the relationship between trade and economic growth. An outline of the obstacles to trade faced by developing countries in general are mentioned later in the chapter.

2.2 Theories of International Trade

The definition of international trade is very simple - that is, it is the exchange of goods across boundaries. International trade is concerned with three main issues. First, the pattern of trade - which countries will produce, export and import which goods. Second, the terms of trade - what determines the relative prices of exports and imports. Finally, the potential gains from trade as opposed to a position of no trade (Thomas, 1988).

2.2.1 The Neo-classical Model

The neo-classical model is based on the law of comparative advantage with increasing opportunity costs. This means that a country has to sacrifice a unit of one good to obtain an extra unit of the other good. Increasing opportunity costs will result in a concave production possibility frontier rather than a straight line.

The law of comparative advantage states that even if one nation has an absolute advantage with respect to the other nation in the production of both goods there is still a basis for mutually beneficial trade. Therefore, a country should specialise in the production of and export of that good in which it has comparative advantage (absolute advantage is smaller) and import the good in which it has comparative disadvantage (absolute advantage is greater) (Salvatore, 1987).

The basic assumptions of the model are:

- consumers attempt to maximise welfare;
- producers maximise profits,
- factors of production are mobile within a country but not internationally;
- no trade restrictions;
- zero transport costs and;
- factor and commodity markets are perfectly competitive (Appleyard & Field, 1992).

2.2.2 The Hecksher-Ohlin Model

The Hecksher-Ohlin (H-O) model extends the trade model developed by the classical and neo-classical economists. It examines the basis for comparative advantage and the effect that trade has on factor earnings of trading countries (Salvatore, 1987). The H-O theory is based on the following assumptions:

- there are 2 countries (A and B), 2 goods (X and Y) and 2 factors of production (capital and labour);
- same technology exists in both countries;
- good X is labour intensive and good Y is capital intensive;
- constant returns to scale in the production of both goods;
- tastes are identical in both countries;
- perfect competition in both commodities and factor markets in both countries;
- perfect factor mobility within each nation but no international factor mobility;
- no transport costs; and
- no restrictions.

According to the Hecksher-Ohlin theory a nation will export the commodity whose production requires the intensive use of the nation's relatively abundant factor and import the commodity whose production requires the intensive use of the nation's relatively scarce and expensive factor (Salvatore, 1987). Therefore the basic determinant for comparative advantage among trading nations are their relative factor endowments.

Factor abundance can be defined in two ways:

(i) the physical units of capital and labour available to each country; and
(ii) the factor price of capital and labour.

The physical definition of factor abundance considers the supply factors only, whereas the price definition considers both supply and demand factors. Since the H-O model assumes that tastes are identical in both trading nations implying that the demand for the two factors are the same in both countries, then the two definitions give the same conclusion. However if the demand for one factor is greater in one country and lower in the other, then the factor price definition would be more appropiate to use.

2.3 Static Gains From Trade

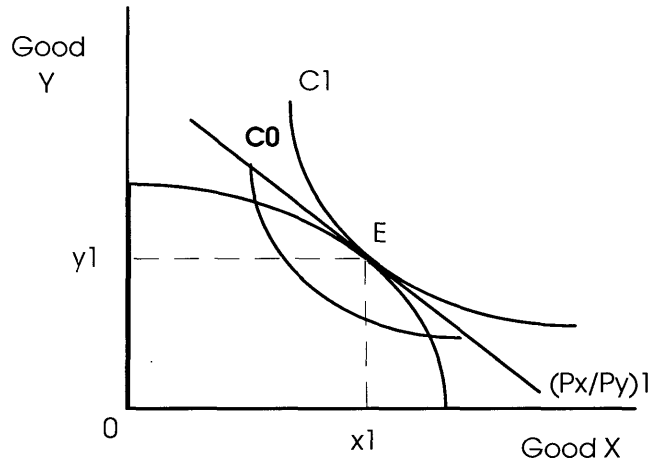
It can be ascertained from the trade theories that the welfare of a country can be greatly improved through an involvement in trade. First we will consider a situation of no trade (autarky) and then compare it with a situation of trade.

2.3.1 No Trade

Production and consumption is assumed to take place on the production possibility frontier (PPF) in a situation of no trade. The producer's position on the PPF will depend on the costs of inputs relative to the prices of the goods produced. Consumer's position on the other hand will depend on the prices of the goods produced given their budget constraint.

At autarky producers and consumers will operate on the same point, point E, (see Figure 2.1) on the PPF. The economy is producing and consuming *0X1* of the X good and *0Y1* of the Y good. At this point the producers and consumers are on the highest indifference curve *C1* given the constraints presented by the PPF. The equilibrium will be at point E where the price line *(Px/Py)1* of the two goods is tangent to the PPF as well as the indifference curve *C1*. The tangency between the price line and the PPF implies that the marginal costs of producing the goods is equal to their price ratio. The ratio of marginal costs of production (MCx/MCy) is also the marginal rate of transformation (MRT), which is the slope of the PPF. The MRT shows how much extra output of Y could be obtained by reducing the output of X by one unit.

Figure 2.1
General Equilibrium in Autarky



Source: Appleyard & Field, 1992.

The tangency between the price line and the indifference curve on the other hand reflects that the price ratio (Px/Py) is equal to the ratio of the marginal utilities (MUx/MUy), which is also known as the marginal rate of substitution (MRS). Nor producers or consumers have the incentive to switch production or consumption from one good to the other at this point. The autarky equilibrium situation for the economy as a whole is denoted by:

$$MRT = MCx/MCy = Px/Py = MUx/MUy = MRS \quad (1)$$

where,

Px/Py	= price line
MCx	= marginal cost of good X
MCy	= marginal cost of good Y
MUx	= marginal utility of good X
MUy	= marginal utility of good Y
MRT	= marginal rate of transformation
MRS	= marginal rate of substitution
Px/Py	= price ratio
MCx/MCy	= ratio of marginal costs of production
MUx/MUy	= ratio of marginal utilities

2.3.2 Trade

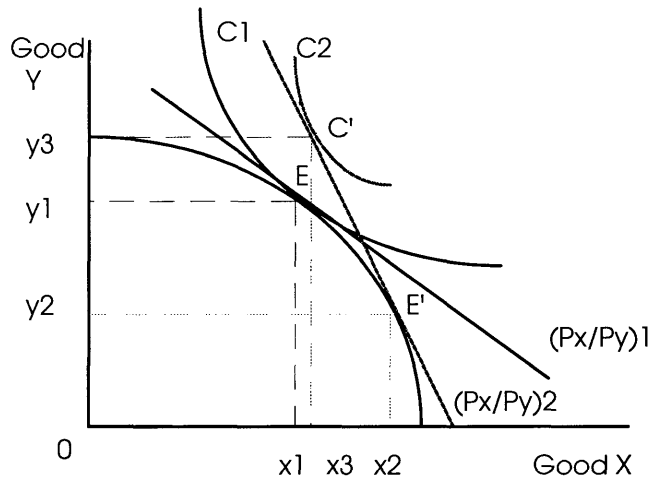
Opening up a country to international trade will expose it to a new set of prices *(Px/Py)2* (see Figure 2.2). Producers and consumers will then adjust their production and consumption patterns respectively to these new prices. These changes in production and consumption patterns will lead to increases in production and higher indifference curves, for the reason that the new set of prices are relativey more attractive than the autarky prices. Economists have divided the total gains from trade into two parts: consumption gains (gains from exchange) and production gains (or gains from specialisation) (Appleyard & Field, 1992).

As indicated by Figure 2.2, the optimal position is at point E, producing and consuming *0X1* of good X and *0Y1* of good Y at autarky prices *(Px/Py)1* and welfare level *C1*. With the economy open to trade, the country now faces a new set of prices *(Px/Py)2* and welfare level *C2*. The new price line *(Px/Py)2* is steeper than autarky prices *(Px/Py)1*, implying that the price of good X is higher than the price of good Y in the international market.

Since producers anticipate an increase in profits from a higher price of X in the international market, production will move from E to E'. At point E' the production of X has risen from *0X1* to *0X2*, while the production of Y fell from *0Y1* to *0Y2*. Consumption patterns have also changed given that consumers are faced with two sets of prices indicating that X is relatively more expensive, while Y was relatively cheaper at international prices. Consumer theory tells us that consumers will choose a consumption point where the indifference curve is tangent to the relevant price line. This is indicated in Figure 2.2 by point C'. The well-being of consumers is maxmised at C' where *0X3* of good X and *0Y3* of good Y is consumed.

With trade, the production of Y falls to *0Y2* and therefore quantity *Y2Y3* has to be imported to meet excess demand for Y, while the production of X increases to *0X2*. The amount *0X3* is consumed and therefore the excess supply of X, *X3X2*, is exported.

