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TRADE LIBERALISATION AND THE JAMAICAN ECONOMY: IMPLICATIONS OF TARIFF ADJUSTMENTS

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Trade Liberalization and the Jamaican Economy: Prospects and Effects of Tariff Adjustments

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Abstract

This paper reviews the trends in international negotiations with a view to identifying the time frame within which tariffs are likely to be adjusted. It traces the evolution and extent of trade liberalisation in Jamaica and assesses the prospects for further liberalisation in the near to medium term. It also attempts to quantify the impact of tariff adjustments on the macro economy, with particular reference to trade. One of the main findings of the paper is that tariff rates in Jamaica have a significant impact on the macro-economy, through imports. This points to the need for caution in the further liberalization of the trade regime.

Keywords: Trade liberalization, trade balance

JEL Classification: **C22, F13, F14**

[1] The views expressed in this paper do not necessarily reflect those of the Bank of Jamaica.

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1.0 Introduction

There is some consensus that the process of trade liberalisation, initiated in the aftermath of the Great Depression in the 1930s, is likely to culminate in the total elimination of tariffs among the major economies of the world and most likely among developing countries by the year 2020. More recently, the objectives of multilateral negotiations have been expanded beyond liberalisation of trade in goods solely, which was the main focus of the negotiations under the General Agreement on Tariffs and Trade (GATT), to include a broader range of issues. These multilateral negotiations are being overshadowed by increased regionalism, which has served to accelerate rather than retard the liberalisation process.

Against this background, Jamaica and the rest of the Caribbean Community have become involved in multilateral trade negotiations in several arenas, simultaneously, for perhaps the first time in history. In 2003, for example, Jamaica's negotiators have participated in discussions at the level of the World Trade Organisation (WTO), the Free Trade Area of the Americas (FTAA), the Caribbean Single Market and Economy (CSME), the African Caribbean Pacific/European Union (ACP/EU) and other multilateral talks. The objective of these negotiations is to accelerate the pace of trade liberalisation, the impact of which has not been fully explored by developing countries.

The current negotiations are being conducted against the backdrop of a chronic current account problem in the balance of payments, as well as significant increases in the fiscal deficit. Hudson and Stennett (2003) noted that Jamaica's current account deficit is large and persistent, relative to a set of benchmark countries. This deficit has deteriorated progressively to 14.0 per cent of GDP in 2002 from 4.6 per cent of GDP in 1997. Declines in non-traditional exports, particularly garments, in conjunction with a rapid growth in consumer imports, fuelled the widening of the deficit. The trend deterioration was also underpinned by incipient fiscal deficits, as well as, the re-emergence of private sector dissavings in 2000. At the institutional level, the accelerated pace of dissavings has been facilitated by the extensive and rapid trade liberalization experienced by Jamaica, since the launch of the economic stabilization and reform programme in the mid-1980s.

In this context, the paper assesses the implications of tariff adjustments for the Jamaican economy, with particular reference to trade volumes and real GDP. The paper reviews the trends in international negotiations with a view to identifying the time frame within which tariffs are likely to be adjusted. It also evaluates the degree to which the country has liberalised its trading

regime and assesses the extent of further liberalisation that could be undertaken in the near to medium term. The available data on tariff rates, trade volumes and real domestic income, *inter-alia*, suggest that these tariff adjustments have had an appreciable impact on the economy, in particular imports. The immediate implication of these findings is that further trade liberalisation should proceed cautiously until policies are formulated to address the current account deficit.

The paper is organised as follows: Section 2 discusses the evolution of multilateral negotiations since the advent of the GATT; Section 3 traces Jamaica's trade policy over time and highlights the commitments that have been made in multilateral, regional and bilateral agreements; Section 4 gives an overview of the trends in Jamaica's trade policy. An empirical assessment of the impact of tariff changes in Jamaica is discussed in Section 5. Section 6 concludes.

2.0 International Trade Negotiations: The "20/20" Vision

At the core of the process of globalisation was the establishment and enlargement of a set of multilateral trading rules administered under the GATT and subsequently the WTO. The original 23 countries that established the GATT Agreement sought to create a system that would provide global discipline or rules relating to trade liberalization in goods and services. These rules include (1) the right to government protection of domestic industries through tariffs, while eliminating the use of quantitative restrictions (except in a limited number of situations)[2] (2) the reduction of tariffs and their irreversibility (3) the principle of most favoured nation treatment (MFN), requiring that tariffs and other regulations apply to goods from all countries without discrimination among countries[3] and (4) the principle of national treatment, prohibiting countries from discriminating between imported products and domestically produced goods[4].

The first six rounds of the GATT (1947-1967) were primarily focused on reducing or eliminating tariffs on industrial products (see table 1, Appendix). The GATT has therefore precipitated a

[2] The rationale behind the allowance of tariffs and not quantitative restrictions is that tariffs allow the normal rules of competition to function because they apply equally to all imported goods. The application of a uniform tariff is assumed to be the least distortionary instrument for achieving the protection objective. Quantitative restrictions (QRs) on imports, on the other hand, distort the market in that they artificially change the balance between demand and supply. As an exception to this rule, the GATT allows a country to impose QRs temporarily when it faces balance of payments difficulties.

