

**INTERNATIONAL TRADE AGREEMENTS AND  
TRADE POLICY ISSUES: ESSAYS ON BARBADOS**

by

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*Thesis submitted to the University of Nottingham for the degree of  
Doctor of Philosophy*



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## **ABSTRACT**

### **INTERNATIONAL TRADE AGREEMENTS AND TRADE POLICY ISSUES: ESSAYS ON BARBADOS**

*Thesis submitted to the University of Nottingham for the degree of Doctor of  
Philosophy, October 2002.*

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The objective of this study is to examine a series of trade policy issues related to Barbados' participation in multilateral, hemispheric and regional trade agreements. The three trade policy issues examined are (1) WTO Agreements and the trade policy preferences of firms, (2) preferential trade agreements and the export performance of firms, and (3) the selection of sensitive sectors to be excluded from free trade under international trade agreements.

The first essay investigates support of manufacturers in Barbados for WTO rules. Based on the results of a trade policy survey, the study revealed that in general, there is support for multilateral trade rules. OLS and ordered probit regression found that there is evidence that export performance, competitiveness perceptions, and to a lesser extent external association, influence firms to support liberalisation. Capacity under-utilisation, and surprisingly diversification, lower firm's support for liberalisation. The second study examines the importance of preferential trade agreements to the export performance of firms in Barbados. The trade policy survey found that 91% of exporting firms, and 80% of exports benefit from trade preferences. OLS and tobit regression show that factor endowments, economies of scale and technology are important in fashioning export performance. The analysis also show that while trade preferences and external association have a positive impact on export performance, wage costs and protection in both local and foreign markets have a negative impact. The third essay examines the factors influencing the sensitivity of sectors and their exclusion from free trade under the provisions of hemispheric trade agreements. OLS and probit regression analysis suggest that maintenance of the status quo, adjustment costs minimisation, and considerations about fair trade influenced the selection process.

Overall, the findings of the studies support theoretical and empirical work in the respective areas, thereby indicating that similar models developed within the context of industrial economies, are applicable in large measure to developing and small developing economies. In terms of policy implications, the studies pointed to the need for government to focus more on international trade competitiveness strategies in order to fully benefit from the opportunities offered by international trade agreements.



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## ACRONYMS

ACP	: African Caribbean and Pacific States
BDS	: Barbados
BIDC	: Barbados Investment and Development Corporation
BIMAP	: Barbados Institute of Industry and Productivity
CAN	: Canada
CARIBCAN	: Caribbean Canada Trade Agreement
CARICOM	: Caribbean Community
CARIFTA	: Caribbean Free Trade Area
CBI	: Caribbean Basin Initiative
CEFTA	: Central European Free Trade Agreement
CET	: Common External Tariff
CSME	: Caribbean Single Market and Economy
EC	: European Community
ECU	: European Currency Unit
EFTA	: European Free Trade Area
EU	: European Union
FTAA	: Free Trade Area of the Americas
GATS	: General Agreement on Trade in Services
GATT	: General Agreement on Tariffs and Trade
GDP	: Gross Domestic Product
GPT	: General Preferential Tariff (Canadian GSP)
GSP	: Generalised System of Preferences
HS	: Harmonised System
IDB	: Inter-American Development Bank
IMF	: International Monetary Fund
ITC	: International Trade Commission
LDCs	: Least Developed Countries
LOMÉ	: EC/ACP LOMÉ Convention
MDCs	: More Developed Countries
MERCOSUR	: Common Market of the South
MFA	: Multi-Fibre Arrangement
MFN	: Most Favoured Nation
NAFTA	: North American Free Trade Agreement
OECS	: Organisation of Eastern Caribbean States
OLS	: Ordinary Least Squares
QRs	: Quantitative restrictions
RTA	: Regional Trade Agreements
SDR	: Special Drawing Rights
TRIMS	: Trade Related Investment Measures
TRIPS	: Trade Related Intellectual Property Rights
UNCTAD	: United Nations Conference on Trade and Development
UNDP	: United Nations Development Programme
US/USA	: United States of America
WTO	: World Trade Organization

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# CHAPTER 1

## INTRODUCTION

### 1.1 OVERVIEW OF THE ISSUES

One of the major features of the world trading system is the existence of an unprecedented number of international trade agreements. These agreements which define trade relations between countries at the multilateral, hemispheric and regional levels are designed to remove barriers between parties to the agreements, and to *“reduce the uncertainty and unpredictability of the international trade regime, and to promote stability”* (Winham, 1992 p. 21).

At the multilateral level, the World Trade Organization (WTO), which was established on January 1, 1995 as a replacement for the General Agreement on Tariffs and Trade (GATT), has a membership of over 140 countries which are obligated to implement the over 28 agreements, decisions and declarations created at the end of the Uruguay Round of multilateral trade negotiations. Membership of that organisation requires a commitment to liberalise trade in both goods and services in accordance with established rules (WTO, 1995a).

At the hemispheric and regional levels, there are over 200 trade agreements, covering customs unions, free trade areas and other preferential arrangements. Most countries are now party to one or more of these groupings (WTO, 2001a). These agreements, which seek to liberalise trade among member countries, account for a substantial portion of world trade. It is estimated that trade within NAFTA, the EU, EFTA, CEFTA and MERCOSUR amount to over 70 per cent of world exports overall (WTO, 1998a).

In addition, there are a number of one-way or unilateral trade arrangements between developed and developing countries. These agreements, the origins of which can be traced back to the second UNCTAD conference of 1968, are considered a means of providing special and differential treatment to developing countries (Onguglo, 2000). They provide tariff concessions to developing countries, without a requirement for reciprocity.

Barbados is a member of the WTO, a member of the regional integration arrangement CARICOM, and traditionally has benefited from a number of one-way preferential trade arrangements including GSP, CBI, CARIBCAN and the LOMÉ Convention. It is currently involved in negotiations under the aegis of the WTO to further liberalise trade<sup>1</sup>, in negotiations to create the Free Trade Area of the Americas (FTAA), and in talks to create a reciprocal trade relationship with Europe under the Cotonou Agreement which replaced the LOMÉ Convention<sup>2</sup>.

In undertaking those negotiations, it has joined other small economies in arguing that the assumptions of standard trade models which inform the creation of free trade agreements are often violated in practice. Market failure; subsidies; differences in market size; limited access to information and financing; barriers to entry; and other imperfect competition factors, may cause asymmetries between developing and industrialised economies. Given these factors, adjustment costs in developing countries in general, and small economies in particular<sup>3</sup> may often be higher than in developed countries (WTO, 1999). These countries have therefore requested a number of concessions in negotiations to forge new international trade agreements. These include:

- i. derogations and longer time periods for implementing agreements;



- ii. the continuation of one-way preferential trade arrangements or special concessions for countries transitioning from such arrangements; and
- iii. greater flexibility to protect sensitive industries.

It is possible, that resistance to more comprehensive or speedier lowering of trade barriers may also be driven, in these countries, by sector interests and protection pressures. In seeking to investigate the relative influence of such factors on the concessions sought above, the study will describe the political economy models of trade policy often constructed and applied in the context of industrial countries.

## **1.2 AIMS OF THE THESIS**

The aim of this thesis is to examine three trade policy issues related to international trade agreements and the concessions requested by small economies including Barbados. The three trade policy issues, which will be examined in the context of Barbados are: (1) the support of manufacturing firms for WTO Agreements, (2) the importance of preferential trade agreements to Barbados' export performance, and (3) the factors determining the selection of sectors by Barbados, to be excluded from free trade under new international trade agreements.

The first study will examine the support of manufacturers for specific provisions of WTO Agreements all of which seek to liberalise trade. An assessment of this support is important, because it affects the implementation of trade policy and informs the positions taken by government in trade negotiations. In Barbados, manufacturers lobby government on various WTO issues through participation in committees and working groups established to implement WTO Agreements.

This chapter will seek to assess the factors fashioning the views of this sector. The literature on the political economy of protection suggests that two broad factors influence producer preferences. These include competitiveness perceptions (Scheerlinck, Hens and S'Jegers, 1996a and 1996b), and the characteristics of firms (Pugel and Walter, 1985). The study will test for the significance of those factors in the context of Barbados.

The second study will investigate the factors influencing the level of Barbados' exports. Barbados currently benefits from a number of preferential agreements offered by developed and developing countries. Many of these agreements are regarded as being under threat as countries liberalise their economies in accordance with WTO Agreements, and as a result of the creation of a number of hemispheric trade agreements. Small economies and other developing countries have therefore requested concessions in international trade negotiations for countries which are expected to be negatively affected by the eventual elimination of trade preferences. The study will examine the characteristics of firms which influence export performance, including concessions provided through preferential trade agreements. Three factors are usually investigated in the literature on the determination of export performance of firms - factor endowments, economies of scale, and technological variables (Conlon, 1992; Courakis and Roque, 1988). The study will test for the importance of these factors in determining the export performance of firms in Barbados. Other factors which policy studies indicate impact on Barbados' export competitiveness will also be tested including wage costs, government protection, and the association of local firms with foreign firms.

Finally, the third study will examine the factors which influenced government to classify some sectors as being sensitive and therefore subject to protection from import competition under free trade agreements. Barbados is currently



participating in a number of hemispheric trade negotiations aimed at the liberalisation of trade among all parties. It has identified a number of products to be excluded from free trade when the agreements are implemented. WTO rules however place constraints on the type and quantum of protection which countries can offer to industries under such arrangements (WTO, 1995b). Countries are therefore forced to be judicious in their selection of sensitive sectors. This study will examine a number of political economy factors which the literature suggests influence the selection of industries for protection. Included in these are, lobbying pressures from interest groups (Pincus, 1975), the need to maintain equity (Cheh, 1974) and to minimise the cost of adjustment to the economy (Caves, 1976). The study also examines whether a need to maintain some similarity between the sectors protected in its major trading partners, and those protected in Barbados is a determining factor. Milner and Yoffie (1989) suggest that such "strategic" positions by firms are important in determining the outcomes of international trade negotiations.

In the three studies, the research will focus on manufacturing. In Barbados, this sector is regarded as being very vulnerable since trade in manufactured goods is being liberalised at a more rapid rate than the services sector. In addition, this sector does not benefit from the same safeguard provisions as the agricultural sector under WTO Agreements. The structure and available data on this sector also allows for a relatively more rigorous examination of the issues under consideration.

To date, research in the literature in the three areas to be investigated - the determination of trade policy preferences, export performance of firms and selection of sensitive industries - has primarily focussed on developed countries with significantly less research on developing countries. The results of each

study will contribute to an understanding of these trade policy issues in the context of developing countries.

### **1.3 STRUCTURE OF THE THESIS**

The study contains seven chapters, three of which are introductory in nature, three will investigate trade policy issues, and a concluding chapter will consolidate the discussion over the areas of research.

Chapter 2 is an introduction to Barbados' trade policies. It provides the historical and contemporary macro-economic context within which Barbados' trade policies are fashioned. It also highlights the regional, hemispheric and multilateral factors influencing the development of trade policies in Barbados. Finally, it outlines efforts being made by Barbados and other small economies to gain special and differential treatment in international trade negotiations.

Chapter 3 describes the characteristics of the manufacturing sector given that studies in this thesis will focus on that sector. It first discusses the structure and performance of the manufacturing sector. It then outlines the different phases of protection granted to the that sector. Finally, it describes the support of the sector for trade liberalisation as required under WTO rules.

Chapter 4 analyses the support of manufacturing firms for WTO disciplines. A review of the literature on factors influencing the behaviour of firms in relation to trade policy is undertaken. A model is developed for Barbados, and regression analysis is used to assess manufacturing support for a number of WTO principles and agreements, as well as some issues on which negotiations have been mandated, by the Fourth WTO Ministerial Conference (WTO, 2001b).



Chapter 5 investigates the role of trade preferences in determining the export performance of manufacturing firms in Barbados. A review of the literature on the determinants of the export performance of firms in both developed and developing countries is presented. A model is developed for Barbados, and regression analysis is used to examine how firm specific factors and the existence of preferential trade arrangements influence export performance.

In chapter 6, an examination is undertaken of factors which influenced government to identify certain sectors as being sensitive and therefore worthy of exemption from free trade by Barbados under new international trade agreements. A brief review of the political economy literature on protection is presented, outlining the major political economy models of protection. A model is developed for Barbados, and regression analysis is employed to assess the factors which led to the identification of industries proposed for exclusion from free trade.

Chapter 7 reviews the findings of the three studies, and examines the trade policy implications of the findings for Barbados. It also discusses some areas for further research.

## **END NOTES**

<sup>1</sup> Negotiations under the WTO Built-In Agenda in the areas of agriculture and services commenced in 2000. In addition the Fourth Ministerial Conference held in Doha held in 2001, Qatar agreed to launch negotiations in a number of areas including, trade and the environment, trade and competition policy, trade and Investment, transparency in government procurement, industrial tariffs, and trade facilitation.

<sup>2</sup> Partnership Agreement between ACP States and the EU signed in Cotonou, Benin in 2000.

<sup>3</sup> Small economies have been making a case for special and differential treatment quite apart from the concessions requested by other developing countries. Barbados has been playing a leading role in this regard.

## **CHAPTER 2**

### **BARBADOS' TRADE POLICIES**

#### **2.1 INTRODUCTION**

##### *2.1.1 Background*

Barbados is one of the small island developing states in the Caribbean. The most easterly of the Caribbean islands, it is approximately 166 square miles with a population of about 267,000 making it one of the most densely populated countries in the western hemisphere. The island has no natural resources apart from small deposits of petroleum and natural gas, which presently satisfy less than a third of its energy requirements. Barbados has a relatively high per capita income of over US \$7,000 making it a middle income developing country<sup>1</sup>. The 1999 United Nations Human Development Report which ranks countries on such factors as per capita income, life expectancy, and adult literacy, placed Barbados as 29th among all countries, and 1st among developing countries<sup>2</sup>. Country data on Barbados is at Appendix 1.

Since the attainment of self-government in 1961, government has sought to diversify the production base of the economy. Given its soil, topography and rainfall patterns, sugar manufactured from the sugar cane, has traditionally been the island's most significant export crop. Within recent years tourism, manufacturing and offshore financial services have emerged as significant foreign exchange earners.

In terms of external relations, Barbados is a member of the major international organisations such as the United Nations, World Bank, International Monetary

Fund (IMF), Inter-American Development Bank (IDB) and the World Trade Organization (WTO).

Within the Caribbean, Barbados has been active in the regional integration movement. It held the first and only Premiership of the ill-fated West Indies Federation, which was a political union formed in 1958 among former British colonies in the English speaking Caribbean. The Union collapsed in 1962. In 1968, Barbados and other Caribbean countries formed the Caribbean Free Trade Association (CARIFTA). In an effort to deepen regional integration and to expand co-operation in other areas of development, members of CARIFTA signed the Treaty of Chaguaramas in July 1973 to create the Caribbean Community (CARICOM). Currently, countries in the CARICOM region are taking steps to deepen the integration movement through the creation of the CARICOM Single Market and Economy (CSME). Within the Community, Barbados has been assigned responsibility for overseeing the implementation of the CSME.

### *2.1.2 Objectives of the Chapter*

The purpose of this Chapter is to describe major features of Barbados' trade policies. It will focus on domestic issues as well as issues related to Barbados' participation in international trade agreements. It will also outline efforts being made by Barbados and other small economies to gain special and differential treatment in international trade negotiations. These negotiations will set the parameters of Barbados' trade policies in the future.

### *2.1.3 Structure of the Chapter*

Section 2.2 of this chapter highlights the objectives of, and economic factors influencing Barbados' trade policy. Those factors are both domestic and international in nature. In section 2.3, efforts of small economies to gain special and differential treatment in current international trade negotiations and therefore



flexibility in applying trade policy, are described. Section 2.4, the conclusion, outlines the future challenges facing the development of trade policy in Barbados.

## **2.2 TRADE POLICY DEVELOPMENT**

### *2.2.1 Background*

Trade policy refers to any measure implemented by government which impacts on the international trade in goods and services. In keeping with the mandate of the GATT, import taxes, import restrictions, and anti-dumping and subsidy measures were traditionally regarded as the main instruments of trade policy. With the creation of the WTO, trade policy has adopted a wider meaning. It now includes trade-related instruments falling under such areas as intellectual property rights, the environment, competition policy, trade facilitation and labour issues. It also includes policies affecting trade in services.

Barbados' trade policies as broadly defined, are influenced by developments on the domestic economy, by regional and hemispheric trade arrangements and by multilateral trade rules. The overall goal of Barbados' trade policies, as spelt out in the Barbados Strategic Plan 2001 - 2010, is to earn the maximum foreign exchange from the export of Barbados' goods and services<sup>3</sup>. They have the following broad objectives:

1. produce goods and services on an internationally competitive basis;
2. secure and maintain effective market access for Barbados' goods and services abroad;
3. promote and facilitate a viable and vibrant export trade for Barbados;
4. vigorously promote and defend Barbados' trade interests at the regional, hemispheric and global levels; and

5. implement on a timely basis Barbados' regional, hemispheric and global trade obligations.

The goal and objectives of Barbados' trade policies are reflective of government's efforts to transition the productive sectors from reliance on protection to open trade, given changes in the world trading economy.

At the domestic level, Barbados relied significantly on trade to promote its economic development after gaining independence from Britain in 1966. Its early trade strategy focused on the development of agricultural exports, particularly sugar to earn foreign exchange. The primary strategy pursued by Barbados was import substitution under which local agricultural and industrial production was protected from competing imports. This strategy was pursued until the early 1990s, when economic difficulties led to the commencement of a trade liberalisation programme.

Barbados' trade policy is also influenced by the provisions of CARICOM, which emphasise mainly trade in goods<sup>4</sup>. These provisions include a Common External Tariff (CET) and Rules of Origin, which stipulate how trade within the region is to be conducted and the level of tariffs to be maintained on goods from countries outside of the Community. Efforts are now underway to deepen the CARICOM integration movement through the creation of the CARICOM Single Market and Economy (CSME).

In terms of extra-CARICOM trade arrangements, Barbados has benefited from a number of non-reciprocal or one-way trade concessions since the early 1970s. They include the GSP, CBI, CARIBCAN, LOMÉ, CARICOM/Venezuela and CARICOM/Colombia Agreements. As a member of CARICOM also, it is currently finalising a number of free trade and partial scope agreements with other

Caribbean countries including the Dominican Republic and Cuba.

At the hemispheric level, Barbados is participating in negotiations to create the Free Trade Area of the Americas (FTAA), and to design a new trading relationship with Europe under the Cotonou Agreement. Finalisation of these negotiations will lead to a revision of trade relations with the EU, USA and Canada. It is expected that the non-reciprocal trade arrangements with these countries will be replaced with reciprocal trade arrangements.

Regarding multilateral arrangements, Barbados is in the process of implementing the provisions of WTO Agreements, and is also participating in negotiations to deepen and expand the coverage of multilateral trade rules.

### *2.2.2 Domestic Policy Issues*

In terms of trade policy, two distinct periods can be identified in Barbados' economic history. These are the 1966-1990 period when the economy performed relatively well, and the post 1990 period when Barbados' trade policies were significantly revised as a result of an economic crisis.

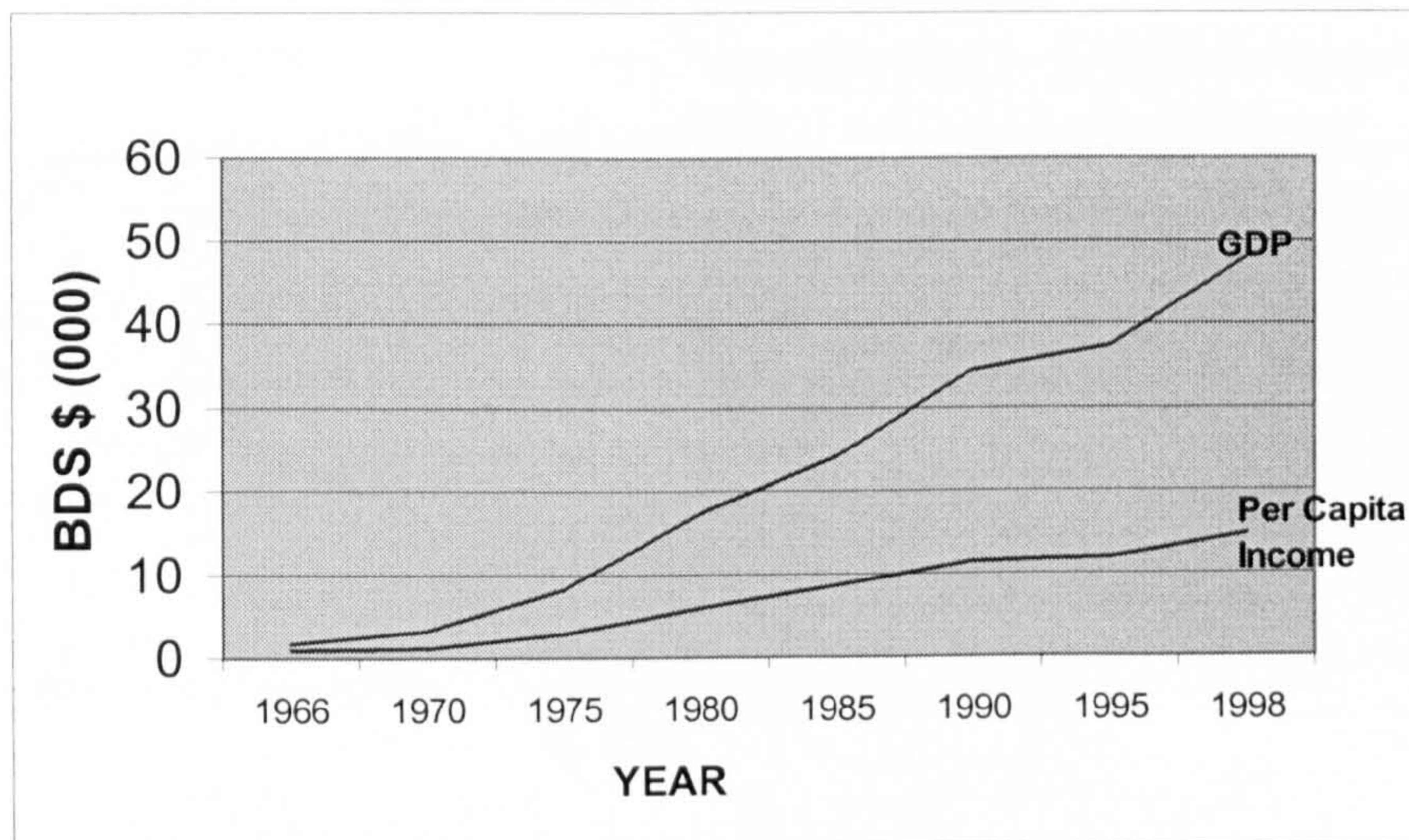
#### *2.2.2.1 Growth and Decline*

Building upon the social and economic infrastructure inherited from the British, Barbados launched itself into a period of economic growth after independence. In 1966, Gross Domestic Product (GDP) was BDS \$ 170 million. By 1970, GDP stood at BDS \$ 331 million, nearly twice the 1966 figure. This growth was attributed to the production of sugar, a growing manufacturing sector, and the rapid expansion of the tourism sector.

During the 1970s, the island experienced two years of negative growth - 1974 and 1975 - but recovered to achieve real GDP growth of 7.9 % by 1979 (Figure 2.1).



**FIGURE 2.1**  
**BARBADOS' GDP AND PER CAPITA INCOME**  
**(1966 - 1998)**



During that decade also, the composition of GDP underwent some structural changes (Table 2.1). In 1973, manufacturing replaced sugar as the main contributor to GDP among the tradable sectors, and by 1987, tourism firmly replaced manufacturing.

In the early 1980s, the export earning sectors declined rapidly, causing government in 1982 to enter into a standby arrangement with the IMF for the first time<sup>5</sup>. The main conditions for accessing funds under the programme were a reduction in government expenditure including the public investment programme and a down sizing of the public service.

Improved performance of the main tradable sectors in 1983 however, enabled the economy to expand during that year, and also enabled government to successfully end IMF assistance in 1984. The economy continued to expand, albeit erratically, up to the end of that decade.



**TABLE 2.1  
CONTRIBUTION OF TRADABLE SECTORS  
TO BARBADOS' GDP AT FACTOR COST 1974 - 2000  
(BDS \$ MILLIONS)**

YEAR	GDP	SUGAR CONTRIBUTION TO GDP	MANUFACTURING CONTRIBUTION TO GDP	TOURISM CONTRIBUTION TO GDP
1974	640,000	7.3%	9.7%	10%
1980	1,535.8	6.2%	11.9%	11.8%
1985	2,180.8	2.6%	10.6%	10.3%
1990	2,965.2	1.9%	7.8%	11.4%
1991	2,893.6	1.8%	7.9%	10.8%
1992	2,703.4	1.8%	7.5%	11.7%
1995	3,147.5	1.6%	6.7%	13.3%
2000	4,309.1	1.4 %	6.2%	11.3%

Source: Central Bank of Barbados (2000) Annual Statistical Digest .

**TABLE 2.2  
BARBADOS' VISIBLE TRADE 1966-2000 (BDS \$ MILLIONS)**

YEAR	IMPORTS	DOMESTIC EXPORTS	VISIBLE TRADE DEFICIT
1966	131,111	50,056	(81,055)
1970	235,005	62,106	(172,899)
1975	437,239	178,218	(259,021)
1980	1,080,126	300,220	(779,906)
1990	1,406,865	253,916	(1,152,949)
1995	1,541,819	338,811	(1,203,008)
2000	2,132,076	379,268	(1,752,808)

Source: Barbados Statistical Service (1999) Annual Statistical Data.

In terms of foreign trade, in 1966, domestic exports which stood at some BDS \$50 million (Table 2.2), were 38 % of imports which stood at BDS \$ 131 million. By 1990 exports which stood at BDS \$ 253 million had fallen to 18% of imports which

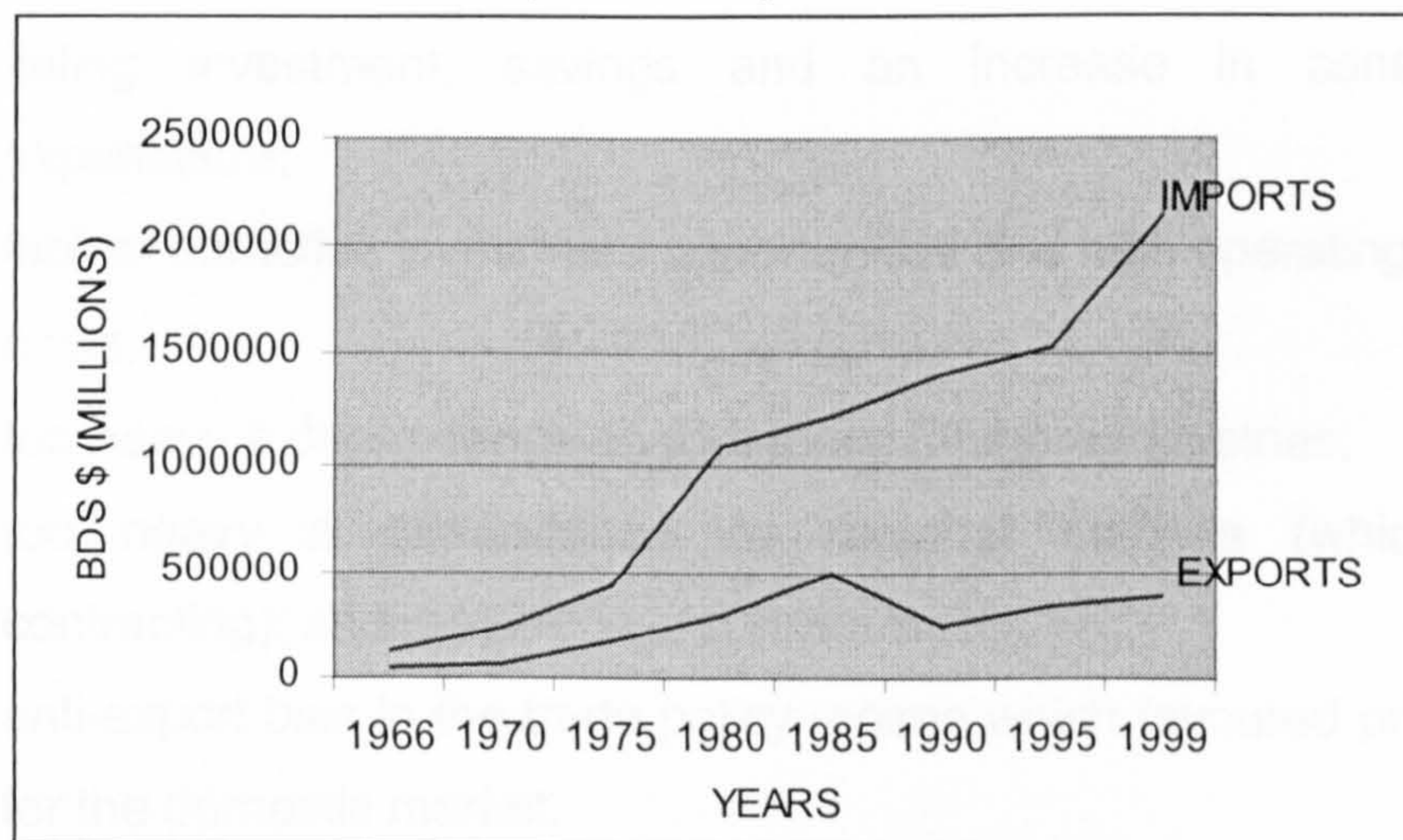


had a value of BDS \$ 1.4 billion. Overall, towards the end of the 1980s, there was an acceleration in the size of the trade deficit (Figure 2.2).

The poor performance of the visible trade sector, was partially offset by income from services, mainly the tourism sector. However, the outflow of funds to service foreign debt placed the Balance of Payments position of the country in peril<sup>6</sup>.

Perhaps the most telling story of Barbados' economic performance were changes in international reserves. During the latter half of the 1980s, the foreign reserves position of Barbados became very erratic. International reserves reached a high of BDS \$363 million in June of 1987, before falling to a ten year low of BDS \$210 million in 1990. Government took no corrective action to halt the decline, and in September 1991 reserves fell to BDS \$12 million, the lowest on record.

**FIGURE 2.2**  
**BARBADOS' MERCHANDISE EXPORTS AND IMPORTS**  
**(1966-1999)**





### 2.2.2.2 *IMF Stabilisation Programme*

Faced with a situation of virtually no foreign reserves, the Barbados government finalised a Stabilisation Programme with the IMF in January 1992<sup>7</sup>. As a condition for its financial support, government agreed to streamline the size of the public sector, undertake a reform of the taxation system, and implement policy reforms on export activity. These reforms were to improve international cost competitiveness, strengthen the regulatory environment, and remove barriers to international trade and other disincentives to export activity. In order to avoid a devaluation of the Barbados dollar, government reduced wages in the public sector by 8% to reduce demand for imports.

### 2.2.2.3 *Studies on the Economy*

During the period Barbados was experiencing an economic crisis, a number of studies were submitted to government which made recommendations for reversing the decline<sup>8</sup>. Essentially, the studies identified the following as causes of the decline in the economy:

- falling investment, savings and an increase in consumption expenditure;
- lack of attractive investment opportunities and high operating costs;
- too heavy a dependence on foot-loose offshore industries;
- too heavy a dependence on regional markets (which were contracting); and
- anti-export bias in the trade policy regime which favoured production for the domestic market.

The studies and reports made recommendations which called for trade reform, tax reform and other policy initiatives to make the economy more open and to reduce

the anti-export bias which resulted in manufacturing firms and agricultural enterprises producing for the domestic market.

#### 2.2.2.4 *Programme for Structural Adjustment*

In February of 1993, government finalised the components of a structural adjustment programme. The trade elements included:

- undertaking trade policy reform centred around replacing import restrictions with a surtax, and reducing the surtax overtime;
- replacing a complex system of consumption taxes and stamp duties with a broad based value-added tax (VAT) on goods and services at a rate of 15%, with exemptions for the inputs of the agricultural, manufacturing and tourism sectors.
- reducing the level of import tariffs to a range of 0% - 20%;
- providing technical assistance for manufacturers to exploit export opportunities; and
- restructuring the management of the sugar industry.

The structural adjustment programme was designed for presentation to the IMF to acquire funding under a Structural Adjustment Programme. However, during 1993 the performance of the Barbados economy improved led by a recovery in the tourism sector. GDP which had fallen by 3.5%, 3.9% and 5.7% for 1990, 1991, and 1992 respectively, showed a positive growth of 0.8 percent for 1993 and continued to show positive growth in subsequent years.

The growth of the economy from 1993 gave government sufficient confidence to pursue reforms without the assistance of the IMF. In 1994 government instituted a limited trade reform programme through the removal of manufactured goods from licence and applying a temporary surtax. The surtax was to be phased out over a

five year period. In 1995, it lifted the wage freeze but continued a prices and incomes protocol with the private sector and trade unions. In 1997, a value added tax at a rate of 15% was introduced. Collections from the VAT have significantly reduced government's dependence on trade taxes. In April 2000, government completed its domestic trade reform programme with the removal of the final tranche of the surtax.

### *2.2.3 Regional and Hemispheric Trade Arrangements*

Barbados is a beneficiary of one multi-lateral preferential arrangement, four non-reciprocal bilateral arrangements, one regional agreement which involves partial-reciprocity, and a customs union. These arrangements are:

1. CARICOM
2. CARICOM/Venezuela Agreement
3. CARICOM/Colombia Agreement
4. GSP (Generalized System of Preferences)
5. Cotonou Agreement (which replace the LOMÉ Convention)<sup>9</sup>
6. Caribbean Basin Initiative (CBI)
7. CARIBCAN

Under all of these arrangements some or all of Barbados' exports receive partial or total duty exemption in the market of donor countries. Details on these arrangements are in Appendices 6 and 7. A summary of some key elements of these agreements is presented in Table 2.3.



**TABLE 2.3**  
**SUMMARY OF TRADE AGREEMENTS TO WHICH BARBADOS IS A PARTY**

TRADE AGREEMENT	START DATE	COMMENTS
CARICOM	1973	Customs Union. Offers duty free access for all products meeting rules of origin.
CARICOM/ Venezuela	1993	Non-reciprocal agreement. Offers duty free access for 315 product categories only (five and six digit level).
CARICOM/ Colombia	1994	Partial reciprocity. Offers duty free access for about 1463 product categories (five and six digit level).
GSP	1971 <sup>a</sup>	Multilateral arrangement. Duty free access varies according to donor countries. Access is free for the USA GSP while duties vary from 0 to an 85% reduction in the case of the EC GSP depending on the sensitivity of the product.
LOMÉ	1975	Non-reciprocal agreement. Generally duties are eliminated on exports from ACP countries except for a few agricultural products
CBI	1983	Non-reciprocal agreement. Full duty free access except for some product including garments and footwear.
CARIBCAN	1986	Non-reciprocal agreement. Full duty free access except for some products including garments and footwear.

a. There are a number of GSP schemes. The scheme offered by the European Community was the first to be introduced in 1971.

Of these arrangements, the Caribbean Community (CARICOM) has the greatest influence on fashioning Barbados' trade policies. Traditionally, the most important instrument in the Community were the Common External Tariff (CET) and Rules of Origin as the integration movement focused on trade in goods. Prior to 1992, CET rates varied considerably across the range of products produced in the CARICOM region. In 1992 a decision was taken by the CARICOM Heads of Governments to reduce the rates for agricultural and industrial goods to a range of between 0 – 20% by 1998. After lobbying on the part of the agricultural sector, a decision was subsequently taken to apply a maximum rate of 40% for agricultural goods. With the exception of a few OECS<sup>10</sup> countries, Barbados and other CARICOM members have fully implemented the new rates.

Historically, no rules existed in the Community with respect to the application of non-tariff barriers. In addition, no rules existed regarding trade in services. In these areas, member states were allowed to develop and apply their own trade policies. In terms of institutional arrangements, disputes among countries in the integration movement were settled through consultation only. No formal process existed for resolving disputes.

The lack of co-ordination of policies across the range of trade policies instruments led to CARICOM member states ratifying the Marrakesh Agreement Establishing the WTO as individual countries. This means that CARICOM member states incurred different obligations as members of the WTO - for example, Barbados' bound tariff levels are higher than other CARICOM members (Chapter 3). These countries have also agreed to liberalise different areas of service activities. This is unlike the case of the European Communities where member states of that union submitted common schedules for the liberalisation of goods and services.

Given the disparity in trade policies within the region, and the need to coordinate those policies in the light of globalisation and trade liberalisation, CARICOM Heads of Governments decided to strengthen the regional integration movement through the creation of the CARICOM Single Market and Economy (CSME), and to develop an institutional arrangement to coordinate the participation of the region in international trade negotiations.

The CSME is aimed at deepening the regional integration movement to benefit from synergies among CARICOM economies as these economies integrate into the emerging global trading system. It will allow for the free movement of goods, services, capital and labour among member states. Nine Protocols have been developed to give effect to the CSME. They can be summarised as follows:

- Management of the integration process - Protocols dealing with institutional arrangements (Protocol I), dispute settlement (Protocol IX) and assistance to disadvantaged countries sectors and regions (Protocol VII).
- Movement of goods (Protocol IV) and services and factors of production (Protocol II).
- Conduct of relations in transport (Protocol VI), agriculture (Protocol V) and industry (Protocol III).
- Behaviour of businesses – competition policy and consumer protection (Protocol VIII).

Some of the Protocols of the CSME are currently being applied provisionally in some member states including Barbados. CARICOM Heads of Governments have agreed that the CSME would be implemented by 2005. At present, member states still determine their own trade policies apart from the CET and rules of origin criteria. However, when created, the rules of this union will have a significant impact in terms of determining trade policies of countries in the region.

Regarding the decision to negotiate as a group, CARICOM Heads of Governments established the CARICOM Regional Negotiating Machinery (CRNM) to coordinate the negotiating position of member states. This approach to the negotiations allows member states to develop their own negotiating positions and to channel these through the CRNM to ensure that member states do not submit conflicting negotiating positions. It also seeks to strengthen the negotiating effectiveness of the region through a strategy of “speaking with one voice”.

Apart from CARICOM arrangements, only the CARICOM/Colombia Agreement is reciprocal in nature. It requires MDCs in CARICOM (Barbados, Trinidad and Tobago and Jamaica) to allow an agreed list of products from Colombia duty free



access into their markets in exchange for similar access to the Colombian market. The other preferential agreements highlighted above do not require reciprocity. It should however be noted that countries offering those agreements require MFN treatment for their products in CARICOM markets.

All of the trade arrangements in which Barbados is involved vary in terms of the access they offer to the markets of donor countries. They can be compared using some of the key provisions of international trade agreements including; margin of preference, depth of tariff cuts, product coverage, products exclusions, provisions on non-tariff measures, rules of origin, and safeguards provisions.

#### 2.2.3.1 *Margin of Preference*

Table 2.4 shows the average dutiable tariffs on the agricultural and industrial sectors for CARICOM, EU, USA, Canada and Colombia<sup>11</sup>. Using these average tariffs as a guide, it appears that the greatest margin of preference – the difference between the MFN rate and a preferential rate of zero – exist in the case of agricultural goods<sup>12</sup>, for CARICOM, the EU, Colombia, USA, and Canada in that order. For industrial products, again using dutiable tariffs as a guide, the greatest margin of preference are offered by CARICOM, Colombia, Canada, USA and EU in order of the height of the tariff.

Two caveats must however be made regarding the use of aggregated tariffs to comment on the margin of preference. The first is that, in those cases where countries offer zero duty on products, the margin of preference can be overstated.

**TABLE 2.4  
AVERAGE DUTIABLE TARIFFS ON AGRICULTURAL  
AND INDUSTRIAL SECTORS BY AGREEMENT**

AGREEMENT/SECTOR	AGRICULTURE	INDUSTRIAL
<b>CARICOM</b>		
Dutiable tariff	30.1	17.9
% Duty free tariff lines	35.2	64.1
<b>EU (LOMÉ and GSP)</b>		
Dutiable tariff	20.5	5.3
% Duty free tariff lines	11.2	20.5
<b>USA (CBI and GSP)</b>		
Dutiable tariff	14.0	6.3
% Duty free tariff lines	38.0	32.6
<b>Canada (CARIBCAN and GPT)</b>		
Dutiable tariff	9.9	8.6
% Duty free tariff lines	53.8	47.7
<b>Colombia (CARICOM/ Colombia Agreement)</b>		
Dutiable tariff	15.7	11.2
% Duty free tariff lines	11.6	2.5

Source: WTO Integrated Data Base. Release 5

The second is that aggregation across sectors can mask information about the usefulness of preferences to a particular country. A more useful approach is to examine tariffs on specific products which are of interest to a country. Table 2.5 shows the average dutiable tariffs for a sample of major export products for Barbados. For these products, the preferential rate in the various schemes is zero. The MFN rate listed is what would apply if Barbados was not receiving the preferential rate. The information suggests that given the relatively high level of MFN tariffs in CARICOM, the EU and Colombia, there would be a large margin of preference. Tariff concessions for sugar, Barbados' main export product, are especially important in the case of the EU.

**TABLE 2.5**  
**AVERAGE DUTIABLE TARIFFS ON SELECTED PRODUCTS**  
**BY AREA / AGREEMENT<sup>13</sup>**

PRODUCTS	CARICOM	LOMÉ	CBI	CARIBCAN	CARICOM/ COLOMBIA
15.0710 Crude soybean oil	40	6.6	19.7	7.5	20
16.0100 Sausages	20	20.6	3.8	10.8	20
17.0111 Cane Sugar	40	66.8	0	0	20
17.0410 Sugar Confectionary	40	66.8	0	0	20
20.0490 Preserved vegetables	20	17.5	7.8	14.6	20
20.0791 Jams Jellies	16.6	28.2	6.9	8.5	20
21.0500 Ice cream	20	21.2	19.5	9.2	20
22.0710 Spirits	30	64.7	2.6	0	15
25.2321 Portland Cement	0	1.7	0	0	10
32.0810 Paints & Varnishes	15	6.5	3.7	6.5	15
48.1011 Uncoated paper	0	4.6	0	0	15
85.3400 Printed Circuits	0	1.3	0	0	10

The conclusion which can be drawn is that for some products exported to some markets – especially agricultural products – there is a relatively large margin of preference.

### 2.2.3.2 *Depth of Tariff Cuts*

Regarding the depth of tariff cuts, the most liberal schemes are offered under CARICOM, the USA CBI and GSP programmes, the LOMÉ Convention, CARIBCAN, CARICOM\Venezuela and CARICOM\Colombia. All of those schemes offer total duty free programmes. The GSP schemes of Canada and the EU include a mix of duty free concessions and reduction in the relevant MFN rate.



### 2.2.3.3 *Product Coverage*

In terms of coverage, none of the one-way trade agreements allows for total duty free access to the markets of the country granting the concession. Agreements with developed countries are extensive in their coverage, while those with other developing countries – Venezuela and Colombia – are much more restricted. In fact, the most restrictive agreement given the number of product categories involved is the CARICOM\Venezuela Agreement (Table 2.3). It should be noted however that, unlike the case of preferential arrangements with developed countries, the terms of the CARICOM\Venezuela and CARICOM\Colombia Agreements were negotiated. The concessions of developed countries through GSP, CBI and CARIBCAN, which were granted unilaterally, include a vast number of products not produced in the Caribbean region and particularly not in Barbados. The LOMÉ Convention was developed through negotiations and is wide in its product coverage. As a non-reciprocal trade agreement, the Convention has the widest scope for conferring benefits on donor countries. The CARICOM Agreement has wider products coverage than any of the non-preferential trade agreements, as all products produced in the region are eligible for tariff reductions provided they meet the rules of origin criteria

### 2.2.3.4 *Product Exclusions*

CBI and CARIBCAN both exclude similar products from receiving duty free concessions, chief among which are textiles, clothing and footwear<sup>14</sup>. In the case of Europe, textile and garment industries are also regarded as being very sensitive, but trade in these products is treated differently. In the case of the EU GSP, trade is restricted through the application of high tariff levels – 85% of the MFN rate. Under the LOMÉ Convention, trade in these items is restricted through rules of origin requirements where manufacture must be from basic materials such as yarn.

Many of the items excluded or restricted under non-preferential trade arrangements - textiles, clothing and footwear - although not restricted under the CARICOM Treaty, are still regarded as sensitive and carry relatively high rules of origin requirements. These include a local value added content of at least 60%. There are also stipulations such as production from specific materials.

#### 2.2.3.5 *Provisions on Non-Tariff Barriers*

On the issue of non-tariff barriers which could negate market access for products through tariff reductions, only the CARICOM\Venezuela and the CARICOM\Colombia Agreements contain specific provisions regarding an intention to examine the broad range of standards, and sanitary and phyto-sanitary measures to ensure that these do not become an obstacle to trade. The LOMÉ Convention only speaks to quantitative restrictions, while CARIBCAN speaks only to the labeling of rum. There are no specific rules in the CARICOM Treaty regarding standards and sanitary and phyto-sanitary measures<sup>15</sup>.

#### 2.2.3.6 *Rules of Origin Requirements*

The rules of origin requirements under the various non-reciprocal schemes vary across products, and include a mix of wholly produced and substantial transformation requirements. A broad comparison is therefore very difficult. Taking the value-added requirement only as a benchmark, it would appear that the USA offers the more liberal schemes, in that the local value added requirement under the GSP and CBI programmes is only 35%. Under the CARICOM, and CARICOM\Venezuela and Colombia Agreements the requirement is generally 50%, while under the Canadian GSP and CARIBCAN schemes the requirement is 60%. The requirement in LOMÉ and the EU GSP are more varied, but are in some cases considerably higher (in the region of 60% on average) than the other arrangements. However, it must be noted that the

schemes provide for various forms of "cumulation" either from the donor country, other beneficiary countries or regional countries (and sometimes non-beneficiary state as in the case of LOMÉ). In addition, the LOMÉ rules generally include only the materials used in production in computing value added, while the other schemes include other costs such as the cost of labour. As a consequence of the various definitions used in computing value added, precise comparisons should only be undertaken on a product specific basis.

#### 2.2.3.7 *Safeguard Provisions*

All non-reciprocal trade arrangements include, safeguard provisions which allow emergency action to be taken if there is injury or threat of injury to domestic production. In addition, product or country graduation is possible under the US and EU GSP schemes based mainly on import penetration.

As expected, the CARICOM arrangement also has safeguard provisions. The major difference between the CARICOM provisions and the provisions of one-way preferential trade arrangements however, is that in most cases<sup>16</sup>, the measures are of a specific duration. In most cases also, consultation with other CARICOM member countries is required before safeguard action is taken. This is not the case with the non-reciprocal trade arrangements.

#### 2.2.4 *Multilateral Trade Rules*

The provisions of the CARICOM Treaty govern Barbados' trade policies in relation to other CARICOM member states. The provisions of other reciprocal and non-reciprocal trade arrangements to which Barbados is party govern its trade policies in relation to other parties to those arrangements. At the global level, Barbados' trade policies are governed by WTO rules.



The Final Act of the WTO contains over 28 agreements as well as Ministerial, Decisions and Declarations which state how trade policies are to be implemented in respect of other WTO members. Attached to the Final Act, are the market access schedules for goods and services submitted by each member state of the WTO.

WTO Agreements are built on three principles<sup>17</sup>. These are, most favoured nation (MFN) treatment, national treatment, and transparency. The objective of these principles is to ensure consistency and fairness in the multilateral system. These principles can be summarised as follows:

- i. The MFN principle or the non-discrimination principle requires that any concession granted by one member state to another member state should be granted immediately and unconditionally to all other member states<sup>18</sup>.
- ii. The principle of national treatment requires member states not to discriminate between domestic products or services, and foreign products or services after they have entered the domestic market<sup>19</sup>.
- ii. The transparency principle requires that the policies implemented by member states which directly or indirectly affect the flow of international trade be available for the scrutiny of all member states.

The Final Act contains agreements related to trade in goods, services, intellectual property and dispute settlement. There are also a number of Plurilateral Agreements on civil aircraft, and government procurement. The agreements on which research is undertaken in this paper are summarised in Appendix 5. A major point which should be highlighted is the high degree of inter-relationship between the various agreements, since in any one dispute matter before the WTO a number of agreements are frequently involved. For example, the complaint by

Ecuador, Guatemala, Honduras, Mexico and the United States against the EU preferential banana regime for ACP states was brought under GATT Articles I, II, III, X, XIII as well as provisions of the Import Licensing Agreement, the agreement on Agriculture, the Agreement on Trade Related Investment Measures (TRIMS), and the Agreement on Services. This serves to highlight the fact that WTO rules governing free trade are interrelated and complex.

The objective of the WTO is to liberalise trade, and all of its agreements can be considered to be in keeping with that objective. However, they allow for some action on the part of government which can be construed to be protectionist. Such action include; applying high rates of tariffs to replace quantitative restrictions, use of countervailing duties in the case of dumping and subsidisation of goods, and safeguard provisions which allow for temporary emergency action if domestic industries are being negatively affected by surges in imports. On closer examination, these provisions and other WTO disciplines on the conduct of international trade, can be regarded as supporting the long term promotion of trade liberalisation rather than protection.

Higher tariffs in the form of bound rates do allow for protection. However given that import bans and quantitative restrictions, which are being replaced by tariffs, are in fact the most restrictive form of protection then tariffs - even high tariffs - can be viewed as trade liberalisation. Protection offered through anti-dumping action, countervailing action in the case of subsidies, and temporary safeguard action must follow WTO provisions including proof of injury and consultation. Countries are obligated not to take unilateral action in trade dispute matters.

#### 2.2.4.1 *Barbados in the WTO*

Barbados became a member of the WTO when that organization was established on January 1, 1995. Assuming membership meant that Barbados, like all other

WTO member countries, incurred three main obligations:

- (a). implementation of market access commitments made in the areas of goods and services;
- (b). adjusting all of its laws, regulations and administrative procedures to make them compatible with WTO Agreements; and
- (c). making regular notifications to the WTO regarding aspects of policies affecting trade.

#### 2.2.4.2 *Implementation of Market Access Schedules*

As indicated earlier, the primary business of the WTO is the liberalisation of trade among its member countries. In order to become a member of this organization, all countries are required to submit schedules for the liberalisation of trade in both goods and services.

##### 2.2.4.2.1 *Market Access Schedule - Trade In Goods*

In relation to goods, Barbados undertook not to quantitatively restrict or prohibit the importation of goods except for health and safety reasons or to protect public morals.

While imports are generally to be allowed into Barbados, WTO rules do allow for the tariffication of QRs. For Barbados, the highest tariffs which can be applied on imported goods to protect local production are generally fixed at 70% in the case of manufactured goods, and at 100% in the case of agricultural goods. For particularly sensitive goods, the rates are bound at higher levels (WTO, 1994a).

It must be re-emphasised that the focus of the WTO is on openness and international competitiveness. Developing countries are required to reduce the level of their tariffs by 33 1/3 % on average for each tariff line over a five-year



period in the case of manufactured goods, and by 24 % on average for each tariff line over a ten-year period in the case of agricultural goods<sup>20</sup>. In both instances, the period commenced on 1st January 1995.

In addition to tariffs, local industries can also be protected through use of the Anti-dumping or Subsidies Agreement if dumping or subsidisation can be proved, or through the use of the Agreement on Safeguards<sup>21</sup>. However in the latter case, to invoke the safeguard mechanism in the case of manufactured goods may require compensating the affected country for export earnings loss. It should be noted that this is not the case if either the special safeguard provisions under the Agreement on Agriculture or the Agreement on Textiles and Clothing are invoked.

#### 2.2.4.2.2 *Market Access Schedule - Trade In Services*

Regarding trade in services, all WTO members are obligated to liberalise trade in a service sector or sub-sector. The sectors liberalised by Barbados include aspects of legal and medical services, computer implementation services, courier services, reinsurance, and entertainment services (WTO, 1994b). In addition, at the close of negotiations on basic telecommunications, Barbados undertook to liberalise some aspects of this area.

With respect to these services, the island has generally undertaken not to:

- limit the number of service suppliers;
- limit the total value of service transactions;
- limit the total number of service transactions;
- limit the total number of persons employed;
- restrict or require specific types of legal entity or joint ventures through which a service supplier may conduct business; nor
- limit the participation of foreign capital or foreign shareholding.

It should be noted, that Barbados has not undertaken to liberalise those services sectors which would impact most heavily on the manufacturing sector such as distribution services.

#### 2.2.4.3 *Implementation of WTO Agreements*

Barbados is required to adjust all of its laws, regulations and administrative procedures where necessary to bring them into conformity with WTO principles and agreements. Major pieces of legislation to be implemented or adjusted are in the areas of:

- import licensing:- to give effect to the removal of quantitative restrictions;
- customs revenue collection:- to give effect to the application of bound rates, where these are being applied;
- customs valuation:- to implement WTO codes for determining the value of goods;
- anti-dumping and subsidies:- to recognise WTO procedures for determining dumping and actionable subsidies, injury or threat of injury, periods for consultation and remedies; and
- intellectual property rights:- to give protection to foreign products and services by way of legislation covering such areas as copyrights, trademarks, geographical indications, industrial designs, patents, layout-designs of integrated circuits, protection of undisclosed information, and control of anti-competitive practices in contractual licenses.

#### 2.2.4.4 *Notifications to the WTO*

In keeping with the principle of transparency, all WTO member states are required to make notifications regarding their trade policies on a periodic basis. While there are no penalties for non-reporting, member states which do not notify are in a

weak position when requesting information from other countries. The impact of this would be particularly telling on a product or service company experiencing difficulty in accessing another market due to a lack of information. The WTO also has a Trade Policy Review Mechanism which require members to undergo a review of their trade. In the case of Barbados' this review is to be undertaken every six years.

#### 2.2.4.5 *WTO Review of Barbados' Trade Policies*

In keeping with its WTO obligations, Barbados agreed to undergo a review of its trade policies by the WTO in July 2002. The Report by the WTO Secretariat<sup>22</sup> noted that Barbados had made significant efforts to liberalise its import regime (WTO 2002a). While exports are assisted through a number of subsidies, Barbados has applied to the WTO for permission to continue use of these subsidies (WTO 2001c). In the area of services, Barbados has not restricted trade in services sectors listed in its schedule of commitments to the WTO<sup>23</sup>.