Figure 2.2
Gains From Trade



Source : Appleyard & Field, 1992.

The country has gained from trade because specialisation in the production of and exporting of that good in which a country has comparative advantage will increase real income. This increase in income allows the consumers to now reach indifference curve *C2*, than was possible under autarky.

2.4 The Dynamic Aspects of Trade Theory

Fundamental trade theory clearly outlined the static gains from free trade but this does not reflect real world trade patterns. In Nurkse's (1959) own words,

> This type of theory is absolutely basic; it can be extremely useful. It is, however, limited in scope and the more clearly we recognise its limitation the better for the realism and relevance of international economics (pp.54).

The main limitation of the static trade theory is its assumption of international factor immobility, while in fact the opening-up of trade was associated with tremendous international migrations of capital and labour (Corden, 1965).

The static theory of trade presupposes perfect knowledge however reality is faced with uncertainties (Sirc, 1973):

- how demand will develop;
- what course techonological development will take; and
- what supplies of factors will be forthcoming.

The dynamic aspects of trade theory is concerned with the changing structure of the economy over time. Dynamic trade therefore refers to shifts in curves rather than movements along the curve. These shifts are associated with changes which take place through time as a result of economic forces (Woodland, 1982).

Many aspects of an economy may change over time. For instance there may be changes in the endowments of labour and capital. The growth of the labour force is usually taken to be exogenously determined by demographic forces, however, it may be that decisions regarding procreation is based on economic factors. The amount of the types of labour (skilled or unskilled) may be determined by past or present decisions on education which may be influenced by economic factors. That is, there may be investment in human capital. The same can be said of physical capital. The current level of capital stock may depend upon previous investment decisions. The level of technology may also change although it has been treated as an exogenous phenomenon. Technology has been partly responsible for investment decisions. Finally, there may be changes in consumer tastes which can affect the demand for certain goods and services.

Woodland (1982) illustrates the gains from trade in a dynamic model through a utility function approach. What Woodland considers to be important in a dynamic model is whether the utility possibility set for the nation is enlarged or contracted by the introduction of trade taxes. This may be illustrated using a two-period model of trade and growth.

Assume that the economy inherits capital stock K^1 and chooses production $y^1 = (y_1^1, y_2^1) \in Y(K^1)$ and consumption-investment $z^1 = (z_1^1, z_2^1)$. In period 2 the capital stock is $K^2 = (1-\delta)K^1 + z_2^1$ and vectors y^2 and z^2 are chosen. At the end of period 2 the capital stock is $(1-\delta)K^2 + z_2^2$. Since only two periods are considered, the utility function for the single consumer can be written as $u(z_1^1, z_1^2)$, which is assumed to possess the standard properties of a utility function (Woodland, 1982).

Under autarky the consumption possibility set is:

$$Z^a \equiv \left\{(z_1^1, z_1^2):(z_1^t, z_2^t) \in Y(K^t); K^{t+1} = (1-\delta)K^t + z_1^t, t = 1,2\right\}. \qquad (2)$$

This is a set of consumptions which are feasible given the technology and the initial capital K^1. The consumer then has to try and maximise $u(z_1^1, z_1^2)$ on the consumption possibility set.

Under free trade the consumption possibility set depends on the prices of the traded goods and this is defined by:

$$Z^f \equiv \left\{(z_1^1, z_1^2): p_1^t z_1^t + p_2^t z_2^t \leq G(p^t, K^t); K^{t+1} = (1-\delta)K^t + z_2^t, t = 1,2\right\} \qquad (3)$$

Consumers again try to maximise $u(z_1^1, z_2^2)$ on this set. The gains from trade can be established by comparing the two consumption possibility set. It can be seen that Z^a is a proper subset of Z^f which means that Z^f is larger than Z^a. In period 1 the autarky consumption and investment vectors are available under free trade. The economy under free trade can choose to have the autarky capital stock in period 2. In this period the autarky choices are again feasible. Therefore, any (z_1^1, z_1^2) which is feasible under autarky is also feasible under free trade and hence Z^a is a subset of Z^f.

The simple two-period model can also be used to show that free trade is optimal for a nation that is a price taker. A price taker refers to a country that is too small to influence world prices. In period 1 trade taxes will lower gross national product (GNP) evaluated at international prices, and hence make smaller the set of (z_1^1, z_2^1) possibilities. In period 2, since the set of possible capital stock is reduced, a trade tax will reduce GNP at international prices. Thus, the set of possible consumption vectors (z_1^1, z_2^1) is reduced under tariffs at exogenously given world prices. This is not to say that consumption in each period is necessarily lower under tariffs, but that the consumption pattern yields less utility under trade taxes.

2.5 Outward Orientation Strategy vs Inward Orientation Strategy

The debate on whether an outward oriented or an inward oriented trade strategy is the most appropiate strategy with the view of promoting economic growth (particularly in developing countries) is far from over. Emipirical research on the links between export and growth have been carried out by many economists as well as international organisations such as the World Bank, however considerable controversy on the issue remains. Table 2.5 provide a summary of previous empirical studies.

Economic performance from the 1950s to the 1960s up until 1973 was a period characterised by economic growth and boom, but recent economic performance both for developed and developing countries have slowed down. As a result of this trend some economists have expressed their reservations on the role of trade in the growth and development process of less developed countries (Kavoussi, 1985). This growing pessimism among some economists has revived the debate on the relationship between trade and growth.

Trade pessimists argued that the trade prospects of developing countries are poor, therefore an outward oriented trade policy could act as an impediment to economic growth. The proponents of trade theory on the other hand contend that liberalised trade generates a growth in export levels and hence a high economic performance (Kavoussi, 1985).

2.5.1 Inward Orientation

The presence of market failures or imperfections in economies of developing countries and the desire to be self-sufficient have resulted in the adoption of inward oriented policies. An inward looking strategy on the other hand can be defined as one which favours production for the domestic market over the export market (World Bank, 1987). Products are manufactured locally to substitute for imported goods and thereby reduce reliance on imports. In contrast to outward looking policies, inward oriented policies are associated with a high level of protection because they are subject to government regulation. Policies formulated to promote import substitution may act to protect the local industry by increasing the costs of imported goods relative to the world price. Such policies act to switch consumption to locally manufactured goods. Rising input

Table 2.5

Previous Empirical Studies on the Relationship between Export and Economic Growth

Study	Data Set	Methodology				Conclusion
		Economic Growth	Export Growth	Technique	Other Variables	
Michaely (1977)	cross section 41 countries 1950-73	per capita GNP growth	growth in export share	rank correlation	none	EG Threshold Effect
Balassa (1978)	cross section 10 countries 1956-67 and 1967-73	GNP growth	Export growth or real export growth	rank correlation OLS production function	labour force growth domestic investment foreign investment or output	EG
Williamson (1978)	cross section 22 countries 1960-74	Change in GDP	lagged exports	OLS linear model	country dummies direct investment other foreign capital	EG
Fajana (1979)	time series 1954-74 1 country	GDP growth	export shares or export change	OLS	trade balance current account	EG
Tyler (1981)	cross section 55 countries	GDP growth	export growth	OLS production function	labour force growth investment growth	EG Threshold Effect
Feder (1983)	cross section 31 countries	GDP growth	export growth	OLS	abour force growth investment/output	EG
Kavoussi	cross section	GDP growth	export growth	rank correlation	investment	EG Threshold Effect
Balassa (1984)	cross-section 10 countries	GNP growth	export growth	OLS production function	labour force growth ratio to output of domestic investment	EG Threshold Effect

Ram (1985)	cross section 73 countries 1960-70 and 1970-77	Real GDP growth	real export growth	OLS tests for heteroskedasticity & specification bias	labour force growth investment growth	EG
Jung and Marshall (1985)	time series cross section 37 countries 1950-81	real GNP or (GDP) growth	lagged real export growth	maximum likelihood simultaneous linear functions Granger causality	lagged GNP growth	little support for EG
Moshos (1989)	cross section	real GDP growth	real export growth	OLS production function	labour force growth real domestic investment	EG Threshold Effect
Salvatore and Hactcher (1991)	time series 1963-73 1973-85 26 countries by trade policy orientation	real GDP growth	real export growth	OLS production function	labour input growth capital input growth growth in industrial production	EG
Darrat (1987)	time series 4 countries 1955-82	real GDP growth	real export growth & lagged real export growth	OLS white test for causality	none	Reject EG
Greenaway & Sapsford (1994)	cross section 104 countries 1960-73, 1973-90 1980-88	real (PPP) GDP growth	growth in export ratio	OLS test for heteroskedasticity	none	EG

Source: Greenaway and Sapsford (1994)
Note: OLS-ordinary least squares
EG denotes a finding in favour of export growth

costs as a result of tariffs on imported raw materials and high costs of domestic inputs act as barriers to the export sector (Helleiner, 1972).