3 There are some exceptions to this rule. Trade among members of regional trading arrangements, which are subject to preferential or duty-free rates is one such exception. Another is provided by the Generalized System of Preferences, whereby developed countries apply preferential or duty-free rates to imports from developing countries but apply most-favoured nation treatment rates to imports from other countries.

4 In this regard, it is not permissible for a country, after a product has entered its market on payment of a customs duty, to levy an internal tax at rates higher than those payable on a product of national or domestic origin.

significant reduction in tariffs on industrial goods, from an average of approximately 40 per cent in the 1940s, to an average of 5 per cent in the 1990's[5].

During the Uruguay Round (1986-1993), negotiations were broadened to include a number of issues that had never been discussed before in global trade negotiations. It was believed that many of these issues, though not directly classified as tariff or non-tariff barriers to trade, indirectly affected trade in goods and services and were generally considered as actual and/or potential barriers. The Uruguay Round, therefore, sought to address matters related to dumping, rules for the liberalization of trade in services, the protection of intellectual property, rules allowing for the settlement of international trade disputes, the relationship between sanitary and trade regulations and textiles and apparel. A decision to eliminate quotas and other non-tariff measures in agriculture through a process of tariffication[6] was also addressed during the round.

In an effort to further liberalize world trade, other trade issues were added to the agenda of the more recent ministerial conferences. These encompassed anti-dumping measures, subsidies, safeguards, investment measures, trade facilitation, electronic commerce, competition policy, fisheries, transparency in government procurement, technical assistance, capacity-building, intellectual property protection and services and other development issues[7].

Towards the latter half of the 1990s and into the 21st century, the focus has shifted from reducing tariffs on industrial goods to a reduction in tariff rates on agricultural commodities[8]. The focus on trade in agricultural commodities was initiated during the Uruguay Round of trade talks when the WTO's Agriculture Agreement was signed. This Agreement included specific commitments by WTO member states to improve market access and reduce trade-distorting subsidies in agriculture. The period for implementation of the commitments was six years for developed countries and ten years for developing countries, beginning in 1995 (see Table 2, Appendix).

The signatories to the Agriculture Agreement decided to initiate negotiations for continuing the reform process one year before the end of the implementation period, that is by the end of 1999. These talks were incorporated into the broader negotiating agenda, which was set at the 2001 Ministerial Conference in Doha, Qatar. At this Conference, agriculture negotiations became part

[5] Trading into the Future, WTO, pp 9
[6] The conversion of quantitative measures to tariff rates
[7] WTO, Annual Report, 2002
[8] Agricultural commodities comprised 9.1 per cent of world merchandise exports and 40.9 per cent of primary commodity exports in 2001.

of the single undertaking in which virtually all the related negotiations are to end by 1 January 2005. The Doha Declaration envisaged that countries would submit comprehensive draft commitments, based on the "modalities[9]", by the Fifth Ministerial Conference in September 2003 in Cancún, Mexico. This deadline was missed. The final deadline for completing the negotiations is 1 January 2005.

During the past decade, the number of bilateral and regional trade arrangements (RTAs) has increased significantly[10]. A total of 176 regional trading arrangements were recorded as at December 2002 by the WTO, compared with 53 in 1990[11]. Another 83 have been notified to the WTO. More than 43 per cent of the world's merchandise trade currently occurs under preferential trade arrangements. There has also been a rise in cross-regional trading arrangements[12] and the involvement of countries that have traditionally remained outside regional trading systems. For example, the European Free Trade Association (EFTA) has signed a RTA with Mexico and several African states and is negotiating RTAs with Canada and Chile, while China has consented to join the Association of South East Asian Nations (ASEAN)[13].

Despite the significant reductions in tariff rates on a multilateral level, trade liberalization has therefore occurred at a more significant rate among bilateral trading partners. For example, while the average applied tariff rate for trade within CARICOM is zero per cent (except for items on the excluded list), the average rate applied to imports from third party states is approximately 12.0 per cent. Both the rates applied among member states of CARICOM and the rate applied to third party states lie below the average WTO bound rates[14] of the regional trading partners. Similarly, for the members of the North American Free Trade Area (NAFTA), the tariff rate applied to imports from non-NAFTA sources is approximately 6.4 percentage points above the rate applied for NAFTA member states (see Table 3, Appendix).

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[9] This includes the numerical targets and formulas to be used by countries in the tariff reduction process.
[10] A regional trade area is broadly defined as a group of countries that adopt zero or significantly low tariffs and no other restrictions on trade, among themselves, while not necessarily changing the barriers that each member country has on trade with the countries outside the group.
[11] WTO Trade Report 2003, page 46
[12] The WTO notes that before 1995 there were approximately 7 cross regional free trade arrangements. By 2002, this number had increased to 25.
[13] In November 2001, the WTO approved China's accession to the Organization.
[14] A bound rate is a commitment, under the GATT/WTO, by a country not to raise the tariff on an item above a specified level.