Regarding the issue of compatibility with WTO rules, the report however noted that the anti-dumping and subsidies legislation required updating, and some elements of Trade Related Intellectual Property legislation were still to be put in place. It also noted that Barbados was not up-to-date in making notifications to the WTO on its trade policies.

In its report (WTO 2002b), Barbados noted that it is fully committed to the liberalisation process as demonstrated by the reforms undertaken since 1993 (before the creation of the WTO). It also noted that it will continue to pursue its development objectives within the context of an open market for goods and services. It however noted that it will take all steps necessary to ensure that trade liberalisation is undertaken at a pace which does not precipitate a collapse of the economy. Regarding the fulfilment of WTO commitments, Barbados noted that it



had made considerable progress in meeting most of its obligations. The fulfilment of remaining obligations is being pursued within the context of its limited human, technical and financial resources.

### **2.3 INTERNATIONAL TRADE NEGOTIATIONS**

With a population of 267, 000 persons, a GDP of less than one billion US dollars, and a world trade share of 0.00% (WTO 2001c), Barbados is defined as a small economy by such institutions as the World Bank, and the United Nations. In its report to the WTO as part of the Trade Policy Review exercise, Barbados noted that it shares many of the classical features of small economies including:

- a high dependence on trade making it very susceptible to the vagaries of the international economic environment;
- high dependence on the successful performance of a very limited number of sectors (in the case of Barbados tourism) to promote its economic development;
- relatively small production levels which preclude firms from benefiting from economies of scale;
- relatively high unit transport cost given that small volumes are exported;
- a narrow production base which severely limits the opportunities for persons to gain re-employment during periods of economic downturn; and
- high vulnerability to natural disasters and environmental change as such occurrences impact negatively on the entire economy given the size of the country.

Based on these characteristics, Barbados and other small economies participating in negotiations in the WTO, and in negotiations to create the FTAA have raised a number of specific concerns about the impact which trade liberalisation will have on their economies. Firstly, they argue that adjustment costs in these economies will be higher than in larger economies. This will be so given the existence of fewer firms in small economies and therefore limited opportunities for displaced labour to move between firms and sectors as some economic activities decline.

Secondly, firms in these economies are encouraged to look outward and to develop niche markets overseas. However, they are hindered in seeking to do so by the fact that to tap into such markets require specific skills and technology which are not abundant in small economies. Considerable financial resources will therefore be needed to develop niche markets.

Thirdly, most of these economies currently benefit from preferential trade arrangements. A rapid reduction in trade preferences will undermine the survival of firms which were established during the era of preferences, and which currently lack the management systems to compete effectively. New management expertise will have to be attracted from other countries to assist these firms.

Fourthly, small firms in these economies face the challenge of high transportation costs as a result of the small volumes exported. These firms are therefore inherently at a disadvantage in competing in export markets. This is compounded by the fact that these firms do not benefit from the levels of financial and other support often given by governments in industrial countries to their industries.

Fifthly, because of the narrow base for taxation existing in these countries, the loss of government revenue will be difficult to replace. This will result in a

reduction in the services provided by the public sector such as health and education services, and concomitantly to a derailment of development efforts.

Given the anticipated difficulties, Barbados and other small economies have been seeking the inclusion of provisions in international trade agreements which will mitigate the negative effects of trade liberalisation. The provisions which these economies are requesting include:

- the setting of relatively high trigger levels which must be reached before action can be taken to restrict import from smaller economies for example under Safeguard, Anti-dumping and Subsidies agreements;
- allowing governments greater flexibility to assist domestic industries without breaching domestic support provisions;
- granting relatively longer transitional periods to implement particularly complex provisions, for example in the area of intellectual property rights;
- reducing the burden on smaller economies of complying with changes in sanitary and phyto-sanitary measures implemented by developed countries;
- setting thresholds below which small economies would not be required to make commitments, for example, in the area of government procurement;
- providing technical assistance for smaller economies, as well as financial resources;
- developing dispute settlement procedures which are accessible to smaller economies given their lack of human and financial resources; and



- allowing greater flexibility regarding rules on the formulation of regional trade agreements among developing and small economies.

To date, the lobbying efforts of these countries have met with some success in both the WTO and in FTAA negotiations. For small economies, an important outcome of the Fourth WTO Ministerial Conference held in Doha in 2001 was the establishment of a Work Programme on Small Economies (WTO 2001b). The objective of the Work Programme is to examine the trade related concerns of small economies and to make recommendations for further action to the next WTO Ministerial Conference. In the FTAA, a Consultative Group on Small Economies was established in 1998. The Group is intended to be a reservoir for the concerns of small economies, and a catalyst for ensuring that the various components of the proposed FTAA agreement take the concerns and suggestions of small economies fully into account (Appendix 7).

## **2.4 CONCLUSION**

Barbados' trade policies are influenced by developments on the domestic economy, and by its participation in regional, hemispheric and multilateral trade agreements.

At the domestic level, government has been pursuing a trade policy based on greater openness. In its trade policy statement submitted to the WTO as part of its Trade Policy Review exercise, Barbados indicated that it will implement policies to enable its tradable sectors to be competitive in regional and extra-regional markets. It also emphasised that it will seek to ensure that liberalisation does not precipitate the type of decline which Barbados experienced in the early 1980s and 1990s. In keeping with those objectives, government has put in place

a number of financial programmes to assist the agricultural, manufacturing and tourism sectors. In the case of the agricultural and manufacturing sectors, it has also applied relatively high rates of customs duties. These measures are consistent with its obligations under the international trade agreements to which it is a party.

At the regional and extra-regional levels, the establishment of the CSME, FTAA, a new trading relationship with Europe and expanded WTO rules will require a number of adjustments to its trade policies and in some cases will present some challenges for Barbados. A major change will be that the autonomy of government to develop and implement trade and trade-related policies will be diminished. Government will only be able to create trade policies which do not breach the provisions of the various agreements.

In the case of CARICOM, Barbados has generally applied the provisions of the CARICOM Treaty which historically focussed on trade in goods through the application of a CET and Rules of Origin. This component of the CSME should therefore not affect Barbados' trade policies as far as these issues are concerned. Other components related to trade in goods will however require adjustments to policies to recognise regional accords. These include antidumping and subsidies measures and the mechanism for taking safeguard action to protect domestic industries. Once the CSME is created, Barbados will be required follow the procedures outlined in its Protocols for protecting and assisting domestic industries.

Given that trade in services was previously not included in the CARICOM Treaty some changes to Barbados' trade policies will have to be undertaken in this area. The CSME will require Barbados to remove restrictions on a number of service activities currently reserved for Barbadians. Among these are specific activities in

the tourism and distribution sectors. In addition, Barbados will be required to develop trade policies in a number of other areas which were unregulated. These include competition policy and consumer protection. It will also be required to follow the provisions of the CSME for settling trade disputes. These provisions go beyond the simple consultation process now followed in CARICOM. It will entail consultation, arbitration and appeal to the Caribbean Court of Justice.

The FTAA will require Barbados to liberalise its trade in goods and services to the benefit of the other thirty three parties to that agreement. It will be required to recognise the provisions of the FTAA in designing and implementing trade policies. The provisions of the agreement will go beyond what is required by the WTO. One significant change is that Barbados and other FTAA members will be required to grant full duty free access to substantially all trade with FTAA countries.

As in the case of the CSME, restrictions on trade in services will have to be removed. New legislation acknowledging the rights of FTAA members beyond those currently in the WTO will have to be implemented. This legislation will cover such areas as competition policy, investment, dispute settlement, technical barriers to trade, sanitary and phyto-sanitary measures, as well as anti-dumping and subsidies measures.

In the case of negotiations under the Cotonou Agreement it has already been agreed that the new trading relationship between ACP countries and the EU will be reciprocal in nature. However, the elements of the new trade component of the agreement are not yet known. It is however likely that those elements will be similar to the those in the FTAA, and therefore the implications for Barbados' trade policy will be similar to those in the FTAA.



Unlike the CSME and the FTAA which are in the process of being created, the WTO already impose a number of obligations on Barbados which define the parameters of its trade policies. Negotiations to further liberalise trade in goods and services, and to create new obligations in such areas as competition policy, investment and trade and the environment will add new parameters. The work of the WTO will eventually result in Barbados' trade policies being similar in nature to those of its other members, in particularly other developing members.

In defending its trade policies, in the WTO, Barbados noted that the range of policy options at its disposal to promote its economic development are not as large as for developed countries. It is therefore necessary to allow Barbados and other small economies some flexibility to use trade and trade related policies to assist important productive sectors of its economy without breaching international trade rules. This has been echoed in negotiations in the FTAA and in preparing for negotiations under the Cotonou Agreement. The architecture of the new agreements in these negotiating fora and the extent to which Barbados can gain special and differential treatment will determine the nature of Barbados' trade policies in the future.

## END NOTES

<sup>1</sup> Commonwealth Secretariat/World Bank Report "Small States: Meeting the Challenges In The Global Economy" March 2000.

<sup>2</sup> United Nations Development Programme (1999). Human Development Report.

<sup>3</sup> Government of Barbados (2000) Barbados Strategic Plan 2001 – 2010.

<sup>4</sup> The CARICOM Single Market and Economy which will also include the free movement of services, labour and capital is not yet in effect (Caribbean Community Secretariat, (2000)).

<sup>5</sup> The amounts obtained were the equivalent of SDR 31.9 million under a Stand-by Arrangement, and SDR 12.6 million under the Compensatory and Contingency Financing Facility.

<sup>6</sup> In addition, large negative provisions were made under "Errors and Omissions" a situation which is normally associated with capital flight.

<sup>7</sup> The programme consisted of an 18 month Stand-by-Arrangement in an amount equivalent to SDR 14.9 million, and SDR 22.2 million under the Compensatory and Contingency Financing Facility.

<sup>8</sup> The studies included:

- Inter-American Development Bank (1989) Socio-Economic Report on Barbados;
- World Bank (1989) Barbados Industrial Sector Report;
- Maxwell Stamp Plc (1991) Export Competitiveness and Marketing Study In Barbados; and
- Loehr, W. & Emery, J (1992) Competitiveness and Structural Adjustment In Barbados. Prepared for the IDB.

A general study which examined Barbados' trade policy in the context of CARICOM was "The Caribbean Common Market: Trade Policies and regional integration in the 1990s". World Bank (1990).

<sup>9</sup> Discussion in this section refer to the LOME Convention, as this was in effect at

the time it was written.

<sup>10</sup> OECS countries include Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia and St. Vincent.

<sup>11</sup> Data for Venezuela was not available.

<sup>12</sup> Agricultural products in the classification of the WTO refer to Chapters 1 – 24 of the Customs Tariff, excluding a few sectors such as fish and fish products.

<sup>13</sup> Calculated from the WTO Data Base Release 5. Average is for the HS Head identified.

<sup>14</sup> A recently passed US Trade and Development Act lifted restrictions somewhat for garments.

<sup>15</sup> There are however new Protocols on these issues to be implemented as part of the CARICOM Single Market and Economy (Caribbean Community Secretariat, 2000).

<sup>16</sup> Article 56 of the CARICOM Treaty being the exception.

<sup>17</sup> There are in fact no fixed number of principles. The binding of tariffs for example is sometimes also included as a principle (WTO, 1996).

<sup>18</sup> Some exceptions to this principle are allowed under the Enabling Clause and Article XXIV of GATT and Article V of GATS.

<sup>19</sup> The principle also applies to investors under the TRIMS agreement.

<sup>20</sup> This does not apply to products for which there is a ceiling bind. For these tariffs, rates are not reduced.

<sup>21</sup> Two other provisions exist under GATT 1994. These are Article XII relating to restrictions to safeguard the balance of payments and Article XVIII on government assistance to economic development.

<sup>22</sup> It should be noted that the Government of Barbados has pointed out a number of errors in the July report issued by the WTO Secretariat, and has requested corrections to that report. The Secretariat agreed to amend its report.

<sup>23</sup> In the area of telecommunications, Barbados has commenced the



liberalisation of this sector. It is to liberalised in three phased commencing in October 2002 and ending in August 2003.

## **CHAPTER 3**

### **BARBADOS' MANUFACTURING SECTOR**

#### **3.1 INTRODUCTION**

Barbados shares an economic history with most countries which developed from an agricultural base. Early economic activity in Barbados centred around the growing of tobacco and then cotton which was followed by sugar production. Recognised manufacturing production commenced in the early 1950s mainly in the areas of food production including margarine, lard, bread and biscuits. The garments and furniture industries were developed through foreign investment.

From 1951, a number of incentives were granted to these sectors to facilitate their development. These included the Pioneer Industries (Encouragement) Act 1951, the Pioneer Industries Act 1958, the Industrial Incentives Act 1963, the Industrial Development (Export Industries) Act 1969, and the Fiscal Incentives Act 1974. The current incentives available to manufacturing production include; tax holiday of up to fifteen years from payment of taxes on corporate profits, a low rate of tax (2.5 %), exemption from import duties on parts, raw materials and production machinery, and subsidized factory space.

As early as 1950 also, government embarked fully on an import substitution model which entailed the protection of domestic industries through the imposition of quantitative restrictions. Those industries already in existence benefited from high levels of protection as government sought to increase employment. The industries protected focussed mainly on producing for the domestic market.

Aided by incentives and protection, the manufacturing sector expanded rapidly from the 1950s. The number of garment factories increased from one

in 1951 to three by 1957. The processing and packaging of condiments commenced in 1958, the local brewery was established in 1961, and a dairy plant in 1964. The manufacturing sector continued to grow both in terms of the number of firms and size of output, and by 1973 its contribution to GDP surpassed that of sugar. Of the tradable sectors, manufacturing is now second to the tourism industry in terms of its contribution to GDP. It currently still makes a significant contribution to the economy through foreign exchange earnings, employment and output.

### *3.1.1 Objectives of the Chapter*

The objective of this chapter is to highlight key features of the manufacturing sector which will form the background for the analysis to be undertaken in chapters 4, 5 and 6. It will focus on its structure and performance, as well as on the level of protection granted by government to the sector over the years. It will also examine the support of the sector for trade liberalisation. The chapter will draw heavily on the results of a **Trade Policy Survey** (Appendix 2) which was conducted on the sector in 1998 for the purpose of undertaking analysis for studies in this thesis.

### *3.1.2 Structure of the Chapter*

This chapter is divided into six sections. Section 3.2 examines the structure and economic performance of the sector. Section 3.3 reviews the phases of protection offered to the sector and proposals for future protection in light of new international trade agreements. In section 3.4, a brief comparison is made of protection patterns in Barbados and protection patterns in developed trading partners. Using the results of the Trade Policy Survey, section 3.5 examines the support of the manufacturing sector for WTO rules which are aimed at the liberalisation of trade. Section 3.6, the conclusion, highlights future challenges facing the manufacturing sector.



## 3.2 STRUCTURE AND PERFORMANCE OF THE SECTOR

### 3.2.1 Structure of the Sector

The most recent survey covering a range of economic indicators on the manufacturing sector is the **Trade Policy Survey** which was undertaken for the purpose of conducting the research in this thesis. The survey involved ALL 435 manufactured enterprises registered with the Barbados Investment and Development Corporation (BIDC) at September 1998. Of that number, 152 questionnaires were returned, but not all were complete with usable information. After further telephone interviews and factory visits, 117 completed questionnaires were available for analysis<sup>1</sup>. The sample is representative of the population over the number of firms in manufacturing sub-sectors, as well as employment in each sub-sector (Appendix 3). Information from that survey on firms and employment by sectors is presented in Table 3.1. A copy of the questionnaire is at Appendix 2.

**TABLE 3.1**  
**TRADE POLICY SURVEY RESULTS: NUMBER OF**  
**COMPANIES RESPONDING AND EMPLOYMENT**

SECTORS	COMPANIES	EMPLOYMENT
Food, beverage & Tobacco	35	1930
Textiles, apparel & leather	12	493
Wood, wooden products & fittings	12	274
Paper products, print & publishing	10	569
Chemicals & chemical products	11	260
Fabricated metal products	12	405
Handicraft	8	51
Other Manufacturing	17	1210

Source: Trade Policy Survey

The survey data revealed that the largest sub-sector in the manufacturing industry in terms of employment is food, beverage and tobacco. The smallest industry is handicraft<sup>2</sup>. The average number of persons employed in each firm is 44 persons. Some of the other features of the manufacturing sector revealed by results of the survey are:

- The majority of manufacturing firms have been established within recent years. The average age of firms is 18 years. This is an indication that many firms were established during the period of protection and non-reciprocal trade preferences.
- Most firms are locally owned and do not have any external association by way of joint venture, joint marketing or franchising. Only 36 of the 117 firms reporting have any form of external association by way of ownership or franchising. The major form of association is franchising.
- Products for final consumer consumption are mainly produced. Some 77.7% of firms produce final consumer goods. These goods are mainly in the food and textile sectors.
- The average capacity under-utilization is around 27%. The food, garment and miscellaneous categories have considerably higher levels of under-utilisation ranging from 35% to 75%.
- Out of the 117 firms reporting, 79 are exporters, accounting for total export sales (CARICOM and extra-regional) of BDS\$ 176 million. This represented 42% of Barbados' domestic exports for 1997. Food exports account for most of exports among firms in the survey, and indeed in Barbados total exports. The second largest exporting sector is printing material, followed by metal, textiles, building materials, and chemicals. This is largely in keeping with the pattern of Barbados' export data – however, textiles rank higher in the trade data.
- Sixty or 51.2% of firms benefited from protection. These firms are mainly in the food sector. However, firm in the textiles and chemical industries also benefited heavily from protection. This is

in keeping with the pattern of protection outlined in section 3.3. The major form of protection from which firms benefited was quantitative restrictions on imports.

Section 3.2.4 contains details on the importance of preferences to manufacturing firms. Appendix 3 shows a breakdown of firm and employment by sub-sectors. Table 3.2 further highlights some features of the sector.

**TABLE 3.2  
SELECTED FEATURES OF THE MANUFACTURING SECTOR<sup>a</sup>**

SUB-SECTOR	SALES (\$M)	EXPORTS (\$M)	NO. OF FIRMS WITH EXTERNAL ASSOCIATION	NO. OF FIRMS BENEFITING FROM PREFERENCES	NO. OF FIRMS PROTECTED
FOOD	327.5	51.7	15	26	21
TEXTILES	38.4	12.0	5	6	8
WOOD PRODUCTS	14.1	11.6	4	4	8
PRINTING	18.9	15.8	2	9	5
CHEMICAL	89.3	27.7	4	10	6
BUILDING	51.3	35.0	1	6	1
METAL	68.4	14.4	4	7	5
CRAFT	35.3	3.1	1	4	6

a) Except for the number of firms protected, all data is taken from the Trade Policy Survey

From the above information, it can be concluded that the manufacturing sector in Barbados is relatively small, and firms in the sector in terms of employment and export sales are also relatively small<sup>3</sup>. Firms have a high percentage of capacity under-utilisation and benefited from protection. Most firms are probably not benefiting from economies of scale. As a result of this firms, particularly in the food and garment industries, are vulnerable to import competition. Given the small size of the domestic market, these firms will have to consider exporting to survive.

### 3.2.2 General Performance of the Sector

Over the last two decades, the performance of the Barbados manufacturing sector has been erratic at best. Table 3.3 shows some of the major indicators of performance of the sector. Employment in the sector has been on the decline since the 1980s. At the end of 2000, employment had declined by a third of the



1980 level. Industrial production has been cyclical. However by 2000, production had fallen to its 1995 level. Despite the less than encouraging statistics on employment and production, the sector has shown signs of increased profitability. Indeed, profitability has increased some six fold during the period under review. The increased profitability of the sector is supported by increases in manufacturing exports. There has however, been some contraction of profitability and exports in 2000 when compared with 1999.

**TABLE 3.3**  
**INDICATORS OF THE PERFORMANCE OF THE MANUFACTURING SECTOR**

YEAR	PROFITABILITY <sup>a</sup> (\$000)	MANUFACTURING EXPORTS (\$000)	INDEX OF INDUSTRIAL PRODUCTION	EMPLOYMENT (000)
1980	12,974	219,421	-	15.1
1985	23,476	444,244	102.8	12.0
1990	28,868	186,976	118.7	-
1995	25,548	281,251	110.0	11.7
1996	40,473	356,447	115.9	10.0
1997	35,217	349,220	125.9	10.7
1998	40,898	322,011	128.2	10.8
1999	74,090	340,891	119.9	10.3
2000	63,655	327,042	110.7	10.2

Source: Central Bank of Barbados Annual Statistical Digest 2001

a) Deposits of the manufacturing sector with commercial banks

### 3.2.3 Competitiveness of the Sector

The competitiveness of the Barbados manufacturing sector has been debated since its decline in the early 1990s. Since 1990, a number of studies have assessed the competitiveness of the sector<sup>4</sup>. The studies identified a narrow range of items on which Barbados has a comparative advantage including processed fruit products, precious jewellery and travel goods. They also identified the general problems facing the sector as; high capital under-utilisation, lack of overseas association, shortage of working capital, obsolescence of machinery, lack of capital to retool, high taxation, inadequate factory management, lack of up-to-date technology and low productivity.

Data from the 1998 Trade Policy Survey shows, that most firm managers do not believe that they have a chance of competing on the domestic market if import restrictions were lowered. On the export side, most managers believe that they would not be competitive on the export market without preferential trade concessions. Firms were asked to indicate the factors limiting or preventing export expansion on a scale of 0 (no effect) to 10 (maximum effect). Table 3.4 shows a ranking of factors which impact on the export performance of firms. High tariffs in export markets do not feature prominently in the concerns of firms. Firms indicated that they are more challenged by production costs on the domestic market. This would suggest that firms do not expect to benefit greatly from the removal of tariff barriers through trade liberalisation. It is worth noting that most firms already benefit from substantial duty free market access offered through various one-way preferential trade agreements.

**TABLE 3.4**  
**FACTORS AFFECTING EXPORT PERFORMANCE OF FIRMS**

RANK	FACTORS	RANK	FACTORS
1	High operating costs	9	Lack of financing
2	High transportation costs	10	High tariffs in export markets
3	High labour costs	11	Exchange rate of the Barbados dollar
4	High cost of raw materials	12	Inadequate marketing
5	High Government taxes	13	Poor quality of raw materials
6	Small scale of operation	14	In adequate research and development
7	Non-tariff barriers in export markets	15	Outdated equipment
8	In adequate employee skills		

Source: Trade Policy Survey

### 3.2.4 Preferential Agreements and Export Performance

Since the EU GSP of 1971, Barbados has benefited from a number of preferential trade arrangements. Some indication of the importance of preferences to Barbados can be obtained from the percentage of preferential exports to total exports under each arrangement, and from the number of firms benefiting from the arrangements.

In 1998, Barbados' preferential exports under non-reciprocal trade arrangements were 27% of total exports. In 1999 the value increased to 31%. Preferences granted to Barbados' exports under the CARICOM arrangements amounted to BDS \$186.5 million in 1998 or 47% of Barbados' exports and BDS \$191.1 million in 1999 or 49% of exports for that year. When combined, one-way trade preferences and regional preferences amounted to 78% of exports in 1998. and 80.1% in 1999 (Table 3.5).

**TABLE 3.5**  
**PREFERENTIAL EXPORT PERFORMANCE 1998-1999 (BDS \$)**

YEAR	TOTAL NON-CARICOM PREFERENTIAL EXPORTS	TOTAL CARICOM PREFERENCES <sup>a</sup>	% OF TOTAL EXPORTS
1998	118,629,187	186,480,121	78%
1999	123,959,933	191,180,763	80.1%

Source: Certifying Authorities in Barbados - Customs and Excise Department and the BIDC.

a) These figures are for all preferential exports - both manufacturing and agricultural

In terms of export earnings, CARICOM preferences are also the most important for Barbados followed by LOMÉ, CBI, GSP, CARIBCAN, and the CARICOM/Venezuela Agreement (Figure 3.1). No exports were recorded under the CARICOM/Colombia Agreement during the period.



**FIGURE 3.1**  
**LEVEL OF PREFERENTIAL EXPORTS (1999)**

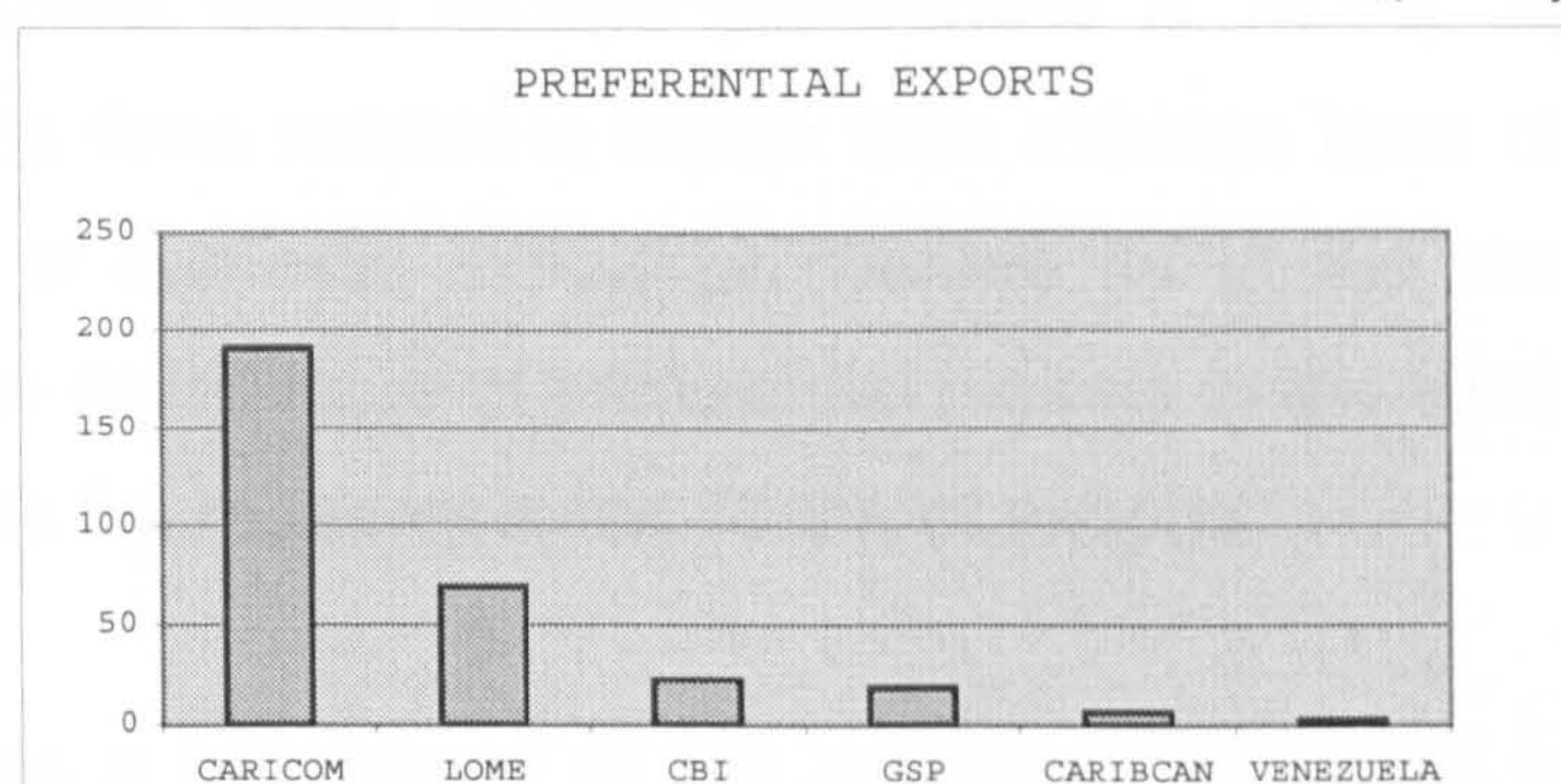


Table 3.6 summarises Barbados' export performance with each preferential area for 1999. The figures show that a relatively large amount of Barbados' exports to the Venezuelan, CARICOM, EU and Canadian markets received preferential access. The figures are a rudimentary indication of the percentage of prevailing export earnings which could be lost on each market if preferences were eliminated.

**TABLE 3.6**  
**BARBADOS' PREFERENTIAL AND NON-PREFERENTIAL EXPORTS FOR 1999. (BDS \$ MILLIONS)**

AGREEMENT	PREFERENTIAL EXPORTS	TOTAL EXPORTS	PREFERENTIAL AS A % OF TOTAL EXPORTS TO EACH AREA
CARICOM	191.6	195.3	98.2
CARICOM/Venezuela	2.8	2.8	100
CARICOM/Colombia	0	.25	0
GSP <sup>a</sup>	23.1	171.4	14.0
LOMÉ (Europe)	70.6	81.5	86.6
CBI (USA)	24.0	76.3	30.1
CARIBCAN (Canada)	6.7	12.1	55.3

Source: Barbados Customs and Excise Department, BDC and Barbados Statistical Service  
Figures are for the GSP schemes in which Barbados participates – USA, Canada, EU, New Zealand and Australia.



Data on the number of manufacturing firms benefiting from preferential trade arrangements can be obtained from the **Trade Policy Survey** (Appendix 2). Responses to the questionnaire used in the survey indicate that the average percentage of exports which receive preferences is 75.1%. Approximately 74.6% of exporting firms receive a higher than average level of preference. The dollar value of domestic exports accounted for in the sample is BDS \$176,645,538. The dollar value of preferential exports in the sample was BDS \$139,441,971. This figure represented 78.9% of exports<sup>5</sup>.

Table 3.7 provides a breakdown of the manufacturing firms in the survey which benefit from preferential trade arrangements. As shown in the table, the exports of 72 firms (out of 79 exporting firms) benefit from trade preferences. Most of those firms (69) receive preferences within CARICOM. In terms of exports to non-CARICOM countries, the exports of 49 firms receive preferences.

The responses indicate, that 91.1% of exporting firms or 61.5% of all manufacturing firms would be negatively affected if ALL preferences were removed. If CARICOM preferences alone were removed, 87.34% of exporting firms or 58.9% of all manufacturing firms would be negatively affected. If preferences offered under LOMÉ, CBI, CARIBCAN, GSP, CARICOM/Venezuela and the CARICOM/Colombia Agreements were removed, 62.02% of exporting firms or 41.8% of all firms would be negatively affected.

In terms of non-reciprocal trade arrangements, the greatest number of manufacturing firms would be negatively affected if CBI preferences were withdrawn, followed by GSP, LOMÉ, CARIBCAN and preferences under the CARICOM/Venezuela Agreement. As stated previously, there were no exports to Colombia under the preferential trade arrangement with that country.

**TABLE 3.7**  
**NUMBER OF FIRMS BENEFITING FROM TRADE PREFERENCES<sup>6</sup>**

	Total	CARICOM	Total Non-CARICOM	LOMÉ	CBI	CARIBCAN	GSP	Venezuela
No. of Firms	72	69	49	28	44	12	35	6
% of exporting firms (79)	91.1	87.34	62.02	35.4	55.6	15.18	44.30	7.59
% of all firms (117)	61.5	58.9	41.8	23.9	37.6	10.2	29.9	5.12

SOURCE: Trade Policy Survey

1. The number of firms will not sum to 117 as firms export under more than one arrangement.
2. There were no exports under the CARICOM/Colombia Agreement

### 3.3 PATTERNS OF PROTECTION IN BARBADOS

The structure of protection in Barbados can be described with reference to three phases. In phase I, the historical phase, protection was granted to sectors as an incentive to encourage industrial and agricultural development. In phase II Barbados unilaterally took a decision to partially abandon its protection regime, and to adopt a more open trade policy. In phase III, the country undertook further liberalisation of its trade regime. On that occasion, the liberalisation programme was in keeping with Barbados' obligations under international trade agreements.

#### 3.3.1 Phase I Protection<sup>7</sup>

As part of its development strategy of industrialisation through import substitution, Barbados readily offered protection to new and existing businesses throughout the 1970s and 1980s. By 1990, the range of products protected was extensive. Table 3.8 shows the number of product categories protected in Barbados at the 4,5 and 6 digit levels during each phase. The first column of the table contains the description of the 21 Sections contained in the Barbados Customs Tariff. Column 2 shows that at 1990, over 200 product categories were protected. The most highly protected products were agricultural products, food items, textiles and clothing items, chemical



products (especially paints), metal products (mainly metal windows and doors), and paper products (mainly stationery)<sup>8</sup>.

In this phase also, protection was reinforced by relatively high tariff rates under the common external tariff (CET) of CARICOM, and by stamp duties and consumption taxes on imported goods. In terms of the CET, the highest rates for agricultural goods were 45%, while manufactured goods generally carried rates of 20%, 30% and 45%. In some cases, for example in the case of precious stones, the rates were higher at 50% and 60 %.

Milner (1994) noted that non-tariff barriers were a major source of anti-export bias in Barbados' trade policy regime during this period. The study also noted, that the manufacturing sub-sectors with high levels of effective protection were processed foods and drinks, garments, metal and glass products, and paper, printing and plastics. In terms of removing the anti-export bias, the study observed that in addition to the removal of quantitative restrictions, reforms would also have to be undertaken of the import tax regime.

### 3.3.2 Phase II Protection<sup>9</sup>

After the economic difficulties of the early 1990s (described in Chapter 2), government commenced a trade liberalisation programme aimed at correcting the anti-export bias in its trade policy regime. The programme which commenced in 1994, involved replacing quantitative restrictions on many items with a surtax. Restrictions on items which were no longer produced in Barbados were removed. As shown in column 3 of Table 3.8, the greatest number of quantitative restrictions remained on agricultural products and food items<sup>10</sup>.

During this period also, the CET was in the process of being phased down in accordance with a CARICOM decision to reduce the rate structure to levels of between 0 to 20 %.

### 3.3.3 Phase III Protection<sup>11</sup>

On April 1, 2000, Barbados removed quantitative restrictions on all items except as allowed under WTO Agreements, and applied bound rates of tariffs allowed under its commitments to that organisation. This means that the major form of protection for domestic industries exists by way of the CET and bound tariffs. Table 3.9 shows the number of 4, 5, and 6 digit product categories protected in the regime, and the rates which apply. Column 2 shows the range for the CET. Column 3 contains that number of products on which bound rates apply. Column 4 shows the maximum rate which apply. The largest number of products protected is agricultural products. These products are protected by tariff rates well in excess of 100%.

### 3.3.4 Proposed Protection under New Trade Arrangements

In preparation for international trade negotiations to create the FTAA and to create partnership agreements with the EU<sup>12</sup>, government has devised lists of sensitive products to be used as a first position in international trade negotiations. Three lists were developed:

- i. a list of products which would be restricted for health and safety reasons and to protect public morals;
- ii. a list of products on which customs duties would be reduced on a phased basis; and
- iii. a list of products to be excluded from duty reductions because of their sensitive nature.

All other products not contained in any of the lists would be traded freely immediately on the coming into force of the relevant agreement.

The lists were compiled by a committee comprising officials of both the public and private sectors. It was undertaken against the background that developed countries participating in negotiations to create the FTAA and to revise the LOMÉ Convention - namely the USA, Canada and the EU - are insisting that any new agreement must be WTO compatible (information on these

agreements is in Appendix 7)<sup>13</sup>. The mandate of the committee was to compile the three lists based on:

1. WTO regulations that "substantially all trade" must be included in free trade.
2. Economic considerations such as:
  - contribution of the industry to employment;
  - contribution to government revenue;
  - the vulnerability of the industry; and
  - the competitiveness of the industry.
3. Such other considerations as the committee deemed relevant.

WTO regulations under Article XXIV are unclear. The "substantially all trade" rule was interpreted to mean that no sector should be excluded, and that at least 90% of trade should be involved. The contributions of the industry to employment and government revenue are national interest factors. The vulnerability of the industry was measured through imports into the industry from both CARICOM and non-CARICOM sources. The higher the level of import penetration, the more vulnerable the industry was regarded to be. The competitiveness of the industry was measured by export performance. Other considerations included the backward and forward linkages between firms in the industry and other firms inside or outside of the particular industry. No formal statistics existed for the latter variable. On this issue, the role of technocrats in arguing for protection of specific industries was particularly important.

During the course of consultations with the private sector, the issue of "unequal protection" was raised. It was argued by the manufacturing sector that some consideration should be given to their concern that if trade in certain sectors was liberalised while high protection existed in those same sectors in the markets of major trading partners, then access to the home market would be unjustly easier than market access on the export market.



Sectors such as agriculture and garments which are highly protected in the markets of the industrialised world through subsidies, prohibition and other forms of tariff and non-tariff barriers should also be protected in the local market, so as not to place local sectors at a considerable disadvantage.

Table 3.10 contains a summary of the list of products categories selected by government. The table shows the number of 4, 5, and 6 digit product categories identified for restrictions for health and safety reasons to protect public morals, to be included in the agreements on a phased basis, and to be excluded from the agreement by reason of their sensitive nature.

In column 2 of Table 3.10 is the list of products categories to be protected in each sector for health or safety reasons or to protect public morals. Column 3 contains the number of product categories for phased reduction in duty. Finally, column 4 shows the number of product categories to be excluded from the agreements. Regarding health and safety restrictions, the table shows that these restrictions are mainly to be retained on agricultural products and chemicals. The list of products for phased reduction in duty is more diverse. The list includes agricultural and other products which attract high rates of duties for revenue purposes. In terms of exclusions, some 183 product categories have been identified for exclusion from the new agreements<sup>14</sup>.

### *3.3.5 Compatibility with WTO Rules*

In terms of compatibility with WTO rules, only the list of products for exclusion (products on which MFN rates apply) would be required to meet the "substantially all trade rule" test. WTO rules do allow for restrictions based on health, safety and to protect public morals. If challenged, the country must however be in a position to show legitimate cause for the restriction. The rules also allow for products to be placed on a phased list. As noted in Appendix 7, the rules require that the phase-in period be no longer than 10 years unless good a longer period is sanctioned by that organisation.

As far as meeting the requirements of the disputed "substantially all trade" rule, the exercise partially fulfilled the perceived requirements of this rule, the interpretation of which is still unclear. No sector has been totally excluded from liberalization, and therefore the exclusion list should pass the "quality test" (see Appendix 7). Table 3.11 shows the value of trade in these products during the 1995 to 1999 for both EU and FTAA countries. Based on the statistics less than 10% of trade would be excluded in the case of the EU. In the case of the FTAA the value of trade excluded would be greater than 10%. It appears therefore that the list would pass the "quantity test" in the case of the EU but not in the case of the FTAA. This is in keeping with the view of Stevens *et al* (1998), who suggest that if the most sensitive products of CARICOM and the Dominican Republic were excluded from a new partnership arrangement with Europe, some 95% of trade would be unaffected<sup>15</sup>.

**TABLE 3.8**  
**SYNOPSIS OF PROTECTION IN BARBADOS**

HS SECTIONS	1990 PROTECTION (4, 5 & 6 digit level)	1994 PROTECTION ADJUSTMENTS	
		Restricted	Surtax
1. Live animals and animal products	11	11	0
2. Vegetable products	22	12	1
3. Animal or vegetable oils and fats etc	3	10	1
4. Prepared foodstuffs; beverage, spirits and	28	9	5
5. Mineral products	6	0	3
6. Products of the chemical or allied	17	5	8
7. Plastics, rubber, and articles thereof	9	1	2
8. Raw hides and skins, leather, furskins etc.	1	0	1
9. Wood and Articles of wood etc.	3	0	0
10. Pulp of wood or other fibrous cellulosic	12	0	10
11. Textiles and textile articles	57	1	30
12. Footwear, headgear, umbrellas etc.	2	0	0
13. Articles of stone, plaster, cement etc.	0	0	0
14. Natural or cultural pearls etc.	1	0	0
15. Base metal and articles thereof	13	3	3
16. Machinery and mechanical appliances	10	0	0
17. Vehicles, aircraft etc.	8	5	5
18. Optical equipment etc	5	0	0
19. Arms, ammunition and parts	4	4	0
20. Misc goods	5	2	2
21. Works of art	2	0	0

Sources: Barbados Government files and various Acts and Regulations.



**TABLE 3.9**  
**IMPLEMENTATION OF WTO RATES OF DUTY**

HS SECTIONS	CET RATE RANGE	NUMBER OF SENSITIVE PRODUCTS (4,5 & 6 digit level)	WTO BOUND TARIFF (APPLIED AT APRIL 1st 2000)
1. Live animals and animal products	5% - 45%	48	207%
2. Vegetable products	5% - 40%	32	243%
3. Animal or vegetable oils and fats etc.	5% - 40%	2	194%
4. Prepared foodstuffs; beverage, spirits and vinegar	5% - 40%	41	210 %
5. Mineral products	5% - 25%	0	CET RATE
6. Products of the chemical or allied industries	5% - 25%	2	82%
7. Plastics, rubber and articles thereof	5% - 25%	0	CET RATE
8. Raw hides and skins leather, furskins etc.	5% - 25%	0	CET RATE
9. Wood and articles of wood etc.	5% - 25%	0	CET RATE
10. Pulp of wood or other fibrous cellulosic material	5% - 25%	0	CET RATE
11. Textiles and textile articles	5% - 25%	2	117%
12. Footwear, headgear, umbrellas etc.	5% - 25%	0	CET RATE
13. Articles of stone, plaster, cement etc.	5% - 25%	0	CET RATE
14. Natural or cultural pearls etc.	5% - 60%	0	CET RATE
15. Base metal and articles thereof	5% - 25%	0	CET RATE
16. Machinery and mechanical appliances etc.	5% - 45%	0	CET RATE
17. Vehicles, aircraft etc.	5% - 45%	0	CET RATE
18. Optical, photographic and other apparatus	5% - 60%	0	CET RATE
19. Arms, ammunition and parts	5% - 70%	0	CET RATE
20. Misc. goods	5% - 25%	0	CET RATE
21. Works of art	25%	0	CET RATE

Sources: Barbados Customs Tariff Amendment Order 2000 and 1998; and Barbados Market Access Schedules for Goods submitted to the WTO (1994a)

**TABLE 3.10**  
**PROPOSED PATTERN OF PROTECTION**  
**(NUMBER OF 4, 5, AND 6 DIGIT PRODUCTS)**

HS SECTIONS	HEALTH & SAFETY RESTRICTIONS	PRODUCTS FOR PHASED REDUCTION IN DUTY	PRODUCTS FOR EXCLUSION
1. Live animals and animal products	13	3	14
2. Vegetable products	15	27	15
3. Animal or vegetable oils and fats etc.	0	0	10
4. Prepared foodstuffs; beverage, spirits and vinegar	0	5	47
5. Mineral products	0	7	18
6. Products of the chemical or allied industries	14	17	10
7. Plastics, rubber and articles thereof	1	7	1
8. Raw hides and skins leather, furskins etc.	0	2	1
9. Wood and articles of wood etc.	0	6	1
10. Pulp of wood or other fibrous cellulosic material	0	14	6
11. Textiles and textile articles	0	13	28
12. Footwear, headgear, umbrellas etc.	0	2	0
13. Articles of stone, plaster, cement etc.	0	8	1
14. Natural or cultural pearls etc.	0	0	8
15. Base metal and articles thereof	2	21	2
16. Machinery and mechanical appliances etc.	0	15	2
17. Vehicles, aircraft etc.	0	6	6
18. Optical, photographic and other apparatus	0	3	7
19. Arms, ammunition and parts	3	0	0
20. Misc. goods	2	6	6
21. Works of art	0	2	0

Source: Barbados Government files.

**TABLE 3.11**  
**VALUE OF PRODUCTS ON BARBADOS' EXCLUSION LIST AS A**  
**PERCENTAGE OF EU AND FTAA TRADE 1995 -1999**

YEAR	PERCENTAGE OF DOMESTIC EXPORTS (TO AREA)	PERCENTAGE OF IMPORTS (FROM AREA)	PERCENTAGE OF OVERALL TRADE (IMPORTS PLUS EXPORTS)
<b>TRADE WITH EU COUNTRIES</b>			
1995	8.3	4.1	5.3
1996	7.6	4.1	5.2
1997	7.8	3.9	5.0
1998	9.8	5.0	6.9
1999	10.4	4.9	6.2
<b>TRADE WITH FTAA COUNTRIES</b>			
1995	29.4	16.8	19.6
1996	27.0	16.8	19.4
1997	27.7	16.0	18.6
1998	34.7	20.2	23.3
1999	36.9	19.9	23.2

Source: Barbados Statistical Service

### **3.4 COMPARISON OF PROTECTION PATTERNS**

This section briefly examines similarities and differences between the pattern of protection in Barbados and its major developed trading partners.

As highlighted earlier, protection can take many forms including tariffs, quantitative restrictions and subsidies. Industries can also be protected through anti-dumping and countervailing action, through technical barriers to trade and through sanitary and phyto-sanitary measures. This list is of course not exhaustive, as countries can implement trade control measures in the ordinary course of trade such as quality control inspections, to frustrate the export efforts of partner countries.

The traditional forms of protection tariffs, quantitative restrictions, and anti-dumping and countervailing duties are obvious or are easier to detect and to quantify. Use of the other measures highlighted above is more difficult to detect.



Tariff rates can be used to make comparisons between Barbados and its trading partners in the developed world, as they are more readily available. However, several caveats should be made regarding the use of tariffs for this purpose.

Firstly, effective tariff rates which take into account tariffs on industry inputs as well as tariffs on industry outputs would provide a better indication of the level of protection available to industries. However, requests for protection are usually based on nominal tariffs. An analysis of such tariffs is therefore useful.

Secondly, tariff rates do not always reflect the sensitivity of an industry, as tariffs may be substituted with other forms of protection. There may not be a one to one correspondence between the level of a tariff, and the use of other forms of protection. For example, Table 3.12 shows a summary of the products on which anti-dumping and subsidies action have been initiated or taken by the EU, USA and Canada during 1999. The products which are most consistently investigated for anti-dumping and countervailing action by the three countries are steel products (Chapters 72 and 73 of the Customs Tariff)<sup>16</sup>. This would seem to indicate that such items are regarded as being sensitive by these countries.

**TABLE 3.12  
MAJOR PRODUCTS INVESTIGATED FOR  
ANTI-DUMPING AND COUNTERVAILING DUTIES**

EU	USA	CANADA
Television picture tube	Carbon steel wire rod	Cold rolled steel sheets
Polyethylene terephthalate	Other steel products	Corrosion resistant steel
Polyester staple fibers	Oil country tubular goods	Hot rolled carbon steel plates
Cotton-type bed linen	Silicon metal	
Stainless steel wire	Cast iron fittings	
Steel pipes and cables	Ferrosilicon	
Magnetic disks	Concentrated orange juice	
Personal fax machines	Fresh cut flowers	

Source: country notifications to the WTO on Anti-dumping and Countervailing action. 1995 - 1999

However, tariffs applied on steel and articles of steel are lower than the average applied on all manufactured goods as shown in Table 3.13. This is an indication that there may not always be a one-to-one correspondence between tariff protection and non-tariff protection. Countries may use different forms of protection as substitutes, rather than complements.

**TABLE 3.13  
COMPARISON OF AVERAGE<sup>(a)</sup> TARIFF RATES FOR SELECTED  
COMMODITIES IN MAJOR TRADING PARTNERS (1999)**

SECTOR	AVG. TARIFF - EU (%)	AVG. TARIFF - USA (%)	AVG. TARIFF - CANADA (%)
Iron and steel	<i>2.4</i> (2.6)	<i>2.7</i> (2.9)	<i>2.3</i> (3.7)
Articles of iron and steel	<i>3.1</i> (3.3)	<i>2.4</i> (3.2)	<i>3.8</i> (5.5)
All manufactured goods	<i>4.1</i> (5.2)	<i>4.2</i> (6.3)	<i>4.5</i> (8.6)

Source: Calculated from the WTO Integrated Data Base Release 4 (June 2000)

(a). Arithmetic tariff rates are in italics. Calculated as sum of duties divided by the total number of tariff lines. Dutiable tariff rates are in brackets. Calculated as sum of duties divided by number of lines with duties higher than zero. Trade weighed tariffs were not available in the data base.

The third point which must be made regarding tariff levels in Barbados and developing countries is that the Barbados rate is determined at a regional level by CARICOM. The rates therefore reflect the overall interests of CARICOM member states and not solely the interest of Barbados. Therefore, tariffs may be high on some products which Barbados do not consider to be sensitive.

#### 3.4.1 Correlation between Tariff Rates

On average, Barbados' tariff rates in 1999 were higher than those of developed countries. Across all sectors (agriculture and manufacturing), Barbados' average tariff rate was 14.7%. For Canada the average rate was 8.8%, for the USA 7.1%, and for the EU the rate was the lowest among the sample of countries at 6.3 %<sup>17</sup>.

Table 3.14 shows the correlation between average level for these countries at the two digit level. The matrix shows that there was low correlation between

the average tariff levels in Barbados and the developed countries in the sample period. The highest correlation value between Barbados and the selected countries is 0.169 with the EU. Surprisingly, the correlation between tariff levels in Barbados (and CARICOM) and the USA is not significantly different from zero. Interestingly, the matrix shows that there is not a high correlation between the average tariff rates of the USA, EU and Canada. The highest correlation exist between Canada and the EU (0.569). Given the involvement of these countries in negotiations to reduce tariffs under the GATT, it is surprising that the correlation is not higher.

**TABLE 3.14**  
**CORRELATION OF 1999 TARIFF RATES**  
**FOR SELECTED COUNTRIES**

	BAR	US	EU	CAN
BAR	1.000			
US	-.006	1.000		
EU	.169	.299	1.000	
CAN	.087	.140	.569	1.000

Source: Calculated from the WTO Integrated Data Base

BAR = Barbados; CAN = Canada

US = United States of America; EU = European Union

Table 3.15 shows the 1999 range of tariff rates for Barbados and selected developed countries under discussion. The table indicates that all countries apply relatively high tariff rates to agricultural and food items (HS Sections 1 - 4). The range of rates for prepared foodstuffs is higher in developed countries than Barbados. The rates are particularly high for the USA (350%), followed by Canada (245%). Barbados' highest tariff rates applied at April 1st 2000 are not as high (Table 3.9). Relatively high rates are also applied by developed countries in the areas of textiles and footwear, indicating that these items are also sensitive. The US applied the highest rates for manufactured goods on these items.

Barbados charged higher than average tariff rates for natural and cultural pearls, optical, photographic and other apparatus, and arms and ammunitions principally for revenue purposes as these items are not produced in Barbados



(HS Sections 14, 18 and 19). These however do not carry high rates in the case of the USA, EU nor Canada.

The main areas of similarities are in respect of agricultural food products and textiles. The similarities go beyond high tariff rates, as Barbados maintained quantitative restrictions on agricultural and food items during 1999. Developed countries on the other hand, invoked the special safeguard mechanism under the WTO Agreement on agriculture to apply higher duties than those listed in Table 3.9 to protect that sector. In these countries that sector also benefits from production subsidies not available to firms in Barbados given the lack of financial resources.

Textiles are also similar. Barbados maintained a surtax on garments during 1999, as well as quantitative restrictions on some items. Developed countries on the other hand, also maintained quantitative restrictions on garment and textiles during 1999, as provided for under the WTO phase-out period for restrictions applied under the Multi-Fiber Arrangement.

Overall, the evidence suggests that apart from similarities in the case of agricultural products, food items, textiles and garments, all of which carry relatively high rates of tariffs in all countries reviewed, a high correlation does not exist between the structure of the Barbados tariff, and those of the major developed countries - US, EU and Canada. The lack of a strong relationship maybe explained, in part, by differences in production structures and the state of development of Barbados vis-a -vis its developed country trading partners.

**TABLE 3.15**  
**AVERAGE TARIFF RATE RANGE FOR BARBADOS AND MAJOR DEVELOPED COUNTRIES**

HS SECTIONS	BARBADOS TARIFF RATE RANGE (%)	EU TARIFF RATE RANGE (%)	USA TARIFF RATE RANGE (%)	CANADA TARIFF RATE RANGE (%)
1. Live animals and animal products	5 - 45	0.3 - 23	0.5 - 27.2	2 - 27
2. Vegetable products	5 - 40	0.3 - 21.7	0.5 - 168.6	2 - 100
3. Animal or vegetable oils etc.	5 - 40	0.3 - 17.5	2.5 - 19.2	2.5 - 12
4. Prepared foodstuffs etc	5 - 40	0.3 - 81.9	0.8 - 350	2 - 245
5. Mineral products	5 - 25	0.7 - 8	2.8 - 7	2.5 - 12.5
6. Products of the chemical and allied	5 - 25	0.3 - 14	0.1 - 14.5	2 - 12.5
7. Plastics, rubber and articles thereof	5 - 25	2 - 11.3	1.9 - 14	3 - 15.5
8. Raw hides and skins, leather, furskins etc.	5 - 25	1.7 - 9.7	1.5 - 20	2 - 15.5
9. Wood and articles of wood	5 - 25	1.7 - 10	1.2 - 18	2.5 - 11.0
10. Pulp of wood or other fibrous materials etc.	5 - 25	1.5 - 8	0.2 - 8.5	2 - 14
11. Textiles and textile articles	5 - 25	0.2 - 13	0.4 - 33.3	3.5 - 23.5
12. Footwear, headgear, etc.	5 - 25	1.7 - 17	2.5 - 48	2.5 - 20.5
13. Articles of stone, plaster, cement etc.	5 - 25	1 - 12	0.7 - 38	2.5 - 15.5
14. Natural or cultural, earl etc.	5 - 60	2 - 4	2.1 - 13.5	2.5 - 8.5
15. Base metal and articles thereof	5 - 25	1.3 - 10	0.2 - 15	2 - 11
16. Machinery and mechanical appliances	5 - 45	0.4 - 14	0.5 - 15	2 - 11
17. Vehicles, aircraft etc.	5 - 45	1.7 - 22	0.4 - 25	2.5 - 25
18. Optical, photographic etc	5 - 60	0.8 - 6.7	0.7 - 16	2 - 14
19. Arms, ammunition etc	5 - 70	1.7 - 3.2	2.6 - 5.7	2 - 7.5
20. Misc. goods	5 - 25	1.7 - 7.7	1.8 - 32	2.5 - 18
21. Works of art	25	0	0	5.5 - 7

Source: WTO integrated data base. Release 4.0. June 2000

### 3.5 SUPPORT FOR TRADE LIBERALISATION

This section examines the support of the manufacturing sector for trade liberalisation as required by the WTO rules. Data referred to in this section was obtained from the Trade Policy Survey introduced in section 3.2.