The import substitution strategy can be justified according to three reasons. The first is the infant industry argument intended to encourage and speed up industrialisation in countries. Newly established industries will need some form of protection from foreign competition until it achieves some efficiency in production to be able to compete. It is often difficult to judge when an industry has gained efficiency and problems arise when protection is maintained for too long and also at a high rate. Maintaining protection on an industry for too long and at high levels may render industries to depend on protection for continued operation and therefore unable to compete with foreign firms. Secondly, tariffs play an important role in raising government revenue and the rate of savings, as other forms of taxation have proved difficult. The third rationale for import substitution is savings on foreign exchange when citizens of a country buy domestic substitutes of imports (Streeten, 1973).

Despite the gains that were perceived to be reaped from an import substitution method most developing countries found that there was little eonomic growth to be gained from this strategy. There were shortcomings associated with this strategy. First, the production of import substitute goods often require highly capital intensive technology not suited to the domestic production environment, and resulted in the creation of only a few new jobs. Second, the fact that some of the goods are capital intensive means that equipment and machinery as well as the raw materials have to be imported which are expensive. This process places a severe strain on the already scarce foreign exchange reserves of LDCs. Thirdly, excessive protection granted to the local industries may encourage inefficient industries operating at high costs to stay in business at the cost of the community. According to Sachs (1973) the import substitution was a self-defeating strategy.

Inward oriented policies impose costs on the economy. They tend to be biased against agricultural goods and favour industrialisation where protective measures act as disincentives to the agricultural sector. This is referred to as an inefficient allocation of resources as it makes one group better off and the other worse off. In short, inward oriented policies tend to distort the factors of production and therefore lead to allocative inefficiency.

Import-substitution regimes are generally characterised by:

- strict and time-consuming licensing procedures for imports of manufactured producer goods;
- overvalued exchange rates;
- prohibited imports or a wide range of tariffs is imposed on different products at a high level; and
- quantitative restrictions or prohibitive tariffs for many commodities.

2.5.2 Outward Orientation

The growing popularity of an outward strategy was due to the failure of inward orientation and the improved economic performance of developing countries pursuing export oriented policies. An outward looking strategy is market oriented as it is based on the notion of liberlisation. Liberalisation is in favour of free international trade from the distortions caused by tariff and nontariff barriers (Hamilton, 1989). It embraces the idea of free trade which brings with it the free flow of capital and technology (Helleiner, 1972), and to facilitate this notion of free trade all economies must remain relatively open.

Economic performance can be improved through an outward oriented strategy. It provides competition to local industries and therefore creating pressure to improve efficiency which will lead to product improvement and innovation. It realises economies of scale and improved resource allocation in pursuit of comparative advantage. Investment in comparative advantage industries is encouraged and thereby increase factor productivity through a greater inflow of capital. Exports will earn and hence increase foreign exchange reserves.

Some general features of export-oriented regimes are:

- it permits ready access to imports of intermediate and capital goods, at least to exporters;
- has a fairly realistic exchange rates and provide as much, if not more, incentive to sell abroad as to sell domestically;
- incentives apply uniformly to all exporters;
- policies normally avoid quantitative restrictions; and
- use of generally low tariffs with relatively simple procedures to permit exporters to international markets.

The emerging consensus appears to be shifting towards an export led growth strategy. Inward orientation has become less popular in the 1980s. The decline of external financing has increased the reliance of LDCs on exports as a source of foreign exchange revenue to meet import requirements. The International Monetary Fund (IMF) and World Bank through loan conditions stress the importance of outward oriented policies as an engine of economic growth (Helleiner, 1986). In addition the results of emipirical studies suggests that export-orientation leads to economic growth.

2.6 Empirical Evidence: A Summary and Critique

Empirical evidence on trade orientation and growth is not easily summarised. Different analysts have addressed the issue in different ways. Where the same approach has been adopted by different analysts, controversy may still remain due for instance to alternative interpretations of a given data set.

Extensive empirical research has been carried out on the relationship between exports and growth. Table 2.5 provides a brief summary of the data, methodology and conclusions from a set of studies conducted from 1977 to 1993. The majority of the results show an overwhelming support for the export-led growth hypothesis. Several other studies find that there is a difference in the effect of exports on economic growth between countries above and below some critical level of development referred to as the 'threshold effect' .

Michaely (1977) uses the spearman rank correlation method to determine the strength of the relationship between growth in per capita GNP and growth in exports. Balassa (1978) and Kavoussi (1984) also used the rank correlation method, but go a step further by using the ordinary least squares (OLS) regression analysis. Michaely is unusual in working with the growth in the share of exports in GNP as his 'export' variable. He argues that since exports are a part of the national product, there exists a positive correlation between the two variables. This view was challenged by later researchers who have continued to use exports *per se* in their analyses. The rank correlation studies in general conclude that favourable growth in exports are significantly associated with high economic growth.

The production function methodology originated in the works of Michalopolous and Jay in 1973. It has been used in other studies by Balassa (1978; 1984), Tyler (1981), Kavoussi (1984), Moschos (1989) and Salvatore and Hatcher (1991). In almost all the

studies the growth rate of either GNP or GDP is regressed upon the growth rate of exports and a set of additional explanatory variables, usually related to labour and capital. Balassa (1978) differentiates between domestic investment and foreign investment, using the ratio of each to output and the growth in the labour force. Tyler, Kavoussi and Moschos use the labour force growth rate but differ in the use of the capital variable. Tyler uses growth in investment, Kavoussi the capital growth rate and Moschos growth in real domestic investment. The studies indicated that the inclusion of the export variable in the estimated production functions increased the explanatory power. It lead to the conclusion that exports contribute significantly to the rate of economic growth.

Balassa (1984) extended his previous study to the 1973-74 period. The 43 countries considered were all subject to the external shocks of the oil crisis in 1973-74 and the world recession of 1974-75. His study was extended to include the policy reactions of these countries to the external shocks and their outward or inward orientation. The study reached the following conclusions:

- exports were an important contributor to economic growth in developing countries during this period;
- the contribution of exports has increased compared with the period covered in his earlier study; and
- an outward oriented policy at the beginning of the period and reliance on export promotion as a response to the shocks contributed favourably to economic perfomance.

Michaely (1977) divided his sample of 41 countries on the basis of their per capita income levels. He found that the rank correlation between exports and economic growth was significant for the 23 countries in his higher income group, while for the low income group it was zero. He then concluded that 'economic growth can be affected by exports only once countries achieve some minimum level of development' (Michaely, 1977, pp.52). Tyler (1981) using the production function approach agreed that 'a basic level of development is necessary for a country to most benefit from growth' (Tyler, 1981, pp.124). Kavoussi (1984) using the same approach arrives at the same conclusion that 'the contribution of exports...is greater among the more advanced countries' (Kavoussi, 1984, pp.242). Moshos (1989) is critical of earlier studies for imposing an arbitrary division between the developing countries. In his study he looks for a critical switching point in a cross sectional production function analysis. He then concludes that

there is such a critical point which can best be found from the data themselves rather than referring to some arbitrary criterion.

The question of causality (that is, do exports growth determine the rate of economic performance? or does the level of economic performance lead to a favourable growth in exports?) has been addressed by Jung and Marshall (1985) and Darrat (1987). Most other studies have been undertaken on the assumption that outward orientation is positively related to economic growth. Jung and Marshall (1985) use Granger causality tests working with time series data on output and export growth rates over a minimum of 15 observations from 37 countries. They conclude that:

> The time series results...provide evidence in favour of export promotion in only four instances... At the very least, it suggests that statistical evidence in favour of export promotion is not as unanimous as was previously thought (Jung & Marshall, 1985, pp.11).

The World Bank conducted a study on fourty-one developing countries over two periods: 1963-73 and 1973-1985. The trade strategies of the countries were identified according to their effective rate of protection, use of direct controls such as quotas and import licensing, and use of export incentives. No particular econometric or mathematical model was used. The study looked at the controls existing at the time and their corresponding total output (GDP) at a given period. The countries were then grouped into four categories: strongly outward oriented, moderately outward oriented, moderately inward oriented and strongly inward oriented. A country was strongly outward oriented if there were no or very few trade controls; moderately outward oriented if controls were limited so that some incentives are given to exports while protection still applied to imports; moderately inward oriented if policies clearly favour local production by having relatively high effective protection and import controls; strongly inward oriented if incentives were granted towards import substitution processes and controls were quite extensive (World Bank, 1987). The findings of the study suggests that the economic performance of outward oriented countries were superior to performances of inward oriented countries.