Several factors were responsible for the acceleration in trade liberalisation between 1930 and the present. For the developed countries, the move towards free trade had its genesis in the aftermath of the Great Depression, when governments sought to increase economic output through an increase in international trade, primarily in goods. For developing countries, the move towards free trade was instigated by the onset of the debt crisis of the 1980's, which precipitated a sharp reduction in private external finance. Consequently, several countries adopted outward-looking trade policies in an effort to increase foreign exchange earnings and promote economic growth. The trend towards an outward orientation was encouraged by the success of countries that embraced these policies, such as Singapore, Malaysia, Taiwan and South Korea. Moreover, the provision of assistance for developing countries, particularly from the multilaterals, was conditional on the adoption of more liberal trade policies. Trade liberalization was also propagated by transnational organizations.

Currently, it would appear that the major players in the multilateral trading system would like to see substantial, further liberalisation by 2020. In particular, the USA, Canada, the EU and regional organizations such as the Asia Pacific Economic Cooperation (APEC)[15] is likely to play a significant role in accelerating the process of liberalization. During the Uruguay Round these countries introduced the concept of the "zero-for-zero" agreements that stipulated reciprocal elimination of tariffs, export subsidies and taxes in a number of sectors by 2004. These included agreements on pharmaceuticals, medical instruments and pulp and paper.

Since the Doha trade round, the USA has put forward aggressive liberalization proposals. The USA administration has noted that its objective is to establish a "zero-tariff world" and has proposed the liberalization of trade in industrial and consumer goods, agriculture and services in its 2003 trade agenda. In this regard, it advocated the removal of all tariffs on manufactured goods by 2015, with significant reductions in agricultural export subsidies and a cap of 25.0 per cent on agricultural tariffs. This would be accomplished in two phases. In the first phase, 2005-2010, non-agricultural tariffs under 5.0 per cent would be eliminated. For all other duties, the USA proposed a "Tariff Equalizer" formula that would bring all remaining non-agricultural tariffs down to less than 8 per cent, with the highest tariffs falling faster than the lower tariffs so as to establish parity. The second phase of the proposal would be accomplished between 2010 and

[15] APEC member countries include: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China (China), Hong Kong (China), Indonesia, Japan, Republic of Korea (South Korea), Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Republic of the Philippines, Russia, Singapore, Chinese Taipei (Taiwan), Thailand, the United States, and Vietnam.

2015. All WTO members would make equal annual tariff reductions, until tariffs on goods are eliminated. For agricultural commodities, the USA proposed to harmonize tariffs and subsidies while reducing them to lower levels, on a course towards elimination.

Should consensus not be attained at the multilateral level, the USA has accelerated the move towards zero tariffs on bilateral and regional fronts. The country has noted that it would commit to "zero-for-zero" initiatives with interested WTO member countries to eliminate non-agricultural tariffs on highly traded goods, for example, environmental technologies, aircraft and construction equipment. Consequently, the USA entered into 12 RTAs in 2002 (including NAFTA) and has embarked upon efforts to establish the FTAA by 2005. Importantly, the members of the proposed FTAA have agreed in principle to tariff reductions on applied rates rather than bound rates[16].

Canada has also spearheaded several RTAs, while the EU, which in the past favoured preferential arrangements, primarily with its former colonies, has sought to reduce and eliminate these discriminations or extend these "discriminatory" privileges to other states. The EU has negotiated over 30 RTAs.

APEC[17] has also played a noteworthy role in accelerating the process towards free trade, through its proposal of what has been commonly termed the "2010/2020 Bogor Goals"[18]. The action plan seeks to liberalise trade and investment in the region by 2010 for developed economies in the RTA and 2020 for developing country members. At the same time, a fast-track approach is being implemented for what are deemed "less contentious" areas including pharmaceuticals and lumber, among others. Participating APEC economies are now in the process of notifying WTO members of their desire to negotiate tariff reductions in these sectors. APEC Ministers have also agreed that the next step should be to invite economies beyond APEC to participate in the tariff liberalisation elements of the initiative. APEC member states have also declared their commitment to help shape future trade negotiations in the WTO.

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[16] Chaitoo, R. (2002)

[17] The 21 APEC Member Economies collectively account for more than half of the world's total Gross Domestic Product and over 47 per cent of total world trade in 2001.

[18] The second APEC Economic Leaders' Meeting (AELM) was held in Bogor, Indonesia, on 15 November 1994. Leaders took this opportunity to exchange their views on where the economies of the region needed to go for the next 25 or more years.

Although many developing countries have voiced a desire to see a deceleration in the pace of trade liberalization and an increased focus on development issues, their contribution to the process has also been constant and ongoing. Tariffs among developing countries have declined by approximately 65.0 per cent between the decade of the 1980s and the 1990s. In addition, RTAs among developing countries account for about 30-40 per cent of all RTAs currently in force, including those not notified to the WTO. Some developing countries have taken the process of liberalization even further by seeking to establish customs unions and common markets. Where protection of industries or particular domestic sectors remains, political factors are among the primary impediments.