Firms were asked to provide positions on the three WTO principles, on fourteen agreements and on three issues being discussed in the WTO on which negotiations will be undertaken. A copy of the questionnaire issued to firms is at Appendix 2. Table 3.16 provides a summary of the percentage responses either in favour, against or no position. The following discussion is based mainly on that summary.

As depicted by Figure 3.2, of the total respondents, 37.5% strongly agreed with WTO principles, agreements and specific provisions in new areas - competition policy, environment and investment. Approximately 21.8% agreed, while 17.3% and 13.3% respectively disagreed and strongly disagreed. Some 9.8% expressed no opinion on these issues.

In general, firms expressed an opinion either in favour of or against WTO principles, rules and issues. The highest level of "no position" (19.6%) relates to questions on the use of standards to restrict trade, the use of sanitary and phyto-sanitary measures to restrict trade, and to the abandonment of local content requirements in the granting of incentives. It is not surprising that firms would want to reserve their position on the use of such non-tariff measures, as they may wish to call on government to use these at some point in time. In relation to the questions on solving trade disputes, all firms expressed opinions either in favour or against. Firms are in favour of approaching the WTO to settle trade disputes, and accepting WTO decisions as final.

#### 3.5.1 Support for WTO Principles

Regarding WTO principles only, the majority of firms do not support the three basic WTO principles of non-discrimination, national treatment and transparency



(Figure 3.3). Some 54.7% of firms disagree with the MFN principle. Firms are especially against that principle of transparency and national treatment. In relation to national treatment, 60.6% of firms are not in support of this principle, while in the case of transparency 70.9% of firms are against the principle.

### 3.5.2 *Support for WTO Agreements*

Approximately 40.2% of firms strongly agree with WTO Agreements, and 24.5% agree. Only 14.0% and 11.5% respectively disagree and strongly disagree with the current agreements (Figure 3.4).

Market access provisions form the basis for liberalisation within the WTO. The responses reveal that firms are not in favour of the removal of quantitative restrictions. They however overwhelmingly agree that if QRs are removed, they should be replaced with tariffs which are high enough to protect local production. In terms of numbers (Table 3.16), 54.7% are against the removal of QRs, while 70% are for the use of high tariffs. By a small margin (7%), firms are in favour of the reductions in the tariff over time. This is somewhat of an anomaly, as it would be expected that firms which are against the elimination of QRs would oppose reductions in bound tariffs. Since most manufactured goods had already been removed from license under the stabilisation programme referred to earlier, the answers suggest that firms generally may wish to ensure that measures to protect them from import competition are available.

Firms overwhelmingly support the inclusion of a safeguard clause in WTO disciplines (88.8%). However, they do not support the request that tariffs rather than non-tariff barriers be used to provide protection, nor do they support the temporary nature of safeguard action. In both cases 59.8 % are against these provisions.

The majority of firms support recourse to anti-dumping procedures (94%), as well as the proof of injury requirement (49%) and consultation before action is taken (61.5%). This is similar to the response on the use of countervailing duties

in the case of subsidies (84.6%), proof of injury (49.0%) and consultation before action (55.5%).

Firms overwhelmingly support the harmonisation of customs rules (89.7%), apparently not seeing this as an instrument of liberalisation. However, in relation to the rules of origin agreement a majority of firms (70.9%) do not favour the use of these rules as an instrument of protection. Somewhat surprisingly, a majority of firms (51.2%) support predictability and transparency in issuing licenses.

The responses of firms to the agreements on technical barriers to trade and sanitary and phyto-sanitary measures are similar. The majority of firms (99.1%) favour the imposition of such measures on imports. None of the firms disagree with recourse to such measures. A much smaller percentage of firms (43.5%) agree that such measures should not be strictly used as trade control measures.

In relation to the other agreements, the majority of firms agree with the establishment of a machinery for pre-shipment inspection (82%); with abandonment of local content requirements under the TRIMS agreement (41%); with the protection of local and foreign intellectual property under the TRIPS agreement (94%) in both cases; with the settlement of disputes through the WTO system, and full acceptance of WTO decisions (93.1%) and (78.6%) respectively; and with the temporary non-imposition of tariffs on electronic commerce (70%).

### *3.5.3 Support for New Issues*

Considering all new issues, 42.0% of firms agree with WTO involvement with the new issues - competition policy, environment and investment. However, 44.5% disagree, while 12.5% have no opinion. This shows that as a whole, there is some support for the new issues the majority of firms however disagree with the specific issues raised (Figure 3.5).

Approximately (47.3%) of firms do not support a moratorium on restricting imports for environmental reasons until rules are developed within the WTO.

Regarding anti-competitive practices the majority of firms expressing an opinion (47.8%) favour the implementation of anti-competitive laws. On the issue of investment, the majority of firms (45.2%) are against MFN rules on investment concessions (Table 3.16).

#### 3.5.4 *WTO Rules and Firm Characteristics*

The responses of firms categorised according to a number of profiles were also undertaken. These profiles included the following:

- i. production protected and production not protected;
- ii. exporter and non-exporter;
- iii. export competitiveness optimism and export competitiveness pessimism;
- iv. external association and non-association;
- v. small firm (less than the average of 44 workers), and large firm (greater than 44 workers); and
- vi. food production and non-food production.

In general, the majority of firms in each category do not support WTO principles. Firms with external association and firms which are optimistic about export competitiveness however strongly support the principle of non-discrimination. These responses are expected. Firms with those characteristics would desire to keep markets opened for their exports, as noted in Helleiner (1977a) and Milner and Yoffie (1989). When categorised according to exporter or non-exporter, the majority of firms in both categories reject the non-discrimination principle.

Regarding WTO provisions, the majority of firms in all categories also support or strongly support provisions on the use of bound tariffs and contingent protection - safeguard, anti-dumping action and the application of countervailing duties. They also agree with the use of technical standards and sanitary and phyto-sanitary measures in trade. However, only the majority of firms with external association disagree with the use of bound tariffs and anti-dumping action. The latter responses are in keeping with the literature that such firms would favour



free trade. The only provision which the majority of firms in all sectors are strongly against is that which calls for the rules of origin not to be more stringent than is necessary to identify the origin of goods. Firms apparently fear breaches in rules of origin criteria, and would prefer more flexibility in this area. The provisions which all firms in all categories strongly support are those on consultation before taking anti-dumping action, use of countervailing duties, transparent import licensing procedures, and no restrictions on e-commerce. The strong support for transparency in import licensing procedures is not in keeping with the tendency of firms to support measures which could be protectionist.

In the case of new issues, the majority of firms in all categories disagree with a view that countries should refrain from restricting the importation of goods for environmental reasons, until WTO rules are developed in this area. This result is in keeping with the support by firms for provisions which can be used for protection purposes. Regarding the view that anti-competitive practices should be outlawed in Barbados, as well as the view of MFN treatment for investors, there are mixed results. In all categories, the majority of firms either strongly agree or strongly disagree with these provisions.

In keeping with the literature, firms which did not benefit from protection, which export, which are optimistic about their export competitiveness, and which have a strong external association, agree with the provisions. Also in keeping with what would be expected, firms which benefited from protection and do not export, are against the provisions. A surprising result is that the majority of firms which are pessimistic about their export competitiveness support those two provisions. These firms may not view these provisions as impacting on their operations at home.

A comparison of food and non-food categories reveals that the majority of firms in each sector are generally in unison in agreeing or disagreeing with WTO rules and provisions except in six areas namely; the elimination of import restrictions, reductions in tariffs overtime, proof of injury in anti-dumping and subsidy cases,

the introduction of competition policy laws, and MFN treatment for investors. In all cases, the food sector oppose those elements of liberalisation, while the non-food sector support the elements. The difference in responses of the two sectors is not totally surprising, given the fact that the food sector has, over the years, been the most protected sector in Barbados, while the non-food sector has been undergoing phased of liberalisation since the early 1990s.

### 3.5.5 *Summary*

Overall, firms appear to resign themselves to the fact that trade liberalisation is a reality, as they either agree or strongly favour most of the provisions and issues raised in the survey<sup>18</sup>. Of the 32 questions asked on WTO provisions or possible provisions, firms (in the majority) showed support for 23 or 71.8%.

While not favouring the process as a whole as enunciated in WTO principles, they are willing to support those principles as embodied in agreements such as transparency in import licensing, protection of intellectual property for both local and overseas firms, and pre-shipment inspection. By strongly favouring provisions on safeguards, dumping, and subsidies they are favouring contingent protection. Also they are in agreement with the use of technical standards, and sanitary and phyto-sanitary measures which seem to suggest that they support the use of non-tariff barriers where possible. The areas which are of concern to manufacturers are:

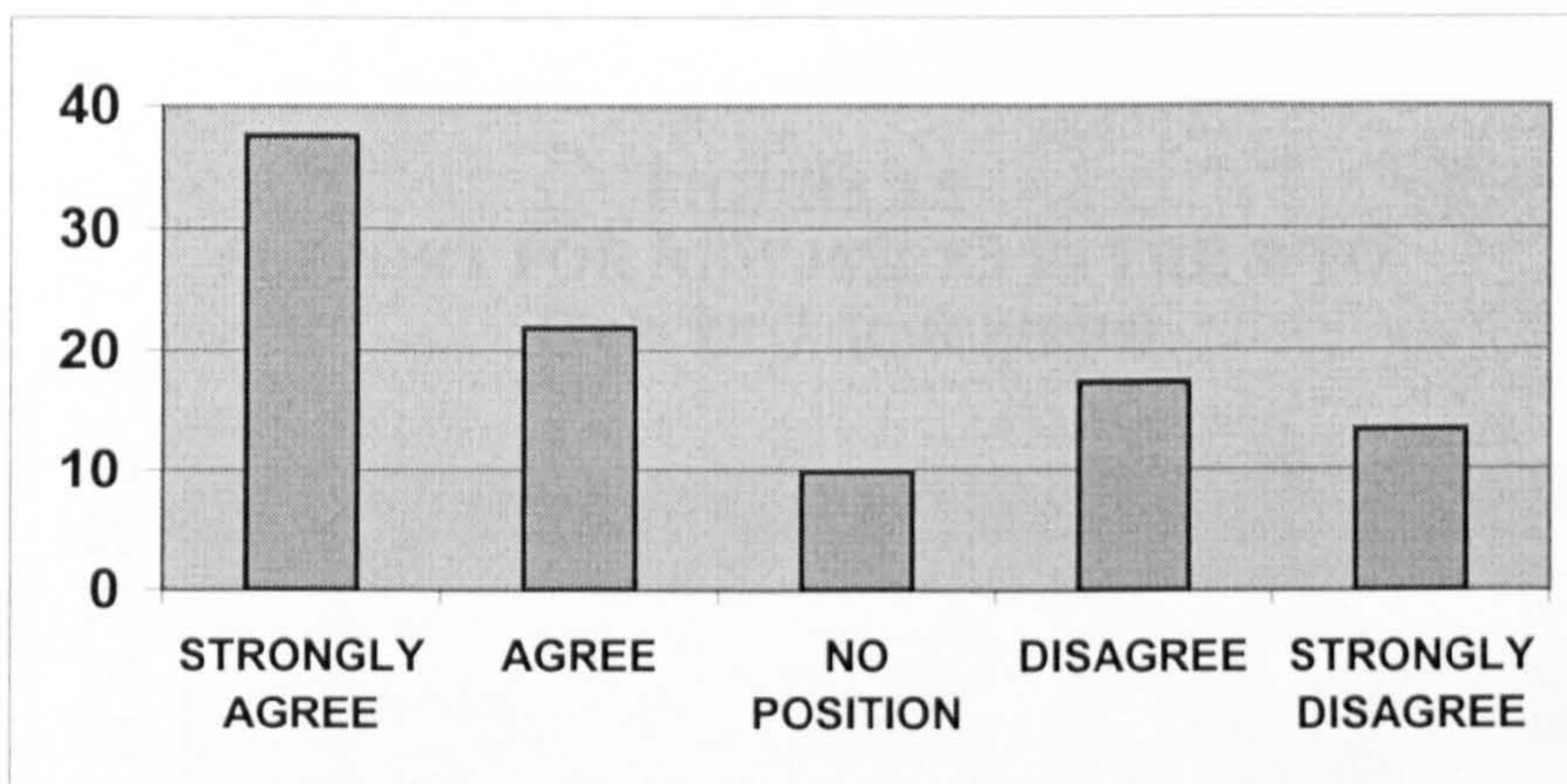
- WTO principles of MFN treatment, national treatment and transparency;
- the elimination of quantitative restrictions;
- the use of tariffs only to protect local production;
- the temporary nature of safeguard action;
- the provision that rules of origin should not be a trade barrier;
- calls for environmental standards not to be used to restrict trade until a multilateral agreement is reached; and
- MFN treatment for investors.



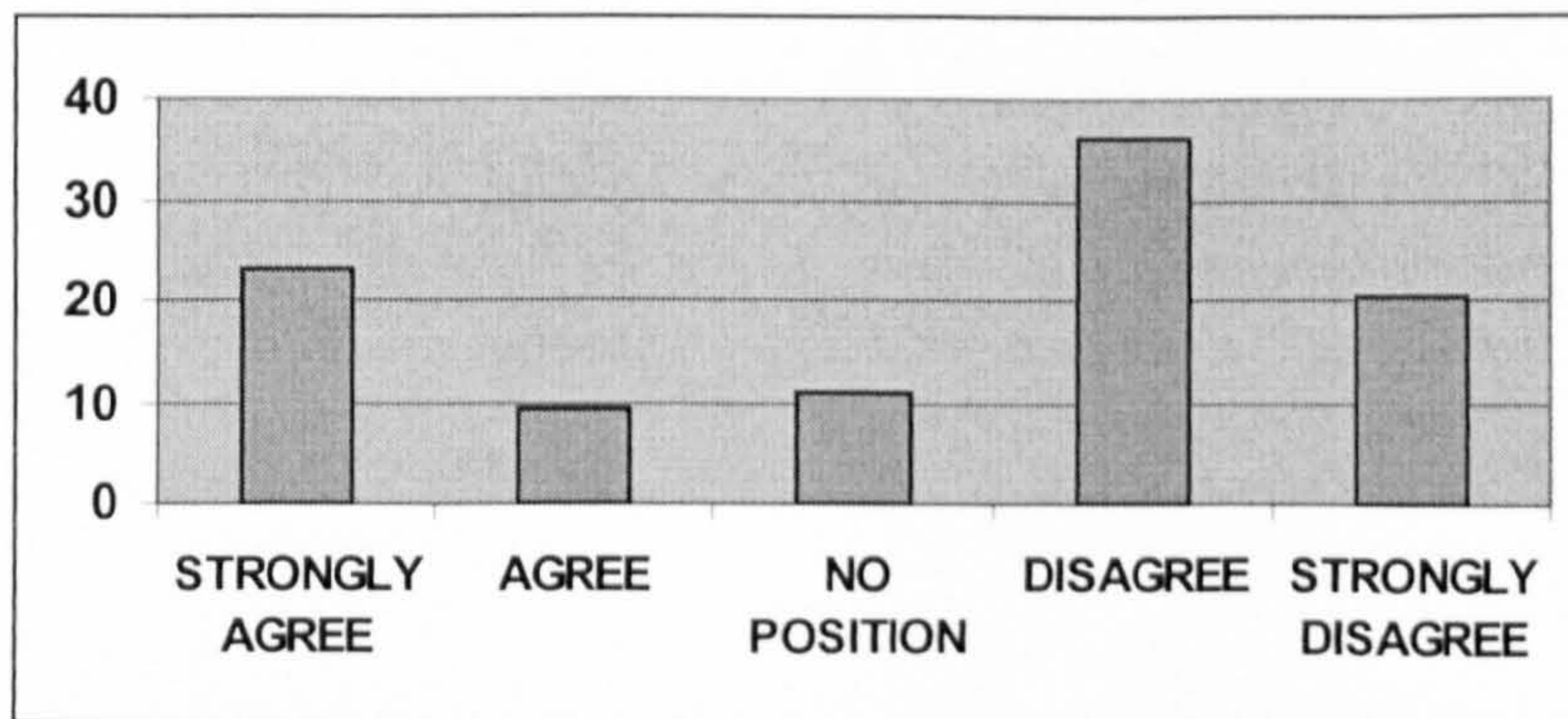
Again, those areas reveal a hesitation on the part of manufacturers in supporting key elements of liberalisation.

In terms of the analysis according to the characteristics of firms, the most important outcome is that while on the whole firms disagree with WTO principles, the majority of firms with external association and the majority of firms which are optimistic about their competitiveness support the principles. The results for all other classifications were generally in keeping with the overall findings for the sector.

**FIGURE 3.2**  
**SUPPORT FOR WTO**  
**(PRINCIPLES, AGREEMENTS AND NEW ISSUES)**  
**(PERCENTAGE OF FIRMS)**

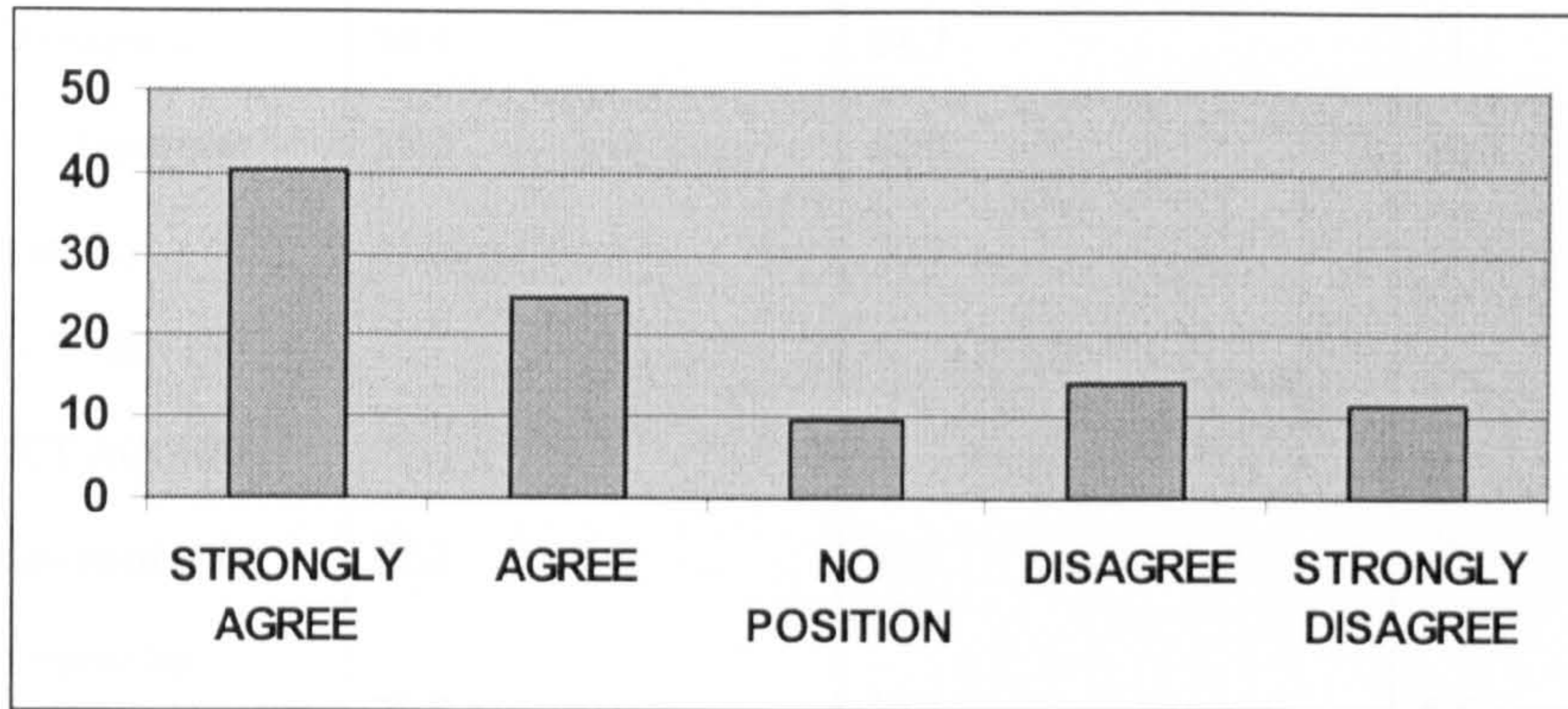


**FIGURE 3.3**  
**SUPPORT FOR WTO PRINCIPLES ONLY**  
**(PERCENTAGE OF FIRMS)**

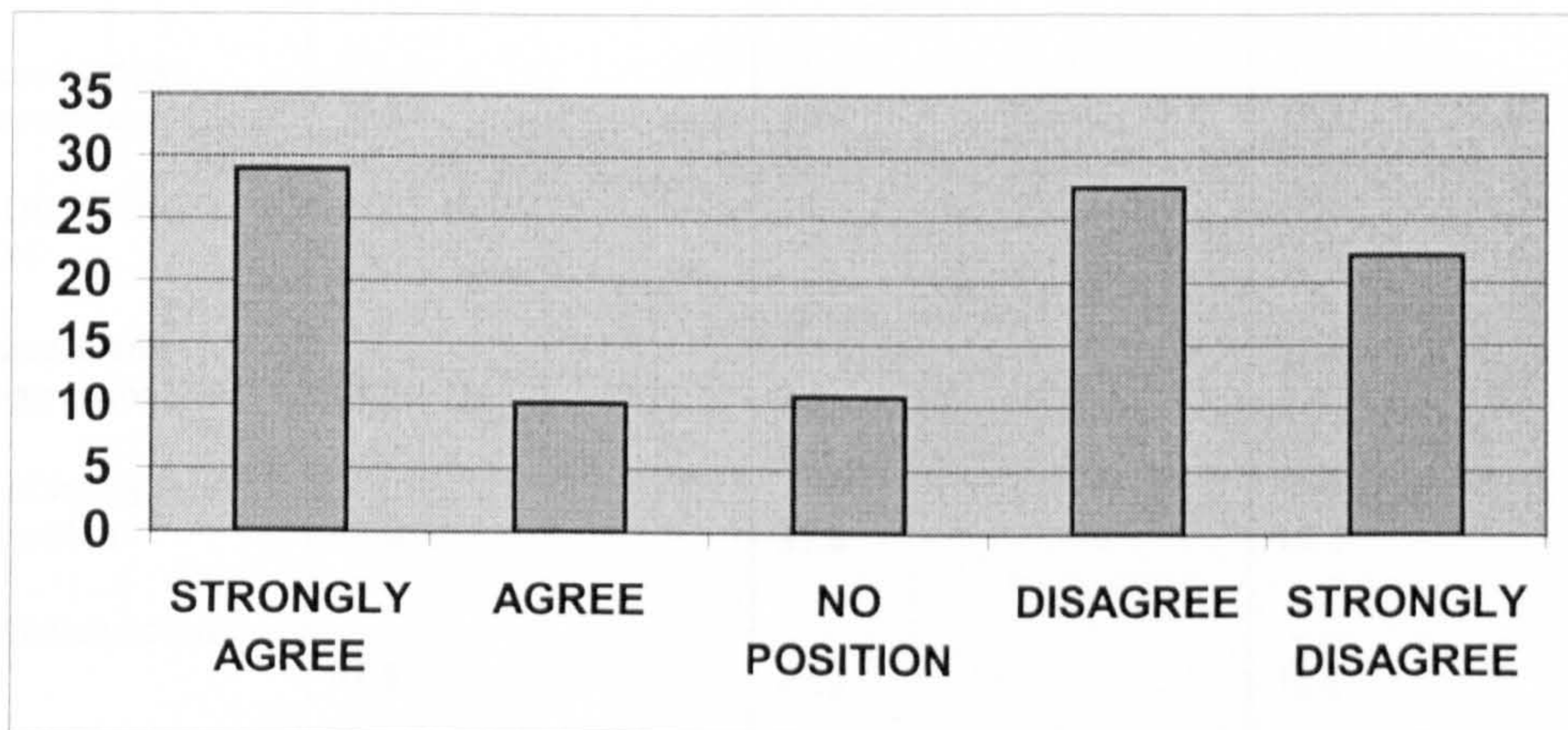




**FIGURE 3.4**  
**SUPPORT FOR WTO AGREEMENTS ONLY**  
**(PERCENTAGE OF FIRMS)**



**FIGURE 3.5**  
**SUPPORT FOR NEW ISSUES IN THE WTO**  
**(PERCENTAGE OF FIRMS)**



**TABLE 3.16  
SUMMARY OF SURVEY RESULTS  
(PERCENTAGE OF RESPONSES)**

	FOR	AGAINST	NO POSITION
<b>WTO PRINCIPLES</b>			
Q19 MFN Treatment	34.1	54.7	11.1
Q20 National Treatment	29.0	60.6	10.2
Q21 Transparency	17.9	70.9	11.1
<b>WTO AGREEMENTS</b>			
<b>(A) MARKET ACCESS</b>			
Q22 Elimination of QRs	32.1	54.7	13.6
Q23 Replacement by tariffs	70.0	21.3	8.5
Q24 Tariff reduction overtime	47.0	40.0	12.8
<b>(B) SAFEGUARD ACTION</b>			
Q25 Recourse to safeguard action	88.8	5.9	5.1
Q26 Safeguard protection by tariffs	29.0	59.8	11.1
Q27 Safeguard action only temporary	21.3	59.8	18.8
<b>(C) ANTI-DUMPING ACTION</b>			
Q28 Recourse to anti-dumping action	94.0	2.5	3.4
Q29 Proof of injury before action	49.0	35.8	14.5
Q30 Consultation before action	61.5	27.3	11.1

NOTE: Due to rounding errors percentages may not sum to 100



**TABLE 3.16 (CONT' )  
SUMMARY OF SURVEY RESULTS  
(PERCENTAGE OF RESPONSES)**

	FOR	AGAINST	NO POSITION
<b>(D) SUBSIDIES</b>			
Q31 Recourse to countervailing duties	84.6	10.2	5.1
Q32 Proof of injury before action	49.0	35.8	14.5
Q33 Consultation before action	55.5	28.2	16.2
<b>(E) CUSTOMS VALUATION</b>			
Q34 Harmonisation of Customs Procedures	89.7	2.5	7.6
<b>(F) RULES OF ORIGIN</b>			
Q35 Origin criteria not to be trade barrier	24.7	70.9	4.2
<b>(G) IMPORT LICENSING</b>			
Q36 Import licensing procedures to be predictable and transparent	51.2	41.2	7.6
<b>(H) TECHNICAL BARRIERS TO TRADE</b>			
Q37 Recourse to technical regulations to ensure imports are of acceptable standard	99.1	0	0.8
Q38 Technical regulations not to be a trade control measure	43.5	36.7	19.6

NOTE: Due to rounding errors percentages may not sum to 100



**TABLE 3.16 (CONT')**  
**SUMMARY OF SURVEY RESULTS**  
**(PERCENTAGE OF RESPONSES)**

	FOR	AGAINST	NO POSITION
<b>(I) SANITARY AND PHYTO-SANITARY MEASURES</b>			
Q39 Recourse to measures to protect human, animal and plant life and health.	99.1	0	0.8
Q40 Measures not to be a trade control measure.	43.5	36.7	19.6
<b>(J) PRESHIPMENT INSPECTION</b>			
Q41 Establishment of a machinery to allow for inspection of goods before exporting - if required.	82.0	5.1	12.8
<b>(K) TRADE RELATED INVESTMENT MEASURES</b>			
Q42 Use of local inputs not to be basis for deciding concessions	41.8	38.4	19.6
<b>(L) TRADE RELATED INTELLECTUAL PROPERTY RIGHTS</b>			
Q43 Protection of intellectual property of local companies	94.0	0.8	5.1
Q44 Protection intellectual property of foreign companies	94.8	0.8	5.1

NOTE: Due to rounding errors percentages may not sum to 100

**TABLE 3.16 (CONT')  
SUMMARY OF SURVEY RESULTS  
(PERCENTAGE OF RESPONSES)**

	FOR	AGAINST	NO POSITION
<b>(M) SETTLEMENT OF DISPUTES</b>			
Q45 No unilateral action to be taken in disputes	93.1	6.8	0
Q46 Full acceptance of WTO decisions in disputes	78.6	21.3	0
<b>(N) ELECTRONIC COMMERCE</b>			
Q47 Tariffs not to be levied on E-Commerce	70.0	12.8	17.0
<b>WTO ISSUES</b>			
<b>(O) ENVIRONMENT POLICY</b>			
Q48 No trade control measures in the area of environment to be enforced until WTO rules are developed	40.6	47.3	11.9
<b>(P) COMPETITION POLICY</b>			
Q49 Anti-competitive or restrictive businesses practices should be eliminated	47.8	41.8	10.2
<b>(Q) INVESTMENT POLICY</b>			
Q50 Foreign investors should be given MFN treatment.	44.4	45.2	10.2

NOTE: Due to rounding errors percentages may not sum to 100

### 3.6 CONCLUSION

Barbados managed to avoid severe economic decline in the early 1990s without any marked structural adjustment in the economy. The new challenges are to successfully integrate the economy into the new global economy. In this context, there are import and export competitiveness challenges.

Regarding import competitiveness challenges, WTO rules limit the options available to governments to restrict imports of both goods and services in the local economy. However, the capability of local businesses to respond to the import competition challenge is uncertain. The agricultural sector was heavily protected through import restrictions. This sector is now protected through the high tariff rates allowed by the WTO. In terms of manufacturing, over ten years after reports by the World Bank, IDB, Maxwell Stamp Plc, and the Barbados Institute of Management and Productivity (BIMAP) highlighted issues concerning the competitiveness of industries, many of the issues raised remain unresolved. Among them are:

- Exchange Rate Policy:- the Barbados dollar has been fixed to the US dollar since 1975. World Bank and the IMF have advocated a more active exchange rate policy to improve the competitiveness of the economy (Woodroffe, (1992) also found evidence of exchange rate misalignment during the late 1980s and early 1990s).
- Manufacturing Costs:- manufacturing costs especially labour costs are estimated to be relatively high.
- Assistance to Industries:- financial and technical support for industries to assist in retooling, marketing, and pre-and post shipment financing are limited.
- Industrial Restructuring:- problems of poor management, poor marketing, high capacity under-utilisation and lack of adaptation to new technologies remain apparent.



Given the above, manufacturers are unlikely to cope easily with increased competition, and are likely to continue to lobby government for contingent protection, and to delay further trade liberalisation.

In relation to export competitiveness issues, the deficiencies highlighted above are also relevant to the export performance of firms. It is highly unlikely that if a firm is not competitive in the domestic market that it will be export competitive. Indeed there are other considerations in exporting such as the problem of the small scale of production in Barbados, high transportation costs for small volumes and high market research costs relative to output, which firms in Barbados must absorb. In addition, as liberalisation proceeds and the margin of preference enjoyed by exports is reduced, the manufacturing sector will increasingly come under pressure. These issues have been highlighted by several studies and have been emphasised by the sector in their lobbying efforts to secure protection and other assistance.

## ENDNOTES

<sup>1</sup> The survey was conducted after a public education programme was mounted by government to inform the general public and manufacturers about WTO Agreements.

<sup>2</sup> The figures refer to registered companies only. There are however many unregistered handicraft enterprises.

<sup>3</sup> Bernal (1998) highlights the fact that firms in Barbados and other small economies are significantly smaller than in the USA.

<sup>4</sup> These include:

- a) Maxwell Stamp (1991) - Export Competitiveness and Marketing Study: Comparative Advantage Report;
- b) Barbados Institute of Management and Productivity (1991) - Barbados Manufacturing Sector Survey and Recommendations; and
- c) Maxwell Stamp (1997) - Study on a support programme for the Barbados Industrial Sector.

<sup>5</sup> Based on responses to question 9 of the questionnaire.

<sup>6</sup> This breakdown does not include trade in agricultural goods, which are also important. For example, sugar under LOMÉ is the single most important export item.

<sup>7</sup> Relevant legislation was:

- The Miscellaneous Controls (General Open Import Licence) Regulations, 1983.
- The Miscellaneous Controls (Sale of Licenced Goods) Regulations, 1985
- The Customs Tariff Amendment Order, 1993.

<sup>8</sup> In the case of agricultural items, importation was prohibited in most cases from both CARICOM and non-CARICOM sources. The garment industry was protected through the banning of similar imports, and through the requirement of minimum CIF values. In all cases, imports were restricted either because of the existence of local production, or because the product was regarded as being a close substitute for a locally produced good.

<sup>9</sup> Relevant legislation include:

- Miscellaneous Controls Regulations 1994, 1995 and 1996.
- Customs Tariff Amendment order 1994.

<sup>10</sup> Most manufactured goods were protected through the use of the temporary surtax. The surtax was to be reduced over a five- year period commencing in 1995. The largest number of items which benefited from the surtax were garments, paper and wood articles, and chemical products. Overall, the structure of non-tariff protection reflected maintenance of the status quo with the traditional product areas agricultural and food products, garments and stationery receiving the greatest levels of protection.

<sup>11</sup> Relevant legislation is - The Customs Tariff Amendment Order. S.I. 29.

<sup>12</sup> This will be under the Cotonou Agreement, as a replacement for the LOMÉ Convention.

<sup>13</sup> At the Fifth WTO Ministerial Conference, it was agreed that negotiations will commence this year to clarify these rules.

<sup>14</sup> Most are agricultural and agro-processed items, and garments. Some traditional industries producing paints, metal windows and doors and furniture are also included on the list. Other items not produced in Barbados but which are revenue products such as precious stones, precision instruments and automobiles are also on the list for exclusion. For these items the MFN rate of customs duty will apply.

<sup>15</sup> They recommended among other things, that sensitive, mainly agricultural, sub-sectors be excluded from the agreement on the grounds of maintaining employment in socially desirable areas.

<sup>16</sup> Hansen and Prusa (1997) found that cases brought by the steel industry to the US International Trade Commission were more successful than those initiated by other industries. In January 2000, the USA increased customs duties on steel 30% as a safeguard measure. The EU has objected to the WTO

<sup>17</sup> Calculated from the WTO Integrated Data Base (June 2000). Average refers to the arithmetic average – total duties divided by the number of tariff lines.



<sup>18</sup> There is no evidence that firms collaborated on responding to the survey.

## **CHAPTER 4**

### **WTO AGREEMENTS AND THE TRADE POLICY PREFERENCES OF FIRMS IN BARBADOS**

#### **4.1 INTRODUCTION**

Neo-classical economics teaches that free trade is in general advantageous to countries. This school of thought advances the argument that free trade will result in opportunities for countries to specialise in areas in which there is a comparative advantage, and to expand output and exports. It also teaches that the benefits of free trade are more particularly important for small countries. However, both large and small countries often use tariff and non-tariff measures to protect domestic industries. The political economy literature offers one explanation for this phenomena. It notes that protection creates "economic rent" which is the impetus for firms to lobby for protection (Olson, 1965).

Whether or not firms are successful in securing protection depends on their ability to organise and make a case for protection (Baldwin, 1984; Pincus, 1975). It also depends on the predisposition of government to supply protection based on such factors as the need to minimise the short-run cost of liberalisation (Cheh, 1974), the need to protect low income earners (Ball, 1967), and other national interest factors (Caves, 1976). A fundamental issue, on which there is relatively less research in the political economy literature, is what characteristics influence firms to lobby for protection. This issue, as noted by Milner and Yoffie (1989), is important since the trade policy preferences of firms influence not only the pattern of protection within a country but also the stances taken by countries in negotiating international trade agreements.

In participating in negotiations to devise a number of international trade agreements (Chapter 2), Barbados has joined other small developing countries in making a case for special and differential treatment. The case is based primarily on a concern that domestic firms in these economies will be at a distinct disadvantage in a liberalised global environment. These countries argue that such imperfect competition factors, as differences in economies of scale, relatively high transport costs, and a technological gap, make it difficult for small firms to respond to the challenges of competing in a liberalised world market. In keeping with the political economy literature, they further argue that special and differential treatment is in the national interest as it is important that adjustment costs are minimised, and that low income workers are protected.

Following the lobbying theories of protection, it can be expected that the arguments put forward by these countries are in part, the outcome of the lobbying efforts of firms, and in fact reflect their trade policy preferences. The issue of what factors influence firms to support or not support trade liberalisation as provided for in international trade agreements is therefore an important one. Previous studies including Prugel and Walter (1985), and Scheerlinck, Hens and S'Jegers (1996b) examined the support of firms for various provisions in GATT Agreements, and broadly identified firm performance and management perceptions as the major factors influencing the stances taken by firms.

#### *4.1.1 Objective of the Study*

The objective of this study is to examine the factors which influence firms in Barbados to support or not support WTO Agreements aimed at the liberalisation of trade globally. It will investigate the hypothesis that both firm characteristics and the competitiveness perceptions of management influence the trade policy preferences of firms.



The research is important for two reasons. First, only limited research has been undertaken in the literature in assessing the trade policy preferences of firms. In the case of Barbados a small developing economy, none has been undertaken. The study will therefore contribute to knowledge in this area by extending this research within a developing country context. Secondly, unlike previous work in this area which focused on a few aspects of international trade agreements, the research will be conducted over a range of WTO principles, agreements and new issues on which negotiations are to be undertaken.

#### *4.1.2 Structure of the Study*

This study is divided into six sections. Section 4.2 provides a review of the theoretical and empirical literature on the trade policy preferences of firms. In Section 4.3 a model is developed to analyse the traded policy preferences of manufacturing firms in Barbados based on the literature review. In section 4.4 cross-section econometric analysis is used to examine the factors determining firm behaviour in supporting or not supporting WTO provisions and issues. Section 4.5 the conclusion, summarises the finding of the study.

## **4.2 LITERATURE REVIEW**

### *4.2.1 Theoretical Framework*

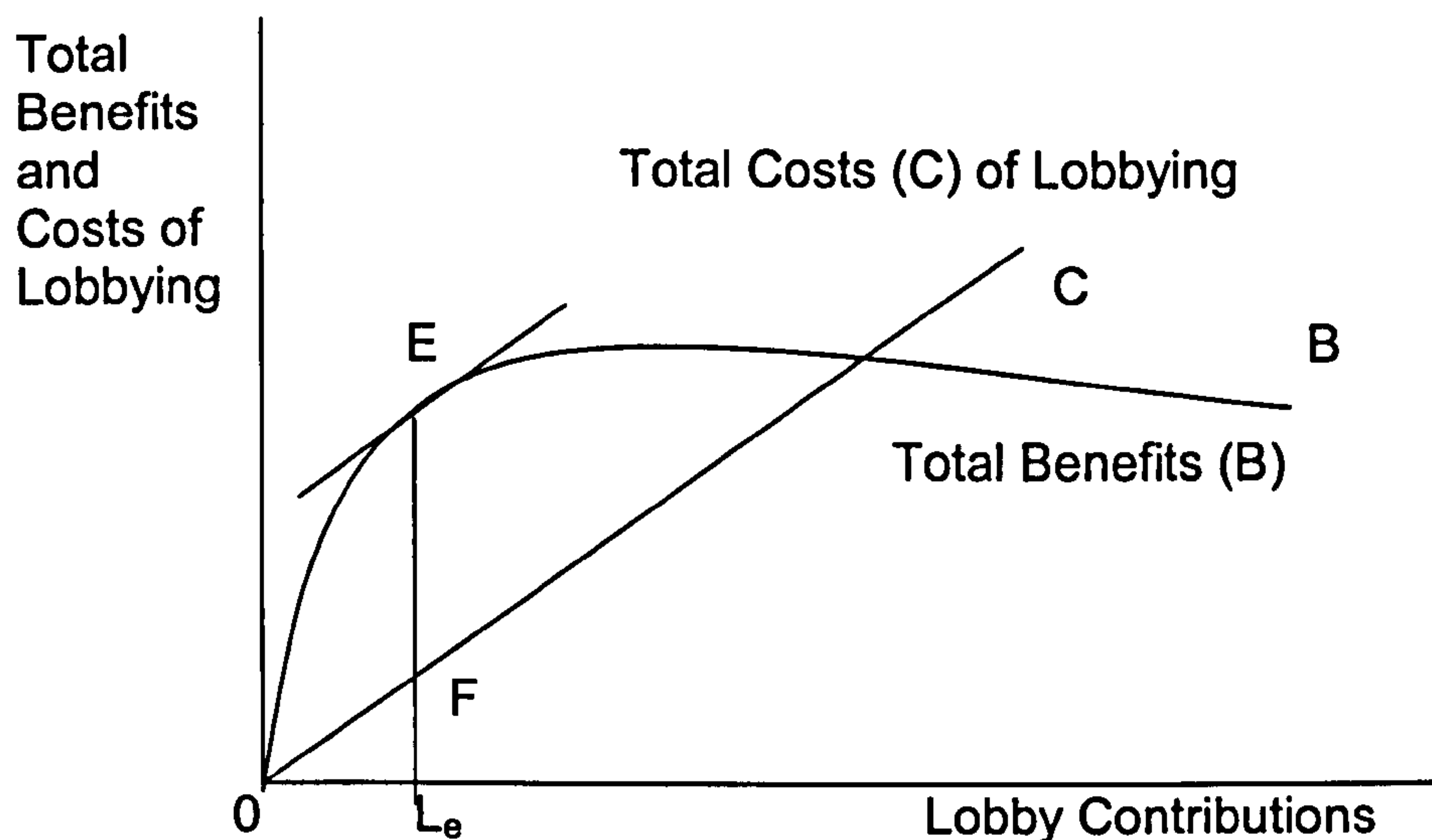
Milner and Yoffie (1989) note that the political economy literature focuses mainly on the demand for protection - how and why firms organize to lobby for protection. Within that context, corporate preferences are generally explained in terms of the rent seeking behaviour of firms and the economic factors which benefit or lose from protection. It is assumed that firms will seek protection to earn economic rent. Those factors which will benefit from protection will support protection, and those factors which will lose, will oppose liberalisation.

Krueger (1974) considered rent seeking within the context of import quotas. Rent seeking is regarded as a contest in which firms compete for scarce import licenses. The resources exhausted in the rent seeking activity is generally regarded as being wasted, because their generation do not create wealth, but only transfers existing wealth between groups and/or individuals. The contest for rents can take various forms, including lobbying of politicians, over-investment in physical plant (to qualify for a greater part of the quota), bribery and other forms of corruption. Bhagwati and Srinivasan (1980) note that when the instrument of import restriction is a tariff, a contest will also take place among firms for the tariff revenue. In the case of a quota however, rent seeking is usually conducted among a small number of importers, each expecting to obtain a certain number of import licences, and therefore market share. Vousden (1990) suggests that in the case of tariffs, the return from the tariff revenue will be spread among a larger number of persons than for a quota (the usual practice is for interest groups to engage in campaigns to secure government funding for projects). Individual firms may therefore not incur the cost of entering the contest<sup>1</sup>. He notes:

*“It seems more likely, that the revenue seeking contest takes place in a broader sphere, the object being a share of total government revenue. If this is the case, then we are faced with the problem that the lobbying for revenue may occur whether the tariff is there or not and so cannot be counted as a specific cost of the tariff” (Vousden, 1990 p. 75).*

Lobbying theories speak to the rationale for lobbying, and which industries or firms are more likely to be successful in their lobbying efforts for part of the rent created by protection. Magee, Brock and Young (1989) present a graphical depiction of endogenous lobbying theory, as shown in Figure 4.1.

**FIGURE 4.1**  
**BENEFITS AND COSTS OF LOBBYING**



The vertical axis measures the benefits of lobbying to the protectionist political party, and the dollar cost of lobbying to that industry. The horizontal axis measures the dollar value of the protectionist lobby contributions. Assuming organizational costs are zero (or negligible), then the cost of lobbying will be equal to the contributions given to the protectionist political party, as depicted by the 45° line OC. With high lobbying costs, the OC line would be steeper than 45°.

The benefits derived by the protectionist party, from the lobbying contributions are depicted by the curve OB. It is assumed that there is a curve OB associated with any given tariff rate, and that the higher the tariff supported by the



protectionist party, the higher will be the benefits curve. If the protectionist party increased the tariff rate it supported, the OB curve would shift up to the left. The benefits curve is positively sloped because the lobby contributions increase the expected number of votes for the protectionist party (it is assumed that the expected number of votes will reach a maximum and then decline).

Equilibrium is achieved where the difference between the benefits to the protectionist party and the cost to the protectionist lobby is at a maximum. That is at the point  $L_e$ . The area EF represents the greatest distance between the benefits and costs, and is regarded as being the rational choice of the lobby. At point E, the marginal cost of lobbying is equal to the marginal benefits derived which means that an additional dollar contribution to the protectionist party generates a dollar worth of additional benefit to the lobby.

The cost of lobbying is represented by  $FL_e$ , while the total producers' surplus created by the tariff is  $EL_e$ . In equilibrium, the proportion of total producers' surplus spent on lobbying is  $FL_e/EL_e$ .

The most frequently cited models which seek to explain the demand for protection are the interest-group model, and the adding-machine model (Baldwin 1984). Both models assert that the pattern of protection of industries is determined by the lobbying efforts of industries. Consumer groups generally do not organise to resist protection given imperfect knowledge about the benefits to be derived, and the cost of lobbying. On the other hand, producers are more adept as to the rents to be derived from protection and are more likely to organise.

In relation to the interest-group model, Olson (1965) postulates that if the group in the industry is small (seller concentration) and benefits of lobbying are more evenly distributed, a lobbying group is likely to be established. Pincus (1975) goes a step

further and argues that an industry's lobbying effort will be greater the more geographically concentrated the industry since coordination of lobbying efforts will be more efficient, and activities of the group can be more easily monitored.

The adding-machine model developed by Caves (1976) also views lobbying as a key determinant in the outcome of the patterns of protection. However, it is argued that government officials seek to maximize their chances of re-election, and what matters is the number of votes an industry commands. Caves argues that an industry's voting strength is determined by its labour-output ratio, and the degree of decentralisation and geographic dispersion. The higher the degree of labour intensity and geographical dispersion, the greater is the strength of the industry to argue for protection.

The interest-group model and the adding-machine models both seek to capture the lobbying efforts of producers in explaining patterns of protection. The major difference between the two models is that in the interest-group model lobby pressures influence governments to supply protection. On the other hand, with the adding-machine model, it is government's own self interest to be re-elected which enables firms to receive protection.

The one important point which must be made in relation to these two models in the context of this review, is that both models regard the position of firms as a given - firms organise and approach government for protection. The models use as their point of departure, the decision of the firm to lobby for protection. Limited information can be derived from these models about the factors which influence firms to pursue the issue of protection with government. That is, what industry characteristics will influence firms to approach government for protection. Both the Stolper-Samuelson theorem and the specific factors model provide some insight into the industries which would lobby government for protection. The Stolper-

Samuelson theorem suggests that lobbying activity will occur along factor lines (capital against labour), while the specific factors model suggests that it will occur along industry lines (import-competing against exporting firms).

The Stolper-Samuelson theorem states that a rise in the relative price of a commodity leads to a rise in the real return of the factor used intensively in producing that commodity and to a fall in the real return to the other factor. An implication of the theorem is that a higher tariff – which would raise the price of the imported product – would benefit factors used intensively in the importable sector and would lead to a fall in the real return to the other factor. This would suggest that labour and capital would take opposite sides in lobbying government for protection, as a protected product would be intensive in one of these two factors. This however is generally not what is observed (Vousden, 1990).

An alternative model, the Ricardo-Viner specific factors model, assumes that in each sector, there are two factors of production - a mobile factor (labour), and a sector specific or immobile factor (capital). The specific factor whose relative price increases, gain as a result of protection as no other units of the factor can transfer to the sector to push down the returns to the factor. On the other hand, the factor specific to the other sector lose as it cannot move to take advantage of higher returns in the protected sector. Whether or not the mobile factor (labour) benefits or loses as a result of protection, depends on the share of the protected good in that factor's budget. Given that expenditure on a protected good (which will now have a higher price) is small in relation to labour's total budget, labour may gain from protection and its interest will therefore coincide with the interest of the immobile factor (capital) in the protected sector. This gives some explanation as to why labour and capital may support protection in an industry. Rather than returns to factors, industries may request protection based on whether they are import competing or exporting.



In the case of Barbados, it does not appear that there is a clear distinction between labour and capital on issues of protection. Both labour and employer organisations collaborate in making representation to government for protection. The behaviour of labour and capital suggests that the Ricardo-Viner model may better describe the Barbados experience.

#### *4.2.2 Empirical Research*

Brock, Magee and Young (1989) conducted three tests of the Ricardo-Viner model and the Stolper-Samuelson theorem to determine which model better explains the position of labour and capital in demanding protection in the US. The tests have as their basis, three implications of the Stolper-Samuelson theorem. These are:

1. Capital and labour in an industry will oppose each other on the issue of protection or free trade for the industry.
2. For the country as a whole, each factor will either favour free trade or protection but not both.
3. The position taken by capital and labour will be independent of whether or not the industry is export oriented or import competing.

The study assumed that the perspective of management coincided with the position of owners of the firms physical capital, while the labour movement reflected the position of labour on protection. The positions of management unions and labour unions before the Committee on Ways and Means in the U.S. House of Representatives on the Trade Reform Act of 1973 were used to test the theories. In cases where the information was unclear, or where no information was given, the staff of the Committee and other Washington experts were interviewed.

In the first test, the study found that in nineteen of the twenty one industries reviewed, labour and management worked together on the question of protection. This did not support the view that capital and labour oppose each other on the question of protection. Regarding the second test, it was found that capital did not always support free trade or protection, the results were mixed. The Stolper-Samuelson theorem suggests that capital would be unanimous (100%) in its support for either protection or liberalisation. Instead the study found that only 63% of management unions supported protection. The theorem was therefore rejected as factors did not take one position on protection or liberalisation. In the case of the third hypothesis, chi-square tests were used to determine whether or not a factor preferred a policy that was beneficial to the industry in which it was employed (export or import competing). The results showed that both capital and labour lobbied for protection more in keeping with the Ricardo-Viner model.

Most of the empirical work on the policy preferences of firms has not focused on the factor intensity of production, and which factors will support or not support protection. Rather, it has sought to explain trade preferences in terms of broader industry characteristics. Helleiner (1977a) in commenting on corporate policy in relation to trade barriers, noted:

*“the state is perceived as the representative of the collectivity of individuals and firms within the nation, for whom it acts to maximize their collective welfare. There exists some discussion in this theoretical literature of the effects of trade barriers upon the distribution of the national income, but it is typically based upon crude two-factor assumptions which are not illuminating for understanding of empirically observed phenomena”*(Helleiner, 1977a p.102).

In a later article, Milner and Yoffie (1989) noted that the corporate trade preferences are not easily comprehensible within the traditional models of the

political economy of trade. They also noted that the traditional approaches based on capital and labour intensity should be extended to include such factors as the strategic demands of firms.

Helleiner (1977a) was among the early studies to highlight the trade policy preferences of firms. The study examined the preferences and influence of transnational enterprises on US commercial policy. The article notes that, although such enterprises are adaptive to governmental policies, they have their own preferences and seek to influence policy either through lobbying or through other means. The objective of these firms is to maximize their long term profits. In this pursuit, customs duties, currency controls, legal regulation and transportation costs are regarded as being impediments to the achievement of their objectives. These firms also regard the free movement of factors of production, including the free flow of human and financial capital and technology, to be essential to their operations. They oppose regulation in the domestic market because they may impede movement of their activities, and may lead to retaliatory action on the part of other countries.

The article asserts that US trade policy is determined by reference to two factors namely, organised labour which lobby for increased protection in those industries in which labour is most vulnerable and US transnational corporations which lobby for reductions in trade barriers in those commodities in which they trade. These corporations show no particular interest in the relatively labour intensive and declining industries in which they are not directly involved. Out of these two forces, the latter being the strongest, the US commercial policy on liberalisation and protection is shaped. The article notes that there are several pieces of suggestive evidence which lend support to that conclusion. These include:

1. Import duties on primary and intermediate products (produced by



transnational corporations) are on average lower than duties on final products.

2. Capital-intensive and research-intensive products carry lower tariffs and incur greater cuts in international trade negotiations.
3. The bias in trade barriers against products not produced nor traded by transnational corporations is also reflected in capital markets where US laws discriminate in favour of capital flows which are intermediated by transnationals.

As noted in the article, evidence in support of the proposition that transnational corporations are successful in influencing government policy is suggestive. Some attempt is made to quantitatively examine the possible influence of transnational corporations through an examination of intra-firm transactions. However, the author notes that serious data limitations preclude rigorous examination of the hypotheses.

Milner (1988) also examined the trade policy preference of multinational, as well as domestic firms. The study examined the proposition that a change in the way domestic and international economies are integrated affect the preferences of firms and influence policy outcomes. The study examined the trade policy preferences of US and French firms in the 1920s and 1970s. It hypothesised that increasing international economic integration in the form of exports, multinationality and global intra-firm trade should affect firms' preferences in the same way in both countries. Following from that hypothesis, the argument put forward was that export oriented firms, and multinational firms would be less likely to demand protection, and in fact would be more likely to resist protection.

Export oriented firms, and multinational firms are likely to oppose protection for three reasons. First, the firm may fear that protection of the home market may

lead to retaliation by other countries which could take the form of protection of their home markets. Secondly, protection of the home market could drive up cost in the country including the input costs of the firm. Thirdly, the export oriented firm could become less competitive on the home market vis-à-vis other domestic producers which do not export.

Milner (1988) uses Table 4.1 below to summarise the behaviour of firms.

**TABLE 4.1  
ASSOCIATION AND EXPORT DEPENDENCE OF FIRMS**

<p><b>TYPE IV</b></p> <p>i High multinational association ii Low export dependence</p> <p>Mixed interests; less protectionist than Type I; selective protectionist</p>	<p><b>TYPE III</b></p> <p>i High multinational association ii High export dependence</p> <p>Least protectionist; most free trade</p>
<p><b>TYPE I</b></p> <p>i Low multinational association ii Low export dependence</p> <p>Most protectionist; for global protection; intensity of demand varies with economic difficulty</p>	<p><b>TYPE II</b></p> <p>i Low multinational association ii High export dependence</p> <p>Less protectionist than Type I; most favoured is open markets abroad</p>

Source: Milner (1988)

The Type I firm, which is not associated with a foreign firm and is not dependent on exports, will be persistent in its demand for protection. When faced with import competition these firms are likely to lobby strongly for protection. As import competition increases, these firm devote increasing amounts of resources to secure protection. For the Type II firm, the cost of closing the home market through possible retaliation will outweigh the possible benefits of a protected market. Firms

in this category will resist protection, and their primary interest will be the opening up of export markets. Type III firms will be the most fierce in resisting protection, given their outward orientation both in terms of exports and association. Even when there is increased import competition, these firms have an interest in keeping the domestic market and export market open. Type IV will face conflicting pressures for liberalisation and protection, since they have little export activity but substantial foreign production. These firms will generally favour closing the home market to strong competitors from abroad since they may be dominant in the home market. Protection will be selective against particular countries and products.