The empirical work on the relationship between trade orientation and growth has suffered from some serious limitations (Edwards, 1992). It has been difficult to formulate satisfactory and convincing measurements of trade orientation that can be used in time series analysis and, particularly, in cross-country comparisons. Two strategies have been developed to deal with the measurement problem:

- the use of subjective indexes; and
- the decomposition method.

The World Bank study in the 1987 *World Development Report* resorted to the use of subjective indexes. The study uses a subjective indicator in the sense that researchers constructed the indicators using their judgement. Another limitation is it does not allow cross-country comparisons.

Another group of researchers have chosen to decompose the effects of trade orientation on economic performance into 2 stages:

(i) assumes (without testing) that a more liberalised trade regime will encourage exorts via a reduction of anti-export bias; and
(ii) the researchers [Michaely (1977), Balassa (1978, 1984)] tests whether higher exports (or a more rapid growth in exports) have been associated with a higher rate of economic growth.

Neither of these approaches have been proven to be entirely satisfactory because:

- results of cross-country studies based on subjective indexes depend on whether the countries in the study are classified as 'liberalised' or 'unliberalised' economies; and
- a study which assumes (without testing) that countries involved in free trade is associated with high growth is likely to give South Korea as the best example of an outward oriented economy.

The factors that hinder export growth and the growing disillusion experienced by many third world countries on their trade prospects is outlined in the following section.

2.7 Obstacles to Trade

Although the classical belief that growth can be achieved through trade has been confirmed by performances of some of the developing countries, trade has not had similar positive effects on poor LDCs. For many LDCs there has been growing disillusion on their trade prospects. According to Meir (1984) growth induced through trade can sometimes be detrimental to economic growth. It creates dual economies where one part of the economy is developed by producing primary products for export while the other sectors of the economy remain virtually undeveloped. A more serious

effect is the transfer of income from poor countries to rich countries. The encouragement of poor nations to export during a period of deteriorating terms of trade compared to the richer countries result in an income transfer to the latter.

Anti-trade theorists argue that the capacity of third world countries to trade is limited because of low world demand for their products, the very nature of their exports (primary goods), limited resource base and internal and external economic conditions.

The developing countries are predominantly producers of primary products. Total third world primary exports have grown slowly over the years which implies that developing countries' share of exports have been falling (Helleiner, 1972). The export market for primary goods is biased against products from poor countries. Advanced technological methods employed by farmers in the developed world result in better quality and an increase in quantity of their products. For instance rapid technological change is producing cheap superior synthetic substitutes for many agricultural products (Kavoussi, 1985). The consequence of being unable to compete is a slow growth in the demand for LDC goods. Low demand determines lower export prices than expected and hence low export revenue. Primary commodities are often subjected to the problem of price instability.

Limited resources can also put a constraint on the diversification of exports. To maintain market share in export market a country should be able to continue supply and also be able to supply large quantities to the market. Most LDCs may not have this ability, particularly tropical countries in the pacific, because of their limited resource base.

The 1980 world recession affected the trading positions of developing countries to a greater extent than the developed nations. The terms of trade of many LDCs worsened during this period as the rich nations grew more protective. Protection in the rich countries limits market access for LDCs agricultural exports. Therefore poor trade terms was responsible for falling export revenue. On the other hand internal economic conditions can also produce problems for a good trading position. For instance there is usually a high demand for imported goods in LDC countries. If imports are greater than exports then this could worsen a country's terms of trade as they would be spending beyond their means.

2.8 Summary

The debate between outward oriented and inward oriented strategies seem to favour an outward oriented growth strategy and this is supported by the empirical studies. Also, many conventional economists as well as international organisations like the IMF and the World Bank are in favour of export production. Most developed countries follow this strategy and in fact enjoy the gains from trade. Whether this trade strategy works in the case of Pacific Island countries is the subject of the following chapters.

3. LITERATURE REVIEW & TRADE ORIENTATION STRATEGIES OF PACIFIC ISLAND ECONOMIES

3.1 Introduction

This chapter serves two purposes: to provide a general review of Pacific Island economies; and to identify the trade strategies of the islands during the period 1967 to 1991. This period was chosen for 2 reasons:

(i) the availability of data in a consistent manner from 1967 onwards; and
(ii) the changing pace of economic activities worldwide during this period would make the study interesting by looking at the trade strategies employed by the islands at the time.

The South Pacific island region is bounded on the Western side by Palau and the Northern Marianna Islands and Papua New Guinea (PNG). The PNG island is shared with Indonesia. New Caledonia, Tonga, Niue and the Cook Islands define the long southern edge of the region; French Polynesia constitutes the eastern limit; and Tokelau, Kiribati, Nauru and Marshall islands compromise the northern boundary (Lodewijks and Zerby, 1989).

The South Pacific is divided into three regions. Micronesia is situated on the northwest section consisting of Guam, Kiribati, Nauru and the Trust Territory; the Melanesian group located to the southwest of the region. The melanesians are a large group in terms of island size, population, languages and cultures. The third group are the Polynesians located on the southeast consisting of Cook islands, Tahiti, Niue, Samoa, Tokelau, Tonga, Tuvalu and Wallis and Futuna (Lodewijks and Zerby, 1989).

Former political affiliations continue to exert an influence on the economic and social structure of the islands. The Spanish, Germans, Japanese, French, British or American domination existed at one time or another on most islands. Most of the islands have since attained political independence.

3.2 Overview of the Island Economies

Most Pacific island economies have a long history of trade with Western countries and also with each other which has been maintained even after the Second World War. These economic ties have been in place despite the vast distances between the islands and the west. The island territories also share a number of common characteristics: physical characteristics, main economic activities and reliance on exports to meet their needs.

3.2.1 Natural Resource Endowment

Natural resources of the region vary considerably depending upon the nature of the island. Small atolls have poor soils. Volcanic formed islands are exposed to severe erosions. Agricultural and mineral resources vary between islands. Timber is available on some islands. Phosphate can be found on some islands but only Nauru has substantial supply. Overall PNG was the better placed island in terms of the quantity and diversity of natural resources (Lodewijks *et al.*, 1989).

3.2.2 Trade Issues

The economies of the Pacific Islands are small, open and dependent on trade and aid for growth and development (Flemming & Piggot, 1985). The world market environment places the islands at a disadvantage in terms of trading positions. The islands rely on imports for a large share of foodstuffs and heavy machinery which often puts a strain on their limited financial resources. Being small buyers they have little ability to influence prices of imported goods. The distance between main world markets and the island territories also adds to the cost of imports. Export growth has been largely dependent on the flow of world trade. Many islands are dependent on a narrow range of exports for which prices are determined in the developed countries. This situation can lead to poor export performance which results in island economies having to depend on aid and remittances to finance import requirements. Poor export performance meant that many islands experienced deficits (Cole & Parry, 1986).

The greatest proportion of Pacific export trade is with the European Economic Cooperation (EEC), America and Japan. A very small proportion of Pacific exports go to Australia and New Zealand. The possibility of export expansion in the bigger islands - Fiji, PNG, Solomons and Vanuatu - is greater compared to the smaller islands because of the diversity and the quantity of resources found on these larger Pacific states. In

addition some of them, for instance, PNG and Fiji are well placed on trade routes enabling them easier access to international markets.

3.2.3 Trade Obstacles

Trade between the islands and with the rest of the world is difficult due to two factors - one is the physical difficulties and the other is the limited resource endowment to ensure a continuous supply of goods and to maintain competitiveness in world markets. The obstacles in developing trade are :

- the distance between islands;
- small production volumes and infrequent shipping schedules which
- could lead to high transport costs;
- persistence of colonial economic relations; and
- reliance on foreign aid (United Nations, 1992).

The next section presents the profiles of islands included in the study. However, the unavailability of data for most of the developing countries has narrowed the study of trade and growth to two Pacific island countries being Papua New Guinea and Fiji.

3.3 Country Profiles

3.3.1 Fiji

Fiji is one of the larger and more developed Pacific island countries. She covers a land area of 18 333 square kilometres and has population of 730 000 in the 1990 census (refer to Table 3.1). About 45 percent of the population are ethnic Fijians engaging in subsistence agriculture and the public sector. The rest of the population are Indians who work mainly in the sugar plantations and entrepreneurial activities.

The economy is based on the sugar and tourism industries. The tourism industry is fast becoming the dominant sector in terms of its contribution to GDP. Chart 3.1 shows GDP by type of economic activity and the tourism industry contributes about 23 percent to total production.

The growth of the Fijian economy rose steadily from 1967 to the late 1970s but it began to slow down during the 1980s as a result of the recession and the coup in 1987. The coup resulted in the deterioration of business and consumer confidence. There was an

immediate flight of 'human capital'. Ethnic Indians as well as ethnic Fijians left key positions in business and government to emigrate. Financial flight follwed. Uncertainty created by the coup led the business community to seek safe investments abroad. Touris arrival fell, which contributed to a rapid decline in foreign reserves.