There has been a proliferation of inter-linked or overlapping agreements, and a number of these arrangements exist along with the WTO multilateral trading arrangement with several countries being members of more than one RTA. Jamaica, as a member of the WTO is presently negotiating or has committed to RTAs with several countries, including the Dominican Republic, Cuba and Costa Rica. It has been noted that the increasing number of RTAs may represent a threat to multilateral liberalization, distorting trade flows or increasing discrimination towards third states. However, insofar as RTAs abide by the principles embedded in Article XXIV of the GATT and Article V of the GATS, requiring that trade restrictions within these arrangements occur without barriers being raised on trade with non-members, it would appear that the recent proliferation of RTAs could accelerate the pace of further trade liberalization.

It is uncommon for developed and developing countries to increase protection beyond the "bound" tariff rates that have been established by the WTO. This would constitute a breach of the GATT Agreement to which all member states subscribe, with the added risk of retaliatory action by other member states. Indeed for countries that subscribe to GATT, there are few instances where increased border protection is permitted, although there are some counter-examples, notably the USA tariffs on steel and lamb, which is portrayed as a temporary measure. There have also been rare instances where increased border protection has been permitted under the GATT. New Zealand's imposition of an anti-dumping duty on whiteware [19] from South Korea is one example.

Another indication of the acceleration in the trend towards liberalization is the noted change in attitude by countries towards membership in the WTO and an increased interest in the rules-based

[19] Whiteware is a generic name for ceramic ware which has been glazed but has no decoration

system that has emerged from the Uruguay Round. This is partly related to the pace at which the world economy is integrating through international trade and the flow of foreign direct investment (FDI). The significant and revolutionary changes in communication and transportation have enabled the small manufacturers to access markets in distant countries. In addition, an increased number of countries are adopting market-oriented policies that reduce the state's participation in production and international trade. Many countries pursue these policies as a means of attracting FDI and encouraging transnational corporations that are able to lower production costs by obtaining human or capital resources from different parts of the world[20]. This increasing dependence on foreign trade has made governments and business enterprises aware of the vital role that the multilateral trading system plays in safeguarding their trade interests. In this respect, the importance of shaping the rules that guide the system has become of vital importance to countries. The result has been a 43 per cent increase in the membership of the WTO between 1993 and 2003, with several membership applications pending.

There are factors that could impede the progress of global trade talks. Paramount among these is the recent failure of the ministerial meeting of the WTO in September 2003[21] to reach a consensus. This has, in many ways, made the conclusion of the Doha trade round[22] increasingly difficult and uncertain. The factors contributing to the breakdown of multilateral negotiations in Cancún included the complexity of the trade agenda, the lack of transparency in administration under the WTO, and the disinclination by developing countries to adopt the "Singapore issues" as an item for negotiations.[23] There was also a general dissatisfaction among a new coalition of developing countries grouping, the G-22, led by Brazil and India, over American and European farm reforms[24]. Negotiation of the FTAA, which requires a convergence of American and

[20] The United Nations notes that in 2001 there were over 60,000 transnational corporations with over 800,000 affiliates around the world.
[21] The September 2003 ministerial meeting of the WTO was held in Cancún, Mexico.
[22] The Doha trade round commenced in November 2001 with a ministerial in Doha, Qatar (see Table 1, Appendix for details on some of the issues to be covered by the round) and is to be concluded in 2005.
[23] The Singapore issues first emerged in 1996 at the WTO Ministerial Conference in Singapore. Member states agreed to explore the relationship between trade and investment, trade and competition policy and examine transparency in government procurement and trade facilitation. The broad objectives behind this initiative were to ensure greater access of foreign nationals to investment opportunities in host countries, foster the interplay of market forces through the standardization of competition rules, allow greater transparency in the channelling of government investments, and ensuring the establishment of institutions that facilitates enhanced free trade.
[24] The farm policies include the US Farm Bill (2002), and the European Common Agricultural Policy (CAP) of 2003.

Brazilian positions is linked substantively to the Doha trade round[25] and as such the FTAA negotiations could be set back. The failure of the WTO to address the issue of agricultural reforms could also increase the general exclusion of agricultural trade talks from other bilateral agreements or RTAs in the near-term.

However, the failure of member states to reach a consensus at Cancún does not necessarily mean that the world trade system under the WTO will collapse or that the process of trade liberalization will be suspended indefinitely. Member states have committed to continue negotiations in Geneva. In addition, the major developed countries have voiced a commitment to aggressively pursue bilateral trade agreements in the near-term. These developments signal a continual and steady decline in border protection despite the setbacks. Zero tariffs may therefore occur by the year 2020, particularly for developing countries. In light of the foregoing, it is likely that, even in the near-term, Jamaica will have to make downward adjustments to its tariff structure. The adjustments to be made in the long-term will be shaped by developments in the WTO and by regional efforts to further liberalize trade.