Milner (1988) also argues that foreign subsidiaries operating in a host country will generally behave like Type III or Type IV firms. The more similarities they share with domestic firms, especially the absence of an integrated worldwide network, the more likely they are to demand protection.

The methodology used in the study was to categorise firms in one of the four types, based on their export orientation and affiliation. An examination was made of their demand for protection in the two periods – 1920's and 1970's. The study concluded that in the face of import competition, internationally oriented firms resisted protection in both periods, while domestic firms without that orientation supported protection. As there were more firms with foreign orientation in the 1970s, both countries (US and France) could more easily resist pressures to close their markets. In addition, as globalisation of industries has occurred, the option of protection has become more costly for industrial countries as it would injure many of their competitive firms.

Milner and Yoffie (1989) focused on strategic choice in the trade policy preferences of firms. They hypothesised that multinational firms advocate a trade policy which calls for protection of the home market, if foreign markets are also



protected. They suggest that research into the trade policy preferences of firms should include a strategic choice, as well as the poles of protectionism or free trade.

The paper takes the position that imperfect competition factors in international industries enable firms to earn profits above their competitors. Government's trade policy can be geared towards enabling firms to capture as large a share as possible of international profits. Multinational firms respond to changes in the imperfect competition factors and to government intervention.

In the model, the initial position of multinational firms is in favour of free trade. These firms seek to maximise profits through sales to a large number of countries, and possibly also through sourcing their inputs from as wide a range of sources as necessary. Two conditions in the market however impact on their initial position. These are industry economics and government intervention. The most important industry economics factors are economies of scale and a steep learning curve.

In terms of industry economics factors, industries with high fixed costs require a growing sales volume to realise a profitable return on investment. If the home market is not large enough, such industries will depend on sales in foreign markets in order to benefit from economies of scale. The first firms to benefit from such economies of scale will have a significant advantage over competitors. Similarly, in industries with a steep learning curve where, for example, the cost of manufacturing can only be reduced overtime through greater knowledge and experience, the firms to be established in the industry first, will benefit from lower costs which cannot be replicated (in the short term) by later entrants. In both cases, such firms will seek to capture foreign markets to benefit from large sale volumes.

Advantages achieved through economies of scale and “first mover advantages” along the learning curve can however be circumvented by government's trade policies – protection or subsidisation. In a case where the domestic market is closed but the foreign market opened, a firm which was formerly at a disadvantage can benefit at the expense of more efficient firms. Given this situation, firms which previously may have advocated free trade, will alter their position depending on how they are affected (if the government does not have a reputation for successful intervention and fails to create a competitive edge for its firms, then internationally oriented industries are likely to remain free traders). If the industry loses competitiveness, two responses will result. If there are few strategic groups in the industry, firms will favour strategic trade policies. If there are however many strategic groups, the response will depend on the pace of the erosion of the industry. Rapid erosion will bring a call for protection. Slow erosion, on the other hand, will bring a call for strategic trade policy.

To examine the strategic trade policy stances of firms, Milner and Yoffie (1989) employed a relatively informal methodology. They examined the submissions of four industries to the US International Trade Commission during the 1970s and 1980s. The industries included in the study were those producing semiconductors, commercial aircrafts, machine tools and telecommunications equipment. The procedure involved identifying corporate demand for protection which was conditional - that is, where the industry indicated that the home market (US market) should be closed if the foreign market was not liberalised. Only those industries which were making efforts to penetrate foreign markets were regarded as making strategic demands. Shifts in corporate demands for protection were then compared with shifts in the economics of the industry, the degree of openness in foreign markets, and foreign government intervention. The study concluded that there was evidence of strategic corporate demands in three

cases - semiconductors, commercial aircraft and telecommunications equipment industries. It also noted that the machine tool industry did not respond to foreign competition by turning to strategic trade policy because economies of scale and learning intensity changes in these industries were much less significant than for other industries.

The studies by Pugel and Walter (1985) and Scheerlinck, Hens and S'Jegers (1996a and 1996b) used similar methodologies to investigate the factors determining the trade policy preferences of firms. The analysis in these studies is more robust than that in Helleiner (1977a), Milner (1988) and Milner and Yoffie (1989) in that they employed formal statistical techniques to test their hypotheses.

The Pugel and Walter study, which is cited as being among the first to investigate the trade policy preference of firms, surveyed the Chief Executive Officers of Fortune 1000 companies and sought to obtain their opinion on (1) four US Trade Acts related to trade protection and liberalisation, (2) the Results of the 1979 Tokyo Round of GATT negotiations, and (3) future multilateral trade talks. Their analysis is based on 68 companies.

Respondents were given a scale of options from which to choose, ranging from actively supporting a piece of legislation to actively opposing such legislation. One important point noted by the authors is that the approach assumed that firms had one dominant position on a particular piece of legislation. However, given that firms generally produce more than one product (some more competitively than others) a firm may favour liberalisation for some of its products, and protection for others. Firms were allowed to select more than one response. Only three companies made use of this option and only with respect to one of the Acts. Pugel and Walter therefore concluded that companies do take a dominant position on liberalisation.



Scheerlinck, Hens and S'Jegers (1996a) investigated the response of Belgian credit institutions to liberalisation policies focusing on deregulation of financial services<sup>2</sup>. The Chairpersons of 126 credit institutions were asked to provide responses to five issues relating to EU laws on deregulation, and on the treatment of financial services in the Uruguay Round of GATT negotiations. Positions were scaled ranging from actively support to actively opposed (however only two scales sufficient/insufficient were used in relation to questions on GATT negotiations). The responses of 53 companies (42%) were used in the analysis.

In a later study, Scheerlinck, Hens and S'Jegers (1996b) examined the responses of Belgian textile and clothing firms to a number of principles and exceptions to these principles in EU and GATT trade rules. Again, using scaled responses, the study sought to obtain the trade policy preferences of firms especially given the phasing out of the Multi-Fibre Arrangement.

The approach of Scheerlinck, Hens and S'Jegers allows less choices than in the Pugel and Walter study. First, it is not reported that allowances were made for different views of firms given the fact that a firm may produce different products at different levels of the competitiveness cycle. Secondly, the Pugel and Walter study included a "No Position". Scheerlinck, Hens and S'Jegers did not include such an option in order to force *"respondents to take a position and avoid a lack of variation in the dependent variable due to laziness"* (Scheerlinck, Hens and S'Jegers, 1996b p. 727).

Regarding the explanatory variables, the three studies propose that the stances of firms on trade policy are determined by basically three variables relating to (1) the import competitive strength of the firm, (2) its association with an international firm

and (3) the degree of diversification. They also hypothesise that firms favour liberalisation when:

- (a). they do not regard competing imports as a threat;
- (b). have greater foreign association; and
- (c). are more diversified.

While the basic model is the same, the studies vary considerably in terms of the proxies used for each variable.

In terms of the first variable – import competition, Pugel and Walter pointed out that import competition should ideally be measured by the responsiveness of imports to changes in the level of protection. However, given that data on such elasticities were not available, they used two proxies; the tariff rate at the beginning of the period averaged across all industries in which the firm produce; and the increase in import penetration recorded in the immediate preceding period, again averaged across all industries in which the firm operates.

The tariff rate proxy reflected past import competition pressures, and past successes in gaining protection. The tariff rates were weighted by the share of each industry's employment in total company employment. Increases in import penetration were said to reflect the recent emergence of new or additional import competition.

In both of their studies, Scheerlinck, Hens and S'Jegers drew attention to the difficulty in measuring import competition. A major problem was obtaining nominal or effective tariff data for each individual firm. These writers solved the problem by relying on the subjective perceptions of managers. Each firm was asked how it

perceived the foreign competitive threat. The responses were rated on a scale from very weak to very strong.

In relation to association, the studies support the propositions of Helleiner (1977a), that firms with international association do not favour protection. They view customs duties and licensing arrangements as hindrances to trade and therefore pressure various governments to reduce such barriers. In addition, such barriers may encourage foreign countries in which they operate to take retaliatory action against their investments or exports. Therefore, firms with such interest will actively oppose protection.

Pugel and Walter (1985) employed three variables to capture a firm's access to foreign markets; (1) the ratio of R & D expenditure to sales, since R & D has been found to be an underlying influence on the international competitiveness of U.S. firms; (2) percentage of company sales made in foreign markets for 1976 to closest available year thereafter; (3) and advertising to sales ratio. These variables were expected to be positively correlated with the extent of multi-nationality.

In their studies Scheerlinck, Hens and S'Jegers (1996a and 1996b) used a dummy variable to proxy the presence of international association. The dummy variable took the value of 1 if the firm had foreign establishments, and 0 if it had none<sup>3</sup>.

Regarding the third variable – product diversification, a firm which was diversified was regarded as being less at risk of being injured through import competition and therefore should favour liberalisation. Pugel and Walter (1985) used the Herfindahl index to measure diversification. As a proxy for product diversification, Scheerlinck, Hens and S'Jegers (1996a and 1996b) used the number of sectors in which the firm operates.



In summary, the studies postulated a negative relationship between import competitiveness threat and support for liberalisation, a positive relationship between diversification and support for liberalisation, and similarly a positive relationship between access to foreign markets and support for liberalisation:

$$SL = f (CT, D, AFM)$$

-   +   +

Where:

SL     = support for liberalisation

CT     = competitiveness threat

D       = diversification

AFM    = access to foreign markets

The studies all used OLS (and principal components analysis) and ordered probit techniques to investigate the sign and significance of the variables. In all cases, the findings of OLS confirmed the findings of ordered probit regression.

The findings of the analysis generally support the hypotheses that:

- i.       firms which perceive a competitive threat (Scheerlinck, Hens and S'Jegers, 1996a and 1996b) or which are actually injured by imports (Pugel and Walter, 1985) generally do not favour trade liberalisation and deregulation;
- ii.      firms which are diversified tend to favour trade liberalisation and deregulation; and
- iii.     firms with foreign links, and are therefore likely to benefit from access to foreign markets, tend to favour trade and financial liberalisation over other firms.

### 4.3 DEVELOPMENT OF A MODEL FOR BARBADOS

The literature suggests that support for liberalisation is a function of the competitiveness of firms as perceived by management (Scheerlinck, Hens and S'Jegers, 1996a and 1996b), as well as the characteristics of firms (Pugel and Walter, 1985). The model to be developed in this study, will examine the hypothesis that these factors also influence the trade policy preferences of firms in Barbados. It is not necessarily the case that firm behaviour will be the same in both developed and developing countries. Firms in Barbados are smaller and operate in a much smaller market than those in its major trading partners (Bernal, 1998).

#### 4.3.1 Perception Variables:

##### 4.3.1.1 Competitiveness Perception

The perception of management about their competitiveness should influence support for liberalisation or protection. Managers who are optimistic about their competitiveness should not be as opposed to trade liberalisation as managers who are pessimistic (Scheerlinck, Hens and S'Jegers, 1996a and 1996b). Optimistic managers should have more confidence about competing on the home market, and possibly gaining market share in export markets with the liberalisation of trade.

The literature has focused on measuring import competitiveness perceptions of managers rather than export competitiveness perceptions. There is good reason for focussing on import competitiveness perceptions, since a firm which is not import competitive is unlikely to be export competitive. For this study, the perceptions of managers about their import competitiveness (**IMP\_COM**) are obtained from the responses of firms to Question 17 in the questionnaire (Appendix 2). The question sought to determine their perceptions if non-tariff barriers were removed and replaced with high tariffs (WTO bound tariffs). All firms which were pessimistic

about their import competitiveness were also pessimistic about their export competitiveness (Question 16).

### *4.3.2 Characteristics of Firms*

#### *4.3.2.1 Association of Firms*

Another variable which will influence perception is the relationship of the firm to foreign partners. Firms with external association by way of ownership, joint marketing or other forms of joint venture should not be as strongly opposed to liberalisation as firms which do not benefit from that external relationship.

The main form of association referred to in the literature is multi-nationality, and the discussion centres around the argument that wherever multinationals are based, they will argue for liberalisation (Milner and Yoffie, 1989; Helleiner, 1977a). In the case of Barbados, there are no locally owned multinationals nor are any headquartered in Barbados. There are only subsidiaries of multi-nationals in Barbados, and the perception of these subsidiaries can be difficult to categorise. Those which benefit from economic rents may argue for protection to continue earning rents. Those which estimate that it may be less expensive to supply the local market from another base may argue for liberalisation. As discussed in Section 3.4.4, the majority of firms with external association generally support liberalisation. In keeping with the literature therefore, a positive sign is therefore expected. Whether or not a firm has an association (**ASSOC**) with a foreign company is obtained from question 2 of the questionnaire. Question 3 is used to reconfirm question 2 and to check the type of association. Only about 10% of the firms in Barbados are foreign owned, while another 21% operate under franchise.

#### *4.3.2.2 Diversification*

A third variable which has been used in relation to the perception of the firm is its degree of specialisation or diversification. In the literature (Pugel and Walter, 1985),



it is argued that diversified firms will more support liberalisation than specialised firm. Firms with a large number of products may have confidence in the success of at least some of those products. Firms with few products may regard themselves as being more vulnerable to collapse if one or more of their products fail. This situation is expected to also hold in the case of Barbados, although local firms are smaller in scale than those investigated in the literature. This hypothesis is, therefore, that the more diversified the firm is, the more it will favour liberalisation.

For this study, the degree of diversification (**DIVER**) of the firm is determined by the number of four digit HS categories in which the company produces<sup>4</sup>.

#### *4.3.2.3 Exports to Sales Ratio*

The ratio of exports to sales is used in the literature to represent the access which firms have to foreign markets (Pugel and Walter, 1985). It can also be interpreted to be a measure of the dependence of firms on foreign market sales, and for this reason will be included in this study. The higher the dependence on foreign markets, the more firms should support liberalisation ceterus paribus. As noted by Helleiner (1977a), and Milner (1988), firms which are export dependent will support liberalisation given fear of retaliation by trading partners.

Export sales and total sales for each firm included in the analysis were obtained from the questionnaire (Questions 7 and 8). This data was used to calculate export performance (**EXPFSAL**)<sup>5</sup>.

#### *4.3.2.4 Capacity Utilisation*

Milner and Yoffie (1989) noted that economies of scale are important in determining the trade policy preferences of multinational firms. Firms facing economic decline and capacity under-utilisation are inclined to support protection. Hillman (1982) also notes that governments have a predisposition to supporting declining industries.

Such industries may seek to influence the level and timing of protection by lobbying to make their plight known. In Barbados, many studies, including those done by Maxwell Stamp (1991) and BIMAP (1991), have pointed to chronic problems of capacity under-utilisation in Barbados' industries and the negative impact this has on the competitiveness of firms. This factor is therefore likely to influence the preferences of these firms, and will be included in the model.

The higher the percentage under-utilised (**CAPU**) the more firms will resist liberalisation since they will view it as a further erosion of their profitability. Data for the variable is obtained from responses to Question 13 of the questionnaire, which requested the firm to indicate the percentage of capacity under-utilisation.

#### 4.3.2.5 Statistical Model and Data

The dependent variables are the responses of firms to questions on the various elements of WTO principles, agreements and issues. The variable takes the following values:

Strongly in favour	=	4
In favour	=	3
No Position	=	2
Disagree	=	1
Strongly Disagree	=	0

The variable therefore takes high values when the firm favours liberalisation and low values when it is not in favour of liberalisation.

The model used in the analysis assumes that firms have one position on trade liberalisation and either support or do not support liberalisation as prescribed by

WTO principles, agreements and issues. Given this, the signs of the model are as follows:

$$SWTOP_i = \alpha_0 + \alpha_1 IMP\_COM_i + \alpha_2 ASSOC_i + \alpha_3 DIVER_i + \alpha_4 EXPFSAL_i + \alpha_5 CAPU_i + e_i \quad (4.1)$$

Where the coefficients  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ , and  $\alpha_4$  are expected to be positive, and  $\alpha_5$  negative, and where:

- $SWTOP_i$  = a dummy variable measuring support for WTO principles, agreements and new issues by firm  $i$ . The dummy variable takes the value of 0, 1, 2, 3, and 4 on an ordered scale;
- $IMP\_COM_i$  = a dummy variable which takes the value of 1 if management of firm  $i$  is optimistic about its import competitiveness, and 0 otherwise;
- $ASSOC_i$  = a dummy variable which takes the value of 1 if firm  $i$  has an association with an external firm by way of joint ownership, joint venture, joint marketing, franchise or other arrangements and 0 otherwise;
- $DIVER_i$  = the number of four digit HS categories in which firm  $i$  operates;
- $EXPFSAL_i$  = the ratio of export sales to total sales of firm  $i$ ;
- $CAPU_i$  = the percentage of capacity under-utilisation in firm  $i$ ; and
- $e_i$  = error term.



#### 4.4 ECONOMETRIC ANALYSIS

Following previous studies in this area including Scheerlinck, Hens, and S'Jegers (1996a and 1996b), ordinary least squares and ordered probit regression will be used to analyse firm support for liberalisation. Principal components analysis is first used to create a measure of the overall response of the firms to various WTO principles, agreements and issues. Ordinary least squares are then used to estimate the model. In the second approach, ordered probit regression is used to analyse responses in detail. This method allows for analysis of qualitative dependent variables that take discrete values on an ordered scale (Green, 2000; Kennedy, 1998). Both techniques are outlined in Appendix 4.

**TABLE 4.2**  
**SUMMARY DESCRIPTION OF THE DATA**

VARIABLE	MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION	MINIMUM VALUE	MAXIMUM VALUE
IMP_COM	.41880	.49548	1.18	0	1
ASSOC	.30769	.46352	1.50	0	1
DIVER	3.51282	2.56842	0.73	1	11
EXPFSAL	20.83060	28.50675	1.36	0	100
CAPU	26.79487	19.64316	0.73	0	75

Table 4.2 describes the data to be used in the analysis. It shows that **ASSOC** has the highest variation, while **DIVER** and **CAPU**, have the least variation. The highest level of capital under-utilisation is 75%. Export performance ranges from no exports (0) to all exports (100) in the case of mainly enclave industries. Table 4.3 shows that the correlation between the variables is relatively very low in all cases.

**TABLE 4.3  
CORRELATION MATRIX OF VARIABLES**

	EXPFSAL	ASSOC	DIVER	CAPU	IMP_COM
EXPFSAL	1.0	.21	-.15	.01	.13
ASSOC	.21	.10	-.11	.00	.14
DIVER	-.15	-.11	.10	-.04	.02
CAPU	.01	.00	-.04	.10	.02
IMP_COM	.13	.14	.02	.02	.10

The results of tests for multicollinearity using auxiliary regression are in Table 4.4. None of the results is significant, and  $R^2(\text{adj})$  are very low. The results suggest that multicollinearity is not a problem.

**TABLE 4.4  
MULTICOLLINEARITY TESTS USING AUXILIARY REGRESSIONS**

	$R^2$	F-VALUE
Expfsal = f ( Diver, Assoc, Capu, IMP_Com)	.04	2.36 < $F_{0.05}$
Diver = f ( Expfsal, Assoc, Capu, IMP_Com)	.001	1.08 < $F_{0.05}$
Assoc = f ( Diver, Expfsal, Capu, IMP_Com)	.03	2.03 < $F_{0.05}$
Capu = f ( Diver, Assoc, Expfsal, IMP_Com)	-.03	.08 < $F_{0.05}$
IMP_Com = f ( Diver, Assoc, Capu, Expfsal)	-.003	1.10 < $F_{0.05}$

NOTE: F value at the 1% level of significance is 2.37

#### 4.4.1 Ordinary Least Squares Analysis

One approach which can be used to assess the importance of various factors in influencing firm position on trade issues is principal components analysis, which is a special case of factor analysis (Koutsoyiannis, 1977). An explanation of this approach is provided in Appendix 4.

This approach begins with the hypothesis that a firm has a single position on a specific issue, and that its responses to each issue are in unison with its general perspective. Principal components are used to construct the summary measure of the support of firms for trade liberalisation.

This procedure is applied in this study to:

- i. all WTO principles, agreements and new issues;
- ii. WTO principles only;
- iii. WTO Agreements only; and
- iv. new issues being considered in the WTO only.

The first factor (or first principal) which accounts for the maximum possible proportion of the total variation in the set of variables is used in the analysis. The first factor accounts for 18.3 % of the variation in respect to all principles, agreements and new issues taken as one variable; 81.7 % of the variation with respect to principles only; 16.2 % of the variation for agreements only, and 65.3 % of the variation for new issues only.

Firm stances on the four sets of issues are regressed on the five explanatory variables (**IMP\_COM**, **ASSOC**, **DIVER**, **EXPFSAL**, **CAPU**). Ordinary least squares are used to estimate the model. Results are in Table 4.5 Overall, the results do not indicate strong relationships<sup>6</sup>. The explanatory power of the models ( $R^2$ ) are very low. A joint test for all of the significance of variables (F-ratio) however show that three of the four models are significant. All models past the Breusch-Pagan test for heteroscedasticity ( $X^2$  (*HET*)). Likelihood ratio tests (*LL*) were performed with a zero restriction place on the coefficient of import perceptions (**IMP\_COM**) to test for the separate influence of perceptions on the model. Based on the results, the



hypothesis that the variable **IMP\_COM** has no effect on the models can be rejected in the case of all areas and for agreements only.

The results for all areas (i.e. principles, agreements and issues) indicate that export performance (**EXPFSAL**) and competitiveness perceptions (**IMP\_COM**), influence firms to support WTO provisions overall. There is a negative relationship between support for WTO provisions and diversification (**DIVER**). This relationship is not in keeping with what was expected. The greater the number of products produced, the less firms apparently support liberalisation.

In the case of principles only, the model is not significant and no variable is significant.

With respect to agreements only, competitiveness perceptions (**IMP\_COM**) and the degree of diversification (**DIVER**) are significant. Again, there is a negative relationship between the degree of diversification and the position of firms on liberalisation issues, while perceptions carry a positive influence. These results reinforce the earlier findings for all areas.

In relation to new issues only, the results indicate, as expected, that export performance (**EXPFSAL**) leads firms to support WTO rules in these new areas. The association of firms (**ASSOC**) rather than influencing firms to support disciplines in the "new" areas as expected, leads firms not to support WTO rules on these issues. It may be, that firms are unsure of how new disciplines would affect their association with external companies. The level of diversification of firms (**DIVER**) influences them not to support new disciplines. This finding is consistent with results for all areas and agreements only. Again, however, they are inconsistent with the anticipated outcome.

The conclusion which can be drawn from the results is that there appears not to be a very strong relationship between firm characteristics, competitiveness perceptions and support for WTO provisions. In keeping with the literature, however, export performance and competitiveness influence firms to support liberalisation. Diversification in contrast influence firms not to support liberalisation.

**TABLE 4.5**  
**OLS RESULTS FOR PRINCIPAL COMPONENTS ANALYSIS**

	ALL AREAS	PRINCIPLES ONLY	AGREEMENTS ONLY	ISSUES ONLY
CONSTANT	25.029 (13.134)	4.123 (5.155)	21.421 (15.970)	5.2486 (7.196)
EXPFSAL	.4858E-01 (1.787)*	.1058E-01 (.928)	.22988E-01 (1.201)	.2587E-01 (2.487)***
ASSOC	.81081 (.487)	.22105E-01 (.032)	1.1836 (1.011)	-1.1074 (-1.740)**
DIVER	-.81448 (-2.757)***	-.1204 (-.971)	-.6263 (-3.013)***	-.1598 (-1.414)*
CAPU	-.20388E-01 (-.537)	.12996E-01 (.816)	-.81263E-02 (-.304)	-.9666E-02 (-.665)
IMP_COM	3.409 (2.226)**	.42656 (.663)	2.1471 (1.991)*	.3450 (.588)
R <sup>2</sup> (adj)	.11702	-.0118	.11230	.05190
F-ratio	4.07***	.73	3.94***	2.27*
X <sup>2</sup> (HET)	2.12	1.48	3.21	1.56
LL	5.0‡	3.6	4‡	0.4

1. t statistics are in brackets. Critical value at the 90% level with 112 df = 1.28; at 95% = 1.65; at 99% = 2.36
2. F test at the 90% level = 1.89; 95% = 2.29; at 99% = 3.18
3. Significance is as follows : \* = 90% ; \*\* = 95% ; \*\*\* = 99%
4. X<sup>2</sup> (HET) = Breusch-Pagan test for heteroscedasticity.
5. LL = Likelihood Ratio Statistic is -2(log LR - log LU) where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates that the hypothesis of no influence is rejected.



#### *4.4.2 Ordered Probit Results*

The Principal Components/OLS approach to analysing responses have a number of limitations. In creating the Principals it is assumed that a firm has a consistent general position on its support for each WTO principle, agreement and new issue, and that those positions can be combined to create a single variable. In the case of all principles, agreements and new issues, as well as for agreements only, the amount of variation explained by the Principals is relatively low - 18.3% and 16.2% respectively. There is wide disparity in the two results for which the Principals are high. Indeed, for Principles Only, there are no significant variables. In terms of OLS regression, this method as noted in Appendix 4 does not recognise the ranking of responses. Use of this method therefore means that information on the ranking of support for WTO rules is lost in the analysis.

Ordered probit analysis can be used to provide a more detailed analysis of the responses of manufacturers to the trade policy survey. This method, which uses maximum likelihood estimation, allows for the information contained in the ranking of responses to be used in the analysis for each equation.

The results of the ordered probit analysis for WTO principles, agreements and issues are in Table 4.6.

**TABLE 4.6  
ORDERED PROBIT RESULTS**

SUPPORT FOR:

**(A) WTO PRINCIPLES**

Q19 Most Favoured Nation Treatment

Q20 National Treatment

Q21 Transparency

**(B) WTO AGREEMENTS**

**MARKET ACCESS PROVISIONS**

Q22 Elimination of quantitative restrictions

Q23 Tariff protection in place of QRs

Q24 Tariff reductions overtime

	Q19	Q20	Q21	Q22	Q23	Q24
CONSTANT	.8135 (2.802)	.9683 (3.370)	.7702 (2.643)	.9071 (3.122)	1.1197 (3.249)	1.369 (4.806)
EXPFSAL	.5422E-02 (1.430)*	.7589E-02 (2.115)**	.4105E-02 (.989)	.74003E-02 (2.063)**	.34754E-02 (.752)	.1158E-02 (.245)
ASSOC	.7236E-02 (.033)	.6421E-02 (.030)	.5542E-.01 (.253)	-.1562 (-.674)	.1897 (.739)	.1638 (.657)
DIVER	-.5520E-01 (-1.450)*	-.4532E-01 (-1.249)*	-.7908E-01 (-1.789)**	-.8356E-01 (-2.266)**	.36137E-01 (.842)	-.6497E-01 (-1.736)*
CAPU	-.3556E-02 (-.710)	-.6449E-02 (-1.161)	.2465E-02 (.475)	-.2937E-02 (-.523)	-.6902E-02 (-1.353)*	-.71721E-02 (-1.483)*
IMP_COM	.4736 (2.261)**	.3268 (1.590)*	.4145 (1.887)**	.51404 (2.412)***	.2767 (1.253)	.4066 (1.912)**
$X^2(1)$	11.22**	11.19**	11.23**	16.33***	6.03	9.32*
$X^2(2)$	6.03	8.67*	7.24	10.20**	4.48	5.61
LL	5.0‡	3.2	4.0‡	6.2‡	1.6	3.6

1. t statistic in brackets. Test at 90% level with 112 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
2.  $X^2(1)$  = Joint Chi-square significance test for all variables.
3.  $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
4. LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates the hypothesis of no influence is rejected.
5. Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
6. Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.

**TABLE 4.6 (CONT')  
ORDERED PROBIT RESULTS**

**SUPPORT FOR:**

**SAFEGUARD ACTION**

- Q25 Recourse to safeguard action
- Q26 Safeguard protection by tariffs only
- Q27 Safeguard action only temporary

**ANTI-DUMPING ACTION**

- Q28 Recourse to anti-dumping action
- Q29 Proof of injury before action
- Q30 Consultation before action

	Q25	Q26	Q27	Q28	Q29	Q30
CONSTANT	1.695 (4.731)	.7642 (2.616)	.6680 (2.245)	NR	1.215 (4.207)	1.132 (3.888)
EXPFSA	-.2029E-02 (-.495)	.67068E-02 (1.780)**	.5629E-02 (1.447)*	NR	.1807E-02 (.483)	.1231E-03 (-.029)
ASSOC	.2192 (.846)	.1159E-01 (.053)	.4157E-01 (.185)	NR	-.8326E-01 (-.343)	.5572E-01 (.222)
DIVER	.5958E-01 (1.200)	-.53007E-01 (-1.410)*	-.3474E-01 (-.950)	NR	-.1123 (-2.860)***	-.3307E-01 (-.795)
CAPU	-.7718E-03 (-.127)	-.77324E-03 (-.156)	.2999E-03 (.063)	NR	.3921E-02 (.715)	.9591E-01 (1.700)**
IMP_COM	-.9707E-01 (-4.24)	.3058 (1.453)*	.3318 (1.544)*	NR	-.1888 (-.838)	.1560 (.698)
$X^2(1)$	3.15	9.08	7.49	NR	10.24*	4.86
$X^2(2)$	2.95	6.88	4.83	NR	9.41*	4.34
LL	0.2	2.2	2.6	NR	0.8	0.4

1. t statistic in brackets. Test at 90% level with 112 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
2.  $X^2(1)$  = Joint Chi-square significance test for all variables.
3.  $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
4. LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol † indicates the hypothesis of no influence is rejected.
5. Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
6. Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.



**TABLE 4.6 (CONT')  
ORDERED PROBIT RESULTS**

**SUPPORT FOR:**

**SUBSIDIES**

Q31 Recourse to countervailing duties

Q32 Proof of injury before action

Q33 Consultation before action

**CUSTOMS PROCEDURE**

Q34 Harmonisation of Customs Procedure

**RULES OF ORIGIN**

Q35 Origin criteria not to be trade barrier

**IMPORT LICENSING PROCEDURES**

Q36 Import licensing procedures to be transparent and predictable

	Q31	Q32	Q33	Q34	Q35	Q36
CONSTANT	1.5865 (4.421)	1.908 (5.930)	1.696 (5.695)	NR	-.3882 (-1.172)	.9434 (3.108)
EXPFSAL	.7619E-04 (.018)	.9032E-03 (.251)	.10828E-02 (.319)	NR	.75402E-02 (1.689)**	.52144E-02 (1.370)*
ASSOC	.2316 (.904)	-.1727 (-.752)	-.2882 (-1.260)	NR	-.15083 (-.583)	-.1362 (-.594)
DIVER	.4272E-01 (.898)	-.1206 (-2.863)***	-.1433 (-3.651)***	NR	-.13531E-01 (-.253)	-.59701E-01 (-1.496)*
CAPU	.70531E-04 (.012)	-.1348E-01 (-.262)**	.3008E-02 (.487)	NR	-.2637 (-.465)	-.3427E-03 (-.067)
IMP_COM	-.3391 (-1.506)*	.2817E-01 (.133)	-.2684 (-1.222)	NR	-.4639 (-.191)	.50273 (2.304)***
$X^2(1)$	3.52	15.16**	16.62**	NR	3.97	10.51*
$X^2(2)$	1.19	15.15***	14.93***	NR	3.97	5.02
LL	2.4	0.0	1.6	NR	0.2	5.6‡

1. t statistic in brackets. Test at 90% level with 112 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
2.  $X^2(1)$  = Joint Chi-square significance test for all variables.
3.  $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
4. LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates the hypothesis of no influence is rejected.
5. Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
6. Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.



**TABLE 4.6 (CONT')  
ORDERED PROBIT RESULTS**

**SUPPORT FOR:**

**TECHNICAL BARRIERS TO TRADE**

Q37 Recourse to technical regulation to ensure imports are of acceptable standard

Q38 Technical regulations not to be a trade control measure

**SANITARY AND PHYTO-SANITARY MEASURES**

Q39 Recourse to health measures to protect human, animal and plant life

Q40 Sanitary and phyto-sanitary measures not to be trade control measure

**PRESHIPMENT INSPECTION**

Q41 Establishment of machinery for preshipment inspection

**TRADE RELATED INVESTMENT MEASURES**

Q42 Use of local input not to be basis for deciding concessions

	Q37	Q38	Q39	Q40	Q41	Q42
CONSTANT	NR	1.429 (3.850)	NR	1.1778 (3.493)	1.3534 (3.323)	1.357 (4.452)
EXPFSAL	NR	.11709E-02 (-.308)	NR	-.3525E-03 (-.093)	-.2777E-03 (-.058)	.58587E-03 (.156)
ASSOC	NR	.5231 (2.305)**	NR	.45977 (2.073)**	-.2832E-01 (-.125)	.61414 (2.746)***
DIVER	NR	-.6047E-01 (-1.270)	NR	-.54284E-01 (-1.098)	.20912 (4.137)***	-.17265E-01 (-.348)
CAPU	NR	.66200E-03 (131)	NR	.88038E-03 (.178)	.8385E-02 (1.420)*	.30567 (.629)
IMP_COM	NR	.28401 (1.346)*	NR	.29509 (1.397)*	.12749 (.539)	.32515 (1.539)*
$X^2(1)$	NR	11.11**	NR	9.65*	24.65***	12.45**
$X^2(2)$	NR	9.23*	NR	7.61	24.31***	10.01**
LL	NR	1.8	NR	2.0	0.4	2.6

1. t statistic in brackets. Test at 90% level with 112 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
2.  $X^2(1)$  = Joint Chi-square significance test for all variables.
3.  $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
4. LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates the hypothesis of no influence is rejected.
5. Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
6. Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.

**TABLE 4.6 (CONT')  
ORDERED PROBIT RESULTS**

SUPPORT FOR:  
TRADE RELATED INTELLECTUAL PROPERTY RIGHTS

- Q43 Implementation of legislation to protect trade related intellectual property of local companies  
Q44 Implementation of legislation to protect trade related intellectual property of foreign companies

SETTLEMENT OF DISPUTES

- Q45 No unilateral action to be taken in disputes  
Q46 Full acceptance of WTO decisions in disputes

ELECTRONIC COMMERCE

- Q47 Tariffs not to be levied on E-Commerce

	Q43	Q44	Q45	Q46	Q47
CONSTANT	NR	NR	NR	NR	2.234 (5.139)
EXPFSAL	NR	NR	NR	NR	.3288E-02 (.761)
ASSOC	NR	NR	NR	NR	-.36506 (-1.543)*
DIVER	NR	NR	NR	NR	.19494E-01 (.382)
CAPU	NR	NR	NR	NR	-.60426E-02 (-1.079)
IMP_COM	NR	NR	NR	NR	.28419 (1.049)
$X^2(1)$	NR	NR	NR	NR	5.64
$X^2(2)$	NR	NR	NR	NR	3.97
LL	NR	NR	NR	NR	1.6

- t statistic in brackets. Test at 90% level with 112 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
- $X^2(1)$  = Joint Chi-square significance test for all variables.
- $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
- LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates the hypothesis of no influence is rejected.
- Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
- Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.

**TABLE 4.6 (CONT')  
ORDERED PROBIT RESULTS**

SUPPORT FOR:

(c) **WTO ISSUES  
ENVIRONMENT POLICY**

Q48 No trade control measures in the area of environmental policy to be enforced until WTO rules developed

**COMPETITION POLICY**

Q49 Anti-competitive or restrictive business practices should be eliminated

**INVESTMENT**

Q50 Foreign investors should be given MFN treatment

	Q48	Q49	Q50
CONSTANT	1.2368 (4.070)	.86534 (3.060)	.8470 (3.000)
EXPFSAL	.6019E-02 (1.686)**	.91112E-02 (2.186)	.83593E-02 (1.978)**
ASSOC	-.49825 (-1.833)**	-.36408 (-1.551)	-.2061 (-.894)
DIVER	-.52564E-01 (1.187)	-.40211E-01 (-1.018)	-.60904E-01 (-1.537)*
CAPU	.39224E-02 (.823)	-.50725E-02 (-.980)	-.56403E-02 (1.097)
IMP_COM	.58477E-01 (-.240)	.10869 (.487)	.82675E-01 (.372)
$X^2(1)$	8.72	9.44*	9.54*
$X^2(2)$	8.64*	9.18*	9.38*
LL	0.0	0.2	0.2

1. t statistic in brackets. Test at 90% level with 109 df = 1.28; test at 95% level = 1.65; test at 99% level = 2.36
2.  $X^2(1)$  = Joint Chi-square significance test for all variables.
3.  $X^2(2)$  = Joint Chi-square significance test for all variable with (IMP\_COM) excluded.
4. LL = Likelihood Ratio Statistic is  $-2(\log LR - \log LU)$  where LU is the value of the unrestricted function, and LR is the restricted function with IMP\_COM excluded. The symbol ‡ indicates the hypothesis of no influence is rejected.
5. Significance is indicated as follows: \* = 90%; \*\* = 95%; \*\*\* = 99%
6. Where it appears NR = no result generated by LIMDEP due to insufficient variation in the dependent variable.



4.4.2.1 Overall Performance

In terms of significance, the model performed only fair overall. Eight equations of a total of 32 were not computable because of insufficient variation in the dependent variable, while 15 (62.5%), of the remaining 24 were significant. On two provisions – recourse to safeguard action (Q25) and competition policy (Q49) – the model did not produced any results. In addition, in the case of seven other issues only one variable in the model was significant. These were, use of tariffs rather than QRs (Q23), proof of injury and consultation before anti-dumping action (Q29 and Q30), proof of injury and consultation before countervailing action (Q31 and Q33), limited use of rules of origin criteria (Q35) and a moratorium on the imposition of taxes on e-commerce. Regarding the performance of individual variables, the results as shown in Table 4.7, were mixed.

**TABLE 4.7**  
**SUMMARY OF PERFORMANCE OF VARIABLES**  
**(TOTAL NUMBER OF EQUATIONS = 32)**

VARIABLE (EXPECTED SIGN)	UNRESTRICTED MODEL NUMBER OF EQUATIONS WITH SIGNIFICANT VALUES		RESTRICTED MODEL NUMBER OF EQUATIONS WITH SIGNIFICANT VALUES. (IMP_COM EXCLUDED)	
	Number of expected signs	Number of unexpected signs	Number of expected signs	Number of unexpected signs
EXPSFAL (+)	9	0	5	0
DIVER (+)	1	11	3	4
ASSOC (+)	3	2	3	1
CAPU (-)	3	2	1	0
IMP_COM (-)	11	1	-	-

As shown in column 2 of the table, export performance (**EXPSFAL**) and perceptions about competitiveness (**IMP\_COM**) recorded the largest number of expected signs indicating that they influenced firms to support WTO sponsored liberalisation. There is limited support for the proposition that association (**ASSOC**) has a positive effect on liberalisation policies. There is also limited support for the



hypothesis that capital under-utilisation (**CAPU**) has a negative effect on such policies. In both cases, the number of significant coefficients with the expected signs is relatively low. Similar to the results obtained using principal components analysis, there appears to be strong evidence that the degree of diversification (**DIVER**) influences firms not to support liberalisation policies.

Likelihood ratio tests were conducted to identify the influence of firm performance as opposed to management perceptions on the trade policy preferences of firms. With the exclusion of management competitiveness perceptions (**IMP\_COM**), the number of significant equations fell marginally to 11 (45.8% of the total number). Likelihood ratio tests of the hypothesis that perceptions have no influence on the trade policy preferences of firms showed that it can be rejected only in the case of Q19, Q21, Q22, and Q36. Column 3 of Table 4.7 however shows that with the exclusion of **IMP\_COM**, the number of significant variables (both with the expected sign and the unexpected signs) is lower. The evidence regarding the influence of **IMP\_COM** on trade policy preference is therefore mixed.

#### *4.4.2.2 WTO Principles (Q19 – Q21)*

With respect to WTO principles, the results show that there is a positive relationship between competitiveness perceptions (**IMP\_COM**) and support for all WTO principles - non-discrimination, national treatment and transparency (Q19 – Q21). Export performance (**EXPFSAL**) has a positive influence on the principles of non-discrimination and national treatment only (Q19 & Q20).

There is a negative relationship between diversification (**DIVER**) and support for WTO principles (Q19 – Q21). This result is not in keeping with the literature. As noted earlier, the explanation for the negative sign could be that these firms are diversified in the first instance because they doubt the competitive strength of any

one product given the small size of the domestic market. In this case, these firms may tend not to favour liberalisation.

Chi-square values based on log-likelihood ratio tests show that all equations on WTO principles are significant at the 95% level.

#### *4.4.2.3 WTO Agreements (Q22 – Q47)*

Manufacturers strongly support recourse to anti-dumping action (Q28), harmonisation of customs procedures (Q34), use of standards and technical regulations (Q37), use of sanitary and phyto-sanitary regulation (Q39), protection of intellectual property of local and foreign firms (Q43) and (Q44), and full observance of WTO dispute settlement procedures (Q45) and (Q46). For these questions, no regression results could be generated due to lack of variation in the dependent variable.

Generally, firms which consider that they are competitive (**IMP\_COM**) support the various instruments for liberalisation. This support is significant in relation to elimination of import restrictions (Q22), tariff reductions overtime (Q24), safeguard action by tariffs only (Q26), the temporary nature of safeguard action (Q27), transparent import licensing (Q36), the limitations on use of standards (Q38) and sanitary and phyto-sanitary measures (Q40), and TRIMS (Q42). One apparent anomaly is that competitiveness perceptions influence firms not to support taking action against subsidised imported products (Q31). This however could be in keeping with the view expressed by the manufacturing sector that subsidisation is not as great a problem as it is for the agricultural sector.

Of all the variables, diversification (**DIVER**) appears to have the most protectionist influence. This factor leads firms not to favour the elimination of QRs (Q22), reductions in tariffs overtime (Q24), safeguard action by tariffs only (Q26), proof of



injury by firms before anti-dumping action is taken (Q29) or countervailing duties are imposed (Q32), consultation with the offending country before imposing a countervailing duty (Q33), nor transparency in import licensing (Q36). These results again reinforce the suggestion that diversification may have come about because of perceived vulnerability of firms. Diversification leads firms to favour pre-shipment inspection of goods (Q41), perhaps seeing opportunities for restricting trade.

Export performance (**EXPFSAL**) generally leads firms to favour trade liberalisation. This factor is significant in relation to the elimination of QRs (Q22), the use of tariffs as safeguards rather than QRs (Q26), temporary use of safeguards (Q27), not using rules of origin criteria to inhibit trade (Q35) and transparency in import licensing procedures (Q36). Like competitiveness perceptions, the export performance factor is clearly in favour of trade liberalisation. There is no result with an unexpected sign which is significant.

Capacity under-utilisation (**CAPU**) leads firms not support the replacement of QRs with tariffs (Q23), reduction of those tariffs overtime (Q24), nor proof of injury before countervailing action is taken (Q32). Not in keeping with what is expected, this variable influenced firms to favour informing another country before anti-dumping action is taken (Q30), and pre-shipment inspection (Q41).

The association (**ASSOC**) of firms is not a very strong influence on their support for liberalisation. Firms with external association support only three provisions: the requirements that technical regulation (Q38) and health and safety measures are not used to impede trade (Q40), and TRIMS compliance (Q42). These instruments which can be used as non-tariff barriers are very important for firms operating across borders. Firms with external association, however, disapprove of liberalisation in one area - no restrictions on electronic commerce (Q47). With

respect to this issue firms might be unsure as to how changes in the status quo would affect their operations.

#### **4.4.2.4 WTO New Issues (Q48 – Q50)**

In relation to the new issues being considered in the WTO - Environment Policy, Investment Policy and Competition Policy - export performance (**EXPFSAL**) has influenced firms to favour WTO rules in the first two areas (Q48 & Q50). Association (**ASSOC**) has influenced firms not to support a moratorium on restrictions for environmental reasons (Q48). Diversification (**DIVER**), in keeping with previous results, influences firms not to support MFN treatment for investors (Q50).

In summary, ordered probit analysis lends some support to the proposition that the export performance and competitiveness perceptions of firms cause Barbadian manufacturing firms to support liberalisation. Weaker evidence shows that association also has a positive effect. Diversification influences these firms not to support liberalisation. There is weak evidence that capital under-utilisation negatively affects the perceptions of firm about trade liberalisation.

## **4.5 CONCLUSION**

This paper investigated the support of firms for trade liberalisation through an examination of the responses of firms to essential aspects of WTO disciplines. These disciplines are aimed at the liberalisation of trade, and require member countries to implement market access commitments, change all trade policy laws to recognise WTO disciplines, and to be transparent in their trade relations.



The study is the first to be done on Barbados, and is generally wider in scope than previous studies on international trade agreements as reported in the literature. It examined thirty two WTO provisions covering principles and agreements as well as new issues.

Survey responses of manufacturing firms to WTO principles, agreements and issues analysed in Chapter 3, showed that firms reject WTO disciplines as a package. Firms are however selective in terms of the areas which they support depending on self interests. They especially do not favour WTO principles on national treatment and transparency.

In relation to WTO Agreements, firms especially support aspects of those agreements which leave room for offering protection, such as recourse to safeguard provisions, anti-dumping and subsidies action, and the use of technical barriers and sanitary and phyto-sanitary measures.

While firms are not in favour of transparency as a principle, they are in favour of some specific areas embraced by this concept. For example, they are in favour of transparency in import licensing and customs procedures, indicating that it is the overall philosophy rather than its application in specific areas which is of concern to them. Support for those disciplines as well as support for the protection of intellectual property rights, rulings in cases of dispute, and the adoption of anti-competitive rules suggest that the concerns of firms maybe about fair trade and not only free trade.

Regression analysis using both OLS and ordered probit techniques were employed in this chapter to examine the factors influencing the preferences of firms. In keeping with the literature, the paper employed the concept that the analysis of firm

responses can be structured under two broad headings; management perceptions about import competitiveness, and the characteristics of firms.

The model developed for Barbados included the import competitiveness perceptions of managers, the external association of firms, the degree of diversification of firms, export performance, and the percentage of capacity under-utilisation. All variables with the exception of capacity under-utilisation where a negative sign was expected, all variables were expected to have a positive influence on the support of firms for WTO rules.

The results of OLS regression are weak. They however suggests that export performance and competitiveness perceptions influence firms to support liberalisation policies. Diversification however reduces support for liberalisation. Capital utilisation and the external association of firms do not greatly influence the stances taken by firms.

At a more detailed level, ordered probit regression was used to individually examine WTO provisions and possible provisions on three new issues. In general, there was no robust evidence regarding the influence of any of the variables across all the areas. However, export performance and competitiveness perceptions appear to be strongest in positively influencing firm's support for liberalisation. Much weaker evidence exists in the case of firm association. Capital under-utilisation in general influences firms not to support liberalisation. The major anomaly is that diversification has a negative, rather than the expected positive, influence on trade liberalisation.

With one exception, the results are in keeping with the predictions of theories on the political economy of protection. In keeping with Helleiner (1977a) and Milner (1988) export performance has a positive influence on the support of firms for open

trade. As hypothesised by Milner and Yoffie (1989), capital under-utilisation has a negative effect on firm support for liberalisation policies. Similar to the results of studies undertaken by Pugel and Walter (1985) and Scheerlinck, Hens, and S'Jegers (1996a and 1996b) firm association, and competitiveness perceptions were found to influence firms to support liberalisation. Both Pugel and Walter (1985) and Scheerlinck, Hens, and S'Jegers (1996a) found strong evidence that diversification positively influences the preference of firms for liberalisation. The later study of Scheerlinck, Hens, and S'Jegers (1996b) found only weak evidence for the positive influence of diversification. This study has found that in the case of firms in Barbados, diversification has a negative influence on support for liberalisation. This could possibly be a small economy effect whereby given the small size of the home market, firms produce many different products as a strategy to remain profitable. More diversified firms may therefore be relatively more insecure about trade liberalisation than less diversified firms.



## END NOTES

<sup>1</sup> In the case of some countries (especially developing countries), a tariff is likely to both assist government in raising revenue and also protect domestic producers.

<sup>2</sup> In as much as the study is on the growing area of trade in services which has some prominence in the WTO, it is still of relevance to this review.

<sup>3</sup> Association is measured somewhat differently in Sheerlinck, Hens and S'Jegers (1996a). Association takes the value of 0, 1, or 2 depending on the status of the firm under Belgium law.

<sup>4</sup> The data was obtained from the BIDC Directory of Manufacturers and Service Companies 1996.

<sup>5</sup> Exports here refer to both CARICOM and extra-regional exports.

<sup>6</sup> Models were tested with log transformation of some variables. The results did not improve.

## **CHAPTER 5**

### **PREFERENTIAL TRADE AGREEMENTS AND BARBADOS' EXPORT PERFORMANCE**

#### **5.1 INTRODUCTION**

The pure theory of international trade does not seek to explain the competitive differences of firms on export markets. The theory is based on the assumption of perfect competition where all firms earn normal profits, and are equally competitive. The conditions which exist to ensure those outcomes include the existence of a large number of buyers and sellers on the market, the production of identical products, inability of firms to influence price, low costs of entry and exit in the market, and the free and full availability of information to all firms. Under those assumptions, firm characteristics are not important in determining their competitive position (Lall and Kumar, 1981).

Later theories on commodity trade, including the factor proportion theory and technology theories, seek to explain export performance under the assumption of imperfect competition. Differences in the characteristics of firms based on such factors as technology, productivity, firm size and product differentiation can determine the competitive position of firms in export markets.

A number of studies, notably Courakis and Roque (1988), Conlon (1992), and Auquier (1980), have investigated the factors influencing firm level export performance and have pointed to the importance of such determinants as factor endowments, technology and economies of scale. In addition, a number of other studies, including Kumar and Siddharthan (1994), and Goodman and Ceyhum

(1976), have noted that business strategies and government policies also impact on export performance.

For developing countries, an understanding of the industry characteristics which promote and inhibit export performance is important, given changes in the global economy. The process of trade liberalisation and globalisation is requiring that firms increase their international competitiveness in order to retain or increase their market share. It is therefore important for governments to be aware of the factors which impact on the export performance of firms in order to design appropriate strategies to assist these firms.

In the case of Barbados and other small economies in the Caribbean, there is also the added dimension that trade liberalisation is systematically reducing the trade preferences enjoyed by firms in the region. Those preferences, which are offered under such agreements as the GSP, CBI, CARIBCAN and LOMÉ (discussed in Chapter 2), are being impacted on in two ways. First, post 1995 WTO rules require member countries to bind their tariffs, and to undertake tariff reductions. These reductions have resulted in a decrease of the margin of preference offered under the above preferential agreements. Secondly, Barbados and other preference-receiving countries in the Caribbean are engaged in international trade negotiations to create free trade agreements with countries in the Americas, and in Europe. WTO rules, on which those negotiations are based, require the elimination of tariffs on "substantially all trade". That requirement means that the benefits of preferential arrangements are likely to progressively diminish as those arrangements are put in place (Appendix 7).

Given those developments, it is necessary to establish and implement trade and industrial policies which will enable firms which benefit from trade concessions to remain competitive as preferences are reduced and eventually eliminated.



### 5.1.1 *Objectives of the study*

The objective of this study is to examine how factor endowments, technology, and scale economies variables influence manufacturing export performance in Barbados. It will also examine how the existence of preferential trade arrangements impact on those exports.

The research is important, as it will add to the limited work undertaken on the determination of export performance in developing countries. It will especially enable a comparison of the factors influencing export performance in developed countries with those in a small developing economy. In addition, the study will allow for a greater understanding of how preferential trade arrangements impact on export performance of developing countries in general.

### 5.1.2 *Structure of the study*

This study has five sections. Section 5.2 is a review of the theoretical and empirical literature on factors influencing export performance. In section 5.3 a model is developed for Barbados. In section 5.4 econometric analysis is undertaken of the factors determining the export performance of Barbadian manufacturing firms. Section 5.5, the conclusion, summarises the findings of the study.

## **5.2 LITERATURE REVIEW**

### 5.2.1 *Theoretical Framework*

A number of papers have examined the factors determining the export performance of firms focusing mainly on factor endowment and technology factors. As noted by Courakis and Roque (1988), model specifications generally rely on the following general form:

$$(X_i) = f(HO_i + ES_i + TV_i)$$

Where:

- (X) = Export performance, comparative advantage or similar variable;
- HO = Heckscher-Ohlin or Factor input variable;
- ES = Economies of scale factor; and
- TV = Technological variables.

The subscript  $i$  refers to the  $i$ th industry.

Variables used in models to represent factor endowment variables (HO), attempt to capture the essence of the **Heckscher-Ohlin** model. The model holds that a country which is abundant in a particular factor, be it land, labour or capital, will be able to produce goods which require more of its abundant factor, relatively less costly than another country or other countries.

Following directly from this is the proposition that a country will produce and export that good, the production of which is intensive in the abundant factor of the country. Therefore, it is generally expected that as developing countries are relatively labour abundant they will export goods which are intensive in labour, and particularly unskilled labour. In models on developing countries, a positive relationship is anticipated between labour usage and export performance, and a negative relationship between capital (physical) usage and export performance (Helleiner, 1976). Wood and Berge (1997) note that with increases in the mobility of physical capital, that factor is not critical to the determination of export performance.

Economy of scale (ES) variables relate to the production capacity of the firm or industry. It is usually measured by sales of the firm, employment, capital assets, value added or a combination of those factors. Most studies include size as measured by sales or employment to capture the effects of scale. Economies of scale affect export performance in several ways. First, an expanding firm in a small



market can reach a point where the domestic market is saturated and in order to expand it must export to other markets. Secondly, a large monopolist firm may be able to benefit from price discrimination in a foreign market. In addition, large firms often benefit from marketing capacity and finance which enable them to bear the risks of exploring foreign markets (Hirsch and Lev, 1974).

The large size of a firm is generally expected to confer advantages in terms of capacity to penetrate export markets in whatever country the firm operates, and to bear the risks of distributing in international markets. Given those factors, a positive relationship is generally expected between firm size and export performance.

Technological considerations (TV) in determining trade flows come in many forms. The most cited is the technological gap theory attributed to Michael Posner, and the product cycle theory attributed to Raymond Vernon.