Table 3.1
Economic and Social Indicators for Fiji

	1971	1980	1990
Real GDP	755.0	1199.6	789.1
Real GDP per capita	1422.0	1892.0	1078.0
Population (in '000s)	531.0	634.0	732.0
Life Expectancy at Birth	64.6	68.3	71.1
Infant Mortality Rate	47.0	33.4	24.6
Primary School Enrollment Ratio	105.0	120.0	125.0

Source: World Bank (1988, 1993), *World Tables.*
Note: Real GDP in millions of 1980 US Dollars

Growth of the Fiji economy began to pick up after 1988. The country was committed to a new development strategy based on export-oriented growth. Tax reforms were introduced and tax free zones established to revive economic activity (Asian Development Bank, 1991).

Real GDP per capita fell in the last 10 years. In 1990 real GDP per capita in millions of US dollars was $1078 (Table 3.1), a decline of about 43 per cent from 1980. Classified by the World Bank as a low-middle-income economy, Fiji compares well with many other developing countries in terms of its social indicators. Her per capita income is about double that of PNG. Social indicators show that the welfare of citizens have improved steadily over the years with life expectancy at 71.1, infant mortality declining and a much improved enrollment ratio in primary schools.

The trend for imports and exports followed a similar trail - both generally increasing over 1967 to 1979, fell during the 1980s and rose again in the late 1980s. The principal export commodities are sugar, garments, gold and fish (Charts 3.2 and 3.3). In the last 10 years garments have become important in the export industry of Fiji.

3.3.2 Papua New Guinea

PNG is the largest developing country in the South Pacific area in terms of its size. Her land area totals about 462 840 square kilometres with a population of 3 875 000. The main economic activity for most its citizens is subsistence agriculture. The physical characteristics and climatic conditions provide favourable conditions for agricultural production. Commercial production takes place in producing coffee, copra, cocoa and tea. PNG is also rich in minerals. All these natural resources mean that PNG has a more diversified export base in relation to other islands.

Real GDP has been steadily growing between the 1970s and 1980s. This could be attributed to the opening up of the Bougainville mine in 1972. The economy slowed down in the 1980s (due to the recession) and again declined in 1990 and 1991. The decline in 1990-91 was due to the closure of the Bouganville gold and copper mines (BCL), weak world prices for copra plus other exports and low export volumes. (Asian Development Outlook, 1991).

Classified by the World Bank as a low-middle-income country, PNG's per capita income is lower than that of Fiji. Real GDP per capita fell in the 1990s which is partly due to its population growth and partly as a result of declining economic activity.

Social indicators indicate slow improvements in social welfare services. When compared to other countries within the same income group, the quality of life as suggested by the indicators is indeed low. Life expectancy at 55 years falls short of the 65 year average generally experienced by countries with similar income levels. The infant mortality rate is significantly higher compared to other lower middle income countries, for instance Fiji. A clean water supply for maintaining health standards is a concern as only 10 percent of rural ares in PNG have access to safe water (Jarrett, Anderson & Nguyen, 1990). This may contribute to the high incidence of malaria, pneumonia and tuberculosis. The proportion of the population in primary school and the adult literacy rate are low.

Table 3.2
Economic and Social Indicators for PNG

	1971	1980	1990
Real GDP	1399.3	2385.2	1824.3
Real GDP per capita	564.0	792.0	471.0
Population (in '000s)	2482.0	3011.0	3875.0
Life Expectancy at Birth	47.2	51.1	55.1
Infant Mortality Rate	106.0	67.0	56.0
Primary School Enrollment Ratio	52.0	62.0	71.0

Source: World Bank, (1988, 1993), *World Tables.*
Note: Real GDP in millions of 1980 US Dollars

Generally, the exports and imports og PNG have both rising steadily over the period (see Figure 3.4) with imports higher than exports. The gap between exports and imports can be seen to widen.

3.4 Identification of Trade Orientation Strategies

There are two alternative strategies: outward orientation (export promotion) and inward orientation (import substitution). In real world circumstances there may be a mixture of both strategies operating in one economy. The following measures will be used as criteria for identifying the trade strategy employed by each island: (i) the export-GDP ratio and (ii) import penetration ratios. Trade orientation will be measured from 1967 until 1991 to see whether there has been a change in strategies during this period.

3.4.1 Measurements of Trade Orientation

3.4.1.1 Export-GDP Ratio

The export-GDP ratio measures the extent to which a country exports goods in relation to its total output. A high ratio indicates that a country is more involved in trade as it

implies few trade controls. A low ratio on the other hand indicates that a country is more protective and therefore biased towards import substitution strategy.

3.4.1.2 Import-Penetration Ratio

This method was used by Athukorala and Hazari (1988) to measure the penetration of manufactured imports from developing countries into Australia. Hill and Phillips (1993) also used the same method to measure the rise in import penetration in East Asia's Export Economies.

The import penetration ratio measures the extent to which a country is involved in liberalised trade. It is a ratio of imports (M) to domestic sales (DS). Due to difficulty in acquiring data on sales it is quite common to define DS as domestic production (DP) (Athukorala and Hazari, 1988). The import penetration ratio can therefore be defined as:

$$M/[P+M-X] \qquad (4)$$

where,

M = imports
P = production
X = exports.

A high ratio indicates a more open economy and few trade controls implying an outward looking strategy. A low ratio indicates biasedness towards protecting local manufacturers.

3.4.2 Trade Strategies

3.4.2.1 Fiji

The export-GDP ratio for Fiji from the late 1960s up until 1988 was generally low, averaging around 50 percent. This trend implies a strategy in favour of import substitution. An upward trend in the export-GDP ratio after 1988 indicated an economy moving towards a more export oriented trade strategy. The import penetration ratio followed a similar pattern, low during the late 1960s to 1988 and increasing in 1989-90. The trend implies a change towards a more liberal trade system with fewer controls.

The low ratios before 1989 indicated a system biased towards an import substitution strategy. According to Coles and Hughes (1987) Fiji was a heavily protected and regulated economy in the 1970s and 1980s. It replicated the growth of regulation in the United Kingdom during the 1950s and 1960s. The national development objectives and strategies were highly import substitution oriented. The instruments used to achieve the planned outcomes included policies which acted through the prices faced by enterprises and entrepreneurs. The most important of these were:

- tariffs that from the mid 1970s implemented import substitution policies, notably in manufacturing;
- a package of incentives, including tax holidays that further sought to protect selected manufacturing industries.

Direct controls to supplement the basic policies include the limitations on the right to import goods and the regulations that restricted entry by local and foreign producers to those approved by the bureaucracy. In addition the Reserve Bank adopted a variable pegged exchange rate regime to provide confidence in the stability of exchange rate, thereby reducing uncertainty in economic decision making.

Import duties, quantitative import restrictions, production licensing, tax holidays and some credit access priviledges provide a wide range set of controls to encourage industrialisation in Fiji. High protection encouraged capital and workers to flow into import subtituting activities because it rewarded them with a share of monopolistic 'rents' created by protection. High prices are transmitted to other sectors of the economy - farmers, exporters and tourism.

The general rise in the ratios in the late 1980s reflected Fiji's commitment to pursue an export-oriented strategy in 1989. The costs of an inward oriented economy were becoming apparent in terms of slow growth. Fiji therefore slowly deregulated the economy and abandoned import substitution policies.

3.4.2.2 Papua New Guinea (PNG)

The export-GDP ratio was low for the beginning of the period understudy and only started to rise in the mid 1970s. Most of PNG's mines were under construction from 1970 to 1972 and became operational in 1973 and 1974. This probably accounted for the rise in the export-GDP ratio during the 1970s.

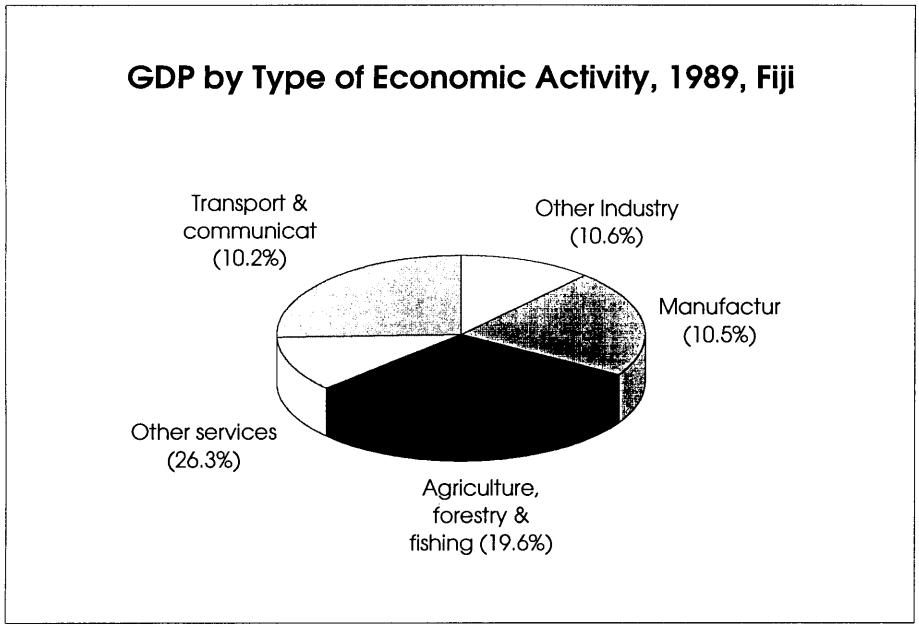
The import penetration ratio for PNG has been generally rising from 1967 to the early 1990s. According a World Bank Mission report (1978), PNG has one of the highest propensities to import of any country in the world. PNG is still very much committed to an open economy policies that marked its economic relations with rest of the world before independence.