3.0 Trade Policy Developments In Jamaica

The trade liberalization process embarked upon by Jamaica since the second half of the 20th century has been dictated by the economic and political realities faced by the country at different points in time. The country has alternated between relatively protectionist and liberal policies as a means of managing its trade deficits, safeguarding certain vulnerable productive sectors in the economy, ensuring the availability of foreign exchange and meeting certain political and economic commitments. Jamaica's trade policy regime has also been a reflection of the predominant trade philosophies of the time, with the implementation of more protectionist policies prior to the 1980s.

During the period 1957-1986, Jamaica's trade policy focused primarily on the use of quantitative restrictions as a means of engendering growth through export promotion and import substitution strategies. The focus was on protecting designated sectors of the economy in order to promote growth. In this regard, quantitative restrictions were imposed on a number of manufactured items, to encourage tariff-jumping foreign direct investment in manufacturing plants. Jamaican

[25] FTAA Ministers agreed that all reductions in tariffs would be dependent on agreements made at a multilateral level under the WTO (Chaitoo, 2002).

producers were also allowed to import, duty free, many industrial raw materials during this period.

Jamaica joined the Caribbean Free Trade Association (CARIFTA) in 1968[26]. The CARIFTA Agreement called for a reduction of trade barriers between member countries on products of area origin. All import duties, quantitative import restrictions and specific licensing requirements on goods originating in, as well as, those that were imported from member countries were eliminated. There was, however, a reserve list of commodities, with most of the items being on a schedule for gradual removal of import duties. Protection had also been guaranteed to domestic producers for the importation of certain commodities under a specific agreement[27]. Over a dozen other commodities such as ammunition, explosives and firearms, sugar and sugar substitutes, artificially sweetened beverages and certain farm machinery, among others, were subject to specific licensing requirements under other provisions of the CARIFTA Agreement. Trade in certain agricultural commodities was regulated by the Agricultural Marketing Protocol, which prohibited imports from outside CARIFTA, unless supplies from member countries were unavailable.

The overall objectives of CARIFTA were not realized due to dissenting positions by member states and subsequently, in 1973, efforts were made to strengthen, coordinate and regulate the economic and trading relationship between the members of CARIFTA, through the inauguration of the CARICOM. An essential feature of this agreement was the Common External Tariff (CET)[28]. However, as efforts were made to lower tariffs within CARICOM, Jamaica increased restrictions on extra-regional trade. Quantitative restrictions applied to imports originating outside CARICOM increased from an average of 93 products in the 1960s to an average of 270 products in the 1970s.

The sharp deterioration in Jamaica's balance of payments in the 1970s culminated in the foreign exchange crisis at the end of 1976 and the introduction of a new exchange rate regime. A

[26] The Association consisted of the following territories: Antigua, Barbados, British Honduras (Belize), Dominica, Grenada, Guyana, Monsterrat, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent and Trinidad and Tobago

[27] For example, imports of tyres and materials for retreading tyres, cement, steel, condensed and evaporated milk, flour, and certain petroleum products, were still made subject to specific licensing requirements in Jamaica.

[28] CET applies to a schedule of rates of customs duties applicable to goods imported from third countries or which do not qualify as originating within the Area of the Caribbean Common Market.

comprehensive system of import control was introduced as a tool to help synchronize import payments with foreign exchange inflows as the Government sought to restrict imports, particularly from extra-regional sources. Policymakers were of the view that the outcome of the balance of payments would hinge on the effective control of domestic demand. Accordingly, an essential feature of this policy was the "banned" and "restricted" lists of imports[29]. An average of 364 products were subject to quantitative restrictions, of which, an average of 177 such items required specific licenses[30]. The State Trading Corporation (later renamed the Jamaica Commodity Trading Company), a government agency, was given monopoly rights on the importation of a number of consumer goods. Several adjustments to the regulation of this system were made during the course of the decade and into the early 1980s.

The 1980s marked a significant juncture for Jamaica's trade regime, with the adoption of a more open, albeit gradualist, trade policy for extra-regional trade. With the introduction of a structural adjustment, supported by the International Monetary Fund (IMF) and the World Bank in the early 1980s, Jamaica made a commitment not to introduce any new quantitative restrictions on imports. The first phase of the country's Tariff Reform Programme began with the gradual elimination of quantitative restrictions on imports over a five-year period (until 1987). Of the original quantitative restrictions, 124 were removed between 1982 and 1983. Restrictions on items such as packaging materials, cans and glass bottles, which were to be used in export production, were also removed. At the same time, several quantitative restrictions were converted to tariffs with the aim of progressively lowering these rates. The desired effect was to expose production for the domestic market to limited external competition, thereby encouraging domestic producers to be more competitive, while maintaining some level of protection for the local economy. The average rate of duty on all imports was relatively low during the period, at approximately 15-18 per cent[31]

Another feature of the Programme was the widening of the import base on which tariffs were applied. For example, of the total cost, insurance and freight (c.i.f.) import value of US$1 144 million in 1985, US$237.0 million or approximately 21.0 per cent was subject to duty. The

[29] The goods for which no licenses were granted were certain automobiles, canned milk, cement, cigars, citrus products, sugar and coffee, among others.
[30] The licensing requirements also existed for exports with specific licenses issued for exports to countries like Cuba and the former USSR, while exports to countries like South Africa was prohibited at the time.
[31] A major reason for the low level was the virtual exclusion by Jamaica of raw materials, intermediate products and capital goods from duties under various industrial incentive laws and the CARICOM Agreement.

measures that were implemented during the first phase of the reform programme would have increased this ratio to 34.0 per cent.