The **technological gap** theory essentially states that when a new product or product innovation is developed in a particular country, that country will enjoy an advantage in trade over other countries which trade in similar product(s). This country will enjoy a comparative advantage in the production of the particular good although it may not have a comparative advantage in terms of factor intensities or factor endowments. This comparative advantage will be sustained until the new technology is adopted by the other trading partners.

In the case of the **product cycle** theory, product innovation takes place in a high-wage country which is relatively abundant in capital and the product will be manufactured in a place close to the home market. However, as the product becomes standardised, and as knowledge becomes diffused, exports of the product may be threatened by competitors. As a result, companies will seek to maintain their market position by moving to low wage labour abundant countries.



Following the neo-technology models, developed countries which are leaders in technological innovations are expected to have a positive relationship between technology and export performance. On the other hand, there is expected to be a negative relationship between export performance and technology in the case of developing countries. The latter generally do not develop new technologies, and there is a lag in their ability to obtain technology from developed countries (Courakis and Roque, 1988).

### 5.2.2 *Empirical Research*

While there appears to be consensus on the core factors which should be included in examining export performance, there is much less agreement on the types of proxies of such factors. In terms of export performance variables, Goodman and Ceyhun (1976) pointed out that there are several definitions of export performance of firms. These include:

- the country share of world exports by industry;
- industry share of total country exports; and
- the share of industry (or firm) exports or net exports to total industry (or firm) sales.

The Goodman and Ceyhun study itself used the geometric average of export growth and export to sales ratio in two time periods to measure export performance. The particular functional form used in the study was:

$$EP_{it} = \{(Y_{it}/Y_{it-1}) (R_{it}/R_{it-1})\}_i^{1/2}$$

Where:

- $EP_{it}$  = Export performance; and
- $Y_{it}$  = exports in the  $i^{\text{th}}$  industry in period  $t$ ; and
- $R_{it} = Y_{it}/S_{it}$ , the ratio of exports to sales in the  $i^{\text{th}}$  industry in period  $t$  ;

Export performance as a ratio to firm or industry sales is limited in that it only conveys information about the export intensity of the firm or industry. The share of world exports of the firm or industry provides more information about competitiveness. Data limitations have however often forced researchers to use the ratio of firm exports to total firm sales as the proxy of export performance.

For factor proportion variables, studies generally include capital and labour intensity. Helleiner (1976) used seven different variables to measure differences in factor intensity. These included:

- total capital intensity, both human and physical as measured by value added per employee;
- skill-intensity, measured by the average wage;
- skill-intensity, measured by the proportion of the labour force which is technical, scientific and professional;
- capital-intensity, measured by the capital stock per employee;
- capital-intensity, measured by the wage share in value added;
- capital-intensity, measured by non-wage value added per employee; and
- natural resource intensity, measured by natural resource inputs per unit of output.

Conlon (1992) used four variables to measure factor usage within an industry:

- capital intensity, measured by the value of fixed tangible assets per person employed in an industry, divided by an estimate of the fixed tangible assets per person used in all manufacturing industries;
- a capital stock index which is the capital in an industry, normalised by the estimated capital stock in all industries;

- the estimated proportion of renewable and non-renewable resources used in intermediate input; and
- the sum of both renewable and non-renewable resources.

Some studies used the labour skill factor alone to take account of factor proportions, for example, Goodman and Ceyhun (1976), Kraft (1989), and Courakis and Roque (1988). In the case of the first study, the variable was defined as the ratio of non-production workers to production workers, or the ratio of skilled to unskilled workers.

In the second study, Kraft (1989) measured skill as the ratio of unskilled to skilled blue collar workers; the ratio of employees who have an academic degree to all blue and white collar workers; and a third variable as the ratio of white to blue collar workers. Courakis and Roque (1988) used similar variables to represent skilled and unskilled labour in their study.

The distinction between labour and capital in any particular manufacturing industry is likely to be a blurred one, as labour also utilise capital in the production of products. Attempting to disaggregate the effect of both factors is likely to result in some double counting. One of the variables used by Helleiner (1976) – total capital intensity – avoids the problem of double counting. It however provides little information on the two factors which are important for understanding trade between different countries. Using factor rewards to measure factor intensities, assumes that there is some correlation between such rewards and factor usage in all industries, which may not hold across a number of industries producing different products with different requirements for labour/capital combinations.

In relation to technology, Courakis and Roque (1988) note that technology variables in research are usually proxied by indices which reflect R&D



expenditures; skilled labour intensities; the value or number of patents; or the first date of trade.

The Courakis and Roque study itself used two variables to measure technological factors:

- (1) Follower technological variables were defined as;
  - skilled labour to capital ratio; and
  - the ratio of R&D expenditures to the value of output.
  
- (2) Leader technological variables were defined as;
  - percentage of scientists and engineers in total country employment; and
  - ratio of R&D expenditures to the value of country output.

Goodman and Ceyhun (1976) used similar variables to measure technological innovations. In their study, technological innovations were proxied by; the ratio of R&D expenditure to total sales; and the employment of scientists and engineers to total employment. In his comparative study on the exports of Australia and East Asian countries, Conlon (1992) broadened the concept of technology to include human capital, and used eleven variables as proxies. These included:

- administrative and managerial personnel as a percentage of the workforce;
- percentage of tertiary qualified employees;
- proportion of female production workers of total employees;
- proportion of female production workers of total female employment;
- proportion of females of total employees;
- ratio of research and development expenditures to value of industry turnover/shipment;

- ratio of research and development expenditures to value added;
- percentage of scientists and engineers to total employees;
- percentage of scientists, engineers and technicians to total employees;
- proportion of wages to value added; and
- proportion of wages of production workers to total wages and salaries.

The diversity in variables used to proxy technology is evidence of the difficulty in defining the term. The variables employed provide a narrow indication of the use of technology.

Research and development is used in many of the studies. However, as pointed out by Kleinknecht (1987), R&D in small firms without an R&D department may be informal and difficult to measure. In the case of those measures which use categories of employees to measure technology use, care must be taken to distinguish this variable from factor endowment influences.

The economies of scale variable is proxied by firm size in many studies. Firm size is defined in different ways. Auquier (1980) defined firm size in terms of the size of production, and also the proportion of output exported. Kraft (1989) defined size purely in terms of the number of employees. Conlon (1992) used both scale and size as a single variable. The proxies used in the study for this variable included:

- the percentage of establishments employing varying levels of persons. The study used four levels, firms representing 10, 20, and 50 or fewer persons, and 100 or more persons;
- employment per enterprise (or group of establishments);
- employment per establishment;
- number of enterprises;

- average number of establishments per enterprise; and
- number of small enterprises as a proportion of the total number of enterprises in the industry.

In addition to factor endowment variables, scale variables and technology variables, several studies also include other factors such as; tariff protection, industry growth and advertising, capital ownership, association with external firms, and product differentiation.

The usual assumption about advertising is that the higher the level of advertising, the higher sales will be. Both Helleiner (1976), and Goodman and Ceyhun (1976) included the ratio of advertising to sales in their models. Growth within an industry can play an important role in export performance. Firms operating in an environment of growth are more likely to expand than firms operating in contracting areas. Industry growth was measured by Goodman and Ceyhun (1976) as the ratio of sales in the present period, to sales in the previous period. Firms often seek to maintain or increase their market shares through product differentiation. This variable can therefore be important in determining export performance. Helleiner (1976) measured the degree of product differentiation by the standard deviation or the degree of dispersion of the unit value in the market of the importing country. Regarding tariff protection, Lowinger (1975) found foreign tariffs on US exports to be significant in determining US export performance.

Relatively few studies have examined the export performance of firms in developing countries. Among the studies which examined the export performance of firms in developing countries are Lall and Kumar (1981), Lall (1986), and Kumar and Siddharthan (1994).



Lall and Kumar (1981) investigated the export performance of the 100 largest engineering firms in India during the period 1966 - 1968, and 1976 - 1978. Four alternative measures of export performance were used:

- exports propensity, or export as a percentage of sales;
- absolute value of exports;
- growth of export values, between 1966-1968, and 1976-1978;  
and
- change in export propensity between the two periods.

The explanatory variables used in the study included:

- total sales by the firm as a scale variable;
- profitability, measured by profits before tax;
- change in profitability;
- technological activity, measured by a dummy variable which took the value of 1 if the firm is a registered R&D performer and 0 otherwise;
- Composition of industry, measured by a dummy variable which took the value of 1 if the firm was mainly a producer of machinery and equipment (more advance processes) and 0 otherwise (the usual capital stock per worker was tested, but not found to be significant);  
and
- the absolute value of exports in the base year, introduced as a control variable to account for the possibility that firms with a high level of exports in the base year could not be expected to increase their exports as rapidly as other firms.

Based on OLS estimation, the major findings of the study were; (1) that India had a comparative advantage in simpler metal products rather than more complex machinery, (2) larger firms tend to export more in absolute terms, (3) firms which expand their exports the fastest enjoyed rapid increase in profits, and (4) research and development is positively related to the rate of growth of exports.

Lall (1986) examined the export performance of leading engineering and chemical firms in India using the percentage of exports to total sales as the dependent variable, and nine independent variables; firm size as measured by total sale, age of the firm, subsidy granted by government, the proportion of sales revenue devoted to advertising, the proportion of total salaries paid to high-income managers and technical personnel, royalties as a percentage of sales, the number of licenses held by each firm, the percentage of equity held by foreign firms, and formal expenditures on research and development. Similar to the 1981 study reviewed above, a dummy variable was included in testing the export performance of engineering firms to distinguish between firms which primarily make capital goods, and those which mainly make simple metal products.

The study found that there was a positive relationship between export performance and firm size, subsidies, advertising and licensing. These factors were however not always significant in both sets of industries. Research and development was positive for chemical industries but negative for engineering industries. This, according to the author, was the result of the differing nature of technical change in the two industries, since technological adaptations in the engineering industry may not be geared towards export markets.

The author noted that the results showed that the model worked better for process industries like chemicals than for batch or assembly industries like engineering. This is attributed to some extent to their different technological characteristics.

Kumar and Siddharthan (1994) also researched the factors determining the export performance of manufacturing enterprises in India using data from 640 firms for the periods 1987/88 and 1989/90. The study included the following variables:

- exports to sales ratio ( as the independent variable);



- ratio of R&D expenditure to sales (technology variable);
- proportion of high income employees in total wage bill (second technology variable);
- proportion of royalties, licenses and technical fees remitted abroad (third technology variable);
- net sales of the company (scale variable);
- gross fixed asset to sales ratio (capital intensity variable);
- advertising expenditure to sales ratio;
- profits before tax to sales ratio;
- total value of imports as a proportion of sales;
- two dummy variables representing the type of foreign ownership; and
- two dummy variables each distinguishing between the 1987/88 and 1989/90 data sets.

The study used Tobit estimates given the fact that a large number of firms in the sample did not export. The major findings of the research were:

- the technology variables were positive and significant for low and medium technology activities such as food processing and transport equipment indicating that innovation in such areas can improve export competitiveness. For high technology industries such as electrical machinery and pharmaceuticals, developing countries cannot improve their export competitiveness on the basis of R&D;
- the relationship between firm size and export performance appears to be non-linear. For some industries, the relationship is an inverted U-shape indicating that large oligopolistic firms are not inclined to export. For other industries, the relationship is U-shaped indicating that a certain minimum size must be reached before exporting becomes feasible;



- advertising increased a firm's export performance in some industries; and
- exports in low and medium technology industries are labour intensive. For high technology industries, capital intensity is necessary for breaking into export markets.

The results for association were mixed. However, industries with higher levels of foreign equity met with some export success.

Table 5.1 summarises the findings of a sample of studies. The results of the research for developing countries are not as clear as theory suggests they should be. The studies however do not refute the basic proposition that labour intensity and economies of scale factors do positively influence export performance in developing countries. The results for technology are more mixed, indicating perhaps that research needs to be more disaggregated and should focus on both follower and leader technology factors (Courakis and Roque, 1988). Apart from these variables, other factors have also been found to be important in determining export performance. Among these are advertising (Lall, 1986), association with international firms (Kumar and Siddharthan, 1994), wage costs (Helleiner, 1976), and both nominal and effective protection in the home market (Willmore, 1992).

**TABLE 5.1**  
**SUMMARY OF A SAMPLE OF STUDIES INVESTIGATING THE EXPORT PERFORMANCE OF FIRMS**

STUDY	INVESTIGATION	SIGNIFICANT FACTORS
Patibandla (1995)	Exports of 76 Indian firms for 1983-84. OLS regression used with exports to sales ratio as the dependent variable.	Firm size, advertising, relative production efficiency
Kumar and Siddharthan (1994)	Exports of firms in India for the 1987/88 and 1989/90 period. Tobit regression used with export to sales ratio as the dependent variable.	Firm size, technology, government export promotion policies, firm association
Calof (1994)	Relationship between Canadian exports and firm size. 14,072 firms used. Alternative dependent variables were: propensity to export, country exported to, export attitudes. ANOVA tables used in analysis.	Firm size
Conlon (1992)	Manufactured exports of 85 Australian, 61 Korean, 61 Singapore and 29 Taiwan firms. Data from 1980-85 used in the OLS estimates. The dependent variable was exports to sales.	Natural resources and capital intensity (Australia). R & D and skilled labour force other countries
Bonaccorsi (1992)	Relationship between Italian exports and firm size. Analysis of variance used with export to sales ratio as measure of export performance. A total of 2,614 observations used.	Firm size
Willmore (1992)	Transnationals and Brazilian foreign trade. Various dependent variables used including dummy variable for exporter and non-exporter. Logit and OLS methods used. Data on 17,053 firms used in the analysis.	Foreign ownership, advertising, capital intensity, vertical integration, geographical concentration, and nominal protection
Courakis and Roque (1988)	Exports and imports of 19 Portuguese industries for the 1972-79 period. OLS estimates were used with exports and imports of industries as the dependent variables.	Physical capital, skilled and unskilled labour, economies of scale
Lall (1986)	Export performance of 100 Engineering and 25 Chemical Indian firms during 1978-80. OLS regression used with export to sales as dependent variable.	Size, subsidy, advertising, R & D, Foreign ownership
Lall and Kumar (1981)	Engineering exports of 100 Indian firms for the periods 1966-68 and 1976-78. Dependent variables include export intensity, change in exports and total exports. OLS regression used.	Type of product, profitability, R & D
Auquier (1980)	Exports of 60 French firms using 1963 data. Exports to sales was the dependent variable. OLS estimates were undertaken.	Firm size, product differentiation, tariff protection, Trade with other EC countries
Helleiner (1976)	Imports of US, Canada and other OECD countries from LDCs	Average wage, capital intensity, product differentiation
Goodman and Ceyhun (1976)	US manufacturing exports. Ratio of export growth and export share in sales used as dependent variable. OLS cross section and time series used for the period 1956-68.	Scale economies, industry growth, R & D, human capital

Source: Compiled from various studies.



### **5.3 DEVELOPMENT OF A MODEL FOR BARBADOS**

Economic theory, supported by empirical research, suggests that at least three factors should be considered in an investigation into the export performance of firms. These are; factor endowments, economies of scale, and technological developments. In addition, research also supports the inclusion of other important policy variables such as protection, and the association of firms. The model developed for Barbados is guided by theory, and the findings of empirical research.

Data on the variables used in the model was obtained from the **Trade Policy Survey** which included ALL registered manufacturing enterprises existing in 1998. The survey was conducted by mail followed by telephone interviews and factory visits to obtain missing information or to clarify responses. The methodology used precluded the use of questions which were complex in nature, and which would therefore result in inaccurate responses or no responses.

#### *5.3.1 Dependent Variable*

##### *5.3.1.1 Export Performance*

Export performance of firms is measured by the commonly used ratio of firm exports to total firm sales (**EXPFSAL**)<sup>1</sup>. Defined in this way, the investigation will seek to determine the factors which influence the export intensity of firms. No data was available to test Barbados' share of world exports by industry, nor the industry share of total Barbados exports. The survey from which data for this analysis is taken, focussed on firms and not industries.

The results of the survey were biased in favour of exporting firms. This is another reason for using the export intensity variable. The study could not address the



issue of the propensity (or probability) of firms to export given the preponderance of exporting firms in the data set.

### 5.3.2 *Explanatory Variables*

#### 5.3.2.1 *Factor Inputs*

The characteristics of Barbados - a small developing economy - including the size of its labour force, its population and population density, make it relatively abundant in the supply of labour. Following the H-O-S model, it is expected that Barbados will export goods which are relatively labour intensive. A measure of factor input intensity is included in the model. The variable (**CAPWORK**), is defined as the ratio of the value of capital in use by the firm to the number of workers in that firm. It is expected that there will be a negative relationship between export performance and **CAPWORK**.

#### 5.3.2.2 *Economies of Scale*

The economies of scale variable can be measured by sales of the firm or number of employees. Stigler (1968) recommended that firm size should be measured by sales in a product market, by employees in a labour market, by materials in a materials market, and by assets in a capital market. This would suggest that, in terms of determining the affect of size on export performance, firm sales are the more appropriate measure.

Some studies have found that there is a non-linear relationship between firm size and export performance (Patibandla, 1995; Kumar and Siddharthan, 1994). It is expected that in the case of Barbados a certain "critical mass" must be reached before exporting becomes possible or even feasible. The relationship between firm size and export performance is therefore expected to be U-shaped. Firm size **FSALE**, and its quadratic form (**FSALE<sup>2</sup>**) are therefore included in the model.

### 5.3.2.3 *Technology*

As noted in the literature review, most research attempts to measure technology in use in a firm through inclusion of such variables as R&D expenditure, patents registered or highly qualified or scientific staff to total staff complement. In the case of Barbados, formal R&D expenditures are unlikely to be a good measure, given the small size of firm. As noted earlier, R&D in small firms without an R&D department may be informal and difficult to measure. In the case of patents, only one local patent was registered in Barbados in the last twenty years. This proxy for technology is therefore not a good measure of R&D for firms in Barbados.

The measurement of technology based on a differentiation of technical and non-technical staff is also likely to pose problems in the case of small firms where the production process is not well structured, and staff work across production areas. In addition, given the objective of keeping the questionnaire simple, no questions were included which would require the respondent to distinguish between different grades of staff (for example, scientific and production personnel).

A narrow definition of technology is adopted. The use of the new internet technology in business was employed as a measure of the firms inclination to incorporate the most up-to-date human and capital technology. The dummy variable **TECH1** measures the use of internet technology by the firm. It takes the value of 1 if management personnel in the firm have access to the internet and 0 otherwise. Given that the internet can now be considered as a follower technology, a positive relationship is expected between export performance and **TECH1**.

### 5.3.2.4 *Other Factors*

Beyond factor endowments, technology and economies of scale factors, a number of studies including Kumar and Siddharthan (1994) and Goodman and Ceyhum (1976) found that government policies and business strategies can



affect the export performance of firms. Based on government policies in Barbados and a number of reports on factors affecting the manufacturing sector including Maxwell Stamp Plc (1991) and the IADB (1989), four other factors are investigated. These are trade preferences, wage costs, the association of firms, and protection to domestic businesses.

#### *5.3.2.4.1 Trade Preferences*

A number of studies, most notably the Commonwealth Secretariat/ World Bank Study (2000) stressed that trade preferences are important to the export performance of Barbados and other small economies. A variable will therefore be included in the model to test for the significance of preferential trade in determining the export performance of firms. Although none of the studies examined includes preferences as an independent variable, support for its inclusion comes from the work of Helleiner (1976) who argued that trade barriers are an important factor influencing the export performance of firms. In examining the factors determining the export performance of developing countries to the USA, the study used import shares into the USA as the dependent variable, to overcome the “noise” created by differential trade barriers. In as much as preferences reduce or eliminate tariffs (although largely leaving non-tariff barriers intact) they reduce some of the “noise” referred to in Helleiner (1976).

A dummy variable (**PREFALL**) will be included in the model. The variable will take the value of 1 if exports of the firm receive preferences and 0 otherwise. It is expected that the variable will be positive. This variable is positive for 72 firms or 61.5% of firms in the sample. Not all the products of these firms benefit from preferences. As noted in Chapter 3 approximately 75.1% of exports from firms benefit from preferences.



#### 5.3.2.4.2 *Wage Costs*

There is a general view in Barbados that labour costs are a major factor contributing to the uncompetitiveness of the economy. Included in this view is an argument that for the manufacturing sector the impact of labour costs is particularly acute, and that high labour costs are contributing to the decline of the sector. Given the current liberalisation of the economy, it is argued that these costs will negatively affect the sector. This view is supported by international lending agencies such as the International Monetary Fund, and the World Bank and the Inter-American Development Bank which routinely argue that productivity is lagging behind wage costs (Chapter 3).

To investigate this school of thought, a variable to represent wage cost was included in the model. The variable **WAGSAL** is the share of wages in sales of the firm. The higher the share of wages in sales of the firm, the less profitable the firm will be and the less likelihood that it will be competitive on the export market. It is expected that there will be a negative relationship between **WAGSAL** and export performance.

The negative sign expected for **CAPWORK** which anticipates that labour skills will have a positive influence on Barbados' export performance and the negative expected sign for **WAGSAL** which anticipates that labour costs will have a negative impact on export performance require further comment. Together, these results would indicate that while Barbados' exports are relatively labour intensive, high wage costs can militate against export competitiveness and performance. They would also suggest that Barbados' export performance depends on the production of goods from labour intensive low wage industries. This hypothesis is consistent with the long-standing views of international institutions and Barbados' industrial strategy. The IDB (1989) notes that:

*“ Given Barbados’ limited resource, the small size of the domestic market, and the relative abundance of labor, the prospects for development of the manufacturing industry largely depend on its performance in the export of labor-intensive products” (IBD, 1989 p.9).*

The report goes on to note that increasing wage cost erodes Barbados’ export competitiveness, and such costs should be contained. Traditionally, Barbados’ industrial strategy has focussed on employment generation in the manufacturing sector (Government of Barbados Development Plans 1983 –2000). This strategy was reinforced by the incentives offered to the sector. Indeed those incentives heavily favoured firms based on the level of employment (Fiscal Incentives Act 1974). Given that deliberate policy, Barbados has tended to attract firms employing large numbers of workers. At the same time, government has resisted lobbying efforts of trade unions to enact minimum wage legislation. It has noted that this could increase the cost of production and retard export growth.

#### *5.3.2.4.3 Association of Firms*

According to the Commonwealth Secretariat/World Bank (2000) report on small states, one of the strategies which firms in these states should adopt to overcome the limitation of small size is to form strategic alliances. At the level of empirical research, Kumar and Siddharthan (1994) and Lall (1986) found a positive relationship between firm size and export performance. Given these considerations, the relationship between the association of firms in Barbados with international firms will be investigated. The variable included in the model, **ASSOC** is a dummy variable which takes the value of 1 if the firm has a joint venture, joint marketing or franchise arrangement with foreign firm(s), and 0 otherwise.



#### **5.3.2.4.4      *Protection on the Local Market***

The Maxwell Stamp (1991) and other studies (Chapter 2) have argued that tariff and principally non-tariff barriers create an anti-export bias in Barbados' trade policy regime which encourages firms to produce for the domestic rather than the export market. The impact of tariffs on export performance will be investigated. The variable (**TAR**) measures tariff protection on the domestic market, and is the percentage of products produced by each firm which attract the maximum CARICOM common external tariff (CET). A negative relationship is expected between export performance and tariff protection.

#### **5.3.2.4.5      *Protection on Export Markets***

Several studies including UNCTAD (1998), and Onguglo (2000) have suggested that some goods in which developing countries have a comparative advantage are excluded from preferential arrangements or face significant non-tariff barriers. The non-tariff barriers include high rules of origin criteria (normally wholly produced or produced from primary materials), sanitary and phyto-sanitary measures, and product standards. As indicated earlier, none of the arrangements contain broad provisions on how non-tariff barriers are to be minimised or eliminated. The existence of these barriers, impact negatively on the capability of developing countries to maximise the tariff preferences offered. A variable will be included to assess the impact of these embedded preference restrictions on export performance. The variable **EPR**, takes the value of 1 if any product produced by the firm is excluded under the provisions of any of the arrangements, or the rules of origin criteria which require that the product be wholly produced or produced from primary materials. The variable takes a value of 0 otherwise.



### 5.3.3 *Model Specification and Data*

The specification of the model and the expected signs are as follows:

$$\begin{aligned}
 EXPFSAL_i = & \beta_0 + \beta_1 CAPWORK_i + \beta_2 FSALE_i + \beta_3 (FSALE_i)^2 + \beta_4 TECH1_i \\
 & + \beta_5 WAGSAL_i + \beta_6 PREFALL_i + \beta_7 ASSOC_i \\
 & + \beta_8 TAR_i + \beta_9 EPR_i + e_i \qquad (5.1)
 \end{aligned}$$

Where the coefficients  $\beta_3$ ,  $\beta_4$ ,  $\beta_6$ , and  $\beta_7$  are expected to be positive, and  $\beta_1$ ,  $\beta_2$ ,  $\beta_5$ ,  $\beta_8$ ,  $\beta_9$ , negative, and where:

- EXPFSAL<sub>*i*</sub> = the ratio of export sales to total sales of firm *i* ;
- CAPWORK<sub>*i*</sub> = the ratio of the value of capital employed in firm *i*, to the number of workers in firm *i* ;
- FSALE<sub>*i*</sub> = the value of sales of firm *i* ;
- (FSALE<sub>*i*</sub>)<sup>2</sup> = the squared of the value of sales of firm *i* ;
- TECH1<sub>*i*</sub> = a dummy variable which takes the value of 1 if management personnel in firm *i* have access to the internet to conduct business, and 0 otherwise;
- WAGSAL<sub>*i*</sub> = the share of wages in sales for firm *i* ;
- PREFALL<sub>*i*</sub> = a dummy variable which takes the value of 1 if firm *i* benefits from trade preferences, and 0 otherwise;
- ASSOC<sub>*i*</sub> = a dummy variable which takes the value of 1 if firm *i* has external association and 0 otherwise;
- TAR<sub>*i*</sub> = the percentage of products produced by firm *i*, which attract the maximum CARICOM Tariff rate;
- EPR<sub>*i*</sub> = a dummy variable which takes the value of 1 if goods produced by firm *i* are excluded from preferential trade arrangements, if the rules of origin require the good to be wholly produced or produced from base materials, or are

classified as being sensitive by a preference giving country, otherwise 0; and

$e_i$  = error term.

#### 5.4 ECONOMETRIC ANALYSIS

The data used in the analysis was obtained from a survey of manufacturing enterprises in Barbados based on their 1997 performance. Survey responses are highlighted in Chapters 2, 3 and Appendix 3. As discussed in the appendix, the responses are representative of the population over firms and employment in manufacturing sub-sectors.

Tables 5.2 and 5.3 show some characteristics of the variables used in the analysis.

**TABLE 5.2  
DESCRIPTION OF VARIABLES**

VARIABLE	MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION	MINIMUM	MAXIMUM
EXPFSAL	20.83061	28.50675	1.368503	0	100
CAPWORK	108961.3	172990.4	1.587631	328.02	975521
FSALE	6364174	9187094	1.443564	26000	48760106
FSALE <sup>2</sup>	1.24E+08	3.44E+08	2.768134	676E+06	2.38E+09
WAGSAL	0.268752	0.137347	0.511056	2.17E-02	0.63333
TAR	4.162393	3.34022	0.802758	0	100

Table 5.2 shows that variation of data for the variables **WAGSAL** and **TAR** is relatively small. The largest variation is in respect of sales (**FSALE** and **FSALE<sup>2</sup>**) and **CAPWORK** indicating that a wide cross section of companies are

represented in the sample. In the case of **EXPFSAL**, some companies do not export while others (mainly offshore companies) export all of their output. Another feature of the data is that in relation to the variable **TAR**, some companies do not benefit from the maximum CARICOM CET while, for other companies, all of their output is protected by the maximum CET.

Table 5.3 shows a description of the discrete variables used in the model. The data reveals that a large percentage of firms (70.1% and 69.2% respectively) do not have internet technology (**TECH1**) and do not have any form of external association (**ASSOC**). Regarding trade preferences, 61.5% of all firms benefit from (or make use of ) the arrangements.

**TABLE 5.3**  
**DESCRIPTIVE STATISTICS ON DISCRETE VARIABLES**

VARIABLES <sup>a</sup>	POSITIVE RESPONSES <sup>b</sup>	NEGATIVE RESPONSES <sup>c</sup>
TECH1	35 (29.9%)	82 (70.1%)
ASSOC	36 (30.7%)	81 (69.2%)
PREFALL	72 (61.5%)	45 (38.5%)
EPR	89 (76%)	28 (24%)

- a. Data is in relation to all 117 companies in the sample.
- b. Positive responses represent the value of 1 for the dummy variable.
- c. Negative responses represent the value of 0.

Correlation analysis showed that there is a low relationship between the explanatory variables. The highest coefficient value ( $r = .44618$ ) is between the variables **PREFALL** and **EXPFSAL**. The results of test for multicollinearity using auxiliary regressions are reported in Table 5.4. The auxiliary regressions do not suggest that multicollinearity is a problem, as  $R^2(\text{adj})$  are low and the equations are not significant<sup>2</sup>.



**TABLE 5.4**  
**MULTICOLLINEARITY TESTS USING AUXILIARY REGRESSIONS**

	R <sup>2</sup>	F-VALUE
Tar = f( Capwork, Fsale, Tech1, Wagsal, Prefall, Assoc, EPR)	-.05	.19 < F <sub>0.05</sub>
Capwork = f( Tar, Fsale, Tech1, Wagsal, Prefall, Assoc, EPR)	.06	2.16 < F <sub>0.05</sub>
Fsale = f( Capwork, Tar, Tech1, Wagsal, Prefall, Assoc, EPR)	.10	2.09 < F <sub>0.05</sub>
Tech1 = f(Capwork, Fsale, Tar, Wagsal, Prefall, Assoc, EPR)	-.05	.20 < F <sub>0.05</sub>
Wagsal = f(Capwork, Fsale, Tech1, Tar, Prefall, Assoc, EPR)	.06	2.07 < F <sub>0.05</sub>
Prefall = f( Capwork, Fsale, Tech1, Wagsal, Tar, Assoc, EPR)	.05	1.89 < F <sub>0.05</sub>
Assoc = f(Capwork, Fsale, Tech1, Wagsal, Prefall, Tar, EPR)	.05	1.94 < F <sub>0.05</sub>
EPR = f(Capwork, Fsale, Tech1, Wagsal, Prefall, Assoc, Tar, )	-.003	.94 < F <sub>0.05</sub>

F value at 99% level of significance is 2.80

#### 5.4.1 Empirical Results

OLS regression analysis was used to investigate the relationship between firm characteristics and export performance. William Greene's *LIMDEP* was used to estimate the model. The results are in Table 5.5. All variables carry the expected signs and are statistically significant at the 90 percent level or better. The explanatory power of the model is around 30% which is not high. The value is however within the range for similar cross sectional studies. A joint test of all the variables, as measured by the F-ratio, shows that the relationships are significant<sup>3</sup>.

The Breusch-Pagan test indicates that the problem of heteroscedasticity could not be ruled out. The estimated t-values for White's heteroscedasticity-consistent variances and standard errors (see Technical Appendix 4) are therefore reported.

The results show that capital intensity (**CAPWORK**) is significant at the ten percent level, and carries the correct sign. The data used in the analysis is total exports and not exports to a specific country. Some countries to which Barbados export will be more labour intensive than Barbados itself. However, developed and more developed countries are Barbados' major export trading partners.

Indeed, the USA is Barbados' major trading partner accounting for over 15% of exports on average. The results therefore supports the H-O-S or factor endowments theory which suggests that Barbados as a labour intensive country relative to industrial capital intensive countries, would export relatively labour intensive goods. These results suggest that Barbados' competitive advantage is in producing manufactured goods which have a high labour content. The results are in keeping with the findings of Kumar and Siddharthan (1994), and Courakis and Roque (1988) who found capital to be significant in determining the export performance of firms in India and Portugal respectively.

The performance of **WAGSAL** shows that there is a negative relationship between wages costs and export performance. This suggests that increases in wage costs could undermine the competitiveness of the manufacturing sector as suggested by the World Bank and other international agencies.

Together, the negative signs on **CAPWORK** and the **WAGSAL** as expected confirm that although Barbados' exports are labour intensive, Barbados must constrain wage costs, as these cost can negatively impact on export competitiveness.

**FSALE** and **FSALE<sup>2</sup>** are significant at the one percent level. The negative sign of the estimated coefficient of **FSALE**, and the positive sign of the estimated coefficient of **FSALE<sup>2</sup>** show that export intensity declines as firm size increases until "critical mass" level is reached, and the firm is large enough to export. Patibandla (1995) found reported similar results for India. The results are interesting as firms in Barbados are regarded as being small (Commonwealth Secretariat/World Bank, (2000); Bernal (1998)) relative to firms in larger countries. It would appear that scale economies are important for export performance irrespective of the size of the economy in which the firm operates.



Internet technology, because of its wide diffusion to virtually all countries, can be considered to be a follower technology. The coefficient of **TECH1** is significant and indicates that there is a positive relationship between this type of technology and export performance. The findings support the pioneering work of Courakis and Roque (1988) which found that follower technology can be used by countries which are not leaders in the field, to increase export performance.

As expected, there is a positive relationship between export performance and **ASSOC**. This is an indication that firms in Barbados do better in exporting if there is a formal association with a foreign firm which has a marketing or other base in export market(s). The results support the findings of Kumar and Siddharthan (1994), and Willmore (1992).

The negative coefficient of **TAR**, with significance at the ten percent level, indicates that protection on the home market negatively impact on export performance. This result is in keeping with the findings of Willmore (1992), and Conlon (1992). The results also lend support to the findings of studies done on manufacturing by Maxwell Stamp (1991), which suggest that high levels of protection resulted in an anti-export bias in Barbados trade policy regime.

As expected there is a significant positive relationship between trade preferences (**PREFALL**) and export performance, indicating that the existence of preferential arrangements do positively influence Barbados' export performance. The variable **EPR**, is significant with a negative sign, indicating that barriers embedded in preferential trade arrangements such as the exclusion of products from preferential trade arrangements, as well as stringent rules of origin criteria do restrict export under such arrangements. The significance of these two variables is in keeping with views of developing countries, and supported by such institutions as UNCTAD, that protection in developed countries restricts exports of developing countries.



Likelihood ratio tests support the hypothesis that **PREFALL** and **EPR** have an influence on export performance. The result reconfirms the importance of preferences to Barbados' export performance.

A number of questions can be raised regarding the inclusion of some variable in the equation, as well as the use of OLS regression given that some firms do not export. In the case of the first issue, the sales of the firm are used to calculate the export intensity of the firm, as well as being a variable on the right hand side to measure economies of scale of firms. Results (in Column 2 of Table 5.5) show the restricted model with the firm sales variable excluded. The results show that all variables retain their expected sign, and that only **TAR** is not significant.

Regarding the use of OLS regression to estimate the relationships, if the observations of the dependent variable are clustered around zero, then OLS estimates will provide biased estimates of the coefficients. To investigate the importance of this problem, the model has also been estimated using Tobit regression (Gujarati 1995), which is based on maximum likelihood estimation (see Appendix 4). The results of Tobit regression are presented in Table 5.6. The results confirm those obtained by way of OLS estimation. All of the variables carry the expected sign, and again only **TAR** is not significant<sup>4</sup>. The results also confirm, that trade preferences play a role in determining export performance.

**TABLE 5.5**  
**RESULTS OF OLS REGRESSION**

	(1)	(2)	(3)	(4)	(5)
Constant	27.501 (3.204) [3.489]	22.618 (2.633) [2.959]	39.902 (4.238) [4.315]	18.128 (2.433) [2.771]	30.452 (3.789) [4.026]
CAPWORK	-.1960 (-1.439)* [-1.864]++	-.1851 (-1.331)* [-2.108]++	-.2578 (-1.674)** [-2.007]++	-.1609 (-1.172) [-1.459]+	-22.250 (-1.439)* [-1.672]++
FSALE	-.1816 (-2.679)*** [-2.741]+++		-.9122 (-1.220) [-1.253]	-.1962 (-2.865)*** [-2.913]+++	-.10588 (-1.408)* [-1.462]+
FSALE <sup>2</sup>	.4120 (2.330)*** [2.788]+++		.2693 (1.356)* [1.605]+	.4451 (2.488)*** [3.009]+++	.3026 (1.513)* [1.840]++
TECH	9.167 (1.893)** [1.731]++	10.461 (2.121)** [1.895]++	10.613 (1.934)** [1.845]++	9.388 (1.909)** [1.710]++	10.838 (1.953)** [1.825]++
WAGSAL	-34.385 (-2.009)** [-1.906]++	-31.62 (-1.824)** [-1.836]++	-32.5163 (-1.675)** [-1.672]++	-28.392 (-1.657)* [-1.576]+	-26.460 (-1.367)* [-1.361]+
PREFALL	27.354 (5.657)*** [6.588]+++	23.958 (5.080)*** [6.056]+++		27.392 (5.577)*** [6.369]+++	
ASSOC	12.372 (2.447)*** [2.212]++	11.494 (2.266)** [2.123]++	15.3158 (2.684)*** [2.326]+++	11.246 (2.202)** [2.058]++	14.182 (2.471)** [2.185]++
TAR	-.8931 (-1.370)* [-1.529]+	-.7267 (-1.097) [-1.251]	-1.0444 (-1.413)* [-1.576]+	-.9793 (-1.482)* [-1.693]++	-1.131 (-1.517)* [-1.725]++
EPR	-11.197 (-2.102)** [-1.996]++	-12.693 (-2.339)** [-2.108]++	-11.310 (-1.872)** [-1.741]++		
R <sup>2</sup> (adj)	.3039	.270	.1041	.2819	.0835
F	6.63***	7.13***	2.69**	6.69***	2.51**
LL		7.8‡	30.6‡	4.8‡	34.4‡
X <sup>2</sup> (HET)	22.74	28.85	14.26	19.90	11.55

1. Figures in round brackets are t values for traditional OLS regression..
2. For traditional standard errors, significance is as follows: \* = 90%, \*\* = 95%, \*\*\* = 99%
3. For the White corrected standard errors, significance is as follows: + = 90%, ++ = 95%, +++ = 99%
4. LL is a log-likelihood ratio test for zero restriction placed on the coefficients of the variable(s) excluded in each equation. The symbol ‡ indicates that the hypothesis of no influence is rejected.
5. X<sup>2</sup>(HET) is the Breusch-Pagan test for heteroscedasticity.

**TABLE 5.6**  
**RESULTS OF TOBIT REGRESSION**

	(1)	(2)	(3)	(4)	(5)
Constant	3.114 (.259)	-1.913 (-.158)	30.658 (2.392)**	-7.131 (-.670)	20.687 (1.883)**
CAPWORK	-.3018 (-1.473)*	-.2998 (-1.413)*	-.3962 (-1.756)*	-.2823 (-1.345)*	-.3703 (-1.616)*
FSALE	-.1516 (-1.725)**		.1041 (.103)	-.1737 (-1.960)**	-.5893 (-.058)
FSALE <sup>2</sup>	.3397 (1.504)*		.8176 (.309)	.3878 (1.698)**	.1187 (.445)
TECH	10.963 (1.685)**	12.371 (1.867)**	12.9998 (1.739)*	11.523 (1.742)**	13.475 (1.778)**
WAGSAL	-50.6112 (-2.265)**	-48.031 (-2.120)**	-40.1036 (-1.544)*	-45.446 (-2.021)**	-34.174 (-1.314)*
PREFALL	56.349 (7.282)***	54.836 (7.023)***		57.225 (7.238)***	
ASSOC	13.788 (2.077)**	13.480 (2.024)**	19.0869 (2.483)**	13.036 (1.932)**	18.198 (2.341)**
TAR	-1.142 (-1.303)*	-1.0270 (-1.147)	-1.3128 (-1.302)*	-1.220 (-1.368)*	-1.401 (-1.372)*
EPR	-11.835 (-1.616)*	-13.875 (-1.873)**	-11.8491 (-1.425)*		
LL		3.0	62.2‡	2.6	64.2‡

1. Figures in brackets are t values.
2. Significance levels: \* = 90%, \*\* = 95%, \*\*\* = 99%
3. LL is a log-likelihood ratio test for zero restriction placed on the coefficients of variable(s) excluded in each equation. The symbol ‡ indicates that the hypothesis of no influence is rejected.



## **5.5 CONCLUSION**

This study reviewed Barbados' preferential trade performance, and investigated the factors influencing the export performance of firms. The study is the first to empirically test the importance of factor endowments, technology, and scale economies in determining that performance. It is also the first to examine the importance of preferences in determining Barbados' export performance.

The study builds on the discussion of chapters 2 and 3. Those chapters showed that despite some deficiencies with preferential trade arrangements, such as the exclusion of items within the production capability of Barbados and high rules of origin criteria, approximately 80% of Barbados' exports receive preferences in CARICOM markets and in the markets of third countries through non-reciprocal trade arrangements.

Chapter 3 showed that a majority of exporting firms, approximately 91.1%, utilise preferential arrangements. For these firms, an average of 75% of their exports receive preferences. This clearly demonstrates the importance of preferences to Barbados' export performance, and hints to the magnitude of the impact of the withdrawal of such preferences.

In this chapter, an examination of the factors fashioning Barbados' export performance shows that factor endowments in the form of labour to capital stock in the firm, technology in the form of internet availability, and economies of scale factors particularly related to the size of the firm are important in determining export performance. These results are in keeping with those reported in the literature including the studies of Courakis and Roque (1988) and Calof (1994). They also show that business strategies in the form of external association have a positive impact on export performance. This is in keeping with the results of Kumar and Siddharthan (1994), Willmore (1992) and Lall (1986). Wage costs

and government tariff protection also impact on export performance. Conlon, (1992) examined wage cost as a factor proportion variable and found that it was not significant in the case of the exports of firms in Australia, Korea, Singapore and Taiwan. In the case of Barbados however, this study has found that there is evidence that increases in wage costs relative to sales (which are affected by such factors as technology and productivity) can negatively affect export performance. This is in keeping with the view of a number of international organisations including the IMF, World Bank, and IDB. There is also some support for the view, that tariff protection contributes to an anti-export bias in Barbados' trade policy regime, and can lead firms to produce for the domestic rather than the export market. This is in keeping with the findings of Auquier (1980), Milner (1994) and Maxwell Stamp (1997).

The results also show a strong positive relationship between trade preferences and export performance. Trade preferences offered through preferential trade arrangements such as CBI, CARIBCAN, LOMÉ, GSP and CARICOM, are very important in determining export performance. However, restrictions embedded in the various arrangements, do retard exporting under the various arrangements. This result reinforces the view of small economies that preferential trade arrangements are important to their export performance (Chapter 2), and that the elimination of these preferences could negatively impact on firms and on export performance.

### END NOTES

<sup>1</sup> See for example Kumar and Siddharthan (1994), Bonaccorsi (1992), Iall (1986), and Iall and Kumar (1981).

<sup>2</sup> Also, none of the  $R^2(\text{adj})$  from the auxiliary regressions is more significant than in the model (Gujarati, 1995).

<sup>3</sup> A number of alternative models were also investigated, the log transformation of some variables and two alternative definitions of export performance -the ratio of firm exports to sample exports and firm exports to country exports for the period. None of the models performed better than the model presented. In addition, a number of models were estimated with dummy variables to capture industry effects. These variables were not significant and did not alter the sign nor significance of the other variables.

<sup>4</sup> Likelihood ratio tests in both the OLS and Tobit models revealed that the hypothesis that **TAR** has no influence on the models cannot be rejected. The evidence on the influence of domestic tariffs on export performance is therefore not as strong as for other variables. These results are however not inconsistent with the findings of Maxwell Stamp (1991), that quantitative restrictions are the primary source of anti-export bias in the case of Barbados.



## **CHAPTER 6**

### **INTERNATIONAL TRADE AGREEMENTS AND THE SELECTION OF SENSITIVE SECTORS IN BARBADOS**

#### **6.1 INTRODUCTION**

Developing and developed countries alike have over the years used various strategies to protect "sensitive" industries (Salvatore, 1987). While protectionist strategies differ across countries, the intention is always the same - to reduce import competition on the home market for products which may not otherwise be competitive<sup>1</sup>.

The reasons given for protecting domestic industries are wide and varied (Corden, 1987). They include; protection of the economy from the shock of external recessions, sustaining employment and income levels, retaliation against protection in other countries, national security especially in the case of industries producing military apparatus, food security in the case of agriculture, and protection of infant industries.

Trade control measures employed to protect domestic industries are also numerous and varied. The more overt forms of protection are quantitative restrictions and high tariffs. Other forms include, voluntary export restraints, subsidisation of production, establishing complex customs procedures, restrictive government procurement and state trading practices, invoking anti-dumping action and applying countervailing duties, and the use of technical barriers, as well as sanitary and phyto-sanitary measures (Baldwin, 1984).

Political economy models of protection seek to explain why governments grant protection to industries. Early models focused on the lobby theory of protection, which explains the pattern of protection in terms of the lobby strength of domestic

industries (Brock and Magee, 1978; Caves , 1976; Pincus, 1975). A variety of other models have also sought to explain patterns of protection including the adjustment assistance model (Cheh 1974), equity-concern model (Ball 1967 and Baldwin 1982), the status quo model (Lavergne 1983), and the international bargaining model (Helleiner, 1977b). Empirical tests of these models reveal that a number of factors explain the pattern of protection across industries in different countries. In broad terms, those factors include:

*"(a) those related to the state of the domestic or the world economy, exemplified by the behaviour of either output or employment;*

*(b) those related to the competitiveness of domestic production vis-a-vis imports, exemplified by the changes in real rates of exchange or in the trade balance; and*

*(c) those related to the shifts in comparative advantage that affect the whole structure and growth of domestic production, which can be thought to be time related" (Grilli, 1987 p. 318).*

Basri and Hill (1996) note that most of the research on the political economy of protection has focused on developed countries due to the lack of data and the lack of transparency in the decision making process in developing countries. There are therefore outstanding questions as to the factors influencing the pattern of protection in developing countries, and how well models constructed in the context of industrial countries describe the determination of protection in small developing economies.

### *6.1.1 Objectives of the Study*

In preparation for international trade negotiations, the Barbados Government identified a number of sectors which it would negotiate to have excluded from free trade under the new arrangements. This study will examine the factors which influenced government to select the industries chosen. Specifically, it will



investigate the same data set considered by a committee established by government to undertake the identification process. The data included – industry employment, contribution to government tax revenue, import levels, export levels, and past levels of protection.

In addition to the factors proposed by government for consideration by the committee, the local manufacturing sector argued that the issue of "unequal protection" should be considered in selecting the sensitive sectors, as sensitive sectors in developed countries are also highly protected. Based on this argument, manufacturers proposed that any sector which is protected in developed countries should also be protected in Barbados. This issue was also considered by the committee and will be investigated in this study.

The study will be the first to be undertaken on Barbados, and will add to the limited research on trade policy protection issues in developing countries especially in the context of international trade negotiations.

### *6.1.2 Structure of the Study*

The remainder of this study is structured as follows. Section 6.2 reviews the literature on the political economy of protection. In section 6.3 a model of the political economy of protection in Barbados is developed. In section 6.4 econometric analysis is used to estimate the model. Section 6.5, the conclusion, reviews and summarises the findings of the study.

## **6.2 LITERATURE REVIEW**

### *6.2.1 Theoretical Framework*

The political economy of protection had its origins in welfare economics, which is *"concerned with the evaluation of alternative economic situations from the view point of the society's well being"*, (Koutsoyiannis, 1979 p. 525) and the theory of



public choice which can be defined as *"the application of economics to political science"*, (Mueller, 1976 p. 1).

In his contribution to welfare economics, Bergson (1938) suggested a social welfare function similar to the individual's indifference curve to show the utility enjoyed by individuals in different states (e.g. Rich and poor or educated and non-educated) . Samuelson (1956) extended that work to show that community indifference curves could be derived through the distribution of income. The Bergson-Samuelson social welfare function can be written as:

$$W = W (z_1, z_2, \dots, z_n)$$

where  $W$  is a function of all variables ( $z_s$ ) which can affect the social welfare of the individual or community, such as the provision of goods and services (Mueller, 1976). The role of the community is to choose a combination of  $z_s$  which would maximise the social welfare of the community. The Bergson-Samuelson model does not specify how this would be done (Baldwin, 1982). In the case of a democracy, it could be assumed that the elected government would make the value judgment on which combination of  $z_s$  would maximise social welfare (Koutsoyiannis, 1979). Government will then redistribute income continually to reach that state.

In his contribution to public choice theory, Downs (1957) proposed that elected individuals and voters pursue their self interest in the political market place. In terms of trade policy, it is proposed that individual producers (who organise into groups) seek to maximise their welfare by demanding that competing imports on the domestic market be restricted or prohibited. Elected representatives, on the other hand, are the suppliers of protection who seek to maximise their welfare by gaining re-election. Governments will accept or reject a demand for protection based on the number of voters who support or oppose the measure. The earliest

and dominant models explaining the pattern of protection across industries in various countries are based on this concept.

The earliest and two most dominant models which seek to explain import protection patterns - the common-interest or pressure group model, and the adding machine model - build on the public choice hypotheses of Downs. They propose that governments grant protection to industries based on some stimuli. In the case of the former model it is capacity to apply lobbying pressures, while in the latter it is voting strength (Basri and Hill, 1996).

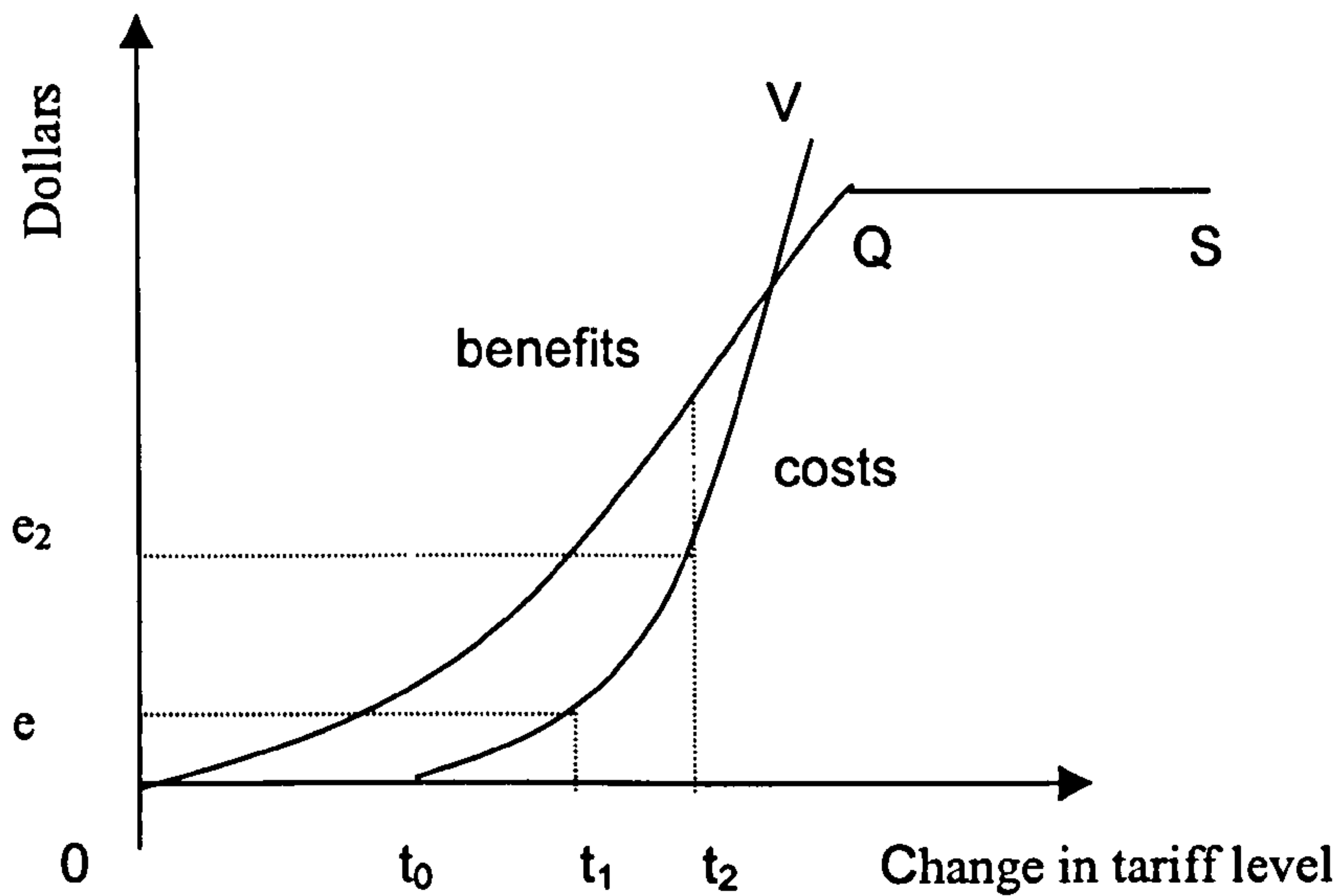
In the common interest model, groups with a common interest are inclined to lobby government for protection. Researchers who contributed to the development of the model, Olson (1965), Pincus (1975), and Brock and Magee (1978), argue that in a democratic country, the actual outcome of protection may not reflect the views of the majority of the country's citizens due to such market imperfections as information asymmetries, and lobbying on the part of interest groups.

Proponents of this model argue that the structure of a country's industrial protection is determined by the forces of demand for and supply of protection. The demand for protection comes from rent seeking interest groups, and the supply of protection is provided by government. In this model, protection is determined by the lobby process with government as the passive player. Whether or not interest groups do actually lobby for protection depend, on the expected gains and costs of the effort. According to this school of thought, interest groups will allocate resources to lobbying where the cost of lobbying is less than the expected gain (Baldwin, 1984).

Baldwin (1982) graphically illustrates the demand for protection (Figure 6.1).  $Ot_0V$  is the cost of lobbying curve. The curve reflects the fact that the higher the level

of protection (tariff) required, the higher will be the costs of lobbying. Baldwin suggests that lobbying funds are used to enable the candidate to both boost his or her popularity, and also to show voters how they will be helped by the protection being requested. The curve starts at the point  $Ot_0$ , reflecting that altruism may result in some protection being granted at zero or negligible costs.