Fluctuations in the export-GDP ratio must have been due to falling export levels as a result of poor prices for primary goods in which PNG had comparative advantage. A downward trend in 1990-91 in the export-GDP ratio was a result of the closure of the Bougainville mines when export levels declined. Overall Papua New Guinea has remained relatively open in its trade startegy (Browne and Scott, 1989).

3.5 Summary

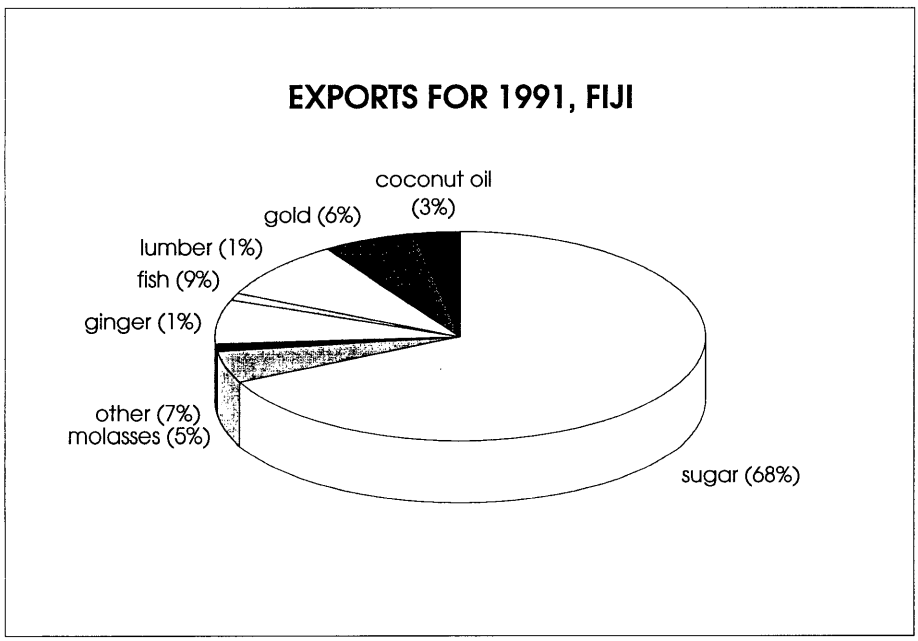
Fiji and Papua New Guinea are some of the largest islands in the South Pacific region. Although they are located in the same geographical region, they are different in terms of their natural resource endowments and trade growth policies. Where one was generally an import subtituting economy and now adopting a more open economy, the other chose to maintain a relatively open economy throughout the period under study.

Chart 3.1



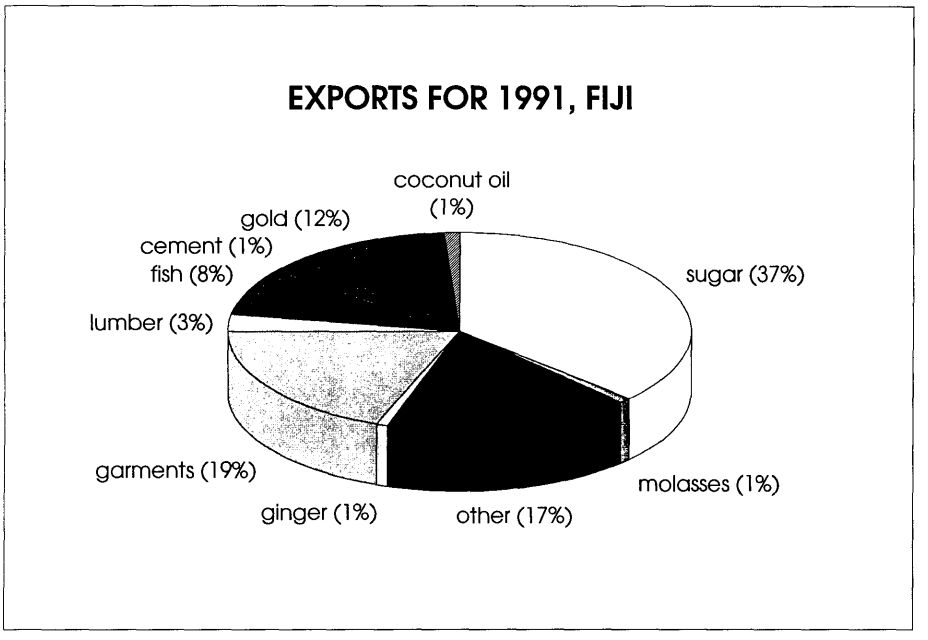
Source: Treadgold, M. (1992) , *The Economy of Fiji: Performance, management and prospects.*