The reform programme also sought to simplify the tariff system by narrowing the range of rates to 5.0-30.0 per cent from the wide dispersion of 0-200.0 per cent. This involved a reduction in the duty rate (customs plus stamp duty) to 68.0 per cent of the value of imported items (c.i.f.), from in excess of 100.0 per cent, with the stamp duty on raw material imports being reduced to 10.0 per cent from 16.0 per cent. The trade reform programme also sought to eliminate exemptions and ministerial remissions[32].

The second phase of the Tariff Reform programme was implemented over a four-year period ending in March 1991. The rates applied included a 5.0 per cent duty on items imported by the utility companies (which were previously exempt), a 10.0 per cent aggregate import duty to be applied to raw materials, 20.0 per cent on capital goods and 30.0 per cent on consumer goods. During this second phase, protective instruments such as quantitative restrictions were progressively phased out, with temporary protection continuing through the use of reference prices, protective duties for agricultural products, and administrative arrangements (for example, the direct importation of motor vehicles was restricted to the Jamaica Commodity Trading Company).

As previously noted, Jamaica's trade policy has also been influenced by its commitments under CARICOM. In 1990, the Common Market Council of Ministers approved the implementation of a new CET[33]. By 1992, the revised CET was approved by the Heads of Government of the Caribbean Community to be implemented on a phased basis within the time frame 1 January 1993 to 1 July 1998. During this period, the CET would fall to a high of 20.0 per cent in 1998, from highs of 30.0-35.0 per cent between 1993 and 1994, (see Table I).

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[32] Unless in cases of national disasters, charitable programmes, emergency situations, temporary imports, international agreements, oil, bauxite and CARICOM imports, bank and currency coins and notes and imports of the University of the West Indies, among others

[33] The final structure of the CET gave particular consideration to the inputs used in the manufacturing process. In this regard, goods were classified as competing or non-competing. Where regional production, or immediate production potential from existing capacity amounted to over 75 per cent of regional demand/consumption, then the like third country goods were deemed to be competing. The second broad classification divided goods into inputs and final goods. Inputs were further subdivided into primary inputs, intermediate inputs or capital goods. The remaining goods were deemed to be final goods. In addition, special provisions were allowed for sensitive products under a system of conditional duty exemptions. Member countries could therefore partially or totally suspend the application of CET rates in some cases or apply minimum rates in others.

Table I

Schedule of CARICOM's Common External Tariff Adjustments				
Phases	Period of application	Period to effect implementation	Rate -% for MDCs/a	Rate -% for LDCs/b
Phase I	Jan 93-Dec 94	Jan - June 1993	5-30/35%	0-5 & 30/35%
Phase II	Jan 95-Dec 96	Jan-June 1995	5-25%/30	5-25%/30
Phase III	Jan 97-Dec 97	Jan-June 1997	5-20/25%	5-20/25%
Phase IV	Jan-98	Jan-June 1998	5-20% /c	5-20% /c

Note: /a - Refers to more developed countries in CARICOM
/b - Refers to lesser-developed countries in CARICOM
/c - Agriculture commodities attract a duty of 40 per cent

The tariff schedules published for 1993 (revised in 1994), 1995 and 1998, showed that Jamaica met its obligations as a signatory to CARICOM's CET Agreement. Of the top 30 commodities imported by Jamaica during the period, the average rate of protection declined from 15.0 per cent in 1993 to 11.0 per cent in 1998 (see Table 4, Appendix). In the context of these adjustments, the 1990s therefore implicitly marked the third phase of Jamaica's Tariff Reform Programme. There was a progressive reduction of maximum aggregate rates of customs and additional stamp duties on goods, and the progressive widening of the tariff base through a programmed moving of items from total to partial exemption from tariff duties.

Jamaica's tariff structure has also been influenced by the country's increasing integration in the world trading system. As a signatory to the GATT and a subsequent member of the WTO in 1996, the country has committed to continue the process of reducing tariffs and eliminating other non-tariff barriers to trade. Jamaica has agreed in the WTO to bind its tariffs at levels much lower than those agreed by other countries.