FIGURE 6.1  
BENEFITS AND COSTS OF LOBBYING



The curve  $OQS$  reflects the benefits from tariff protection. These benefits increase until they reach  $Q$ , at which point the tariff becomes prohibitive. The equilibrium in the model is reached where the marginal cost of a tariff increase is equal to the marginal revenue derived by that industry from the tariff increase. In Figure 6.1, that level is at  $e_2$  where the slope of the benefit curve  $OQS$  is equal to the slope of the cost curve  $Ot_0V$ . At this point, the lobbying expenditure of the protection seeking industry is equal to the economic rent or benefit derived from the higher tariff. It is noted that a number of variations can be made to the model.

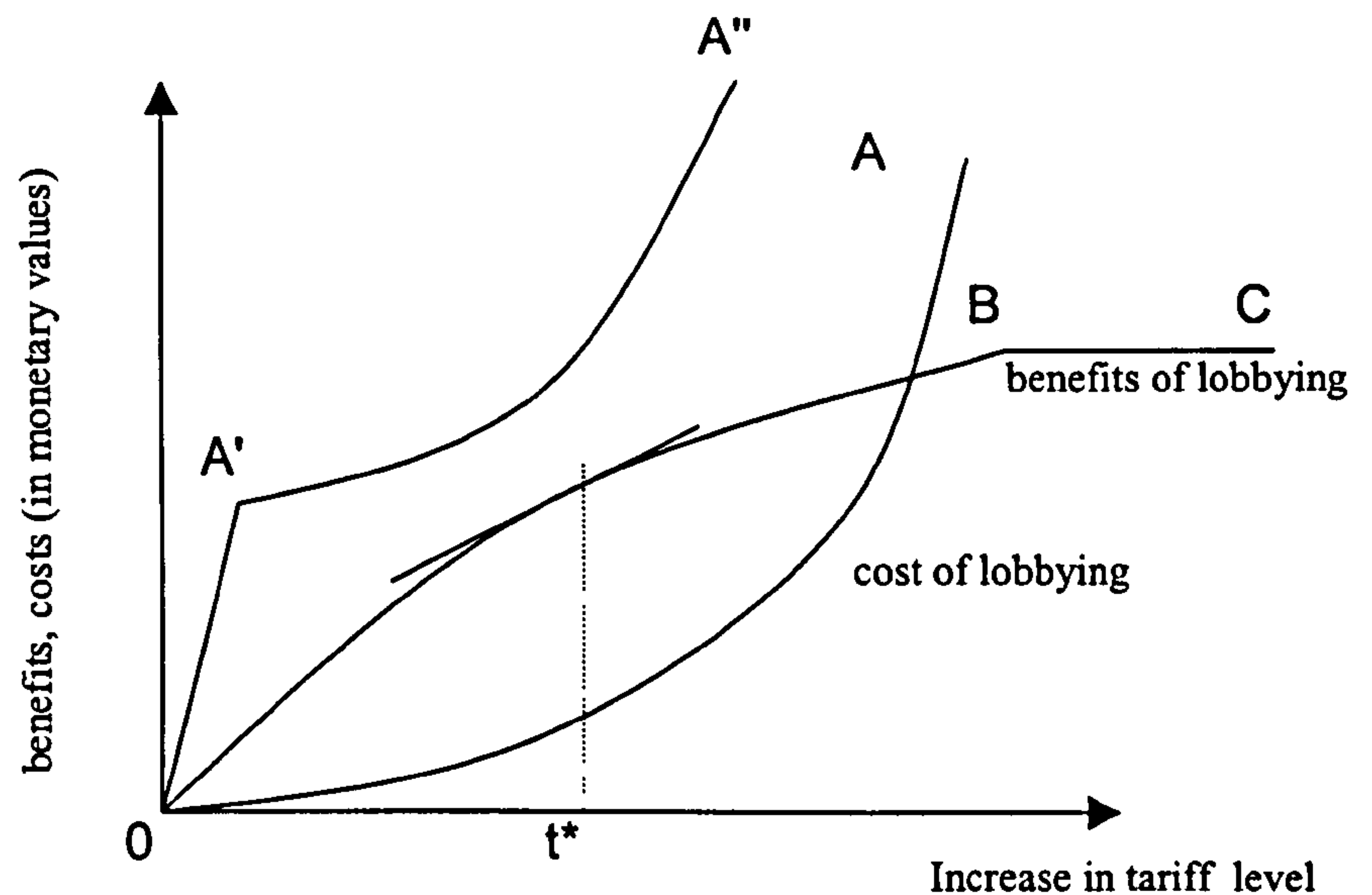


For example, for some industries the cost (voter-support) curve may lie totally above the benefits curve so that no lobbying will occur. Another possibility is that the cost curve may rise more rapidly than the benefits curve.

A variation to the model is made by Frey (1985). The model (Figure 6.2) is similar to the Baldwin (1982) illustration in many respects. The cost of lobby curve  $OA$  reflects the increasing cost of attaining protection. The cost curve will be lower if (a) the economic interests are well organised, (b) the lobbying machinery is efficient, and (c) there is support in society for protection of the industry (as is usually the case in agriculture (Frey, 1985)). Unlike the model of Baldwin (1982), however, the benefits curve  $OBC$  is concave to the origin, indicating that increasing tariffs yield decreasing marginal benefits over a range. Again there is a prohibitive tariff range  $BC$ .

The benefits of lobbying are maximized where marginal benefits are equal to the marginal costs of lobbying. In Figure 6.2 this is at the point  $t^*$ . At this point the slope of the benefits curve  $OBC$  is equal to the slope of the cost curve  $OA$ . At  $t^*$  the benefits to the protection seeking industry are equal to the expenditure of the industry on its lobby campaign for protection. Again, the cost of lobbying can be prohibitive and may lie along the curve  $OA'A''$ . According to Frey (1985), this situation can arise if the economic interests are difficult to organise, or if the group is being organised for the first time.

**FIGURE 6.2**  
**BENEFITS AND COSTS OF LOBBYING**  
**AN ALTERNATIVE MODEL**



Olson (1965) suggests that voluntary formation lobbying or pressure groups is more likely to take place where the group is small or concentrated and therefore better to organise. He pointed out that the free-rider problem undermines the formation of a lobbying group given that it is possible to receive the benefits of lobbying without incurring its costs. Olson (1982) added that that the extent to which the industry is threatened will also determine whether or not a group is organised regardless of its size. A series of repeated shocks, may be necessary before a group pursues protection. It can be expected therefore that there will be a negative relationship between such factors as the growth rate in employment or output and the duty cuts.

In a more recent work supporting the pressure group model, Frey and Weck-Hannemann (1996) suggest that pro-tariff (protection) interests will include mainly import competing producers, firms producing complementary products and supplying inputs to the import-competing firms, workers and trade unions. These groups usually have strong visible evidence of the impact of free trade. Public administrators and technocrats are also important players in formulating protection policies. These bureaucrats argue for protection for their clientele in order to maximise their utility which may be fashioned, among other things, by the prestige, power and influence they enjoy over industries.

The anti-tariff interests will include interests with weak lobbying machinery. The latter will include consumers, domestic exporters, multinational corporations, and domestic firms which purchase their inputs on the local market. The case for free trade made by these groups is generally not as forceful as the pro-tariff groups, given that the benefits of free trade are not as direct, immediate and visible. These groups, especially consumers, do not have as strong an incentive to organise and to lobby effectively. In the case of consumers, this group also includes workers and employees. There may therefore be some divided loyalties.

Groups are likely to form and lobby for protection where three conditions exist. These are, when the group has already been formed for another reason, for example an existing farmers cooperative; when the group gets a specific benefit from being a member of the group, for example agricultural information or crop insurance; and when the group can impose restrictions on free-riders. Frey and Weck-Hanneman (1996) note that those conditions are more likely to exist on the producer than the consumer side.

Like the common interest model, the adding machine model (Caves, 1976) sees protection as being the outcome of the interaction of demand and supply forces.



Again, this model views government as an institution which responds to requests for protection.

The model postulates that consumers are weakly organised because of a lack of knowledge and the high cost of forming a pressure group. As a result producers are the main players in lobbying for protection. The distinction between this model and the common interest model is that it does not focus on the incentives which groups have for organising to request protection (it is assumed that producers will organise). The model proposes that voting strength determines protection. The model also proposes, that the voting strength of an industry will increase the higher its labour content, decentralisation or geographical dispersion. On the supply side governments seek to secure their re-election through increasing popularity with voters. It will therefore positively respond to calls for protection if it appears that such a policy will improve the chances of re-election.

The theory on the demand for protection as developed by Olson (1965) is likely to be relevant to Barbados given the process for the determination of protection. Firms and industries frequently organise and lobby government for protection. They also organise to lobby for the exclusion of multinational firms from being established in the island which could compete with local producers and distributors. On the other hand, there are no strong consumer groups which oppose protection. On the supply side, political representatives make the final determination of protection therefore the number of votes to be gained or loss from granting protection are likely to feature in any decision by government. In this case, the adding-machine model (Caves, 1976) could also have some applicability in the Barbados context. Given the small size of the country however, decentralisation and geographical dispersion are not likely to be factors influencing the voting strength of an industry. Labour content is however likely to be very important.

## 6.2.2 *Empirical Research of Models*

### 6.2.2.1 *Interest Group Model*

Pincus (1975), like Olson (1965), acknowledges that free-riders could be a problem to lobbying efforts. He noted, however, that that problem would disappear in the case of a monopoly. In his seminal paper, Pincus proposed two hypotheses about the ratio of collective effort to collective benefit. It is first proposed that the fewer the individuals who benefit, and the more concentrated the benefits, then the larger will be ratio of group effort to the effects of the duty. Secondly, the intensity of pressure group activity will depend on geographical location. He reasoned that an industry's lobbying efforts will be greater the more geographically concentrated the industry, since coordination and monitoring are more effectively undertaken.

To test his hypothesis, Pincus used a number of economic and political variables to explain nominal duties applied under the United States Tariff Act of 1824. The variables included; output, the number of establishments (as potential pressure groups), input duties, the income of proprietors, industrial concentration, sales dispersion, country dispersion, and congressional representation. The OLS results showed that the most intense pressure for protection came from industries with lower proprietary incomes, with higher industrial concentration of output and therefore concentrated tariff benefits, and with fewer problems of communication due to geographical dispersion.

### 6.2.2.2 *Adding Machine Model*

Caves (1976), who first introduced the adding machine model, compared how this model as well as the interest-group model and a national policy model explained Canadian tariff rates in place in 1963. In the case of the adding-machine model, five variables are used to explain tariff levels:



- Value added per-worker: - where it is expected that the lower the value added per worker, the more workers will benefit from tariff protection.
- Seller concentration: - percentage shipments for the four largest firms in the industry, which is expected to be negatively related to tariffs, given that the more concentrated the industry (or the less diversified the industry), the less weight voters will have on the political process.
- Shipping costs: - where it is expected that the higher the shipping costs the greater will be the dispersion of the industry, and therefore the greater will be the voter strength.
- Minimum efficient scale: - which is defined as shipments per plant by the Canadian industry in 1967, expressed in units of average shipments per plant in the corresponding US industry for the same year. The reason for the inclusion of this variable is that granting protection will secure more votes where the home market can sustain a large number of efficient scale plants earning more than the opportunity cost of their factors of production.
- The percentage of employees located outside Quebec and Ontario in 1963: - again this is a measure of dispersion and it is expected that the higher the dispersion, the higher will be voters strength. A positive relationship is therefore expected.

As discussed earlier, the interest-group model proposes that tariff levels are the outcome of rent seeking activity lobbying for protection based on the cost and expected benefits of the protection. The model used by Caves expects the following; (1) a positive relationship is predicted between seller concentration and tariff levels due to better organisation and the free-rider problem which is more likely to exist if industries are more dispersed; (2) a negative relationship between minimum efficient scale production and tariffs, as there are likely to be



free-riding small firms; (3) a negative relationship between tariffs and value added per worker, since an industry can make a stronger case for equity when it employs a large number of low-skilled and low wage workers; (4) a negative relationship between transport costs and tariffs given that an industry can more readily make a case for protection if it does not enjoy protection from high transport costs; (5) a negative relationship between buyer concentration and tariffs, given that industries which purchase the output of other industries will oppose protection for sellers; (6) a negative relationship with industrial growth as shocks to an industry will encourage firms to unite and lobby for protection; and (7) negative with diversification, as an industry is more vulnerable to import competition and other disturbances when its industries are not diversified.

The national policy model proposes that the collective national preferences, as represented by government, are determined by national priorities and goals - for example, the goal of industrialisation. The question investigated by Caves (1976) is whether national preferences extend to protection and to the level of determining the mix of manufacturing industries. Seven variables were used to test the national policy model in the context of Canadian tariff levels:

- Relative productivity (with the USA): - Tariffs are applied to offset productivity advantages.
- Value added per-worker: - An industry intensive in physical and human capital with high value added per worker contributes more to national esteem than a low-skill labour industry therefore a positive relationship is expected.
- Job content: - National preferences favour industries with a relatively high-middle class content.
- Depth of industrial processes: - Industries with deeper levels of processing are more favoured and given more protection than simple assembly.

- Industry growth: - Industries with high growth potential should be more favoured than those with low growth potential.
- Economies of scale: - Modern industries benefiting from economies of scale are probably more attractive than small-scale industries because of national esteem in large industries.
- Location: - National policies favour industries located in the cities of Quebec and Ontario.

Caves used cross section data on Canadian tariffs for 1963 and tested the three models in explaining the pattern both nominal and effective tariffs. The results across all of the models were weak overall. Most of the variables were either not significant or carried the unexpected sign. Industrial concentration was consistent with both the adding machine and interest group models. Transportation costs and minimum efficient scale production favoured the interest group model. The geographical location variable was the only one which favoured the national policy model. Caves concluded that the interest group model had the greatest explanatory power. The depth of industrial process was significant in relation to explaining effective protection but not nominal protection, giving some support for the view that political bargains are made over effective protection.

### 6.2.2.3 *Adjustment Assistance Model*

The adjustment assistance model proposes that governments seek to minimize short-run labour adjustment costs in deciding on tariff cuts during international trade negotiations, or taking safeguard action under such agreements (Cheh, 1974). Such factors as the percentage of unskilled workers in the industry, the percentage of workers over 45 and the proportion of workers in rural areas are considered in determining the capacity of workers to adjust to changes in the industry.



Although not directly investigating the adjustment assistance model, the findings of Anderson (1980) supported the model. The study, which examined the effective rates of assistance to Australian Manufacturing industries for the 1968 to 1969 and the 1977 to 1978 periods, used both demand and supply factors representing both economic and political considerations.

It was expected that the demand for protection would be higher, the more labour intensive the industry, the smaller the value added share in output, the higher the decline in employment, and the lower the average wage per employee. The higher the import penetration, the greater should be the assistance to industries. The smaller the number of firms in the industry, the better organised for lobbying the industry should be and therefore the higher the level of protection.

The supply of protection is based on the objective of government to be re-elected. In making a determination of protection for an industry, government will consider such factors as loss of votes and loss of party contributions. It is more likely therefore to protect industries that are owned by party supporters and to defend such protection on welfare grounds. The arguments will be even more convincing if the industry has such characteristics as a large number of employees, low average wages, and does not benefit from such natural protection as high transportation costs. Government is also likely to protect import competing industries which, presumably, will more be affected by free trade, than exporting or non-tradable industries.

In keeping with the adjustment assistance model, the main conclusions of Anderson (1980) were, that labour intensive low wage industries with low value added shares of output are mostly highly protected. It also found that industries with fewer firms and having a larger number of employees tend to be assisted more, and that exporting firms and non-tradable manufacturing industries tended to be protected less.



#### 6.2.2.4 *Equity-Concern Model*

Ball (1967) investigated the relationship between protection and wages of workers. Using rank correlation between 1962 US effective tariffs and the characteristics of 31 US industries, Ball concluded that US tariffs afforded higher effective protection to lower wage industries and less effective protection to high wage industries. As high wages are associated with higher skill, by extension, US tariffs protected industries using relatively higher proportions of unskilled labour.

#### 6.2.2.5 *Comparative-Costs Model*

The comparative cost model proposes that government will seek to protect industries which are at a cost disadvantage vis-a-vis other countries. It is therefore expected that in international negotiations to reduce tariffs, duty cuts will be low in industries which are at a cost disadvantage. Ray (1981) was among the first to use this model. The variables used were designed to reflect the elasticity of demand and supply for the product, comparative advantage for the products as measured by such variables as the percentage of scientists and engineers in research and development, and the percentage of skilled workers in the workforce. Changes in the supply and demand for the products produced by the industry and geographical concentration were also included.

The study found that both tariff and non-tariff restrictions are applied predominantly in industries in which the USA has a comparative disadvantage.

#### 6.2.2.6 *International-Bargaining Model*

The international-bargaining model which is attributed to Helleiner (1977b) examined protection in the context of developed and developing countries. The model proposes that in international trade negotiations, governments will reduce tariffs and other trade barriers in exchange for other countries making similar concessions. Developing countries do not have much with which to bargain. In addition, they generally receive special and differential treatment under Part IV of

the GATT. As the exports of these countries provide competition for industries in developed countries, especially in unskilled areas, tariff cuts in multilateral negotiations on products produced by these countries are not as deep as for industrial countries.

To test the model, Helleiner regressed a number of industry characteristics on Canadian nominal and effective protection rates for the years 1961 and 1970. These dates represented the period before and after the Kennedy Round of GATT multilateral trade negotiations. The variables used by Helleiner included; (1) average wage which is expected to be negatively related to tariff rates; (2) non-wage income which is expected to be negatively related to tariff levels; (3) aggregate value added per worker which should be negative; (4) scale economy, which in accordance with Caves (1976) is expected to be positively related to tariff levels; (5) market concentration, which is expected to be positively related to protection; (6) the proportion of work force employed in small establishments which should be positively related to tariff levels; and (7) the natural resource intensity of industries the sign of which is ambiguous, as developing countries do export natural resource products and should attract high tariffs. On the other hand, Canadian resource intensive export industries may not need protection.

The study found that unskilled labour intensity was by far the most significant explanatory variable in the Canadian tariff structure. This implied that domestic demand for protection from industries using unskilled labour, as well as international political bargaining were important factors. Relatively small tariff reductions seem to be associated with a low degree of market concentration, a low degree of resource intensity, and a large number of smaller firms.

6.2.2.7 *Status Quo Model*

In this model, the objective of maintaining the status quo is of primary importance to government. To test the importance of historical influences for the United States, Lavergne (1983) used the tariff levels for 300 manufacturing industries that were set in 1930. He tested a number of influences including lobbying pressures, minimisation of displacement costs, the comparative advantage of the industry relative to foreign competition, international bargaining, and maintenance of historical continuity. His estimates revealed that the most important factor influencing the setting of tariffs was conservatism or maintaining the status quo.

Table 6.1 provides a summary of the industry characteristics which are investigated by the various models.



**TABLE 6.1**  
**EXPECTED AND ACTUAL RELATIONSHIPS FOR KEY INDUSTRY**  
**CHARACTERISTICS**

INDUSTRY VARIABLES	VARIOUS MODELS (EXPECTED RELATIONSHIPS)							EMPIRICAL RESULTS
	PRESSURE GROUP	ADDING MACHINE	ADJUSTMENT ASSISTANCE	EQUITY CONCERN	COMPARATIVE COSTS	INTERNATIONAL BARGAINING	STATUS QUO	
1. Seller and geographic density ratios	positive	negative						positive and negative
2. Number of firms	negative							negative <sup>1</sup>
3. Growth rate	negative		negative					Negative
4. Extent of foreign investment	negative							positive <sup>1</sup>
5. Extent of sales to other industries								negative <sup>1</sup>
6. Number of workers		positive						positive <sup>1</sup>
7. Labour output coefficient		positive	positive	positive				positive <sup>1</sup>
8. Proportion of unskilled workers			positive	positive	positive			positive <sup>1</sup>
9. Age of workers			positive		positive			positive <sup>1</sup>
10. Proportion in rural areas			positive					positive <sup>1</sup>
11. Average wage			negative	negative	negative			negative <sup>1</sup>
12. Import penetration					positive			positive <sup>1</sup>
13. Extent of imports from LDCs						positive		positive <sup>1</sup>
14. Historical level of protection							positive	positive <sup>1</sup>

Source: Adapted from Baldwin (1984)

1. Indicates the relationship is usually statistically significant at the 10 percent level or better.

### 6.2.3 *Outstanding Issues*

The models described above are not mutually exclusive, as it is possible that protection can be the outcome of a number of different factors (Table 6.1). The table draws attention to the fact that some of the industry characteristics are common to a number of different models, and that in some cases, no clear distinction can be drawn between the various hypotheses.

At least three issues can be raised regarding studies on the determination of trade protection. The first is, that these studies mainly research factors determining tariff levels. However, tariffs are only one of the instruments which government use for the protection of an industry. In light of its international trade obligations, a country may set a low tariff on imports of a competing good while for example using sanitary and phyto-sanitary regulations to protect the domestic industry. The second issue regarding studies on the political economy of protection is that the work has focused almost exclusively on developed countries. Few studies have been undertaken on developing countries, and little is known of the applicability of which political economy of protection models best describes the process in developing countries. The third issue relates to the administration of protection. Most political economy models either do not consider the administrative process for formulating protection policies, or assume " *a homogeneous government, capable of assessing the trade-offs among the demands made by particular groups of economic constituents*" (Carmichael, 1989 p. 343). Across countries the process of determining the sensitivity of industries differ however, and within a country many different processes may be used in formulating a protection policy.

Regarding the first issue, Baldwin (1984) highlighted that if subsidies or quotas are substitutes for tariffs, then regression results based on tariffs only would be misleading. He however went on to note that at least for the USA, there is a high

correlation between tariffs and non-tariff barriers indicating that these forms of protection are complements.

One study which examined tariff and non-tariff barriers is Greenaway and Milner (1994). The study examined factors determining the UK's nominal tariffs, effective tariffs and non-tariff barriers. The factors investigated in the study included:

- market power concentration by industry;
- unionisation of the industry;
- geographical concentration;
- industrial specialization;
- the share of industry sales to other industries;
- total employment;
- the employment output ratio of the industry;
- relative wage costs;
- labour skills in the industry;
- the share of imports in the industry;
- export share of the industry; and
- the degree of intra-industry trade.

In explaining nominal and effective tariffs, the study did not find product or labour market power, geographical concentration or product specialisation to be important in explaining the pattern of protection. It however did find support for adjustment cost and comparative advantage influences on the level of protection. The factors included high import share, wage costs, and the industrial intensity of unskilled labour. The overall results for effective protection were similar to those for nominal protection.



In relation to non-tariff barriers, the study concluded that although the results were weaker than for tariffs, they were not inconsistent with those results. The most significant factor determining the level of non-tariff protection was labour skills. The authors concluded that, in the case of the UK, it did not appear that tariff and non-tariff barriers were substitutes. This conclusion supports the view of Baldwin (1984) that there is some correlation between tariff and non-tariff protection.

On the second issue concerning the limited work on developing countries, Basri and Hill (1996) noted that the main focus of the literature to date is on developed countries where data bases are more readily available, and the policy making process is more structured and transparent. In the case of developing countries, far less research has been undertaken on the political economy of protection. They noted however, that it is important to determine whether or not theories developed in industrialised countries are transferable to developing countries. That study examined the factors explaining the intra-industry variation in the effective rate of protection in the Indonesian manufacturing sector in 1991. The variables used in the study included:

- Value added:- as a proxy for industry size where it was expected that the larger the industry size the greater the amount of political influence because of lobbying leverage. A positive relationship was therefore expected with the level of protection.

- Value added per worker:- as a proxy for labour intensity, with the expectation that the more labour intensive the industry the greater will be its voting power and therefore the greater will be the protection granted. However, it is possible that in developing countries which are labour abundant it is the capital intensive industries which may be uneconomic and which may require protection. The sign is therefore ambiguous.

- Number of firms in the industry:- based on the hypothesis that the fewer the number of firms in the industry the better they should be able to organise and lobby, and therefore the higher the level of protection should be. A negative relationship would therefore be expected between the number of firms in the industry and the level of protection. The influence of this variable can however become ambiguous given the influence of industry size and the concentration of firms.

- Share of government in value added:- which was expected to have a positive influence on protection as government would protect industries in which it is involved.

- Share of foreign interests in value added:- which was expected to be positive, as foreign firms often enter the domestic market based on the promise of fiscal incentives and protection.

- Industry concentration:- given that highly concentrated firms are expected to be better organised to lobby for protection.

- Growth rate of output:- as high industry growth suggests the possibility of new entrants, and therefore limited possibilities for organisation. A negative sign was therefore expected.

- Average size of firms in the industry:- based on the hypothesis that the larger the average size of firms, the greater the potential for effective lobbying, and therefore the higher the level of protection.

- A dummy variable to represent industries:- as influential individuals were known to play a major role in some industries. A positive sign was expected.

The study found that the factors influencing the level of effective protection were value added; value added per worker; the share of foreign interests in value added; and the political influence of individuals. The researchers reported that none of the models - interest group model and national interest model - emerged



as clearly explaining protection in the manufacturing sector. However, given the political process in Indonesia, they favoured the interest group model.

Regarding the third issue of the administration of protection, Carmichael (1989) notes that governmental arrangements for deciding on industrial and trade policy issues often tend to involve many institutions. This observation holds in the USA, where both the Department of Commerce and the International Trade Commission are involved in the decision making process (Hansen and Prusa, 1997). Carmichael also notes that decision making bodies maybe narrowly focused with not much consideration of the domestic consequences of specific industry or trade initiatives. Given this, there maybe inconsistencies in the decision making process among the various bodies.

In cases where there is a separation of the political and bureaucratic process, conventional political economy theory may still explain how interest groups influence regulators. Hansen and Prusa (1997) suggests that interest groups influence bureaucrats through politicians. They note:

*" interest groups seek to maximize their wealth by lobbying politicians; politicians seek to maximize their political support from interest groups by delivering interest group pressures to bureaucrats; and bureaucrats seek to maximize agency budgets, subject to politicians' rewards and sanctions". (Hansen and Prusa, 1997 p. 235).*

Hansen and Prusa (1997) investigated decision making by the USA's International Trade Commission. The Commission by law is required to take into account a number of economic factors in determining injury to an industry, including evidence of price undercutting, domestic sales, capacity utilisation, employment, profits, productivity and volume of unfairly traded imports. It is therefore expected that economic factors would be significant in determining the



outcome of anti-dumping and countervailing duties cases. A number of political variables were also included in the model to test for such influences. These included, political representation of industries in Congress, campaign contribution of industries to politicians, industry employment as a national interest factor, industry concentration, and country variables to test for country biases in the protection pattern.

The study found that political party contributions, import market share, and the percentage change in capacity utilization have a positive and significant effect on ITC decisions. It also found some evidence of a country bias in favour of European countries and an industry bias in favour of the steel industry. Another important outcome was that little support was found for the Olson (1965) hypothesis that industry concentration influences the protection of industries. The main conclusion of the study was that both political and economic factors do impact on ITC decisions, although its remit is to be objective.

### **6.3 DEVELOPMENT OF A MODEL FOR BARBADOS**

A number of observations can be made regarding the political economy literature:

- firstly, with respect to lobbying models, not only is a democracy assumed, but also that there is a decision-making process through which individual industries lobby politicians for protection;
- secondly, it is assumed that industries will lobby politicians who are the final decision makers, rather than technocrats who only make recommendations;
- thirdly, technocrats and decision-makers are assumed to have access to and to consider detailed information on industries in reaching decisions about the level of protection to be granted;

- fourthly, many studies seek to explain the determination of protection based on a specific hypothesis such as minimisation of adjustment costs or ensuring equity among different categories of labour; and
- fifthly, the structure and level of protection existing in other countries are not generally investigated<sup>2</sup>. Much of the literature focuses on internal differences across industries.

Regarding these issues, some caveats must be made in the context of Barbados, and in the context of the purpose for which its sensitive lists have been developed - as an initial bargaining position in international trade negotiations.

### *6.3.1 The Political Process*

In Barbados, the political process for selecting sensitive industries is similar to that in which the USA International Trade Commission is charged with making a determination on protection based on economic factors (Hansen and Prusa, 1997). A committee comprising public and private sector interests was charged with selecting sensitive sectors based on a similar number of economic indicators. Private sector representation reflected the entire manufacturing and agricultural sectors and the distribution trade. As noted in Chapter 3, the mandate of the committee was to consider the following factors:

1. WTO regulations that "substantially all trade" must be included in free trade.
2. Economic considerations such as:
  - contribution of the industry to employment;
  - contribution to government revenue;
  - the vulnerability of the industry; and
  - the competitiveness of the industry.
3. Such other considerations as the committee deemed relevant.



The lists of sensitive products were approved by politicians on the recommendation of the committee. In those circumstances, the lobbying theory and the voting strength theory, as defined in the literature, would not directly apply. It can however be assumed that industries lobbied politicians for protection, and that the lists prepared by the committee reflected the lobby and/or voting strength of the industries. If this is assumed, then such factors as industry size, employment, and industry concentration can be interpreted as representing political considerations. This however would not be the ideal approach for estimating political economy variables. To capture political factors, Hansen and Prusa (1997) used industry size. They also used the more precise variables of contributions to political parties, and political representation. Lack of transparency in the case of Barbados means that no data are available in terms of campaign contributions. Political representation or geographical concentration of industries as factors influencing the pattern of protection is less important in Barbados than for the USA, given the relatively small size of the country and the fact that workers in any industry are likely to reside in many voting areas.

### *6.3.2 Role of Technocrats*

The issue highlighted by Frey and Weck-Hannemann (1996), namely that technocrats can play a role in arguing for protection for their respective constituents, is important here. Given WTO rules that no industry be excluded, and that substantially all trade be liberalised, it can be expected that representatives of agriculture and industry would argue for the most protection to be maintained on industries they represent based on national interest factors such as employment, contribution to foreign exchange earnings, and the degree of backward and forward linkages between firms and industries within the economy.



### 6.3.3 *Specific Influences*

Some models discussed above focus on specific influences. It is however likely that in the selection of Barbados' sensitive industries, a number of factors influenced the final decision. It is possible that industries would have lobbied politicians for protection, as discussed earlier, therefore the common interest model should be investigated. It is also possible that technocrats would have argued for protection for their respective industries based on such factors as employment and foreign exchange earnings, therefore national interests models would be relevant. Given the mandate of the committee that the impact of liberalisation on such factors as employment be considered, the adjustment assistance and the equity-concerns issues should also be examined. The status quo model is also relevant, as Barbados has an entrenched pattern of protection, and this is likely to influence future patterns of protection. It is therefore likely that more than one of the models would be appropriate to explain the factors influencing the selection of sensitive sectors in Barbados.

### 6.3.4 *Unequal Protection*

The issue of how protection in other countries influences the pattern of protection has not been emphasised in the political economy literature. This is not surprising as the literature does not focus on protection in the international trade negotiation context. However, the approach by firms in Barbados to such negotiations is not new. Milner and Yoffie (1989) note that the demand for protection by firms may be "strategic". Firms may demand protection for the home market, if foreign markets are protected. They note that "strategic" demands by firms are not easily comprehensible within traditional models of the political economy of trade. The study found that the demand for protection by a number of sectors in the USA was strategic. They also concluded that these demands were more likely to be acted upon than demand for unconditional protection (Chapter 3). In the case of Barbados, the committee was of the view that the concerns of manufacturers had some merit and therefore considered the

issue. An examination was undertaken of tariff levels existing in the USA, Canada and the EU as a guide to protection existing in those countries. It should be noted however, Barbados' position may however be more about the issue of "fairness" rather than being "strategic", since Barbados does not have the international bargaining strength to react in a "strategic" manner in international trade negotiations.

Although the lobbying theories cannot be directly tested, consideration of this issue by the committee confirms that firms lobbied for protection. Whether or not government supplied that protection will be considered in the analysis which follows.

#### *6.3.5 Data Availability*

Many studies utilise micro level data in investigating patterns of protection. Such variables include, value added per worker, share of government in value added, and share of foreign investment in value added. For Barbados, as is the case of most developing countries, this type of detail data is not available. The data on which decisions about protection were made was at a more aggregated level. The data examined by the committee included:

- number of firms in each industry;
- number of products produced by firms;
- employment in each industry;
- imports into each industry;
- domestic exports of each industry;
- government revenue derived from each industry;
- tariff levels existing in Barbados' major export industrialised markets - USA, EU and Canada; and
- protection offered to industry in previous time periods.



The data on trade flows were at a higher level of dis-aggregation than for other variables. The issue of double counting was a problem in respect of the number of firms in each industry, and the number of persons employed to produce a particular product within a firm.

For this analysis in this paper, an industry (sector) was defined at the two digit level of the Barbados Customs Tariff. This classification has a number of advantages. First, trade statistics, trade tariffs and the products of industries are categorised according to the HS classification, therefore comparisons can be more easily made. Secondly, the WTO classification of agricultural and other products is based on the HS classification, and it is likely that the new trade agreements would follow the same system. Thirdly, this relatively broad two digit classification reduced the problem of double counting. The problem of double counting occur because firms produce more than one product and therefore can be classified as falling into more than one industry depending on how broadly an industry is defined. A detailed classification (for example at the six digit level) would increase the problem of double counting across the various industries. The problem of double counting is also relevant in respect of employment. Those firms which produce different products often employ the same persons in different production processes. It is often therefore not possible to accurately count the number of persons employed in making different products at a very detailed level.

Where available, data at the firm level was also considered by the committee. Data on the agricultural sector at the level of the production unit and employment were not available given the large number of unregistered units. These were therefore excluded from this analysis. Excluding agricultural production and non-manufacturing activities, a total of 92 sectors were included in the analysis<sup>3</sup>.



In terms of the characteristics of firms, no data on the backward and forward linkages of industries were available. In these areas, the influence of technocrats and the lobbying efforts of the private sector weighed heavily on the decision making process. That influence is difficult to disaggregate.

#### 6.3.6 *The Model*

The model to be used in this study will test how well political economy models of protection explain the selection of sensitive sectors in Barbados, using data to proxy the various theories developed in the literature.

Similar interpretations can be applied to the data as those developed in the literature:

- Based on national interests, it can be expected that both politicians and technocrats would support protection for industries which employ large numbers of persons or comprise a large number of firms. This will be in an effort to minimise the adjustment costs on the economy as a result of tariff reductions undertaken under the provisions of the agreements. A positive relationship is therefore expected between the selection of the industry as being sensitive, the number of firms in the industry, and employment in the industry.
- Trade shares provide some indication of the competitive position of the industry. Industries with greater levels of import competition can be regarded as being more vulnerable than industries faced with less competition. On the export side, industries with greater levels of exports would be seen as being more competitive than industries with less exports. A positive relationship is therefore expected between import levels, and protection, and a negative relationship between exports and protection.
- In the case of Barbados, government revenue derived from trade taxes is only 8% of total government revenue. However, for national

interest reasons, sectors which contribute substantially to government revenue are still likely to be regarded as being sensitive given that other sources would have to be identified to replace revenue loss as a result of free trade. A positive relationship is therefore expected between revenue and industry sensitivity.

- As identified in the status quo model, a good place to start in the determination of future protection is the historical pattern of protection. In the case of Barbados, the historical pattern of both tariff and non-tariff protection was considered in selecting sensitive sectors. It is expected that historical patterns of both tariff and non-tariff protection would positively influence the selection process. A positive relationship is expected between sensitivity and the existing level of tariff and non-tariff protection.
- Protection offered to similar industries in other markets, particularly in industrialised countries is expected to influence the selection of sensitive sectors in Barbados. This protection can be either in the form of tariff or non-tariff barriers. The basic data considered by the committee was applied to tariff levels of the United States, the European Union, and Canada. It is expected that government will seek to ensure that local production is not disadvantaged by way of high tariff barriers in export markets, while at the same time experiencing high import competition on the domestic market due to low domestic tariffs. A positive relationship between tariff levels in developed trading partners, and industry protection in Barbados is therefore expected.

It is therefore expected that the following will be the case with respect to how the various factors influenced the decision of that committee: (1) the larger the number of persons employed in the industry, the greater the number of firms in



the industry, or higher the level of taxes collected from the industry, the more sensitive the committee would have considered the industry to be, given a concern to minimize any negative impact on the economy through the closure of industries, the loss of jobs or the loss of revenue; (2) industries experiencing a relative high level of import penetration would have been regarded as being vulnerable and therefore requiring some level of protection; (3) industries with relatively high levels of exports would have been regarded as being competitive, and therefore requiring less protection; (4) industries which formerly benefited from protection either by tariffs or quantitative restrictions would need some level of continued protection in order to transition to open trade; and (5) industries which enjoy relatively high levels of protection in the markets of Barbados' major trading partners should also be protected in Barbados in order to avoid being disadvantaged in open trade.

The specification of the model to be tested is:

$$\begin{aligned}
 SEN_i = & \delta_0 + \delta_1 EMP_i + \delta_2 FIRM_i + \delta_3 TAX_i + \delta_4 IMPS_i \\
 & + \delta_5 EXPS_i + \delta_6 USTAR_i + \delta_7 CANTAR_i + \delta_8 EUTAR_i \\
 & + \delta_9 BARTAR_i + \delta_{10} FORPRO_i + e_i \quad (6.1)
 \end{aligned}$$

Where the coefficients  $\delta_1$ ,  $\delta_2$ ,  $\delta_3$ ,  $\delta_4$ ,  $\delta_6$ ,  $\delta_7$ ,  $\delta_8$ ,  $\delta_9$  and  $\delta_{10}$  are positive and  $\delta_5$  negative, and where:

- $SEN_i$  = the number of HS two digit products selected by government for protection in industry  $i$ , normalised by the total number of two digit products produced in Barbados;
- $EMP_i$  = the number of persons employed per firm in industry  $i$  relative to the total number of persons employed in the manufacturing sector;
- $FIRM_i$  = the number of firms in industry  $i$  relative to the total number of firms in the manufacturing sector;



$TAX_i$	= collection of import duties on imports of industry $i$ relative to the total amount of import taxes collected; .
$IMPS_i$	= competing imports in industry $i$ (that is, imports with the same HS number as goods produced locally) relative to total country imports;
$EXPS_i$	= exports by industry $i$ relative to total country exports;
$USTAR_i$	= average USA 1996 applied tariff rate for corresponding industry $i$ ;
$CANTAR_i$	= average Canadian 1996 applied tariff rate for corresponding industry $i$ ;
$EUTAR_i$	= average EU 1996 applied tariff rate for corresponding industry $i$ ;
$BARTAR_i$	= average Barbados applied tariff rate (1997) for industry $i$ ; and
$FORPRO_i$	= number of HS two digit products which were protected by quantitative restrictions or by a surtax during 1997 in industry $i$ normalised by the number of products produced in Barbados classified at the two digit level.

#### 6.4 ECONOMETRIC ANALYSIS

Two econometric techniques will be used to test the model – OLS and Probit regression. The OLS model will use the variables as specified above. Probit regression will also use the same explanatory variables with the same signs expected. The dependent variable in this model is however a discrete variable ( $DUMEXC_i$ ) which takes the value of 1 if any product(s) produced by firms in industry  $i$  are selected for exclusion from free trade, and 0 otherwise.

The specification of the model is based on the data considered by government officials to select sensitive industries discussed in Chapter 3 and section 6.3.5.

The explanatory variables have also been investigated by various studies identified in the literature review. Lavergne (1983) examined current and past levels of protection. Greenaway and Milner (1994) examined industry employment and size, import penetration and export performance. Hansen and Prusa (1997) examined tariff duties in addition to many of the national interest factors also investigated by Greenaway and Milner (1993).

In terms of the dependent variable, a number of studies investigated the factors explaining the pattern of effective protection (including Basri and Hill, 1996). In the case of Barbados, a lack of estimates of effective protection at the industry level will not allow the use of that formulation in the model. In addition to using the variable **SEN<sub>*i*</sub>**, the study will follow previous studies in using probit regression with sensitivity defined as a discrete variable (**DUMEXC<sub>*i*</sub>**) as noted above (see Greenaway and Milner, 1994; Hansen and Prusa, 1997).

#### 6.4.1 *The data*

Similar to the findings of Hansen and Prusa (1997) where there was high correlation between the variables required by law for consideration by the ITC, a number of variables considered in selecting sensitive sectors in Barbados are also correlated. As reported in Table 6.2, the highest incidence of correlation (greater than .5) are in respect of the variables:

- **IMPS** and **TAX**;
- **EMP** and **FIRM**;
- **EMP** and **EXPS**;
- **FIRM** and **FORPRO**; and
- **CANTAR** and **EUTAR**.

Regarding **TAX** and **IMPS**, tax collections are based on the volume of imports. A high correlation is therefore expected to exist between taxes and imports<sup>4</sup>. In the case of **EMP** and **FIRM**, this is expected as Barbados is relatively abundant in

labour, and manufacturing firms are expected to use relatively more of this factor. The more firms there are in an industry, the greater is expected to be employment in that industry. In keeping with this school of thought, it can be expected that there will be a relatively high correlation between **EMP** and **EXPS**. Barbados' exports are expected to have a relatively high labour content.

The existence of relatively high correlation between **FORPRO** and **FIRM** can be explained by the very active import substitution policy pursued by government until the mid 1990s, and probably lobbying efforts on the part of industry to delay phasing out of the surtax. The correlation between **CANTAR** and **EUTAR** was discussed in chapter 3. Given the historical involvement of these countries in international trade negotiations, that correlation between these variables is not surprising.

**TABLE 6.2**  
**CORRELATION BETWEEN EXPLANATORY VARIABLES**

	EMP	TAX	EXPS	IMPS	FIRM	USTAR	CANTAR	EUTAR	BARTAR	FORPRO
EMP	1.000									
TAX	.226	1.000								
EXPS	.532	.274	1.000							
IMPS	.225	.999	.272	1.000						
FIRM	.678	.266	.278	.262	1.000					
USTAR	-.010	-.083	-.034	-.085	.003	1.000				
CANTAR	.075	-.004	-.001	-.005	.224	.140	1.000			
EUTAR	.157	-.017	.150	-.019	.003	.299	.569	1.000		
BARTAR	.222	.010	.244	.002	.357	-.006	.087	.169	1.000	
FORPRO	.462	.167	.245	.164	.509	.055	.164	.185	.370	1.000

Two steps were taken to address the potential problems associated with multicollinearity. First, employment in each industry (**EMP**) and the number of firms in each industry (**FIRM**) were combined. The variable **EMPFIRM** is the average number of persons employed per firm in each industry. Secondly, as the variables **IMPS** and **TAX** relate to import activity, principal components analysis was used to create a composite import activity variable **IMPTAX**. The first



principal, which is used in the analysis, accounts for 93.8% of the variation in the two variables (Appendix 4).

The adjusted model therefore become:

$$\begin{aligned}
 SEN_i = & \delta_0 + \delta_1 EMPFIRM_i + \delta_2 IMPTAX_i + \delta_3 EXPS_i \\
 & + \delta_4 USTAR_i + \delta_5 CANTAR_i + \delta_6 EUTAR_i \\
 & + \delta_7 BARTAR_i + \delta_8 FORPRO_i + e_i \quad (6.2)
 \end{aligned}$$

Where the coefficients  $\delta_1, \delta_2, \delta_4, \delta_5, \delta_6, \delta_7$  and  $\delta_8$  are positive and  $\delta_3$  negative, and where:

EMPFIRM<sub>*i*</sub> = the average number of persons employed in each industry *i*; and  
 IMPTAX<sub>*i*</sub> = the level of import activity (imports and tax collection) in industry *i*.

The other variables are as reported for equation (6.1).

As shown in Table 6.3, these procedures reduced the incidence of very high correlation.

**TABLE 6.3**  
**CORRELATION ANALYSIS BETWEEN REVISED EXPLANATORY**  
**VARIABLES**

	EMPFIRM	IMPTAX	EXPS	USTAR	CANTAR	EUTAR	BARTAR	FORPRO
EMPFIRM	1.000							
IMPTAX	.143	1.000						
GENEXP	.580	.274	1.000					
USTAR	.021	-.083	-.034	1.000				
CANTAR	.248	-.004	-.001	.140	1.000			
EUTAR	.398	-.017	.150	.299	.569	1.000		
BARTAR	.144	.010	.244	-.006	.087	.169	1.000	
FORPRO	.243	.167	.245	.055	.164	.185	.370	1.000

Auxiliary equations (Table 6.4) however indicate that the presence of multicollinearity cannot be totally ruled out as F tests are significant in some cases, although  $R^2(\text{adj})$  are low<sup>5</sup>.

**TABLE 6.4**  
**AUXILIARY REGRESSIONS OF EXPLANATORY VARIABLES**

AUXILIARY MODELS	F-VALUE	R <sup>2</sup> (ADJ)
EMPFIRM = f(IMP TAX, EXPS, USTAR, CANTAR, EUTAR, BARTAR, FROPRO)	9.93*	.40
IMPTAX = f( EMPFIRM, EXPS, USTAR, CANTAR, EUTAR, BARTAR, FROPRO)	1.41	.03
EXPS = f(IMP TAX, EMPFIRM, USTAR, CANTAR, EUTAR, BARTAR, FROPRO)	8.97*	.37
USTAR = f(IMPTAX, EXPS, EMPFIRM, CANTAR, EUTAR, BARTAR, FROPRO)	1.50	.03
CANTAR = f(IMPTAX, EXPS, USTAR, EMPFIRM, EUTAR, BARTAR, FROPRO)	6.38*	.29
EUTAR = f(IMPTAX, EXPS, USTAR, CANTAR, EMPFIRM, BARTAR, FROPRO)	10.01*	.40
BARTAR = f( IMPTAX, EXPS, USTAR, CANTAR, EUTAR, EMPFIRM, FROPRO)	2.75*	.11
FROPRO = f(IMPTAX, EXPS, USTAR, CANTAR, EUTAR, BARTAR, EMPFIRM)	3.14*	.14

Asterisks indicate significance at the 90% level or higher.

Summary statistics on the variables are reported in Table 6.5. The summary shows that on average, Barbados' tariff levels are higher than tariff levels for the EU, USA and Canada, but vary less.

**TABLE 6.5**  
**DESCRIPTION OF VARIABLES**

VARIABLE	MEAN	STANDARD DEVIATION	COEFFICIENT OF VARIATION	MINIMUM	MAXIMUM
SEN	.4347	.4984	1.14	0	1
EMPFIRM	22.3	27.60	1.23	0	165.33
IMPTAX	21132747	38199752	1.80	906.108	225633735
EXPS	.10869E-01	.26957E-01	0.40	0	71847176
USTAR	6.067	9.62	1.58	0	90.741
CANTAR	11.0629	21.86	1.97	0	198.13
EUTAR	9.37	12.21	1.30	0	74.73
BARTAR	13.47	8.20	.608	0.740	36.5
FORPRO	1.15	2.33	2.02	0	11

### 6.4.2 Results

The objective of this study as noted in section 6.1.1, is to examine how various factors considered by a committee established to select sensitive sectors in Barbados influenced the decision of that committee. The results below report on how the various factors appear to have influenced the pattern of protection which the committee recommended to government and government accepted.

The results of OLS estimation are reported in Table 6.6. The amount of variation explained by the model overall is around 50%, which is in keeping with cross section work in this area<sup>6</sup>. The model pass a joint test for the significance of all variables. The Breusch-Pagan test indicates that the presence of heteroscedasticity is not a problem. The t-values for White's heteroscedasticity-corrected standard errors (Appendix 4) are however also reported. Overall, there are no major differences between the traditional t-values and the t-values for White's heteroscedasticity-corrected standard errors. With the exception of **IMPTAX** and **EXPS** which are not significant, all variables have the expected signs.

The results show strong support for the proposition that the factors determining the selection of sensitive industries were USA tariff rates (**USTAR**), Barbados tariff rates (**BARTAR**), and the former level of non-tariff protection offered to the sector (**FORPRO**). All of these variables are significant and carry the expected signs.

There is mixed support for the importance of employment and firms in the sector (**EMPFIRM**) in determining the selection of sensitive industries. OLS standard error and t-values indicate that the variable is not significant, while the White heteroscedasticity-corrected standard error and t-value indicate that the variable



is significant. The Chi-square value for the log-likelihood ratio tests with a zero restriction place on the coefficients of **EMPFIRM**, **CANTAR**, and **EUTAR** indicate that it cannot be rejected that these have no influence on the model.

Likelihood ratio tests with zero restrictions placed on the coefficients of **USTAR** and the protection variables **BARTAR** and **FORPRO** suggest that the null hypothesis of no influence on the model can be rejected.

**TABLE 6.6**  
**RESULTS OF OLS REGRESSION**

	(1)	(2)	(3)	(4)
CONSTANT	-.8037E-01 (-2.082) [-1.839]	-.6832E-01 (-1.838) [-1.646]	-.43500E-01 (-1.100) [-1.059]	.7854E-01 (-2.049) [-1.805]
EMPFIRM	.9514E-03 (1.133) [1.611]+		.71733E-03 (.805) [1.172]	.1280E-02 (1.669)** [2.538]+++
IMPTAX	-.10227E-09 (-.215) [-.335]	-.1135E-09 (-.239) [-.322]	-.2175E-09 (-.432) [-.720]	.1158E-09 (.246) [-.399]
EXPS	.48484E-09 (.240) [.319]	.1747E-08 (1.037) [1.193]	.42755E-09 (.199) [.271]	.18001E-09 (.092) [.121]
USTAR	.66023E-02 (3.491)*** [6.261]+++	.64313E-02 (3.406)*** [5.794]+++		.71427E-02 (4.000)*** [7.970]+++
CANTAR	.24603E-03 (.253) [.402]	.3563E-03 (.368) [.550]	.10608E-03 (.103) [.108]	
EUTAR	.13321E-02 (.701) [.622]	.19361E-02 (1.059) [.890]	.324766E-02 (1.676)* [.990]	
BARTAR	.73888E-02 (3.188)*** [2.625]+++	.71580E-02 (3.096)*** [2.559]+++	.68571E-02 (2.786)*** [2.336]+++	.76616E-02 (3.353)*** [2.749]+++
FORPRO	.42131E-01 (5.104)*** [5.937]+++	.42995E-01 (5.223)*** [6.050]+++	.43753E-01 (4.988)*** [5.761]+++	.42777E-01 (5.244)*** [5.894]+++
R <sup>2</sup> (adj)	.49034	.488862	4.2245	.49646
F-Value	11.94	13.42	10.51	15.95
LL		1.41	13.1‡	1.2

- (1) Standard t-values are in round brackets. White's heteroscedasticity-corrected t values are in square brackets. 90%, 95%, and 99% level of significance are designated as \*, \*\* and \*\*\* respectively for standard t values, and +, ++ and +++ respectively for White's heteroscedasticity-corrected standard errors
- (2) LL is a log-likelihood ratio test for zero restriction placed on the coefficient of the variable(s) excluded in the equation. The symbol ‡ indicates that the hypothesis of no influence is rejected.
- (3) F-Value is a joint test for the significance of all variables. All models pass the test.

**TABLE 6.7**  
**RESULTS OF PROBIT REGRESSION**

	(1)	(2)	(3)	(4)
CONSTANT	-2.873 (-4.867)	-2.401 (-4.793)	-2.549 (-4.737)	-2.738 (-4.570)
EMPFIRM	.2226E-01 (2.070)**		.1990E-01 (1.938)**	..2207E-01 (2.170)**
IMPTAX	.99509E-08 (1.365)*	.9148E-08 (1.321)*	.9335E-08 (1.309)*	.8989E-08 (1.290)***
EXPS	.10154E-07 (.213)	.4892E-07 (.793)	.7076E-08 (.163)	.1773E-07 (.464)
USTAR	.4101E-01 (1.425)*	.3546E-01 (1.602)*		.5283E-01 (.952)
CANTAR	.3687E-01 (1.168)	.4101E-01 (1.349)*	.3884E-01 (1.267)	
EUTAR	-.1370E-01 (-.624)	-.5659E-02 (-.282)	-.1421E-03 (-.008)	
BARTAR	.71963E-01 (2.908)***	.5922E-01 (2.595)***	.64550E-01 (2.726)***	.72903E-01 (2.904)***
FORPRO	.91992E-01 (3.066)***	.89962 (2.888)***	.8645 (3.022)***	.91060 (3.250)***
<i>LL</i>		4.2‡	4.8‡	1.6
$\chi^2$	76.096	71.784	71.187	74.539

(1) t-values are in brackets

(2) 90%, 95%, and 99% level of significance are designated as \*, \*\* and \*\*\* respectively.

(3) *LL* is a log-likelihood ratio test for zero restriction placed on the coefficient of the variable(s) excluded in the equation. The symbol ‡ indicates that the hypothesis of no influence is rejected.

(4)  $\chi^2$  is a chi-square test for the significance of all variables. All models pass the test.



Table 6.7 reports on estimates of the model, using probit regression. The fully specified model pass a log-likelihood test (at the 1% level) for zero restrictions on all variables, as indicated by the significance of the chi-square value. All variables in the model except **EUTAR** and **EXPS** which are not significant, have the expected signs.

The results show that **EMPFIRM**, **IMPTAX**, **USTAR**, **BARTAR** and **FORPRO** are significant and therefore influenced the selection of sensitive industries. Likelihood ratio tests with a zero restriction placed alternatively on the coefficients of **EMPFIRM**, **USTAR**, **BARTAR** and **FORPRO** suggest that these variables had an influence on the selection of sensitive industries.

A comparison of the OLS and probit analysis shows that there is evidence that **EMPFIRM**, **FORPRO**, **BARTAR** and **USTAR** were significant in influencing the protection granted to industries. There is weak support for the variable **IMPTAX**. This variable is significant in the probit model, but not the OLS model.

The significance of **EMPFIRM** lends some support to the adjustment assistance model (Cheh, 1974). In selecting sensitive industries, some effort appears to have been made on the part of government to minimise short-run adjustment labour costs. This strategy would be consistent with the argument put forward by developing countries that free trade may lead to significant adjustment costs within these economies, and that there is a need to allow flexibility for these countries to protect their industries in order to minimise these costs.

The significance of the variables **BARTAR** and **FORPRO** supports the status quo model (Lavergne, 1983). Inertia and the inclination not to disturb tariff and non-tariff protection established over the years appears to be a major policy objective. Indeed, by leaving the status quo in place there is less likelihood that producers

would challenge the lists of sensitive sectors. Keeping the status quo may also be a strategy to minimise adjustments costs.