Chart 3.2



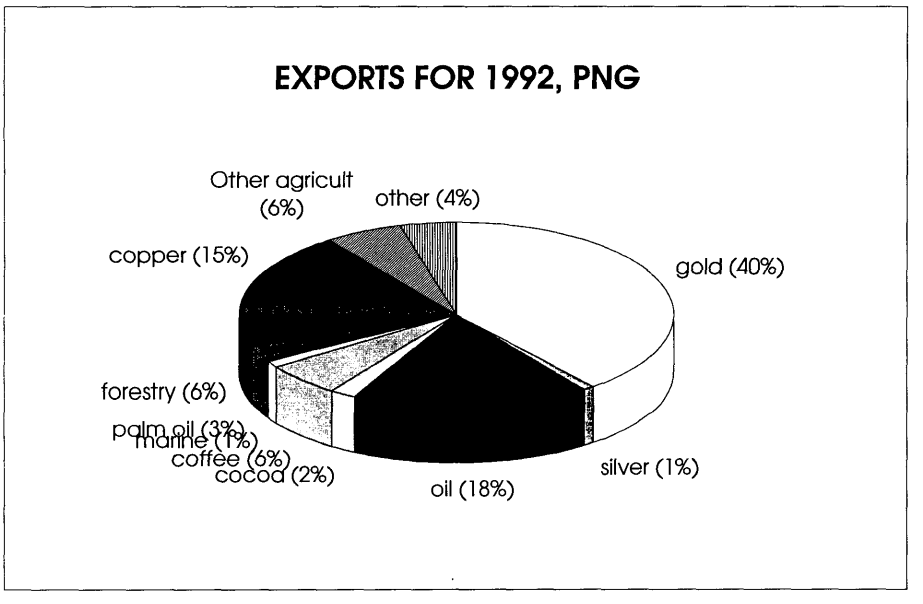
Note: Created from data inTable A1

Chart 3.3



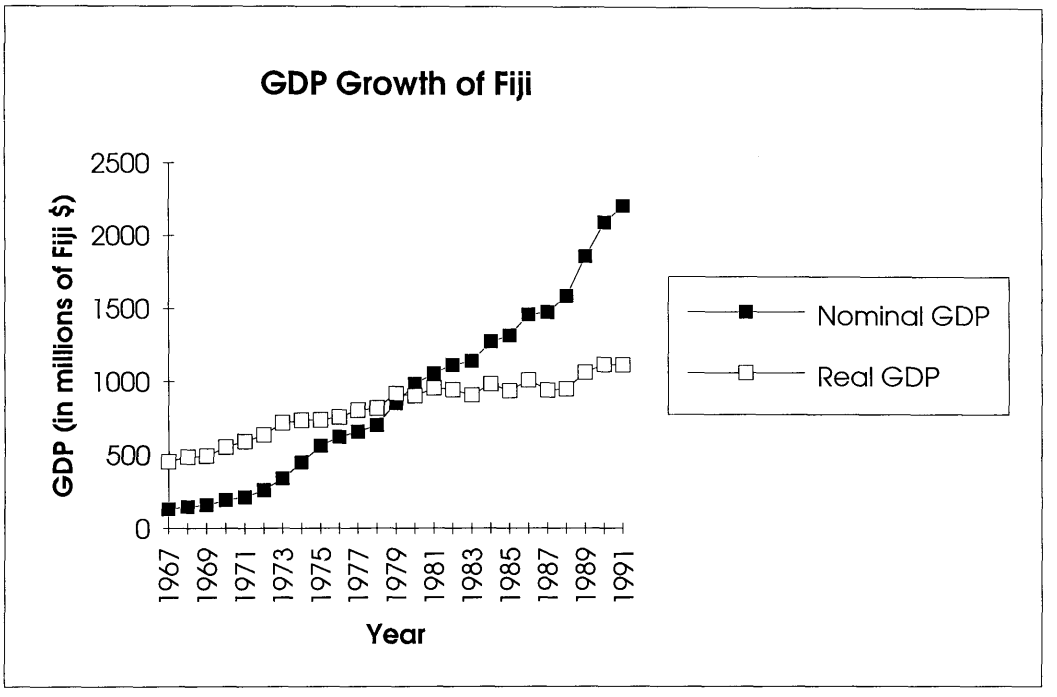
Note: Created from data inTable A1

Chart 3.4



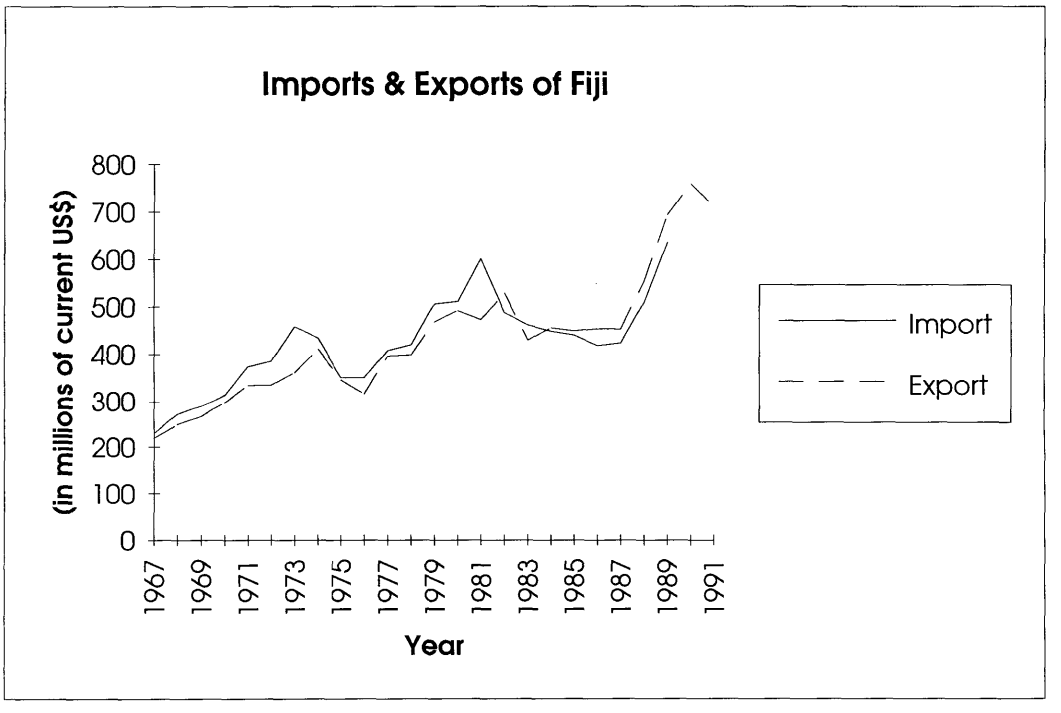
Note: created from data in Table A2

Fig 3.1



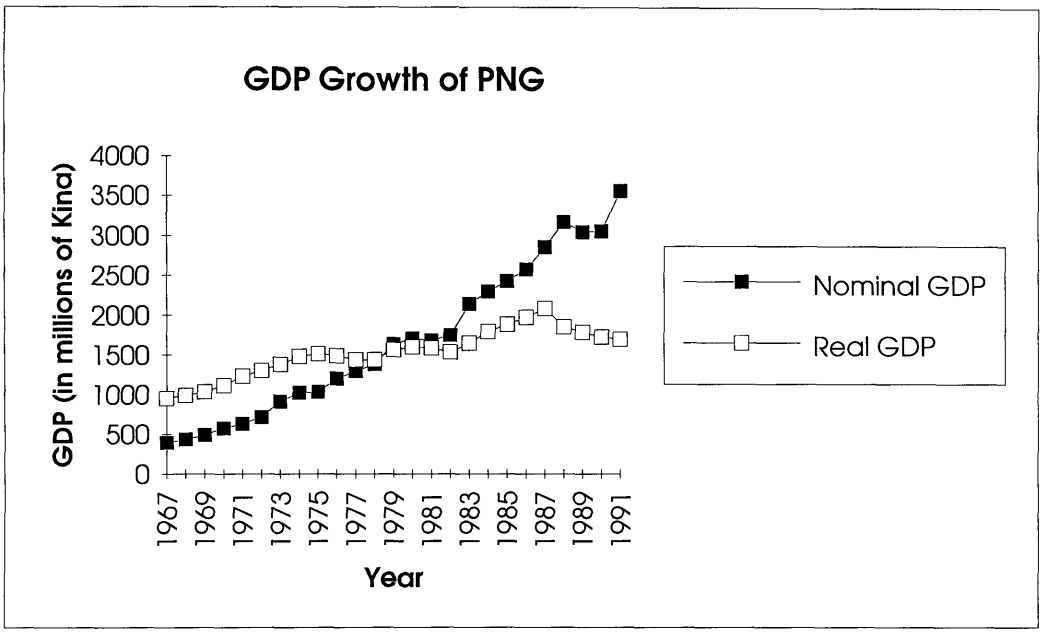
Source: World Bank, (1988, 1993), *World Tables.*
Note: Real GDP in 1980 F$

Fig 3.2



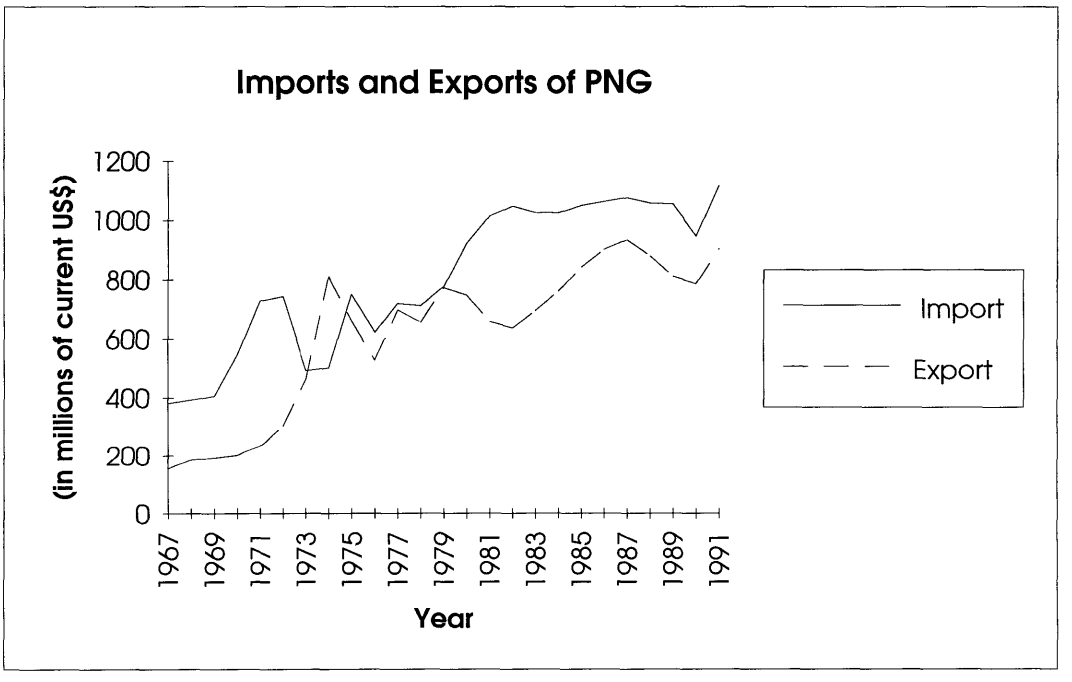
Source: World Bank, (1988, 1993), *World Tables*
Import and Export values in 1980 prices