Despite the reduction in tariff rates, the level of protection accorded Jamaican industries is still significant. Additional charges are added to the duty payable on imported goods including stamp duties (which can rise to a maximum of 15.0 per cent), an additional stamp duty of 25.0-56.0 per cent on certain items (for example, meat, pork, beef products, some aluminium products, alcoholic beverages and cigarettes), a General Consumption Tax of 15.0 per cent on imports, a Special Consumption Tax, ranging from between 5.0 per cent and 39.9 per cent[34] on specified

[34] Since October 22, 1991, the General Consumption Tax (GCT) and Special Consumption Tax (SCT) have replaced several duties and taxes, e.g., Excise Duty, CARICOM Duty, Consumption Duty, Entertainment Duty, Retail Sales Tax, Hotel Accommodation Tax, and Telephone Service Tax. GCT is paid on most goods and services except those items, which are zero-rated, and those, which are exempted. SCT is payable on a few items. These are alcoholic beverages, most tobacco products that attract a special

imports, a 2.0 per cent cess on all imports[35], and an Environmental levy of $2.00 per kilogram, imposed on containers imported, manufactured, or distributed in Jamaica[36]. These additional duties and taxes have effectively increased the protective level up to approximately 90.0 per cent in some cases. Although CARICOM origin goods enjoy duty-free status and are not subject to customs import duty, local taxes such as the GCT and the SCT apply. Additionally, since 2000, slight upward adjustments were effected on specific import tariffs. In particular, the rate on chicken parts and some fruits and vegetables were increased to 260.0 per cent in April 2002, from an average of 20.0 per cent in 1999, in an effort to safeguard these domestic-competing industries. There have also been increases in customs and/or stamp duties applied to products for which there are no productive capacities within Jamaica. Aggregate duties for motorcars range from 67.0-288.0 per cent, for commercial vehicles from 30.0-288.0 per cent and for buses from 10.0-105.0 per cent.

In the context of Jamaica's commitments under the WTO and future negotiations with the EU and the prospective FTAA member states, it is likely that trade liberalization, specifically tariff reductions, in Jamaica will accelerate. Under the WTO, the country has fulfilled its major commitments for the reduction in tariffs on goods and services, as well as, its commitments under associated agreements such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). In the near-term, Jamaica's focus will be on the fulfilment of its outstanding commitments at the multilateral level (see Table 5, Appendix). Further reductions in tariffs will, however, be directly shaped by the outcome of future ministerial conferences which will undoubtedly be focused on the issue of reducing tariff and non-tariff barriers to trade in agricultural commodities.

In the near term, it is likely that there will be more significant reductions in tariffs through bilateral agreements. The establishment of the CSME by January 2004 has already precipitated a reduction in tariffs through the CET, with rates ranging from 0-20 per cent for goods and services originating from non-CARICOM states. The implementation of the FTAA by 2005 and the establishment of the Economic Partnership Agreement with the EU by 2007 will both call for further reductions in Jamaica's tariff structure. CARICOM negotiators will undoubtedly seek

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consumption tax of 5 to 39.9 per cent and some petroleum products. Most items attract only GCT, while some attract both GCT and SCT. The petroleum products, which attract SCT, do not attract GCT.

[35] The cess was imposed on 1 May 2003 and is a temporary measure to last for the period of one year.

[36] Containers to which the levy applies include plastic packaging material used to package soft drinks, detergents, trash bags, plastic bottles and fast-food packaging (Styrofoam).

special and differential treatment for CARICOM states. However, this will likely involve a mere extension of the transitional periods for implementing obligations, rather than a continuation of the traditional non-reciprocal preferential treatment for which CARICOM states, including Jamaica, have been accustomed[37]. In addition, since FTAA Ministers have already agreed that all tariffs will be subject to negotiations, it will be very difficult for CARICOM to exempt products from the liberalization process.

4.0 The Impact of Trade Liberalisation

An important question that arises in the context of the accelerated multilateral trade negotiations is the extent of the impact of tariff adjustments on trade flows for small open economies such as Jamaica. Early thinking suggested that tariff reductions are unambiguously positive for economic welfare in a country[38], to the extent that the gains in consumer surpluses outweigh the loss in producers' surplus. A review of the recent literature does not, however, lead to a clear conclusion about the effect of a tariff on the trade balance. There are two general approaches to the assessment of the impact of tariffs on the trade balance, namely the income-expenditure approach and the intertemporal approach.

The usual analysis of the effects of a tariff considers a static model of a small open economy in which the trade balance (BT) and domestic GDP are the two variables of interest. The trade balance is a function of relative prices, $q = EP^*/P$, and real income of the domestic (Y) and external (Y*) economy.

$$(1) \qquad BT = M^*(q) - qX(q, Y).$$

Here, M* and X denote domestic imports and exports, respectively. Output is the sum of domestic expenditure E (Y) and BT:

$$(2) \qquad Y = E(Y) + BT(q, Y)$$

The imposition of an advalorem tariff on imports increases the price within the importing country, stimulating production in the import-competing industry and depressing demand. These

[37] Chaitoo, R. (2000)
[38] Ricardo, D. (1817)

effects will both result in a reduction in imports and the trade balance would improve as a result. If the tariff revenues are not redistributed, the government improves its fiscal position. Under this assumption, output rises if import demand is sufficiently price inelastic to offset the contractionary impact of the budget surplus, but falls otherwise. In this analysis, the revenue redistribution scheme of the government will affect the size and possibly the sign of the comparative static results. Additionally, this analysis hinges critically on the type of exchange rate regime in place. With a flexible exchange rate regime, the exchange rate will adjust to make BT (.)=0. In this case, there will be a real appreciation once import demand is suppressed with the imposition of the tariff and output will remain unchanged or even fall. According to Laursen and Metzler (1950), the deterioration in the terms of trade, which lowers real income, results in a reduction in spending on domestic goods. Finally, the analysis assumes that foreigners do not respond to the tariff. If the foreign country retaliates by raising its own tariff, the effects on the trade balance, among other variables are ambiguous.