The results indicate that a strategic approach (Milner and Yoffie, 1989) may have been taken to the selection of sensitive industries, and that the stance taken by manufacturers on the concept of "unequal protection" might have played a role in influencing the selection of sensitive sectors in Barbados. In particular, the protective tariff of the U.S. (**USTAR**) was significant. This is not surprising, given the fact that the U.S. is Barbados' major trading partner, and industries in this country are expected to provide the greatest threat to domestic industries. Apparently Canada and the EU are not regarded as providing the same level of threat, as the tariffs of these two countries were not significant in determining domestic protection. The consideration of unequal protection issues by the committee suggests that lobbying played a part in determining the patterns of protection and therefore sensitivity (the interest group model and the adding machine model however were not directly tested).

There is some evidence that import activity (**IMPTAX**), which includes import taxes and the level of imports and can be regarded as national interest factors, played an important role in the selection process. The weak evidence is not totally surprising, as import tariffs account for only a small proportion of government revenue - around 8%.

Export competitiveness or performance apparently did not have a significant influence on the setting of sensitivity. This is not totally inconsistent with the import competition strategy adopted by Barbados over the years, whereby industries were protected regardless of their export performance.



## **6.5 CONCLUSION**

This paper examined the selection of sensitive industries in Barbados in the context of negotiations to devise international trade agreements on free trade. Barbados is currently involved in negotiations to create the FTAA and to develop a new partnership agreement with Europe. A committee established by government was mandated to establish the sensitivity of industries based on WTO rules, and on economic criteria including employment levels, contribution to tax revenues, vulnerability, and competitiveness.

WTO rules require that such negotiations be undertaken within the framework of Article XXIV of the GATT. The issue of WTO compatibility has however not been definitively established, as member countries of that organisation have not agreed on the interpretation of the "substantially all trade" provision in Article XXIV. Notwithstanding that, such a clause does signal that limitations are to be placed on the types and numbers of industries which a country can exclude from free trade under the provisions of free trade agreements.

Based on current discussions in the WTO committee on Regional Trading Arrangements, it is likely that the sectors selected by Barbados would pass a WTO "quality test" of substantially all trade, as no sector has been excluded from any possible tariff reductions (Chapter 3). However, there is some doubt that the volume of trade to be restricted would pass a "quantity test" of the substantially all trade criteria, especially in relation to the FTAA. It is likely, that some pruning of the list of sensitive sectors would have to be undertaken.

In this chapter, an analysis of the factors influencing selection of industries being proposed by Barbados for protection was undertaken. The analysis used the data set considered by the committee established by government.



The analysis found that a combination of factors influenced government in the selection of its sensitive industries. The evidence suggests that industries were selected with the aim of minimising attrition in sectors with relatively large numbers of employees (Cheh, 1974). Sectors which formerly benefited from protection were highly favoured in the process (Lavergne, 1983). The results also suggest that the process sought to address a major concern of manufacturers regarding "unequal protection" as there is a positive relationship between tariff levels in the US and the sensitivity attached to sectors.

The process of selecting sensitive industries was undertaken by a committee of technocrats rather than direct selection by politicians. Lobbying theories were not directly tested. In as much as the process took into account the opinion of manufacturers on the issue of "unequal protection", however, there is support for the influence of lobbying on the determination of patterns of protection.

Overall the study found support for political economy theories in the context of Barbados. In particular, it found support for the hypothesis that lobbying by domestic firms about "unequal protection" in trading partners, influenced the selection of sensitive industries.

## END NOTES

<sup>1</sup> Attempts to gain a competitive advantage on an export market, for example through export subsidization is also regarded as a form of protection.

<sup>2</sup> The international bargaining model developed in Helleiner (1977) considers the issue of protection existing in other countries, as well as the work of Hansen and Prusa (1997). The issues of unequal protection is one however in which manufacturers requested that the bargaining process should not relate to across-the-board cuts in tariffs. Tariff cuts should not be inter-industry, but intra-industry.

<sup>3</sup> There are 99 Chapters in the Barbados Customs Tariff. The following Chapters were excluded from the analysis:

Chapter 1 - Live animals.

Chapter 5 - Products of animal origin etc.

Chapter 6 - Live trees etc.

Chapter 97 - Works of art.

Chapters 77, 98 and 99 are reserved and contain no products.

For Chapters 2, 3 and 4, only registered food processing operations were included in the analysis.

<sup>4</sup> As noted in the correlation table, there is low correlation between the variable BARTAR and the variables TAX AND IMPS. This result is not unsurprising as tariff rates are set in relation to protection for the entire CARICOM region as a whole, and not only Barbados.

<sup>5</sup> Dropping some variables from the auxiliary equations did not eliminate the problem. Klien's rule of thumb (Gujarati, 1995) suggests that multicollinearity may not be a problem, as the  $R^2$  of the auxiliary regressions are less than for the estimated model.

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<sup>6</sup> Models were tested with the log transformation of some variables. The results were not better than those reported. Models were also estimated with RTAX and RIMP alternatively, instead of IMPTAX. In terms of signs and significance of the coefficients, the models were similar.



# **CHAPTER 7**

## **CONCLUSION**

### **7.1 SUMMARY OF THE STUDY**

This thesis examines three trade policy issues arising out of Barbados' participation in multilateral, hemispheric and regional trade agreements. At the multilateral level, Barbados is obligated to implement current WTO rules and is engaged in negotiations to deepen some existing agreements, and also to create new ones. At the hemispheric level, it is involved in negotiations to create the FTAA and to devise a new partnership agreement with Europe.

WTO rules require member countries to liberalise trade in both goods and services. In addition, negotiations in a number of new areas including investment, competition policy and the environment are to be undertaken with a view to establishing rules in these areas. Negotiations to create the FTAA and develop a new partnership agreement with Europe are being undertaken within the context of WTO compatibility. That compatibility, among other things, requires that substantially all trade be liberalised.

The framework within which WTO obligations are to be implemented, and new agreements negotiated, has implications for existing one-way preferential trade agreements currently enjoyed by Barbados including CARIBCAN, CBI, and regional agreements between CARICOM and Colombia; and CARICOM and Venezuela. That framework also has implications for Barbados' ability to protect domestic industries on the local market. In respect of the former, WTO sponsored liberalisation is reducing the margin of preference enjoyed by Barbados and other beneficiaries. In the case of the latter, WTO obligations, particularly the requirement to substantially liberalise trade under new trade

agreements, mean that trade policy options available to government to protect domestic industries are limited.

Given the implications Barbados, in international trade negotiations, has joined other developing countries in requesting special and differential treatment. One of the arguments being made in support of the request is that competition on the world market is not perfect, and differences in country and firm size, access to information, technological development, and production structures, place developing countries and particularly small developing countries, at a disadvantage. They also argue, that a lack of support for free trade policy among producers, makes such policies politically difficult to implement. Among the special and differential treatment being requested by these countries are:

- derogations and longer periods for the implementation of agreements;
- technical assistance and funding to assist countries in transitioning from one-way preferential agreements; and
- greater flexibility to protect sensitive industries.

The thesis examined three trade policy issues related to those concerns. It first investigated the trade policy preferences of manufacturing firms in relation to WTO rules, which gave an insight into the extent of support for trade liberalization in Barbados. Secondly, it examined the factors determining Barbados' export performance. Finally, it examined the political economy process, and factors determining the selection of sensitive sectors in Barbados.

The analysis in chapters 4 and 5 was based on responses to a **Trade Policy Survey** which was specifically designed for that purpose. The questionnaire was designed and mailed to all 435 enterprises registered with the BIDC at September 1998. The response to the questionnaire can be considered to be



## *Chapter 7 Conclusion*

good in that 152 companies responded. Following factory visits and telephone interviews to obtain missing information, 117 completed questionnaires were used in the analysis. In addition to providing company performance data and data on the competitiveness perceptions of management, firms were asked to provide positions on three WTO principles, fourteen agreements and three "new" issues. The response options ranged from strongly agree to strongly disagree.

Chapter 3 reviewed the results of the survey. Overall, most of the firms (37.5%) strongly agreed with WTO disciplines, 21.8% agreed, 17.3% disagreed, while 13.3% strongly disagreed. Some 9.8% expressed no opinion on the issues. These figures show that overall, firms agree with trade liberalization under WTO rules.

At a more detailed level, the results show that the majority of firms reject the WTO principles of non-discrimination, national treatment and transparency. Firms do however largely support some elements of WTO Agreements, especially those elements relating to protection by tariff, employing safeguard action, taking action against goods being dumped or subsidised, using technical barriers to trade and sanitary and phyto-sanitary measures, protecting intellectual property, and using the disputes settlements mechanism. Firms are against the elimination of QRs, protection by tariffs only, and the temporary nature of safeguard action. They are also against the provision that rules of origin are not to be used as trade barriers, and that no trade control measures should be enforced in the area of the environment until WTO rules are developed. These results show that firms favour the continued use of some elements of protection.

In chapter 4 both OLS and ordered probit regression analysis were used to investigate the factors influencing the trade policy preferences of firms. The analysis revealed that export performance, external association, and a positive



perception about international competitiveness influence firms to support liberalisation. Capacity under-utilisation influence firms not to support liberalisation. Those results are in keeping with the findings of similar studies in the literature. Not in keeping with the findings of similar studies, was the result that firms which are more diversified in terms of the number of products produced tend not to support liberalisation.

In terms of preferential trade arrangements and Barbados' export performance, the results of the **Trade Policy Survey** discussed in chapter 2 showed that approximately 80% of Barbados' exports benefit from trade preferences, and that some 91.5% of exporting firms benefit from trade preferences. A comparison of preference in CARICOM, the EU, the U.S. and Canada, showed that the preference margin is higher in CARICOM than in developed countries. The research suggests that if trade preferences are removed, this could significantly impact on Barbados' export performance in a negative way.

In chapter 5 data from the **Trade Policy Survey** was also used to undertake OLS and Tobit regression analysis. Following the literature, the analysis included factor endowments, economies of scale and technology variables. A number of firm characteristics and policy factors were also investigated including wage costs, the existence of trade preferences, the existence of restrictions under preferential trade agreements, the external association of firms and tariff protection of products on the Barbados market. All of the variables were significant and carried the expected sign. Regression results showed that Barbados' exports are relatively labour intensive, that firm size is important to export performance, that technology use, trade preferences and external firm association positively influence export performance. They also show that wage costs, tariff protection on the local market, and the existence of restrictions under preferential trade agreements negatively impact on export performance.

These results are in keeping with the literature and point to the fact that factor endowments, economies of scale factors, and technology are important in determining export performance. They however also indicate that other factors such as trade preferences, trade restrictions, wage costs and the external association of firms are also important.

The third study examined the selection of sensitive industries in Barbados to be excluded from liberalisation under new international trade agreements with countries in the Americas and Europe. The WTO rule which requires that “substantially all trade” must be liberalised means that government must be judicious in its selection of industries to be protected. A review of tariff protection in chapter 3 showed that there are few similarities between sectors protected in Barbados and those protected in the USA, Canada, and Europe. Overall, however, there is a low correlation between tariff levels in Barbados and its major trading partners.

In chapter 6 OLS and probit regression methods were used to investigate the industry characteristics influencing the selection of sectors. Ninety-two sectors based on two digit classifications in the Barbados Customs Tariff were used in the analysis. The results showed that employment, import activity by way of import competition and government tax collections, as well as previous protection patterns, influenced the selection of sensitive sectors. The analysis also showed that there is some evidence that lobbying undertaken by manufacturers for a “strategic” stance to be taken with respect to liberalisation influenced the selection process. The results directly support the adjustment assistance model and the status quo model of trade protection.



## **7.2 TRADE POLICY IMPLICATIONS OF RESEARCH**

Results obtained in this thesis have a number of implications for Barbados both in terms of its participation in international trade negotiations, and its implementation of domestic economic policies in a liberalised trade regime.

### *7.2.1 Participation in International Trade Negotiations*

The analysis has shown that manufacturing firms in Barbados do support many of the key components of WTO Agreements. However, they do not support some of the fundamental elements of liberalisation including the principles of non-discrimination, national treatment and transparency. They are also against key elements in safeguard provisions which are the elimination of QRs, and the reduction of tariffs over time.

The type of concessions being requested by developing countries in trade negotiations such as longer transitional periods and greater flexibility to assist domestic industries should reduce some of the concerns of local manufacturers about trade liberalisation. Given the selective nature of firms in supporting or not supporting certain provisions, Barbados should make a careful selection of those concessions which it supports.

On the issue of the continuation of benefits for developing countries under preferential trade arrangements or for technical and financial assistance for countries transitioning from preferences, the evidence suggests that they may be important for Barbados. Trade preferences are significant in determining Barbados' export performance and removal of these preferences could have a negative effect on exports.



### **7.2.2 Development of Domestic Policies**

While Barbados supports requests by developing countries for differential treatment, Barbados also needs to focus on domestic policies in order to benefit from the process of trade liberalisation. The analysis in this thesis points to some adjustments which would have to be made to some domestic policies.

Firstly, the external association of firms and perceptions about their competitiveness are factors influencing support for trade liberalisation. These factors will in turn affect the willingness and ability of firms to adjust, where necessary, to benefit from liberalisation. It is important for Barbados to put monetary, fiscal and other measures in place to encourage firms to form strategic alliances with established firms in other markets. At the same time, it will be necessary to put programmes in place to remedy some of the long standing issues which affect the competitiveness of firms and their bias against exporting, as highlighted in the Maxwell Stamp and other studies. These would include reducing costs, the retooling of factories, and provision of technical assistance to firms. At the same time, Barbados should avoid granting permanent or long-term concessions to firms which could encourage them to produce for the local market, and it should not seek to protect firms on the local market.

Secondly, it should be emphasised that while preferences are important to export performance, so too are such factors as association, firm size, and technology. Also, as Barbados' exports are not capital intensive, issues of labour productivity are especially important to the competitiveness of its exports.

As trade liberalisation is phased in, and as preferences become less important, it will be necessary for government to place emphasis on the other factors which positively impact on export performance. Again it will have to put measures in place to encourage association with external firms, local mergers and

expansions, and programmes to increase labour productivity. As wage costs and tariff protection impact negatively on export performance, it will be necessary for government to contain labour costs and avoid sustained protectionist policies.

Finally, although there may be a case for Barbados to join other developing economies in calling for flexibility in the interpretation of Article XXIV, which would allow it greater flexibility to protect sensitive sectors, it should carefully consider the reasons for granting protection to industries. It may wish to avoid protecting industries based on the historical pattern of protection, and to focus more on offering contingent protection. At the level of strategy, it may also wish to engage other countries in the process of reciprocal tariff reduction. This issue is important, because as discussed above, there is some evidence that protection has a negative influence on the export performance of firms.

Barbados by virtue of its membership of the WTO and participation in negotiations to create new global trade agreements is committed to the process of trade liberalisation. As part of its negotiating strategy, it has joined other developing countries in requesting special and differential treatment. However, it is important that the flexibility offered by such treatment should not result in lingering protectionism, as this can reduce the ability of firms to adjust to global trends and benefit from the opportunities of greater market access to other countries.

### **7.3 CONTRIBUTION OF THE STUDY**

This study has contributed to research on trade policy issues in developing countries, especially as that policy relates to international trade agreements.



Firstly, research undertaken in the literature to date on the trade policy preferences of firms, the determination of the export performance of firms, and the political economy of protection, has focused on developed countries. This study has contributed to work in those three areas through analysing those issues in relation to a developing country and more particularly a small developing economy. The research has shown that in the specific areas investigated, the models constructed in a developed country context, are largely relevant to a small developing economy. However, adjustments may be required in some cases. It may be necessary to further examine how the diversification of firms affects their trade policy preferences. It may also be necessary to focus more on the influence of policy factors in determining export performance, and to consider the "strategic" stances of domestic firms in determining the pattern of protection.

Secondly, for Barbados, these were the first empirical studies to be conducted on those issues. To facilitate this research, original data was collected and used in the analysis of two of the studies - trade policy preferences, and determinants of the export performance of firms. In the relation to the other study - the selection of sensitive sectors - an assessment was made of the process for selecting sensitive sectors, based on the actual data utilised in the process.

Thirdly, an extensive and in-depth analysis of support for WTO Agreements was undertaken in the context of one of its member countries.

Fourthly, Barbados has joined other developing countries in making a case for special and differential treatment in the WTO, and in negotiations to create the FTAA and to create partnership agreements (to replace the LOMÉ Convention). The research has contributed to an understanding of some of the concerns of these countries through an examination of the underpinning issues.



Finally, the results of the studies have identified variables which can assist in improving Barbados' competitiveness, while also highlighting factors which can hamper exporting in the new global paradigm.

#### **7.4 AREAS FOR FURTHER RESEARCH**

This study has concentrated on specific trade policy issues arising out of Barbados' participation in international trade agreements. However, some interesting research topics have remained outside the scope of this work. Regarding the factors influencing trade policy preferences of firms, some work can be undertaken regarding such preferences at the level of sectors. This would enable a more direct comparison of factors determining the trade policy preferences of sectors which benefited from protection and government concessions and those which did not.

In terms of specific variables, this study followed the practice in the literature of measuring competitiveness perceptions, which are subjective, rather than actual competitiveness of the enterprise. It would be useful to undertake a study using an objective measure of competitiveness to determine how characteristics of firms alone determine trade preferences. Survey limitations prevented the development of such variables in this study.

Research into the factors influencing the export performance of firms, could investigate the extent to which trade preferences influence exports to specific markets, in order to obtain more disaggregated picture of the importance of trade preferences. Also, an investigation should be conducted into how the margin of preference impacts on export performance. This would provide a clearer picture

of how reductions in trade preferences will impact on export performance. Again, because of survey limitations, the measurement of a number of variables was curtailed, including the measurement of technology. For example, it would have been useful to broaden the concept of technology to include human capital.

Finally, the selection of sensitive sectors was investigated using the actual data examined by officials in selecting such industries. It would be useful to undertake a survey of industries to obtain disaggregated data as used by other researchers, such as value added per worker, depth of industry processing, wages and distinctions between male and female workers. This would have allowed a more direct comparison of the studies and how those variables performed in relation to structure of protection in both developed and small developing economies.

## **APPENDIX 1 COUNTRY DATA - BARBADOS**

<b>AREA</b> 431 sq km	<b>POPULATION</b> 267,000	<b>RACE</b> 90% African: 4% European: 6% Asia or mixed
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**LIFE EXPECTANCY**  
76 Years

**HEALTH**  
84 hospital beds per 10,000 persons  
1,100 persons per doctor  
Infant mortality rate: 14 per 1000

**EDUCATION**  
Literacy Rate 97%  
79 Primary Schools  
21 Secondary schools and tertiary institutions  
1 University

**EMPLOYMENT**  
Labour force: 130,000  
Unemployment: 9% (1999)

**ACCESS TO PIPED WATER**  
100% Urban  
100% Rural

**ACCESS TO ELECTRICITY**  
99% Urban  
97% Rural

**TELECOMMUNICATIONS**  
Main lines per 100 persons: 40.77  
Main lines per 100 households: 79.1  
Number of mobile phones per 100 persons: 3.0

**HOUSEHOLDS**  
Number of households: 81,000

**PER CAPITA INCOME**  
US \$ 7115 (1999)

**GDP**  
growth (91-99) 2.4%  
growth (98-99) 2.1%

**INFLATION**  
Inflation rate p.a. (1999) 1.0%

**CURRENT ACCOUNT BALANCE**  
Current Account/GDP (1999) -2.1%



**APPENDIX 2  
TRADE POLICY QUESTIONNAIRE**

**MINISTRY OF FOREIGN AFFAIRS AND FOREIGN TRADE  
No.1 Culloden Road, ST.MICHAEL  
TEL; (246) 436-2900 FAX:(246) 228-7840**

***TRADE POLICY DEVELOPMENT EXERCISE***

**[OBJECTIVE]**

To assist the Ministry to better develop and implement trade policies to ensure that local firms are not dis-advantaged as a result of new international trade agreements.

**[PLEASE NOTE]**

All information provided will be treated as **CONFIDENTIAL**.

Please complete and return to the Ministry of Foreign Affairs And Foreign Trade.

Please contact **Mr. Louis Woodroffe**, Chief Economist for any clarifications or for further information.

**CODE:.....**

**PART (A)**

**IMPORTANCE OF CURRENT PREFERENTIAL TRADE AGREEMENTS  
TO YOUR FIRM**

1. Date of Establishment of your Company.....
  
2. Is your company associated with an overseas company:  
Yes            ()  
No             ()

*Appendices*

3. If yes please indicate the type of association:

- a. Joint Venture
- b. Joint Marketing
- c. Franchise
- d. Other (Please Indicate).....

4. Category of product(s) produced by your company (please tick):

- CONSUMER
- NON-CONSUMER
- BOTH

5. Major area(s) exported to (please tick):

- CARICOM
- OTHER CARIBBEAN
- UNITED STATES
- CANADA
- EUROPE
- LATIN AMERICA
- OTHER

6. Do your exports receive preferential treatment under any of the following agreements (Please tick):

- CARICOM
- CARICOM/Venezuela
- CARICOM/Colombia
- LOMÉ
- CBI
- CARIBCAN
- GSP
- None of the above

7. Total sales (export plus local market) for 1997:.....\$

8. Exports sales for 1997:.....\$

*Appendices*

9. Approximately what percentage of your product(s) is exported under preferential trade:.....%
10. Number of persons employed in 1997:.....
11. Total wages paid in 1997:.....\$
12. Value of machinery currently in use:.....\$
13. Approximately what percentage of your capacity is not utilized:.....%
14. Does management personnel in your firm have access to the INTERNET:
- Yes           ()  
No             ()
15. Does your firm have a WEB PAGE:
- Yes           ()  
No             ()
16. Without trade preferences would you expect your product(s) to be still competitive on export markets?
- Yes           ()  
No             ()
17. If Barbados liberalised its trade by removing quantitative restrictions on imports and replaced them with tariffs would you expect your product(s) to be competitive on the local market:
- Yes           ()  
No             ()



18. Please indicate below how important the following factors are in limiting or preventing your firm from exporting. You should mark the importance on the scale ranging from 0 (no effect) to 10 (critically important).

FACTORS AFFECTING EXPORTS	0	1	2	3	4	5	6	7	8	9	10
1. Inadequate advertising or marketing											
2. Inadequate research and development											
3. Outdated equipment											
4. Small scale of operation											
5. High operating costs (e.g., energy)											
6. Lack of financing											
7. High cost of raw materials											
8. Poor quality of raw materials											
9. High labour costs											
10. Inadequate employee skills											
11. Exchange rate of the Barbados dollar											
12. High Government taxes generally											
13. High transportation costs											
14. High tariffs in export markets											
15. Non-tariff barriers in export markets											

**PART (B)**  
**YOUR VIEWS ON NEW INTERNATIONAL TRADE**  
**ARRANGEMENTS.**

The statements below describe Barbados' rights and obligations as a member of the World Trade Organization (WTO). These rights and obligations will form the basis for negotiations to create a Free Trade Area of the Americas (FTAA), and to revise the current LOMÉ Convention. What is your opinion on each statement:

**GENERAL PRINCIPLES**

19. Any trade concession (for example, lower tariff rates) offered by Barbados to another country should also be offered to all other WTO member countries.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

20. Apart from the Customs Tariff, any other taxes or duties levied on imported entering Barbados should also be levied on locally produced goods.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

21. Barbados should ensure that its laws, regulations and administrative procedures relating to trade are made easily available to other countries which want to export to Barbados.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## MARKET ACCESS

22. Barbados should eliminate import restrictions on all imports, including sectors in which local production exists (except for reasons of health and safety, or to protect public morals).

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

23. Upon removing import restrictions, Barbados should apply tariff rates which are high enough to protect locally made products.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

24. Barbados should substantially reduce the higher tariffs it applied to protect locally made products overtime.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## SAFEGUARDS

25. Barbados should institute safeguard action to restrict imports when such imports are negatively affecting local production.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		



*Appendices*

26. Any safeguard action taken by Barbados to protect local production should be in the form of higher tariffs rather than banning imports.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

27. Any safeguard action taken by Barbados should only be temporary.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

**ANTI-DUMPING**

28. Barbados should take action against products from another country it suspects are being "dumped" (i.e. being sold in Barbados at prices below prices in the home country).

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

29. Before Barbados takes anti-dumping action against products from another country, the local industry should prove injury as a result of the goods being dumped.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

30. Before taking anti-dumping action against products from another country, Barbados should consult with the offending country.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## SUBSIDIES

31. Barbados should take action against products from another country it suspects are being subsidised (receiving financial assistance from government).

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

32. Before Barbados takes countervailing action against products from another country, the local industry should prove injury as a result of the imported goods being subsidized.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

33. Before taking countervailing action against subsidised products from another country, Barbados should consult with the offending country.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## CUSTOMS PROCEDURES

34. Barbados should adopt worldwide standards for valuing imported goods.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## **RULES OF ORIGIN**

35. Barbados should ensure that rules applied to determine the origin of goods are not more stringent than is absolutely necessary (not to be a trade barrier).

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## **IMPORT LICENSING PROCEDURES**

36. Barbados should ensure that its procedures for granting import licenses are clear and that licenses are granted quickly.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## **TECHNICAL BARRIERS TO TRADE**

37. Barbados should use standards and technical regulations (e.g. labeling requirements) to ensure that imports are of an acceptable standard.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

38. Barbados should ensure that the standards for products it implements (e.g. labelling) and other technical regulations do not impede the importation of goods unnecessarily.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		



## SANITARY AND PHYTO-SANITARY MEASURES

39. Barbados should implement strict measures on imports to protect human, animal or plant, life and health.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

40. Barbados should ensure that any measures used to protect human, animal or plant, life and health do not unnecessarily impede the importation of goods.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## PRESHIPMENT INSPECTION

41. Barbados should ensure that it has the necessary procedures in place for goods to be inspected before being exported, if the importing country requests such inspection.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## TRADE RELATED INVESTMENT MEASURES

42. The type of incentives granted by Barbados to investors should not depend on the amount of inputs which such investors purchase from local producers.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## TRADE RELATED INTELLECTUAL PROPERTY RIGHTS

43. Barbados should put intellectual property legislation in place to protect the inventions of local companies on the local market.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

44. Barbados should put intellectual property legislation in place to protect the inventions of foreign companies on the local market.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## SETTLEMENT OF DISPUTES

45. In any trade dispute matter, Barbados should not take unilateral action against another country. It should seek to resolve any trade dispute through consultation with other members of the WTO.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

46. In any trade dispute matter, Barbados should adopt any decision taken by the WTO.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

**ELECTRONIC COMMERCE**

47. Barbados should not implement measures which will restrict the buying and selling of goods over the internet.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		



**PLEASE NOTE THAT BARBADOS DOES NOT HAVE OBLIGATIONS IN RELATION TO THE FOLLOWING ISSUES. HOWEVER, THESE ARE ISSUES WHICH HAVE EITHER BEEN RAISED OR ARE BEING PURSUED WITH THE WTO AND THEREFORE ARE IMPORTANT.**

**ENVIRONMENT POLICY**

48. Barbados should refrain from restricting the importation of goods for environmental reasons, until rules are developed in this area by the WTO.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

**COMPETITION POLICY**

49. The WTO should develop rules which would not allow businesses in any country to use pricing or other business strategies to prevent the establishment or growth of competing businesses.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

**INVESTMENT**

50. In keeping with the MFN principle, the WTO should develop rules which would require that any concessions granted by any country to investment from another country, should also be granted to similar investment from other countries.

In favour	( )	Disagree	( )
Strongly in favour	( )	Strongly disagree	( )
No Position	( )		

## **APPENDIX 3 SURVEY DESIGN AND RESULTS**

### **A.3.1 SURVEY OBJECTIVES**

The objective of the Trade Policy Survey was to obtain information to be used in analysing the trade policy preferences of manufacturing firms, and the impact of the removal of trade preferences on the manufacturing sector.

### **A.3.2 SURVEY DEVELOPMENT**

The design of the survey and the conduct of the exercise followed the guidelines of Robson (1993).

- Questions were intended to be simple, non-technical.
- Options for "yes" or "no" were provided.
- Scales ranging from strongly agree to strongly disagree were provided.
- Specific question on sales, exports etc followed general questions.
- A short time period (6 weeks approximately) was given for the return of the questionnaire.

### **A.3.3 METHOD OF DATA COLLECTION**

The Survey was distributed by post and fax to all 435 manufacturing enterprises listed in the data base of the Barbados Investment and Development Corporation in September 1998. The survey was distributed during on October 9th, and manufacturers were requested to respond by December 1999.

A follow-up letter was sent and calls made from November 15th to February 15th 1999. Twenty four factory visits were also made during that period to further discuss aspects of the questionnaire and to obtain information on missing data. At the end of March 1999, there were 152 responses. Of these, 117 were complete and these were used in the analysis.

### **A.3.4 REPRESENTATIVENESS**

Chi-square goodness of fit tests to determine representativeness by firms in sub-sectors and employment in sub-sectors were undertaken (see Attachment to this Appendix). Data on the population were obtained from the BIDC quarterly survey of firms. Data on other characteristics (sales, capital association, etc) were not available for the population. The null hypotheses are that the sample and the population have the same distribution over firms and employment in each sub-sector. In both cases, the null hypothesis is not rejected at the 5% level of significance.

### ATTACHMENT TO APPENDIX 3

#### REPRESENTATIVENESS BY FIRMS IN SUB-SECTORS

	BIDC <sup>1</sup>		SURVEY		O-E	O-E <sup>2</sup> /E
	STATISTICS	%	(O) <sup>2</sup> STATISTICS	(E) <sup>3</sup> EXPECTED		
FOOD	89	20.45	35	23.93	11.06	5.11
TEXTILES	63	14.48	12	16.94	-4.94	1.44
WOOD	50	11.49	12	13.44	-1.44	0.15
PAPER	47	10.80	10	12.64	-2.64	0.55
CHEMICALS	24	5.51	11	6.45	4.544	3.19
FABRICATED	37	8.50	12	9.95	2.048	0.42
HANDICRAFT	29	6.66	8	7.8	0.2	0.005
OTHER	96	22.06	17	25.82	-8.820	3.01
<b>TOTAL</b>	<b>435</b>		<b>117</b>			
					Chi-Square =	13.90
					Critical value at 5% significance with 7 df =	14.06

#### REPRESENTATIVENESS BY EMPLOYMENT IN SUB-SECTORS

	BIDC		SURVEY		O-E	O-E <sup>2</sup> /E
	STATISTICS	%	(O) STATISTICS	(E) EXPECTED		
FOOD	4034	35.94	1930	1866.00	63.99	2.19
TEXTILES	1162	10.35	493	537.37	-44.37	3.66
WOOD	626	5.57	274	289.19	-15.19	0.79
PAPER	1183	10.54	569	547.23	21.76	0.86
CHEMICALS	570	5.07	260	263.23	-3.23	0.03
FABRICATED	943	8.40	405	436.12	-31.12	2.22
HANDICRAFT	123	1.09	51	56.59	-5.59	0.55
OTHER	2582	23.006	1210	1194.47	15.52	0.20
<b>TOTAL</b>	<b>11223</b>		<b>5192</b>			
					Ch-square =	10.53
					Critical value at 5% significance with 7 df =	14.06

1 BIDC = Barbados Investment and Development Corporation. Quarterly Employment Survey. September 1998  
 2 O = observed frequencies  
 3 E = expected frequencies



## APPENDIX 4 QUANTITATIVE METHODS

This appendix reviews regression techniques referred to in the studies. In all cases, LIMDEP 7.0 has been used to estimate the models (Green, 1998). In addition to ordinary least squares, the following techniques were used.

- 4.1 Ordered Probit Model
- 4.2 Tobit Model
- 4.3 Probit Model
- 4.4 Breusch-Pagan test for heteroscedasticity
- 4.5 Heteroscedasticity Consistent Covariance Matrix
- 4.6 Principal Components Analysis

### A.4.1 ORDERED PROBIT MODEL

The ordered probit model was developed by McElvey and Zavoina (1975). It can be applied to surveys in which the respondents express a preference which can be ordered along a scale. If the responses are coded 0, 1, 2, 3, 4, etc, OLS regression is not appropriate since the difference between 0 and 1 for example is the same as the difference between 3 and 4, while the numbers in fact only represent rankings. Other techniques such as the multinomial probit and logic model, would also not take into account the information contained in the rankings.

The model specifies that where:

$$y^* = \beta x + \varepsilon$$

The variables  $y^*$  is not observable what we observe is:

$$\begin{aligned} y &= 0 && \text{if } y^* \leq 0, \\ &= 1 && \text{if } 0 < y^* \leq \mu_1 \\ &= 2 && \text{if } \mu_1 < y^* \leq \mu_2 \\ &\cdot && \\ &\cdot && \\ &\cdot && \\ &= J && \text{if } \mu_{J-1} \leq y^* \end{aligned}$$

The  $\mu$ 's are unknown threshold parameters which must be estimated along with  $\beta$ . Estimation is undertaken by maximum likelihood. For example, the probability of obtaining observation  $y = 2$  is equal to:

$$\text{prob}(\mu_1 < \beta x + \varepsilon \leq \mu_2)$$

Which is equal to:

$$\text{prob}(\mu_1 - \beta x < \varepsilon \leq \mu_2 - \beta x).$$

Once the density is known for  $\varepsilon$  a likelihood function is formed and estimation can be undertaken. The ordered probit model assumes that  $\varepsilon$  is normally distributed with a mean of zero and a variance of one (Greene, 2000; Kennedy 1998).

#### A.4.2 TOBIT MODEL

The Tobit model (Kennedy, 1998) can be used where the dependent variable takes the value of 0 in some cases, for example where some firms export and others do not. Thus, in the regression model  $Y_i = \alpha + \beta x_i + \mu_i$ , the dependent variable is observed only when  $Y_i > 0$ . If  $Y$  is regressed against a constant and  $X$ , the residuals will not satisfy the condition of  $E(\mu_i) = 0$ , which is needed to obtain unbiased estimates. In this case, the Tobit model is used.

In this model, there is asymmetry between positive and zero values of  $Y$ . The model becomes:

$$Y_i \begin{cases} \alpha + \beta x_i + \mu_i & \text{if } Y_i > 0 \text{ or } \mu_i > -\alpha - \beta x_i \\ 0 & \text{if } Y_i \leq 0 \text{ or } \mu_i \leq -\alpha - \beta x_i \end{cases}$$

In the model,  $\mu$  follows the normal distribution with a mean of zero and a variance of  $\sigma^2$ . The joint probability density for the values of  $Y_i$  greater than zero is:

$$P_1 = \prod_{i=1}^{i=m} \frac{1}{\sigma} f\left[\frac{Y_i - \alpha - \beta X_i}{\sigma}\right]$$

Where  $\prod$  is the product and  $m$  is the number of positive values of  $Y$ . The distribution for which  $Y$  is zero is:

$$P_2 = \prod_{j=1}^{j=n} P[\mu_j \leq -\alpha - \beta X_j]$$

The joint probability for the entire set of observations for which Y is zero and positive is  $L=P_1P_2$ . As the parameters  $\alpha$  and  $\beta$  are non-linear, OLS techniques cannot be used. The maximum likelihood procedure is used instead. (Ramanathan, 1995). The procedure for obtaining estimates of  $\alpha$  and  $\beta$  is to maximise L with respect to the parameters.

### A.4.3 PROBIT MODEL

The Probit model can be used where the dependent variable is dichotomous (Ramanathan, 1995). The assumption underlying this model is that there exist a function of the form:

$$Y_t^* = \alpha + \beta X_t + \mu_t$$

Where  $X_t$  is observable but where  $Y_t^*$  is an unobservable variable. What is observed is  $Y_t$  which has a value of 1 if  $Y_t^* > 0$  and 0 otherwise. Thus

$$\begin{aligned} Y_t = 1 & \quad \text{if } \alpha + \beta X_t + \mu_t > 0 \\ Y_t = 0 & \quad \text{if } \alpha + \beta X_t + \mu_t \leq 0 \end{aligned}$$

If  $F(z)$  is denoted as the cumulative distribution function of the normal distribution, then:

$$P(Y_t = 1) = P(\mu_t > -\alpha - \beta X_t) = 1 - F\left(\frac{-\alpha - \beta X_t}{\sigma}\right) \quad \text{and}$$

$$P(Y_t = 0) = P(\mu_t \leq -\alpha - \beta X_t) = F\left(\frac{-\alpha - \beta X_t}{\sigma}\right)$$

The non-linear joint probability density function which is to be maximised to obtain estimates of  $\alpha$  and  $\beta$  is :

$$L = \prod_{Y_t=0} F\left(\frac{-\alpha - \beta X_t}{\sigma}\right) \prod_{Y_t=1} \left[1 - F\left(\frac{-\alpha - \beta X_t}{\sigma}\right)\right]$$



#### A.4.4 BREUSCH-PAGAN TEST FOR HETEROSCEDASTICITY

This test is based on the lagrange multiplier principle (Gujarati, 1995). Given a linear model of the form:

$$Y_i = \beta_1 + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \mu_i$$

With an assumed variance of:

$$\sigma_i^2 = f(\alpha_1 + \alpha_2 Z_{2i} + \dots + \alpha_m Z_{mi})$$

Where  $\sigma_i^2$  is linearly related to the Z's, some or all of which might be the X's, and where the mean and error variance respectively are given by:

$$\hat{\mu}_i = Y_i - \hat{\beta}_1 - \hat{\beta}_2 X_{i2} - \dots - \hat{\beta}_k X_{ik} \quad \text{and}$$

$$\hat{\sigma}^2 = \frac{\sum \hat{\mu}_i^2}{n} \quad \text{where } n \text{ is the sample size.}$$

As  $\hat{\mu}_i^2$  is the maximum likelihood estimator of the variance  $\sigma_i^2$ , it is also expected that it will be related to the Z's in the form:

$$\frac{\hat{\mu}_i^2}{\hat{\sigma}^2} = \alpha_1 + \alpha_2 Z_{i2} + \alpha_3 Z_{i3} + \dots + \alpha_p Z_{ip} + \varepsilon_i$$

With the Breusch-Pagan test, which is for large samples, one half of the explained sum of squares,  $\otimes = \frac{1}{2}(ESS)$ , has a chi-square distribution with p-1 degrees of freedom. The null hypothesis is that there is no heteroscedasticity (or that there is homoscedasticity):

$$H_0 : \alpha_1 = \alpha_2 = \dots = \alpha_p = 0$$

The null hypothesis is rejected if the estimated value  $\otimes$  exceeds the critical  $\chi^2$  value at a given level of significance (Gujarati, 1995).

#### A.4.5 HETEROSCEDASTICITY CONSISTENT COVARIANCE MATRIX

Given the linear regression model:

$$y_i = \beta' x_i + \varepsilon_i$$

$$E[\varepsilon_i] = 0$$

$$\text{Var}[\varepsilon_i] = \sigma^2$$

The usual covariance matrix estimated by  $V = S^2(X'X)^{-1}$ , may not be consistent in the presence of heteroscedasticity. The White consistent estimator is given by (Green, 2000; Gujarati, 1995):

$$S_w = (X'X)^{-1} \left[ \sum_i e_i^2 X_i X_i' \right] (X'X)^{-1}$$

#### A.4.6 PRINCIPAL COMPONENTS ANALYSIS

Principal components analysis (Koutsoyiannis, 1977) is used to create one variable from a set of variables. The variable created is a linear combination of the set.

Given a set of variables  $X_j$ 's ( $j = 1, 2, \dots, K$ ). The principal components is created as:

$$P_1 = a_{11}X_1 + a_{12}X_2 + \dots + a_{1k}X_k$$

$$P_2 = a_{21}X_1 + a_{22}X_2 + \dots + a_{2k}X_k$$

$$\cdot$$

$$\cdot$$

$$\cdot$$

$$\cdot$$

$$P_k = a_{k1}X_1 + a_{k2}X_2 + \dots + a_{kk}X_k$$

The steps followed in calculating the P's were as follows:

1. A table of simple correlations for the set of variables was generated (LIMDEP 7.0)

2. Each column of the correlation table was summed  $\left( \sum_j^k r_{x_i x_j} \right) = a$ , and a total sum of those value calculated  $\left( \sum_i^k \sum_j^k r_{x_i x_j} \right) = b$ . The square root of the total sum was also calculated  $\sqrt{\left( \sum_i^k \sum_j^k r_{x_i x_j} \right)} = c$ .
3. The factor loadings of the first variable  $P_1$  were found by dividing the sum of each column by the square root of the grand total  $(a / c)$ .
4. The Principal  $P$  is the sum of each variable multiplied by its factor loading.
5. The latent root  $(L)$  is the sum of the squares of  $(a / c)$ .
6. The amount of variation accounted for by the first principal component is the latent root divided by the number of columns in the correlation table  $(L / n)$ .



## **APPENDIX 5**

### **WTO PRINCIPLES AGREEMENTS AND ISSUES**

#### **A.5.1 INTRODUCTION**

The Uruguay Round Multilateral Trade Negotiations which commenced on September 1986, under the aegis of the General Agreement on Tariffs and Trade (GATT) was officially concluded on 15th April 1994 (WTO 1995a).

The Round had been deemed by many experts, as the most ambitious ever embarked upon since GATT 1947. The main objective of the negotiations was to develop rules which would ensure that world trade was free, given the high level of protection which existed in the world economy at that time. It was suggested that this protection, which took both blatant and subtle forms, was not only affecting the growth of world trade, but also as a consequence, the living standard of millions of people in developing countries.

The results of the Round are embodied in a document referred to as the Final Act. The Final Act includes the Agreement Establishing the WTO and six different accords which together form a cohesive package. Firstly, there are agreements relating to trade in goods (GATT). Secondly, there is a new agreement on trade in services (GATS). Outside of those two sets of agreements, there is a separate agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The fourth element of the package is an Understanding on Rules and Procedures Governing the Settlement of Disputes. The fifth accord is a mechanism for reviewing trade policies. The sixth and final accord are plurilateral agreements.

In addition to the areas listed, there are also thirty Ministerial Declarations and Decisions, which speak to specific aspects of the agreements.

This chapter reviews WTO agreements of direct relevance to this study, and comments on the international competitiveness implications of these agreements. This chapter also examines the new issues being discussed with a view towards negotiations.

#### **A.5.2 WTO PRINCIPLES**

WTO agreements contain three basic rules regarded as principles which run throughout all agreements. These are the principle of non-discrimination, national treatment and transparency.

#### **A.5.2.1      *Non-Discrimination Principle***

The non-discrimination principle or Most-Favoured Nation Treatment clause (Article I of GATT, Article II of GATS, and Article 4 TRIPS), requires that any concession granted by one member state to another member state, must immediately and unconditionally be granted to all other member states.

This principle is regarded as a key cornerstone in the multilateral trade system. It requires that countries wishing to form strategic alliances through the formation of regional trade agreements, seek exemption from this principle.

#### **A.5.2.2      *National Treatment***

The principle of national treatment (Article III of GATT, Article XXVII of GATS, and Article 3 of TRIPS), requires that once a product or service has entered the domestic market, that good or service should be accorded the same "treatment" as goods produced locally. This means that once goods or services enter the domestic market, charges, duties or trade requirements not applicable to domestically produced goods or services should not be placed on imported goods or foreign services.

#### **A.5.2.3      *Transparency***

The transparency principle requires that policies implemented by member states which directly or indirectly affect the flow of international trade be available for the scrutiny of all member states. This is done through notification requirements embedded in all agreements, and through the Trade Policy Review Mechanism.

### **A.5.3      **WTO AGREEMENTS****

This section summarizes the WTO agreements focusing on key components of relevance to this paper. The Final Act contains the Marrakesh Agreement Establishing the World Trade Organization, to which the following agreements are annexed:

- i.      Multilateral agreements on Trade in Goods including the following:
  - General Agreement on Tariffs and Trade 1994
  - Agreement on Agriculture.



- Agreement on the Application of Sanitary and Phyto-sanitary Measures.
  - Agreement on Textiles and Clothing.
  - Agreement on Technical Barriers to Trade.
  - Agreement on Trade-Related Investment Measures.
  - Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994.
  - Agreement on Pre-shipment Inspection.
  - Agreement on Rules of Origin.
  - Agreement on Import Licensing Procedures.
  - Agreement on Subsidies and Countervailing Measures.
  - Agreement on Safeguards.
- ii. General Agreement on Trade in Services.
  - iii. Agreement on Trade-Related Aspects of Intellectual Property Right
  - iv. Understanding on Rules and Procedures Governing the Settlement of Disputes.
  - v. Trade Policy Review Mechanism.
  - vii. Plurilateral Trade Agreements.

#### *A.5.3.1 Agreement Establishing the WTO*

The Agreement Establishing the WTO outlines the role and structure of the organization, and the process for decision making. It creates the Ministerial Conference as the highest decision making body in the organisation, with a mandate to meet at least every two years. It also establishes the General Council to undertake the day to day decision on behalf of the Ministerial Conference.

The agreement stipulates that generally, all agreements attached to the WTO must be accepted as a "single undertaking" by all members. The major exceptions are plurilateral agreements. Acceptance of these is optional.

Article IX of the agreement makes provision for waivers from their obligations to be granted to countries. This is important in the context of preferential trade arrangements, especially between developed and developing countries.

#### *A.5.3.2 General Agreement on Tariffs and Trade 1994*

This agreement outlines the contents of GATT 1994. The agreement states that GATT 1994 will consist of GATT 1947 as amended through previous Rounds of Multilateral Trade Negotiations as well as decisions taken during those Rounds.

Included in GATT 1994 therefore, would be the decisions on Special and Differential treatment (the Enabling Clause), which provides exemptions from Article I to developing countries in special cases.



GATT 1994 also includes the following:

- a. Understanding on the Interpretation of Article II:(b) of the General Agreement on Tariff and Trade 1994.**  
This Understanding requires that countries include "other charges and duties" in their schedules of commitments. "Other duties and charges are to be those which existed at April 15 1994. It also makes provisions for countries to challenge levels recorded.
- b. Understanding on the Interpretation of Article XVII of the General Agreement on Tariffs and Trade 1994.**  
While WTO rules do not outlaw state trading enterprises, they do make provisions for ensuring that such entities operate in a transparent manner. This Understanding requires that state trading enterprises make notifications to the WTO for the scrutiny of all members.
- c. Understanding on Balance-of-Payments Provisions of the General Agreement on Tariffs and Trade 1994.**  
The Understanding provides for countries to use trade restricting measures when they are faced with Balance of Payments difficulties. It urges members to use price based rather than quantitative restrictions to protect their balance of payments. Any measure taken in respect of balance of payments difficulties, must be notified for discussion by WTO members. This is especially the case when quantitative restrictions are used.
- d. Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994.**  
Article XXIV of the GATT sets out the requirements to be met by Customs Unions and Free Trade Areas to be compliant with WTO provisions. This Understanding seeks to clarify some of the provisions on how countries affected by the creation or expansion of a Customs Union or Free Trade Area are to be compensated. Compensation can be in the form of lower tariffs by the offending member or members.
- e. Understanding in Respect of Waivers and Obligations under the General Agreement on Tariffs and Trade 1994.**  
This Understanding stipulates that requests for waivers from WTO obligations should include the type of waiver requested, the policy objective of the waiver, as well as reasons why WTO consistent measures would not achieve the policy objectives. (It requires the termination of the waiver unless granted under Article XI of the Agreement Establishing the WTO).

**f. Understanding on the Interpretation of Article XXVIII of the General Agreement on Tariffs and Trade 1994.**

Countries which have principal supplying interest or substantial interest in export of a product, will have initial negotiating rights if an obligation is changed or withdrawn, and compensation is being offered. Principal negotiating rights and substantial interest are to be determined by such factors as the percentage of exports to total exports of the affected country, production capacity and investment affected.

**g. Marrakesh Protocol to the General Agreement on Tariffs and Trade 1994.**

This Protocol requires that members implement their schedules of commitments in the areas of agricultural and non-agricultural goods. The start date for the reduction of tariffs is the establishment of the WTO. It also highlights the fact that in the event that schedules are modified or withdrawn, then procedures for compensation will apply.

**A.5.3.3 Agreement on Agriculture**

The Agreement on Agriculture defines agricultural products as all products falling under HS Chapters 1 - 24, less fish and fish products and a number of specific products in other HS Chapters included e.g. raw silk under Chapter 41.01 and 41.03. This definition embraces a number of products which would usually be classified as manufactured goods such as beverages in Chapter 22, and processed cooking oils in Chapter 15.

The primary goal of the agreement is the liberalisation of trade in this sector. The agreement has two important elements. These are market access and domestic support commitments.

Under the market access commitments, members have agreed to the tariffication of import restrictions and to the reduction of these tariffs over time. For developed countries, tariffs are to be reduced by an average of 36 percent over a six-year period. For developing countries, duties are to be reduced by an average of 24 percent over a ten year period. No reduction is required in the case of least developed countries (least developed countries are those with a per capita income of US \$ 1000 or less).

In terms of domestic support commitments, measures which have a "minimal" impact on trade are excluded from reduction commitments. However, all other types of support must be included in a programme for reduction. In the case of



developed countries the reduction required is 20 percent. In the case of developing countries, the reduction is 13.3 percent. No reduction is required for least developed countries.

The agreement also requires that export subsidies be reduced to a level of 36 percent below the 1986 -1990 reference level over a six year period and that the quantity of subsidised exports be reduced by 21 percent over the same period. Developing countries are required to reduce their levels of subsidies and subsidised exports by two-thirds of that for developed countries. Again, no reductions apply in the case of least developed countries.

Given the sensitive nature of this sector for many countries, a special safeguard provision is included which allows countries to increase the level of duties applicable by a third if local production is being adversely affected by imports above a trigger level, or by reduced prices for imports below a trigger level.

#### *A.5.3.4 Agreement on the Application of Sanitary and Phyto-Sanitary Measures*

This agreement seeks to establish rules to be followed by all members in implementing regulations to protect the life and health of human, animal or plant life. It essentially requires that members adopt international standards in this area or base country standards on scientific grounds. It also requires that the action of members be highly transparent in this area.

#### *A.5.3.5 Agreement in Textiles and Clothing*

This agreement is listed as being among the major achievements of the Round. Since the mid-1970s, trade in clothing and textiles was largely conducted under the Multi-Fibre Agreement (MFA). Under this agreement, developed countries fixed quotas for trade in these products. This arrangement breached market access rules under the GATT. It was however allowed to continue.

The WTO agreement requires members to phase out all quantitative restrictions on textiles and clothing over a ten-year period. Thus the MFA is to be phased out by 2004. In pursuit of this objective, each WTO member was required to submit its programme for phasing out restrictions on textiles and clothing to the WTO within six months of its establishment.

#### *A.5.3.6 Agreement on Technical Barriers to Trade*

Technical barriers to trade refer to the use of technical regulations, standards or conformity assessment procedures to restrict the flow of international trade. The agreement on Technical Barriers to Trade sets out the guidelines for the use of



technical instruments. It requires that such measures should not be used to inhibit trade and it requires that, where possible, international codes in these areas be adopted. It further places an obligation on member states to provide justification for any application of a standard or measure which is trade inhibiting.

**A.5.3.7      *Agreement on Trade-Related Investment Measures (TRIMS)***

Trade-Related Investment Measures referred to in this agreement relate to trade in goods only. The agreement requires member states to abolish existing measures which are inconsistent with their obligations, and to refrain from introducing any new ones. It also requires member states to grant national treatment to investors. Investment measures which are disallowed include the requirement that investors source some or all of their inputs locally and/or the linking of the value of imported inputs to the value of goods exported.

**A.5.3.8      *Agreement On Anti-Dumping Measures***

Countries whose industries are being adversely affected by "dumped" imports can use the provisions of this agreement to take anti-dumping action. Dumping is defined as the export of a product at a price below its "normal value". The agreement contains details on the calculation of "normal value", as well as the process for taking anti-dumping action. It also calls for prompt and detailed reporting to the WTO of all anti-dumping action taken by member states.

**A.5.3.9      *Agreement on Customs Valuation***

This agreement contains rules which seek to apply a fair, uniform and neutral system in the valuation of imports. It is intended to remove any arbitrary methods which Customs Authorities may apply that could adversely affect the free flow of trade. The agreement is explicit in the steps which must be applied to arrive at the value of goods.

**A.5.3.10     *Agreement on Pre-Shipment Inspection***

Preshipment inspection occurs where an importing government entity hires a private company to inspect goods within the borders of the exporting country before importation. Governments may undertake such action for many reasons including national security, the prevention of commercial fraud and the determination of the correct valuation of goods. This agreement sets out the rules for conducting such inspections and the methods to be used in resolving disputes.

#### **A.5.3.11      *Agreement on Rules of Origin***

Most trade agreements contain rules for determining the origin of goods. These rules vary across the many agreements. The WTO agreement on Rules of Origin contains a framework for the development of harmonised rules for its members. No specific rules are listed in the agreement. However, it provides the mandate and guidelines for the WTO Committee which is developing a system of harmonised rules.

#### **A.5.3.12      *Agreement on Subsidies and Countervailing Measures***

This agreement provides disciplines on the granting of subsidies and also on procedures for taking action against the subsidies granted by other member states. In other words, it provides the framework within which an aggrieved member state can seek redress within the WTO in cases where subsidised goods produced in/or exported by another member state negatively affect its production. Under the agreement some subsidies are actionable and others are not actionable. The agreement defines three types of subsidies: prohibited subsidies, actionable subsidies and non-actionable subsidies. Prohibited subsidies are subsidies based on (i) export performance and (ii) import content requirements. Actionable subsidies are subsidies given to specific industries by a member state, which negatively impact on the domestic industry of another member state. Non-Actionable subsidies are non-specific in nature or are specific but insignificant.

#### **A.5.3.13      *Agreement on Safeguards***

This agreement makes provision for Member States whose industries are being negatively affected by imports from other Member States to protect those industries by imposing temporary trade restrictions under a stringent set of conditions. The criteria for the assessment of serious injury as well as the steps to be taken before the implementation of any restrictions are set out in the agreement. Prior to safeguard action being taken, approval must be obtained from the WTO Council for Trade in Goods.

#### **A.5.3.14      *Agreement on Services***

This agreement, in addition to bringing trade in services under multilateral disciplines for the first time, seeks to progressively liberalise trade in this multifaceted area. The agreement lays down certain basic disciplines and provides a framework for negotiations on the liberalisation between members (Most Favoured Nation Treatment), national treatment (non-discrimination as between foreign service supplier and domestic service supplier), and transparency in the conduct of trade. In addition, each member state of the WTO



had to commit itself to the liberalisation of trade in at least one service activity. Each member also undertook to progressively liberalise trade in other service sectors in future rounds of trade negotiations.