Fig 3.3



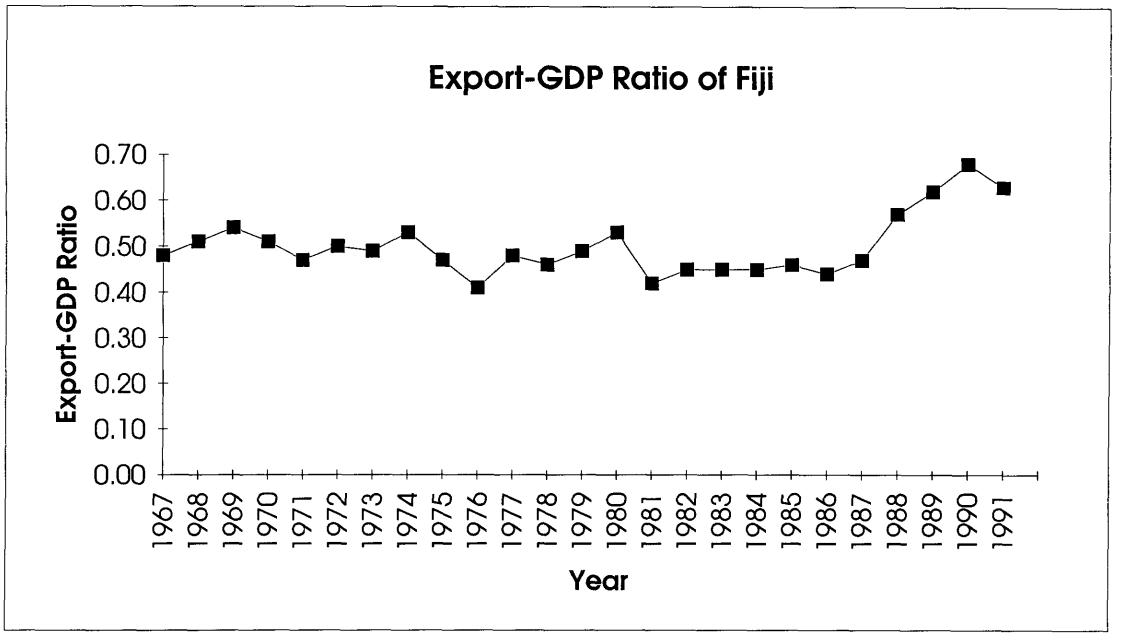
Source: World Bank, (1988, 1993), *World Tables,*
Note: Real GDP in 1980 Prices

Fig 3.4



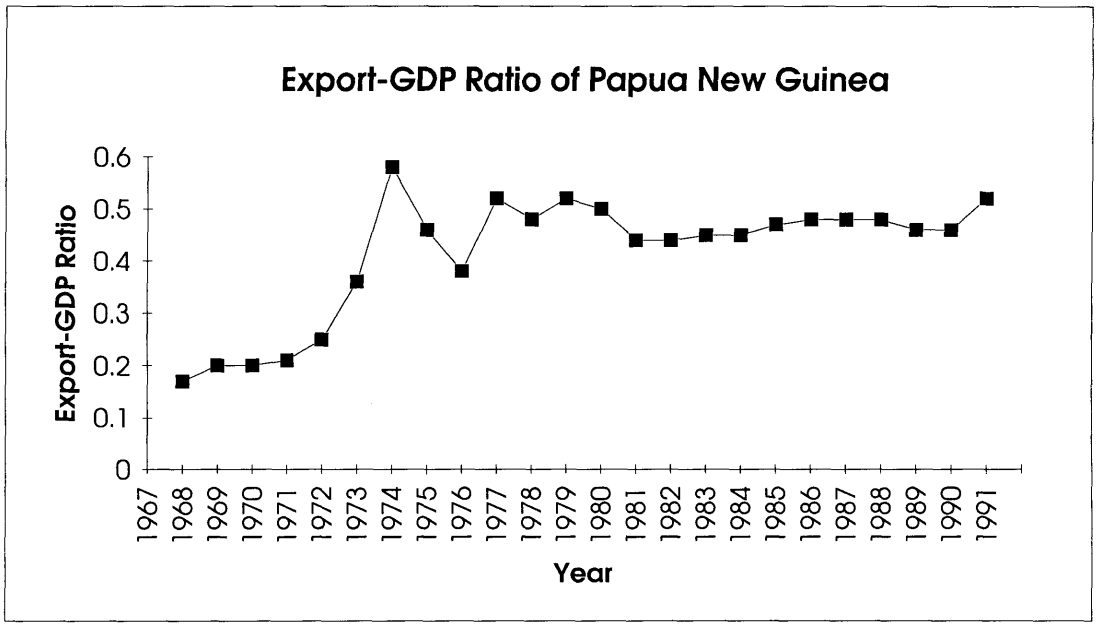
Source: World Bank, (1988, 1993), *World Tables*
Note: Import and Export values in real 1980 Prices

Fig 3.5



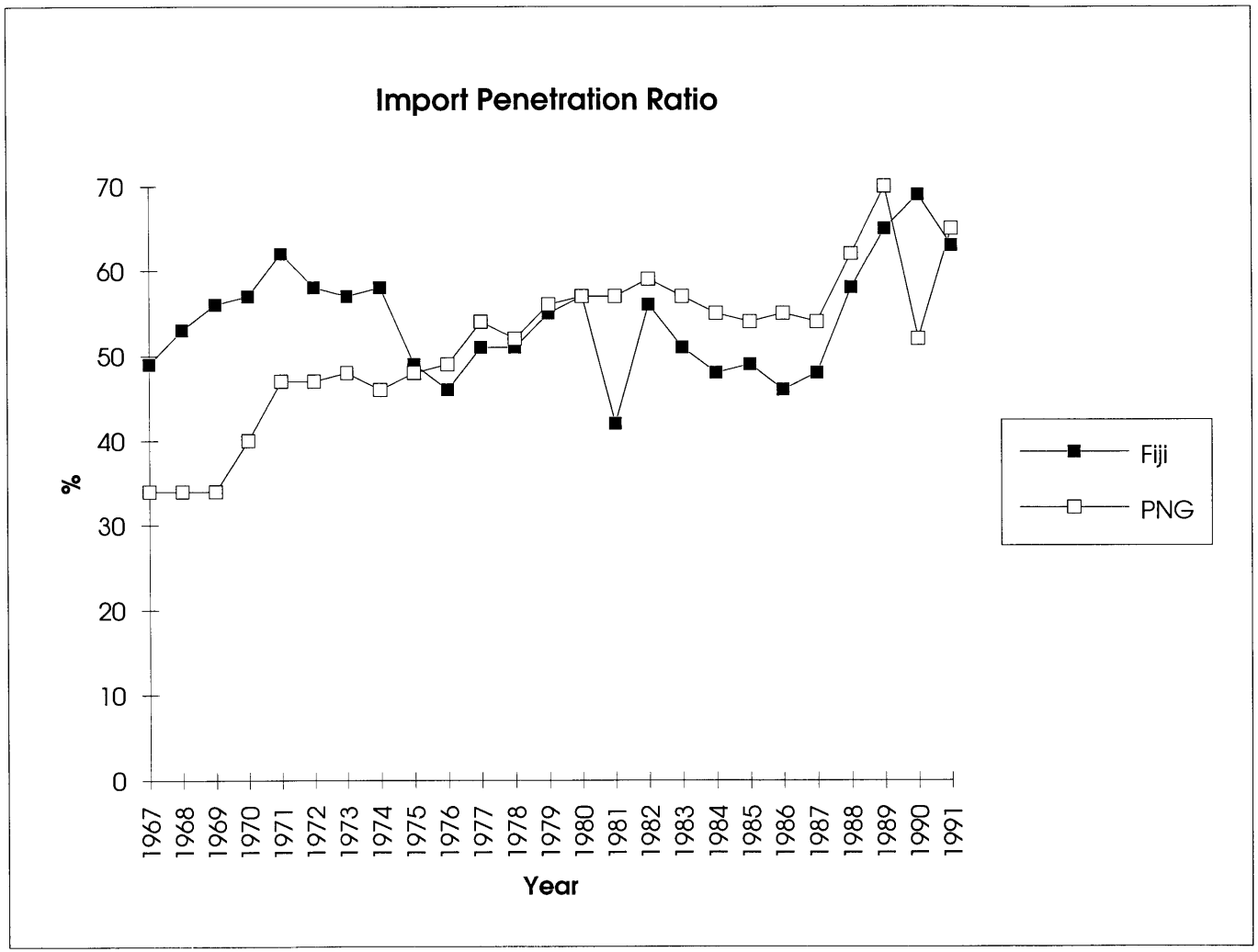
Source: World Bank, (1988, 1993), *World Tables*
IMF, *International Financial Statistics Yearbook*

Fig 3.6



Source: World Bank (1988, 1993), *World Tables*
IMF, *International Financial Statistics Yearbook*

Fig 3.7



Source: IMF, *International Financial Statistics Yearbook*