**A.5.3.15      *Agreement on Trade Related Aspects of Intellectual Property Rights. (TRIPS)***

The agreement essentially protects intellectual property rights and lays down minimum standards of protection and enforcement which all member states must implement. The areas of intellectual property covered by the agreement are **patents, copyrights, trademarks, geographical indications, industrial designs, layout-designs of integrated circuits and undisclosed information.** There is a distinct section (Part III) which sets out the objections of members to provide procedures for effective action against infringement of intellectual property rights.

**A.5.4            UNDERSTANDING ON THE SETTLEMENT OF DISPUTES**

The agreement provides for an enhanced and more strengthened Dispute Settlement Mechanism within the WTO than existed under the GATT. Members are required to use this facility rather than taking unilateral action in the settlement of disputes. The first stage of dispute resolution calls for consultations on the part of the parties concerned. If the consultative process fails, one or both parties can request the WTO to establish a Panel to hear the dispute. The report of the Panel, together with its recommendations, can be appealed by either party. An Appellate Body will then consider the matter and parties are bound to adhere to its ruling.

**A.5.5            TRADE REVIEW POLICY MECHANISM**

The Trade Policy Review Mechanism of the WTO provides for the investigation of, and reporting on, all trade and trade related policies and procedures of member states. The objectives of the reviews are to determine how members states are implementing their obligations, and to permit a greater transparency and understanding of trade policies and practices of member states. The report which is prepared by WTO staff is reviewed by all members in Council. The time-table for conducting these reviews is tied to member states' share in overall global trade. The top four member states - EU, USA, Japan and Canada - are examined every two years. The next 16 are reviewed every 4 years; and the rest every 6 years. Longer intervals may be fixed for least developed countries.



## **A.5.6 PLURILATERAL TRADE AGREEMENTS**

Plurilateral agreements are optional agreements entered into by member states of the WTO. Three Plurilateral agreements are currently in force. These are:

- i. the agreement on Trade in Civil Aircraft which eliminates duties on all aircraft and related equipment (except military aircraft);
- ii. the Agreement on Government Procurement which seeks to streamline tendering procedures and to liberalise trade in this area; and
- iii. the agreement aimed at the elimination of tariffs on Information Technology Products. This agreement was established in Singapore in December 1996.

## **A.5.7 WTO ISSUES**

At the time the Marrakesh Agreement Establishing the WTO was signed in 1994, not all issues relating to the development of multilateral trade rules were resolved. Some agreements contained provisions for either a review, or for further negotiations to bring the outstanding issues to conclusion. This is referred to as the Built-In Agenda.

In keeping with the Built-In Agenda, negotiations to conclude agreements in Financial Services, and Basic Telecommunications were completed in 1996. Negotiations in the areas of agriculture and services commenced in 2000 in keeping with the Built-In Agenda.

Since 1996, some WTO members have been raising a number of issues which they considered should be examined by the WTO. These issues (referred to as the Singapore issues) include:

Trade and the Environment;  
Trade and Labour Standards;  
Trade and Competition Policy;  
Trade and Investment; and  
Trade Facilitation.

At the Ministerial Conference held in 2001 it was agreed that negotiations would be held in all of the above areas with the exception of labour standards.

### **A.5.7.1 *Labour Issues***

At the first Ministerial Conference in Singapore in 1996, the USA initiated a proposal calling for a Working Group to be established on core labour

standards. The "core" labour standards which the group would examine would include:

- Freedom of association
- Right to organize and bargain collectively
- Prohibition on forced labour
- Elimination of exploitative forms of child labour
- Non-discrimination in employment or occupation

The argument for the establishment of the Working Group was that core labour standards would address the concerns of working people and demonstrate that trade is a path to tangible prosperity.

The Singapore meeting however only decided that the WTO and the ILO would collaborate on the issue.

At the Third Ministerial Conference, the USA proposed that a Working Group with a slightly broader mandate be established. The Working Group on Trade and Labour, would consider the following issues:

- (a) trade and employment - examination of effects of increased international trade and investment on levels and composition of country's employment;
- (b) trade and social protection - examination of the relationship between increased openness in trade and investment and the scope and the structure of basic social protections and safety nets in developed and developing countries;
- (c) trade and core labour standards - examination of relationship between economic development, international trade and investment, and the implementation of core labour standards;
- (d) positive trade policy incentives and core labour standards - examination of the scope for positive trade policy incentives to promote implementation of core labour standards;
- (e) trade and forced or exploitative child labour - examination of the extent of forced or exploitative child labour in industries engaged in international trade; and
- (f) trade and derogation from national labour standards - examination of the effects of derogation from national labour standards (including in export processing zones) on international trade, investment and economic development.

The establishment of a Working Group to consider trade and labour issues however, continues to be opposed by developing countries who consider that this is a guise (mainly on the part of the USA) to protect domestic industries



from cheaper imports. A proposal by the EU for a joint WTO/ILO forum has also met with resistance.

#### *A.5.7.2 Trade and the Environment*

On the occasion of the signing of the Final Act in 1994, Ministers agreed to the establishment of a Committee on Trade and the Environment. The Committee was initially given a life of two years and was requested to submit a report to the first Ministerial Conference, at which time its work and terms of reference would be reviewed.

The terms of reference of the Committee include an examination of the:

- i). relationship between the provisions of the multilateral trading system and trade measures for environmental purposes, particularly those which exist under Multilateral Environmental Agreements;
- ii) relationship between environmental policies relevant to trade and environmental measures with significant trade effects and the provisions of the multilateral trading system;
- iii) relationship between the provisions of the multilateral system and environmental taxes, standards and technical regulations, packaging and labelling and recycling; and
- iv) issue of exports of domestically prohibited goods.

The Committee has been pursuing its mandate under two broad themes of issues related to market access, and the linkages between multilateral environment and trade agreements.

#### *A.5.7.3 Trade and Investment*

The issue of developing international standards on investment was first jointly raised in the WTO by Canada and Japan. The issue has also received the support of the USA and the EU. In 1996, these countries requested that a working party be established to examine issues relating to trade and investment, and to develop multilateral rules in this area.

Among the arguments for the development of multilateral rules on investment were:



- i. the close and growing inter-linkages between trade and investment in a world economy which is becoming increasingly integrated;
- ii. the positive contribution which foreign direct investment can make to the expansion of trade and enhancement of economic growth to all economies;
- iii. that foreign direct investment is complementary to trade development in order to access foreign markets; and
- iv. that the many bilateral, regional and sectoral treaties covering investment are creating an international climate which is not transparent, consistent nor fair.

Supporters of the multilateralisation of investment standards have been careful to point out that the development of multilateral rules in relation to investment will not mean that countries will lose their sovereignty in determining development policies. They note that even the most liberal OECD countries maintain their restrictions on investment for many reasons, including national security and the need to achieve specific policy aims.

#### *A.5.7.4 Trade and Competition Policy*

Competition policy issues, unlike labour standards and investment, seek directly to improve on already existing WTO agreements. The overall objective of this issue as introduced by Japan, the EU and Korea, is to "prevent competition restricting actions from reducing the market access opportunities acquired through the elimination or reduction in trade barriers".

It is argued by these countries that a number of current WTO agreements, such as anti-dumping measures, safeguard measures, and subsidies and countervailing measures could be abused to the extent that they have competition restricting effects. In addition, there exist a number of practices in some countries, which undermine market access opportunities for other countries. These include cartels, collusive pricing, boycotts, and mergers designed to restrict competition.

An international framework is therefore being advocated in order to:

- promote the existence of domestic competition structures in the jurisdiction of all WTO members;
- increase the effectiveness and coherence of the national competition policies of WTO members;
- avoid conflicts of law and jurisdiction between countries and promote a gradual convergence of competition laws. This would increase the legal security of firms operating in different

- jurisdictions, as well as reduce their costs of compliance with competition laws; and
- strengthen the multilateral trading system and promote equal conditions of competition and market access worldwide.

#### *A.5.7.5 Trade Facilitation*

Since 1996, the WTO has been examining trade facilitation procedures in member countries. It has been argued by some countries, that undue administrative procedures for clearing imports and exports, retard the growth of trade, and increase the cost of imports and exports. Some countries have therefore been calling for the development of rules which would simplify, modernise and harmonise documentation requirements and border-crossing procedures and systems.

## **APPENDIX 6 DESCRIPTION OF PREFERENTIAL TRADE AGREEMENTS**

This section reviews the preferential trade arrangements under which Barbados' exports access the markets of other countries on a full or partial duty-free basis. The non-reciprocal arrangements are:

1. Generalised System of Preferences (GSP)
2. LOMÉ Conventions I – IV
3. Caribbean Basin Initiative (CBI)
4. CARIBCAN
5. CARICOM/Venezuela Agreement on Trade and Investment
6. CARICOM/Colombia Trade, Economic and Technical Cooperation Agreement<sup>1</sup>.

The reciprocal arrangement to which Barbados is a party, and which will be reviewed in this section, is the Caribbean Community (CARICOM)<sup>2</sup>.

### **A.6.1 GENERALISED SYSTEM OF PREFERENCES (GSP)**

The GSP programme was one of the major outcomes of UNCTAD II held in 1968. Under the GSP programme, some developed countries grant preferential market access to developing countries on a reduced tariff rate or duty free basis.

The main objectives of the GSP are to:

- Increase the export earnings of the preference receiving countries.
- Promote their industrialization.
- Accelerate their rate of economic growth.

There are at present 15 GSP schemes in operation, which are offered by 29 preference giving or donor countries, including the 15 members of the EU. Barbados is a beneficiary of the schemes offered by Canada, European Union, Japan, Norway, Switzerland, USA, Australia and New Zealand.

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<sup>1</sup> Non-reciprocal for the first four years only.

<sup>2</sup> CARICOM is in the process of finalising reciprocal trade agreements with the Dominican Republic and with Cuba.



Although the schemes fall within the same GSP framework, they differ in terms of their coverage, depth of tariff cuts, safeguard measures, and especially the rules of origin. Given the diversity of the various schemes, this section will describe the main elements of the GSP schemes of Barbados' major trading partners the EU, USA and Canada<sup>3</sup>.

#### *A.6.1.1 Background and Country Coverage*

The GSP of the European Community was first introduced in 1971 on a ten year basis. The scheme was reviewed in 1981, and again in 1991 when an extension was made pending the outcome of the Uruguay Round of Multilateral Trade Negotiations. In 1995, the scheme was altered and three key features introduced namely, tariff modulation according to the sensitivity of the product, country-sector graduation and special incentive arrangements for countries which comply with such requirements as labour standards and environmental norms. The current scheme has been in operation since 1 July 1999 and will be reviewed in 31 December 2001.

The Canadian GSP (referred to as General Preferential Tariff - GPT) was introduced on 1 July 1974 for a ten-year period. The scheme was reviewed in 1984 when product coverage was expanded. Another review was undertaken in 1994, and the scheme extended until 2004. The last review expanded product coverage and lowered tariff rates of duty to take into account the erosion of preference margins as a result of WTO commitments.

The GSP of the USA was instituted in 1976 for a ten year period, and was eventually extended to 1993 after which the scheme has been reviewed every one or two years. A new scheme is to be implemented in 2000.

All GSP schemes specify beneficiary countries. In general, countries are excluded for reasons of forced or child labour or failure to comply with international conventions on such issues as money laundering or the transit of narcotics.

#### *A.6.1.2 Product Coverage and Depth of Tariff Cuts*

The EC scheme includes a large number of agricultural products falling under Chapters 1 - 24 of the HS code, as well as processed and semi-processed industrial products and ferro-alloys falling under Chapters 25 - 97, excluding Chapter 93 (arms and ammunition and parts thereof). Additional concessions are granted to least developed countries identified by the EU.

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<sup>3</sup> The information provided in this review is taken from the UNCTAD website //www.unctad.org/gsp/

The scheme classifies products into four categories; non-sensitive products, semi-sensitive products, sensitive products, and very sensitive products. For these products the rate of duty applied are; 0%, 35%, 70% and 85% of the MFN rate respectively. The very sensitive industries are mainly garments and textiles, falling between HS Chapters 50 to 63.

In the case of the USA, there are annual reviews of the list of products and countries covered under its GSP scheme. At these reviews, petitions submitted by countries for the inclusion of products are examined. The scheme is composed of 4,650 articles including manufactured, semi-manufactured, selected agricultural, fishery and primary industrial goods, not otherwise receiving duty-free concessions. In addition, from 1996, another 1,770 articles exported by least developed beneficiary countries received duty free treatment. Least developed beneficiary countries are those with a per capita income of US \$786 or less<sup>4</sup>.

All products eligible for preferential treatment under the GSP scheme enter the U.S. free of duty. Goods not eligible for GSP treatment include most textiles, watches, footwear, handbags, luggage, flat goods, work gloves and other leather apparel.

The Canadian GSP is not as structured as that of the USA and EU. The rates of duty vary depending on the product. In addition, the products which benefit from the scheme are less categorized. In general however, products such as textiles, footwear, chemicals, plastic and allied industries, specialty steels and electron tubes are excluded from the scheme.

In the case of Canada, 48 countries designated as LDCs benefit from duty-free access for all products eligible for GSP treatment (other GSP beneficiary countries in some instances receive a reduced rate of duty only). In addition, the value added criteria is lower for least developed countries.

#### *A.6.1.3 Rules of Origin*

Rules of origin criteria generally fall into two categories; wholly produced and substantial transformation. The former definition refers to "products which have been entirely grown, extracted from the soil or harvested within the exporting country, or manufactured there exclusively from any of these products"<sup>5</sup>. The general rule for a substantial transformation is a change in tariff heading. However, other criteria may apply such as production from specific material and/or a specific value added.

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<sup>4</sup> USTR (2000) "U.S. Generalized System of Preferences Guidebook".

<sup>5</sup> UNCTAD (2000d) Digest on GSP Rules of Origin:// [www.unctad.org/en/techcop/trade0103.htm](http://www.unctad.org/en/techcop/trade0103.htm)



Most GSP schemes require that many agricultural, fish and forestry products must be wholly produced. For the EU, USA and Canada, the value added to the product in the beneficiary country must be generally at least 60%, 35 % and 60% respectively.

#### *A.6.1.4 Safeguards and Graduation*

Safeguard provisions operate in GSP schemes to protect industries in donor countries from surges in competitive imports. Graduation schemes on the other hand operate to ensure that mostly countries with low per capita incomes benefit from the schemes.

In terms of safeguards, the EC GSP contains a clause which allows MFN tariff rates to be re-introduced if imports of a product are causing injury or threatening the survival of an EC industry. Among the factors taken into account in determining injury or threat of injury are; low profitability, reduction in employment or capacity utilisation and increases in stock of the domestic industry. In the EC GSP system, countries are graduated based on an index calculated by the EC. The components of the index are export specialisation and development level. The development index includes export earnings and the per capita income of the country.

Both the US and Canadian GSP schemes make provisions for the withdrawal of concessions if imports are causing injury to, or threatening the survival of a domestic industry. In addition, the US GSP also contains a clause on "competitive-need limitations" which states that GSP treatment for the exports of a country will be withdrawn if imports from that country account for more than 50% of the value of total US imports of that product, or a certain dollar value is exceeded (in 1996 the limit set was US \$ 75 million for 1996 with an annual increase of US\$ 5 million). Graduation from the US GSP occurs if a country is classified as an upper income developing country as determined by the World Bank.

#### *A.6.1.5 Concerns about GSP schemes*

A number of problems have been cited which have negatively affected the utilisation of GSP schemes. These include: insufficient knowledge of GSP schemes, lack of capacity in many developing countries to use GSP schemes, complexity of rules of origin and documentation requirements, and the uncertainty about the schemes as they are subject to change from year to year.



UNCTAD has made a number of recommendations aimed at improving the utilisation of these trading arrangements including<sup>6</sup>:

- i. industrial cooperation arrangements between importers and developing countries towards strengthening and diversifying the supply capabilities of the latter;
- ii. expanding product coverage;
- iii. relaxing and simplifying rules of origin requirements;
- iv. reducing the need for developing countries to comply with social, humanitarian and other conditions not related to trade; and
- v. ensuring that the schemes remain stable and predictable so investment can be planned.

## **A.6.2 THE LOMÉ CONVENTIONS**

The LOMÉ Convention is a trade and aid package offered by the European Economic Community (EC) to states in the African, Caribbean and Pacific region (ACP states)<sup>7</sup>. The first LOMÉ Convention was signed in 1975 by nine member states of the European Community and 46 African, Caribbean and Pacific States. The key objective of the convention was to promote and expedite the economic, cultural and social development of the ACP states and to consolidate and diversify their relations in a spirit of mutual solidarity. The main founding principle of the convention was the equality between partners, respect for their sovereignty, mutual interest and interdependence; the right of each state to determine its political, social, cultural and economic policy options; and security of relations based on the 'acquis' of their system of cooperation.

The convention, which was renewed after negotiations in 1979, 1984 and 1989 with a mid term review in 1995, has the following components<sup>8</sup>:

### *A.6.2.1 Elements of the LOMÉ Convention*

All LOMÉ Conventions contained aid and trade elements. Successive rounds of negotiations to develop successor arrangements have sought to increase the size of the aid package and to secure more preferential trade arrangements for ACP countries.

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<sup>6</sup> UNCTAD (1998) Ways And Means Of Enhancing The Utilisation of Trade Preferences By Developing Countries, In Particular LDCs, As Well As Further Ways Of Expanding Preferences.

<sup>7</sup> Commission of the European Communities - (1986;1990a; 1990b).

<sup>8</sup> Commission of the European Communities (1995).

**A.6.2.1.1 Aid**

The aid package which is administered through the financial protocol (Table 2.4) contains the following elements:

- Grant and risk capital.
- Stabex funds:- cash payments to offset losses on agricultural exports.
- Sysmin funds:- cash payments to assist mining industries facing difficulties.
- Emergency aid:- for disaster relief.
- Refugee aid:- for serious refugee situations.
- Structural adjustment aid:- for countries undergoing economic reform.
- Funds for trade promotion and development.

**A.6.2.1.2 Trade**

The trade cooperation package includes:

- preferential access to the EC market for most ACP industrial and agricultural products; and
- guaranteed purchase by the EC of such commodities as sugar, rum and bananas.

Appendix Table 6.1 highlights key elements of funding under the various Conventions. The table shows the increases from LOMÉ I to IV.

**APPENDIX TABLE 6.1  
LOMÉ CONVENTION: FINANCIAL RESOURCES**

	ECU MILLIONS
LOMÉ I (1975 - 1980)	3 450
LOMÉ II (1980 - 1985)	5 700
LOMÉ III (1985- 1990)	8 500
LOMÉ IV (1990 - 2000)	
Financial Protocol (1990 - 1995)	12 000
Financial Protocol (1995 - 2000)	14 625
Made up as follows:	
European Development Fund (EDF)	6 262
Grants for national and regional programmes	
Stabex	1 800
Sysmin	575
Structural adjustment	1 400
Emergency refugee assistance	260
Interest rate subsidies	370
Regional Trade Cooperation	1 300
Risk Capital	1 000
European Investment Bank (EIB)	
Loans for national and regional projects	1 658

Source: Commission of the European Communities 1995; 1990a; 1986.

#### *A.6.2.1.2.1 Trade Cooperation and Commodity Protocol*

##### *A.6.2.1.2.1.1 Preferential Trade*

The major objective of trade cooperation is to promote trade between the ACP States and the Community, taking into account their respective levels of development. In pursuit of that objective, all ACP originating products are imported into the EC free of customs duties or charges having the equivalent effect. Agricultural products are however subject to the specific rules of the Common Agricultural Policy. The EU has given the undertaking that, wherever possible, it will "take the necessary measures to ensure more favourable treatment than that granted to third countries benefiting from the most-favoured-nation clause for the same product".

Key elements of trade cooperation between the EU and ACP countries include:

- A commitment not to apply quantitative restrictions or measures having an equivalent effect on ACP exports.
- Restrictions are to be applied for reasons of health, safety or to protect public morals.



- Treatment granted to ACP exports may not be more favourable than that applied to trade among the member states of the Community.
- The Community is to inform ACP states of any measures which affect their exports prior to such measures being adopted.
- ACP states are not required to grant reciprocal treatment to exports of the Community.
- Where trade cooperation concessions granted to ACP states result in "serious disturbances" in a sector of the economy of any member or members of the Community, the Community can take safeguard measures to protect the sector.
- Given the importance of trade in services to ACP states, negotiations are to take place to develop provisions in this area.

Rules of origin criteria include the following:

- agricultural, fishing and forestry products generally must be wholly produced;
- other products must generally undergo substantial transformation including a change of tariff heading, production from specified material, or must meet a value added criteria which is as high as 80% of the price (ex-works price) of the product; and
- rules allow for cumulation, where inputs from non-ACP states in the same geographical location are used to produce the final product. The inputs must however undergo substantial transformation.

#### *A.6.2.1.2.1.2 Commodity Protocols*

The LOMÉ IV Convention contains a number of Commodity Protocols on bananas, rum, beef and veal, sugar, coal and steel and forest resources. The Protocols which are of interest to Barbados given its exports, are sugar and rum.

In terms of sugar, the Community has undertaken to purchase sugar from ACP states at guaranteed prices. These prices are above world market prices.

The Protocol on rum allows for duty-free export of this product to the Community. A quota system which was in place until 31 December 1995 has been phased out in accordance with the Convention.

Stevens et al (2001) estimates that a proposal by the EU to give duty free access to its markets to the majority of LDC exports will provide considerable competition for some commodities from many ACP states including Barbados. The 'Everything but Arms Deal' will especially negatively impact on the Sugar and Rum Protocols.

### **A.6.2.3      *Concerns about the LOMÉ Convention***

Manufacturers in Barbados have cited a number of problems in attempting to export to Europe and so benefit from preferences offered under successive LOMÉ Conventions. These include high transportation costs to the EU market from the Caribbean, competition from "cheap" producers in China and Asia and rules of origin requirements which in many cases would make production in the Caribbean region uneconomical. These concerns have not been addressed in the Cotonou Agreement (Appendix 7), and negotiations will have to include some of these issues.

It should however be emphasised that unlike other one-way preferential trade arrangements, LOMÉ Conventions are broader than trade preferences. Funding for trade development in such areas as product design and marketing, can aid a country in taking advantage of concessions offered under other preferential arrangements. In addition, it is expected that a new partnership agreement with Europe will include services which is estimated by CARICOM will be their main sector for earning foreign exchange.

## **A.6.3            CARIBBEAN BASIN ECONOMIC RECOVERY ACT**

The Caribbean Basin Economic Recovery Act<sup>9</sup>, commonly known as the Caribbean Basin Initiative (CBI) was signed into law by the U.S. in 1983. The main objective of the Act was to expand productive capacity and open new markets to trade by combining foreign and indigenous private sector investment with the natural resource endowment of the Caribbean Basin. Preferences were to exist for a twelve year period originally. However, in 1990 the CBI was extended for an indefinite period.

### **A.6.3.1          *Provisions of the Act***

The centre piece of the CBI is one-way free trade for the exports of beneficiary countries into the USA market, except for the following:

- textiles and apparel;
- petroleum and petroleum products;
- footwear, luggage, flat goods and leather apparel (gloves, belts and wallets);
- canned tuna; and

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<sup>9</sup> (USTR , 2000; GATT (1993); US Congress, 1990)



- watches and watch parts if they contain any material from non-MFN countries, principally the USSR and China.

Countries must meet a number of non-trade criteria in order to benefit from the CBI. These are:

1. Compensation for any expropriated US property.
2. Cooperation in narcotics control, intellectual property rights, labour laws and the sharing of tax information.
3. Non-Communist regime.

Countries which benefit from the CBI are:

- |                        |                            |
|------------------------|----------------------------|
| - CARICOM countries    | - Nicaragua                |
| - Aruba                | - Turks and Caicos Islands |
| - Costa Rica           | - Panama                   |
| - Dominican Republic   | - British Virgin Islands   |
| - Netherlands Antilles | - Guatemala                |
| - Cayman Island        | - Honduras                 |
| - El Salvador          | - Haiti                    |

To qualify for duty free entry into the U.S.A, the product must be wholly produced or have a value added component of not less than 35%, or undergo substantial transformation - *“simple combining or packaging or mere dilution with water or mere dilution with another substance that does not materially alter the characteristics of the article”*<sup>10</sup> does not constitute meaningful transformation.

The Act provides for safeguard action to be taken if imports of any product are causing injury to domestic industries. The emergency action to be taken is reinstatement of the applicable MFN duty.

#### A.6.3.2 Concerns about the CBI

The Caribbean region has criticised the CBI on a number of fronts including; not allowing free trade in many products in which the region has a production capacity such as garments, footwear and furniture, and not removing non-tariff barriers on key products such as rum which face many problems regarding labelling.

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<sup>10</sup> US. Congress (1990) Caribbean Basin Economic Recovery Act, SEC 213. Eligible Articles p. (236).



#### A.6.4 CARIBCAN

CARIBCAN is an economic and trade development assistance programme offered by Canada to countries of the Commonwealth Caribbean. It represents a widening of the 1979 agreement on Trade and Economic Cooperation Agreement between the government of Canada and governments of CARICOM. That agreement is general in nature and simply calls on Canada and CARICOM member states to “*apply to goods originating in each other’s territories the highest degree of liberalisation which they apply to third countries in general*”.<sup>11</sup>

Unlike the earlier agreement which is still in force, CARIBCAN was signed into law in 1986 with more specific provisions. Its main objectives are to enhance Commonwealth Caribbean trade and export earnings, improve the trade and economic development prospects of the region, promote new investment opportunities and encourage enhanced economic integration and cooperation.<sup>12</sup>

The main feature of CARIBCAN is the provision of preferential one-way duty free access, with a number of exclusions. The main features of the programme are:

- Duty-free access to the Canadian market for imports from all CARICOM countries, Anguilla, Bermuda, British Virgin Islands, Cayman Islands and Turks and Caicos Islands.
- Duty-free access applies to all goods with the exception of products for which it has been determined that free entry would adversely affect certain sensitive economic sectors in Canada. Sensitive products which are excluded from the agreement are:
  - Textiles and clothing
  - Footwear
  - Luggage and handbags
  - Leather Garments
  - Lubricating oils
  - Methanol

In order to qualify for duty-free entry under CARIBCAN, goods must be certified as being wholly produced in the Commonwealth Caribbean, or a minimum of 60% of the ex-factory price of exported goods (which includes overheads and

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<sup>11</sup> Canada Department of External Affairs (1986) Canada - CARICOM Trade and Economic Cooperation Agreement - Article II.

<sup>12</sup> GATT (1986) CANADA - CARIBCAN. Report of the Government of Canada.

reasonable profits) must originate in any of the Commonwealth Caribbean countries or in Canada.

The Canadian Tariff Board is mandated to receive and review requests from Canadian manufacturers for the suspension of duty free concessions on any product should imports cause injury or threat of injury to a Canadian industry. Countries to be affected by such action are allowed to make representation at these reviews.

CARIBCAN also provides for trade development funding through the Canadian International Development Agency (CIDA), and encourages the development of double taxation treaties between Canada and Commonwealth Caribbean Countries to facilitate investment.

#### **A.6.4.1        *Concerns about CARIBCAN***

The CARIBCAN arrangement like the CBI has been criticised for excluding key export items for the Caribbean region such as garments, footwear and handbags. In addition, non-tariff barriers have not been addressed under the agreement. Again, these barriers have especially posed difficulties for the export of Barbados rum to Canada.

#### **A.6.5        CARICOM / VENEZUELA AGREEMENT**

The CARICOM/ Venezuela Agreement on Trade and Investment was signed in October 1992 and came into force on January 1 1993 (CARICOM Secretariat 1993) <sup>13</sup>. It was the first of its kind between CARICOM and a non-English speaking country.

The agreement which is one-way in nature, has the objective of strengthening economic and trade relations between the two Parties. This is to be achieved through:

- i.        promotion and expansion of sale of CARICOM originating goods in the Venezuela market;
- ii.       stimulation of investments with a view to taking advantage of markets;
- iii.      encouraging investment to improve competitiveness in world trade;

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<sup>13</sup> Caribbean Community Secretariat (1993d)



- iv. providing assistance in creating and operating regional joint ventures; and
- v. developing a mechanism for the promotion and protection of investment.

The agreement allowed CARICOM duty free access to the Venezuelan market. In addition, it was agreed that both parties would study technical, industrial and commercial norms and take the action necessary to ensure that such norms do not constitute obstacles to trade between the parties through tariff reductions.

The main elements of the agreement are:

- i. Duty free entry for 156 products (three and four digit classifications) from CARICOM countries from 1<sup>st</sup> January 1993.
- ii. Phased reduction in duty for 159 products<sup>14</sup>. The reductions were 25% annually.

The agreement also encouraged individual CARICOM Member States and Venezuela to conclude Bilateral Investment Treaties (BITS), and Double Taxation Agreements. The signing of a BIT is expected to facilitate the movement of capital, encourage the formation of joint ventures, allow for the repatriation of profits and allow for the possibility of CARICOM businesses obtaining loans from the Caribbean Development Bank to establish businesses in Venezuela.

An Article on transportation was also included which recognised the need to improve transportation between CARICOM and Venezuela to assist trade flows between the parties.

In general, products which are wholly produced, which are mainly primary agricultural, animal and mineral products, satisfy the rules of origin criteria. In the case of assembly products, the imported inputs should undergo substantial transformation, which means that the exported product should have a different tariff heading from any of the inputs. In addition, the value of inputs should not exceed 50% of the export price of the product.

The agreement does not contain special provisions regarding unfair trade practices such as dumping and subsidies. Instead, it acknowledges that where unfair trade practice occurs, GATT rules would apply.

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<sup>14</sup> As well as Chapter 8 of the Customs Tariff.



Safeguard clauses allow Venezuela to apply temporary safeguard measures when importation under the agreement is causing serious damage to national production of similar or directly competing goods, or where it is necessary for Venezuela to take corrective action to address balance of payments disequilibrium. Safeguard action can be applied for a period of one year.

The agreement is administered by a Joint Venezuela/CARICOM Council, which is responsible for the settling of disputes.

#### *A.6.5.1 Concerns about the CARICOM/Venezuela Agreement*

The agreement with Venezuela represented CARICOM's first effort to forge trade links with the Spanish speaking countries of Latin America. Differences in language and culture, as well as inadequate transportation have been cited by manufacturers as difficulties in utilising the agreement.

### **A.6.6 CARICOM/COLOMBIA AGREEMENT**

The CARICOM/Colombia Trade, Economic and Technical Cooperation Agreement was signed in July 1994 (CARICOM Secretariat 1994)<sup>15</sup>. The agreement was designed to be a one-way preferential arrangement during the first four years of its operation. The objectives of the agreement are:

- i. the promotion and expansion of trade in goods between the two parties;
- ii. the promotion and protection of investment aimed at taking advantage of the opportunities offered by the markets of the parties and strengthening their competitiveness in the international market;
- iii. the facilitation of the creation and operation of regional joint ventures;
- iv. the development of technical and scientific cooperation activities between the parties; and
- v. the promotion of private sector activities including business exchanges between the parties.

The objectives are all aimed at strengthening the trade and economic relations and technical cooperation between the Parties.

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<sup>15</sup> Caribbean Community Secretariat (1994).

The main elements of the agreement include the following:

- An agreed list of products from CARICOM countries eligible for duty-free entry in the Colombian market from January 1 1995, the date of entry into force of the agreement. There are 649 mainly manufactured goods on this list (CARICOM four digit level)
- An agreed list of products from CARICOM countries granted duty free entry into the Colombian market on a phased basis. The tariffs were reduced in three equal phases beginning from January 1995. There are 207 items on this list.
- Lists of products from CARICOM countries which were considered for duty free entry four years after the agreement was in existence. There are 607 items on this list.
- The Rules of Origin criteria stipulate that goods must be wholly produced in CARICOM, have a regional content of at least 40% or must have undergone substantial transformation through a change of customs classification.
- At the beginning of the fourth year of the agreement, CARICOM MDCs (Barbados, the Bahamas, Trinidad and Tobago, Jamaica and Guyana) agreed to eliminate or reduce tariffs on an agreed list of goods from Colombia, in keeping with the provisions of the agreement.

The agreement was the first of its kind between CARICOM and a third party for two reasons. First, the MDCs are extending reciprocal treatment on an agreed list of products from Colombia. Secondly, the agreement is asymmetric in nature in that CARICOM LDCs are not offering the limited reciprocity. In signing the agreement, CARICOM countries also committed themselves not to apply any additional non-tariff barriers on products from Colombia, and to apply MFN duties.

The Protocol Amending the agreement to give effect to reciprocity to goods from Colombia was signed in May 1998. The protocol contained the following elements:

- An additional 87 products (at the four digit level ) from CARICOM were granted duty free entry into the market of Colombia.
- Ninety three (93) products from Colombia were granted duty free entry into the Market of CARICOM MDCs from July 1998.
- Fifty five (55) products originating in Colombia are to be accorded four annual duty reductions in the markets of the CARICOM MDCs participating in the agreement at the rate of 25% each year effective from 1 January 1999 to 1 January 2002.



- Ninety nine (99) products originating in CARICOM are to be accorded four annual duty reductions in the Colombian market, at the rate of 25% each year effective from 1 January 1999 to 1 January 2000.
- In keeping with stipulations in CARICOM that third countries should not be offered more favourable treatment than exists among CARICOM countries, the Rules of Origin in the agreement were amended. One significant change was that the value added requirement was changed from 40% to 50%, which is the general CARICOM level.

#### *A.6.6.1 Concerns about the CARICOM/Colombia agreement*

As is the case with the agreement with Venezuela, manufacturers have cited inadequate transportation links, language and cultural differences as factors affecting the utilising of preferences under this agreement. In the case of Colombia, there is an additional problems of civil instability which has hampered growth in trade.

### **A.6.7 CARIBBEAN COMMUNITY AGREEMENT**

The Caribbean Community (CARICOM) was created in 1973 (CARICOM Secretariat 1973)<sup>16</sup>. As an integration movement, it has the following objectives:

- promotion of the economic integration of the region;
- coordination of foreign policies; and
- functional cooperation in social, cultural and technological matters.

As far as trade is concerned, the WTO classifies CARICOM as a regional trade agreement.

The founding members of CARICOM were; Barbados, Jamaica, Trinidad and Tobago and Guyana. Antigua, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent, and Belize joined in 1974. The Bahamas became a member in 1983, Suriname in 1995 and Haiti in 1997.

The main trade policy instruments in the Caribbean Community are the

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<sup>16</sup> Caribbean Community Secretariat (1973).



Common External Tariff, the Rules of Origin, and Safeguard provisions which stipulate under what circumstances and how domestically produced goods should be traded and protected. Apart from the CET, there are no CARICOM rules which provide guidelines on how extra-regional imports should be treated.

#### *A.6.7.1 Common External Tariff*

The CET<sup>17</sup> was revised in 1992, to incorporate the recommendations of the World Bank that the tariff rates should be lower. Eight principles were taken into account in devising the CET. These included:

- (i) International competitiveness - The Customs Tariff should be structured to encourage the production of internationally competitive goods.
- (ii) Efficient production at the regional level - Tariff rates should be structured to help keep production costs in the region low.
- (iii) Government revenue protection - The rates should take into account the reliance of Governments on tariff revenues.
- (iv) Cost of Living - The rates should not unduly increase the cost of living in member states.
- (v) Removal of Duty Exemption regime - The rates should be set at levels to reduce the need for member states to request derogations from the tariff.
- (vi) Avoidance of Commodity-based tariffs - The application of different rates for the same item depending on its economic use should be avoided.
- (vii) Special measures for the Less Developed Countries (LDCs) - In designing the structure of levels of rates, the circumstances of CARICOM LDCs were taken into account. These countries generally have lower rates.
- (viii) Simplification and transparency - The simplification of the Customs Tariff structure, minimisation of the number of rate bands and reduction of the need for discretionary application in the day-to-day administration of the Tariff were taken into account.

Based on the above objectives, (as well as external pressures described in Chapter 2), it was decided that CET rates which were sometimes higher than 70% would be phased down to a maximum of 20% for both agricultural and manufactured goods, between 1993 and 1998. As a result of lobbying efforts on the part of the agricultural sector in the Community, the rates on agricultural products were reduced to 40% and not 20% as planned.

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<sup>17</sup> Caribbean Community Secretariat (1993a).

As it therefore stands, the margin of preference for the Community is 20% in the case of manufactured goods and 40% in the case of agricultural goods (It should however be noted, that Barbados and Dominica have applied the WTO bound rates for some commodities, mainly agricultural commodities, and these rates are well over 100% in some cases).

#### **A.6.7.2 Rules of Origin**

Goods which meet the CARICOM Rules of Origin criteria are exempt from the payment of Customs duties<sup>18</sup>. To be deemed a product of CARICOM origin, goods must be either:

- i. wholly produced; or
- ii. must undergo substantial transformation.

Several tests exist to determine whether or not a product has undergone substantial transformation. These include:

- a. the change of tariff heading rule, where the final product must have a Customs classification which is different from any of its inputs;
- b. the product must be produced from certain regional materials;
- c. the product must be produced from materials of specified HS Headings or in some cases produced from certain materials not included in a specified HS Heading;
- e. the product must be produced by a specific process; and
- f. the product must meet a certain value added criteria where the value of imported inputs must not exceed the value of the final product. Generally, the value added criteria for MDCs is that imported inputs must not exceed 50% of the export price. The general rule for LDCs is that imported inputs must not exceed 60% of the export price of the product. There are of course instances where the value of imported inputs is either higher or lower than the values highlighted.

Where inputs are not available within the Community, member states are allowed to import from extra-regional sources free of duty. If other member states agree, the final product not meeting the rules may also be treated as being of CARICOM origin.

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<sup>18</sup> Caribbean Community Secretariat (1993b).



#### *A.6.7.3 Safeguard Provisions*

Safeguard articles in CARICOM allow member states, both MDCs and LDCs, to restrict imports of goods if such imports are causing injury to domestic industries. Article 29 of the Treaty makes provision for member states to restrict imports "to a rate not less than the rate of such imports during a period of 12 months which ended within 12 months of the date on which the restrictions came into force<sup>19</sup>". The provisions also require that the restrictions should not continue in place for a period longer than 18 months, unless permission is granted by other Member States.

Article 56 of the CARICOM Treaty allows LDCs to impose quantitative restrictions on MDCs exports for an indefinite period, in order to promote the development of industries. Currently, LDCs restrict ten products under this arrangement.

Barbados, because of the special position it held during the time of signing the Treaty in 1973, can suspend imports from LDCs which are protected by those countries under Article 56. Barbados has never utilised this provision.

#### *A.6.7.4 Concerns about CARICOM arrangements*

During the 1980s there were numerous breaches of the CARICOM Treaty which led to a contraction in intra-regional trade<sup>20</sup>. During the 1990s however, infractions of the Treaty became less numerous as countries liberalised their trade regimes. One of the longest standing breaches of the Treaty was Barbados' protection of the areated beverages market. This breach was corrected in 1999 when Barbados removed restrictions on CARICOM exports of those products. There are currently no longstanding infractions of the CARICOM Treaty as reported by exporters.

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<sup>19</sup> Caribbean Community Secretariat (1973) P. 36.

<sup>20</sup> Caribbean Community Secretariat (1993c)



## APPENDIX 7

### WTO RULES AND INTERNATIONAL TRADE AGREEMENTS

Negotiations to create the FTAA and to revise the LOMÉ Convention have not been completed. While it is not yet known what the specific provisions of the new agreements will be, all parties have agreed that the provisions should seek to be WTO compatible. This essentially means that they require member countries to liberalise their markets within the framework outlined in those rules. This section will review WTO requirements for compatibility of regional trade agreements, as well as FTAA and ACP-EU negotiations to date.

#### A.7.1 WTO PROVISIONS ON RECIPROCAL TRADE ARRANGEMENTS

Article I of the GATT - the most-favoured-nation principle - stipulates that any advantage, favour, privilege or immunity granted by any WTO Member to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other WTO Members<sup>21</sup>.

Various WTO provisions allow for a departure from that principle. Chapter 2 highlighted the exemption provisions relevant to non-reciprocal trade agreements. Exemption provisions relevant to reciprocal trade agreements - as the FTAA and partnership agreements are expected to be - are contained in Article XXIV of GATT 1994<sup>22</sup>. Notifications made to the WTO under this Article, are subject to examination by WTO Members and this serves two purposes. First, it ensures that the provisions of an agreement are fully transparent. Secondly, it enables Members to evaluate whether or not the agreement is compatible with WTO rules and disciplines.

A reciprocal trade agreement is required to meet the four substantive provisions of Article XXIV. These are:

1. Customs unions, free trade agreements or interim agreements should facilitate trade between the parties and not raise barriers (duties and other regulations of commerce) to the trade of third parties (paragraph 4).
2. With the exception of a few stated exceptions, duties and other restrictive regulations of commerce are to be eliminated with respect to "**substantially all trade**" between the parties to an agreement. Parties to a customs union are also required to apply

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<sup>21</sup> WTO (1995a) p. 486.

<sup>22</sup> Article V of GATS contains relevant provisions in the case of trade in services. Both Article XXIV and Article V provisions are similar in their intention. Given the focus of this paper, only Article XXIV will be discussed.

- "substantially the same duties and other regulations of commerce" in respect of the trade of third parties (para. 8).
3. The duties and other regulations of commerce imposed on third parties at the formation of a free trade agreement (or interim agreement to create a free trade area) are not to be higher or more restrictive than those existing prior to its formation. In the case of a customs union (or interim agreement to create a customs union), the duties and other regulations of commerce are not on the whole to be higher or more restrictive than the general incidence of the duties and other regulations of commerce applied prior to its formation (paragraph 5). Regarding tariffs imposed on third-parties, the Understanding on the Interpretation of this Article states that the comparison of the level of protection is to be based on an overall assessment of the weighted average of the applied tariffs prior to, and at the time of the creation of the custom union.
  4. An interim agreement is to include a plan and a schedule leading to the full creation of a customs union or free trade area within a "reasonable length of time" (paragraph 5c). The Understanding on the interpretation of this Article states the reasonable length of time as 10 years. Only in exceptional cases are longer periods allowed.

Although specific provisions exist in the GATT agreement laying down the conditions under which customs unions and free trade areas will be WTO compatible, considerable differences exist regarding the interpretation of those provisions. One such disagreement relates to the "substantially all trade" rule<sup>23</sup>

Here, differences of opinion exist as to whether the concept is **qualitative**, in which no sector is to be excluded from the agreement, or **quantitative** in which a certain volume of trade must be involved, irrespective of the number of sectors or products. Even if the quantitative interpretation is accepted, there is still some disagreement over the volume of trade which should be involved. One proposal put forward by the European Economic Community is that the volume of trade liberalised should be at least 80 percent of total trade ( current discussion in the WTO Committee on Regional Trade Arrangements seem to favour 90% of total trade as the benchmark). Other areas which are still being debated in the WTO relate to whether or not the scope of liberalisation applies to tariffs only or to non-tariff measures also, and how should safeguard action taken under an agreement be treated in relation to the rule.

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<sup>23</sup> WTO (1995c) Regionalism and the World Trading System.



To date, the many differences of opinion on the interpretation of the provisions of Article XXIV have led to no decision on conformity in respect of the vast number of regional trade agreements. A decision of conformity with the provisions of Articles XXIV has been decidedly given to only two existing agreements. These are CARICOM, and the Customs union between the Czech and Slovak Republics.

Despite the difficulties in reaching a consensus on what exactly regional trade agreements should contain to pass the WTO compatibility test, there are at least five implications for the protection of domestic industries under such agreements:

- i. First, a substantial proportion of trade must be involved. This will require that governments make a judicious selection of the industrial activities which will be excluded from the agreement.
- ii. Secondly, most if not all forms of trade barriers, must be removed. This limits the number of measures which governments can employ to protect domestic industries.
- iii. Thirdly, unlike the case of the Enabling Clause which requires a reduction or elimination of duties and non-tariff measures among developing countries, such measures are to be eliminated in the case of agreements under Article XXIV.
- iv. Fourthly, the maximum time period for full implementation of the agreement is 10 years (unless otherwise agreed to by WTO Members). This means that the removal of protection of domestic industries cannot be delayed indefinitely, or the phase-in process cannot be at a very slow rate.
- v. Fifthly, there are no provisions in the Article for granting special and differential treatment to any group or groups of countries such as small economies. Special treatment can however be granted within the parameters of the limits set by the Article.

Those implications will guide negotiations to create the FTAA, and to forge a new partnership between the ACP countries and the EU (negotiations mandated at the Fourth WTO Ministerial Conference will seek to clarify these rules).



## **A.7.2 FREE TRADE AREA OF THE AMERICAS**

At the first Summit of the Americas Meeting in 1994, Heads of Governments of 34 countries in the western hemisphere agreed to create the Free Trade Area of the Americas (FTAA) by the end of 2005. The general objectives of the FTAA<sup>24</sup> are to:

- i. promote prosperity through increased economic integration and free trade among the countries of the hemisphere which are key factors for raising standards of living, improving the working conditions of people in the Americas and better protecting the environment;
- ii. establish a Free Trade Area in which barriers to trade in goods, services and investment are progressively eliminated;
- iii. maximise market openness through high levels of disciplines through a balanced and comprehensive agreement;
- iv. provide opportunities to facilitate the integration of the smaller economies in the FTAA process in order to realize their opportunities and increase their levels of development;
- v. strive to make trade liberalisation and environmental policies mutually supportive, taking into account work undertaken by the WTO and other international organizations; and
- vi. further secure, in accordance with respective laws and regulations, the observance and promotion of worker rights, renewing commitment to the observance of internationally recognised core labour standards and acknowledging that the ILO is the competent body to set and deal with those core labour standards.

These general objectives have been further concretised in a set of general and specific principles. Among other things, the general principles call for decisions in the negotiating process to be made through consensus, for consistency with WTO rules, and for the process to go further than is provided for in WTO rules. Three of the 12 general principles speak specifically to smaller economies. They state that:

- special attention would be given to the needs, economic conditions (including transition costs and possible internal dislocations) and opportunities of smaller economies, to ensure their full participation in the FTAA process;

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<sup>24</sup> Summit of the Americas (1994) Ministerial Declaration.

- the rights and obligations of the FTAA would be shared by all countries. In the negotiation of the various thematic areas, measures such as technical assistance in specific areas and longer periods for implementing the obligations could be included on a case by case basis, in order to facilitate the adjustment of smaller economies and the full participation of all countries in the FTAA; and
- the measures agreed upon to facilitate the integration of smaller economies in the FTAA process shall be transparent, simple and easily applicable, recognizing the degree of heterogeneity among them<sup>25</sup>.

These provisions form the basis for small economies to be given special and differential treatment within the FTAA. Nine groups were established in 1998 to undertake negotiations in the following areas:

- Market Access.
- Investment.
- Services.
- Government Procurement.
- Dispute Settlement.
- Agriculture.
- Intellectual Property Rights.
- Subsidies, Anti-Dumping and Countervailing Duties.
- Competition Policy.

In addition, three consultative groups have been established. These are:

- Consultative Group on Smaller Economies.
- Committee of Government Representatives on the Participation of Civil Society.
- Joint Government-Private Sector Committee of Experts on Electronic Commerce.

The Consultative Group on Smaller Economies is intended to be a reservoir for the concerns of this group and a catalyst for ensuring that all negotiating entities take those concerns and suggestions fully into account when drafting the provisions of the FTAA agreement.

To date, a number of concerns and suggestions have been put forward for consideration (Chapter 2). The impact which these will have on the text of the agreement is still very much unclear. What is however clear is the intention to

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<sup>25</sup> Summit of the Americas (1998) Ministerial Declaration.



make the provisions WTO compatible despite uncertainty over GATT Article XXIV.

Given that the focus of this study is to examine the protection of industries from market access requirements, it would be useful to briefly examine the mandate of the negotiating group on market access. The mandate calls for;

- a. provisions which are consistent with WTO rules, including Article XXIV of the GATT 1994, and its Understanding on the Interpretation of Article XXIV, to progressively eliminate tariffs and non-tariffs barriers, as well as other measures with equivalent effect which restrict trade between participating countries;
- b. the inclusion of all sectors in negotiations;
- c. options for different trade liberalisation time tables; and
- d. provisions to facilitate the integration of smaller economies in the FTAA negotiations.

The mandate is actually more stringent than the provisions of Article XXIV. First, it calls for **all** tariffs to be involved in the negotiations and secondly, it requires that **non-tariff** barriers be removed. If the mandate is taken literally, then there will be very little lead way to grant special and differential treatment to smaller economies outside of a longer transition period, and perhaps technical assistance.

In practice, free trade agreements, including NAFTA, do allow for the exclusion of some sensitive products from liberalisation. It is likely that for smaller economies at least, some items will be excluded, if only initially. However, based on WTO rules, it is clear that most production sectors will have to be liberalised.

### **A.7.3 COTONOU AGREEMENT**

Discussions on the renewal of ACP-EU LOMÉ Convention commenced in 1996 after the EU published its "Green Paper on Relations Between The European Union And The ACP Countries On The Eve Of The 21st Century"<sup>26</sup>. The EU has maintained through discussions, that any new arrangement with ACP

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<sup>26</sup> European Commission (1997)



states should take account of the performance of the Convention to date and the new global environment especially as it relates to WTO compatibility.

In June 2000, a framework for a new partnership agreement between the ACP states and the EC was finalised (Cotonou agreement)<sup>27</sup>. The agreement which addresses political, social and economic issues has as its objectives:

- enhancing the economic, cultural and social development of ACP States;
- reducing and eventually eradicating poverty consistent with the objectives of sustainable development and the gradual integration of the ACP countries into the world economy; and
- promoting sustained economic growth, developing the private sector, increasing employment and improving access to productive resources.

The duration of the overall agreement is for twenty years, with a revision clause every five years and a new financial protocol every five years.

Important features of the framework agreement include:

- i. The overall amount of the Community's financial assistance to ACP States for the next five year period is Ecu 15 200 million moving from Ecu 14 625 under LOMÉ IV.
- ii. Greater emphasis is to be placed on political dialogue, the participation of civil society and social development, especially poverty reduction. Some emphasis in ACP - EU cooperation is to be placed on gender equality, environmental sustainability, institutional development and capacity building in ACP states.
- iii. A new framework on trade cooperation is to be developed which will entail elements of reciprocity.

The over-riding focus of the new trade cooperation arrangement is compatibility with WTO rules. Its modalities require the progressive removal of trade barriers between the parties and enhancing co-operation in all areas of trade.

The arrangement calls for the negotiation of economic partnership agreements between 2002 and 2007, with the new arrangements coming into effect from 1 January 2008. The phase-in process is to commence on that date. During this preparatory period, assistance is to be given in the areas of capacity building,

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<sup>27</sup> Commission of the European Communities (2000). The agreement was signed in Cotonou, Benin on 23rd June 2000.

enhancing international competitiveness and institutional strengthening. In 2006 a comprehensive review of the negotiations is to be undertaken.

It is note worthy that the agreement allows for some flexibility for ACP countries which consider themselves not in a position to enter into a partnership arrangement with the EC. In these cases, alternative arrangements are to be explored. Again, however, any alternative arrangement will be bounded by the stipulation of compatibility with WTO rules.

Article 37:7 of the agreement notes that the negotiations will take into account the level of development of ACP states, and their capacity to adapt and adjust their economies to the liberalisation process. It further notes negotiations will therefore be as flexible as possible in establishing the duration of a sufficient transitional period, the final product coverage, taking into account sensitive sectors, and the degree of asymmetry in terms of timetable for tariff dismantlement, while remaining in conformity with WTO rules then prevailing<sup>28</sup>.

In recognition of some of the failures of previous LOMÉ Conventions, duty free access is to be allowed for essentially all products from LDCs, and the rules of origin are to be reviewed and simplified.

In terms of the commodity protocols, the banana protocol has been reviewed and there is now a second protocol which does not provide for trade preferences for this product<sup>29</sup>. The protocols on sugar, beef and veal are to be reviewed in light of negotiations for new trading arrangements.

Regarding small economies, the agreement contains broad provisions on island states in the ACP group. These provisions relate to such issues as environmental protection and sustainable utilisation of natural resources (Article 32), special and differential treatment in economic and trade cooperation (Article 35) and support in cases of short-term fluctuations in export earnings. These references, however, also refer to least developed and landlocked states as well. Given that ACP states fall into one of these categories, it is difficult to determine what "special" treatment will be given to any one group of states. The treatment maybe different in terms of the characteristic problems of the different groups, but it cannot be said that any group - especially smaller economies - will be given "special" treatment.

The new partnership agreement was finalised against the pressures of the expiration of LOMÉ IV Convention on February 29, 2000. It is no doubt that for this reason the text of the agreement speaks to alternative possibilities if a country cannot go ahead with a partnership arrangement (Article 37:6 and 7).

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<sup>28</sup> ACP-EC Partnership Agreement (2000).

<sup>29</sup> WTO (2000) Request for a WTO Waiver: New ACP-EU Partnership Agreement. G/C/W/187.



However, the overriding objective of the new arrangement is to achieve WTO compatibility, especially Article XXIV compatibility and the room for alternative arrangements is very limited. Again, as is the case of FTAA negotiations, alternative arrangements are likely to translate into a longer transitional period with elements of technical assistance.

Stevens *et al* (1998) made a number of recommendations regarding the structure of the future trade relationship between CARICOM, the Dominican Republic and the EU. These include (1) that any partnership agreement should be within the context of the wider hemispheric integration, (2) exclusion of sensitive industries, and (3) the provision of financial and technical support to CARICOM countries.

#### **A.7.4 ASSESSMENT**

Both FTAA negotiations and the upcoming ACP-EC negotiations for economic partnership agreements will undoubtedly be focused on WTO compatible provisions, and especially Article XXIV provisions. Given this, there is not much room for smaller economies to negotiate special and differential treatment. An objective of these countries has therefore been to request some flexibility in the interpretation of this particular rule to at least recognise and make some accommodation for their concerns within the provisions of the Article. Given the resistance which the small economies have been meeting so far, this will be a most difficult task.

Based on the provisions of Article XXIV, the mandate of the FTAA and the stated intentions of the ACP framework agreement with the EU, it is likely that a substantial portion of domestic production will not be protected from trade liberalisation. There is therefore need for a judicious selection of sectors to be deemed "sensitive" and therefore eligible to benefit from continued protection.



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