The intertemporal approach to the analysis of an open economy also highlights the indeterminacy of welfare under tariff adjustments. This approach views the spending and saving decisions of economic agents as solutions to the problem of maximizing an intertemporal utility function, subject to lifetime budget constraints. Razin and Svensson (1983) consider a model of a small open economy that produces and consumes two goods in each period, with fixed interest rates and world prices. Firms maximize profits subject to the given technology and the economy's endowment of productive factors. Consumers maximize lifetime utility subject to the constraint that the present-value of their spending does not exceed the present-value of their income. In such a model, the effect of a tariff depends on whether it is expected to be temporary or permanent. A temporary tariff raises the price of current consumption, relative to future consumption. Agents will substitute consumption intertemporally, consuming less in the present and more in the future, by lending in the international capital market, by running a trade surplus. In contrast, a permanent tariff will not lead agents to substitute consumption intertemporally and will therefore have negligible effects on the trade balance.

Ostry (1992) noted that the effects of tariff changes on the trade balance were largely dependent on the ease with which agents were able to substitute consumption within a period, that is, the elasticity of substitution between tradables and nontradables in a given period, versus the degree of substitution in aggregate consumption across time periods (the intertemporal elasticity of

substitution in consumption). Depending on the parameter values, a temporary tariff may improve, worsen or leave the trade balance unchanged.

Given this theoretical ambiguity, the impact of trade liberalization on the trade balance becomes an empirical issue. Ostry and Rose (1992) found no statistically significant effect of tariff changes on the real trade balance of selected countries (including developing countries). Following trade liberalization among several developed and developing countries in the latter half of the 1970s, Krueger (1978) indicated that there was evidence that import flows responded more rapidly than exports, causing "temporary" trade imbalances. Khan and Zhaler (1985) found that for some southern Latin American countries external shocks and inappropriate domestic policies played a significant role in undermining the trade liberalization attempts. Santos-Paulino (2002) found that trade liberalization worsened the balance of trade as imports increased more rapidly than exports. Trade liberalization also had an indirect effect operating through its deleterious impact on output growth, which also serves to weaken the trade balance. Pacheo-Lopez (2003), found that trade reforms launched in the mid-1980s in Mexico, worsened the position of the trade balance in 1985. It was also found that two years immediately after NAFTA was instituted, Mexico's trade balance had deteriorated.

A review of trade liberalization in a cross-section of countries that had an IMF-supported programme requiring a reduction in trade barriers,[39] for the period 1990 to 1993, reveals that there was an even mix in the number of countries experiencing an improvement and a deterioration in their trade balance after the implementation of reforms (see Table 6, Appendix). Prior to the introduction of the IMF-support programmes, two-third of the countries reviewed were characterized by highly restrictive trade regimes. Most of these countries continued to implement liberal trade policies after 1993.

5.0 Impact of Tariff Adjustments on the Jamaican Economy

5.1 Empirical Framework

Following Ostry and Rose (1992), this paper considers the impact of changes in tariff rates on exports, imports and the overall trade balance, as well as, GDP over the period 1988 to 2002. The full data set includes the trade balance, real GDP, the tariff rate and the CPI-based real exchange

[39] The review covers multiyear Fund arrangements of at least two years' duration, since these are intended to target structural reform measures, including trade reform.

rate as a measure of relative prices. Two implicit measures of the Jamaican tariff rate are considered: tariff revenues, inclusive of customs duties, stamp duties and general consumption tax on imports, divided by the value of imports (denoted $\tau 1$); and tariff revenues, inclusive of customs duties, stamp duties, general consumption tax on imports and the special consumption tax on fuel imports, divided by the value of imports (denoted $\tau 2$). These measures show an upward trend particularly over the period 1992-2000, indicative of the increases in the local taxes applied to customs and stamp duties (see Figures 1a and 1b).

Average Tariff Rates for Jamaica (June 1988-December 2002)

Figure 1a

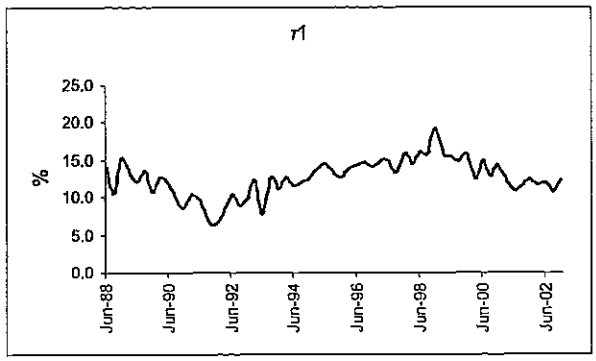
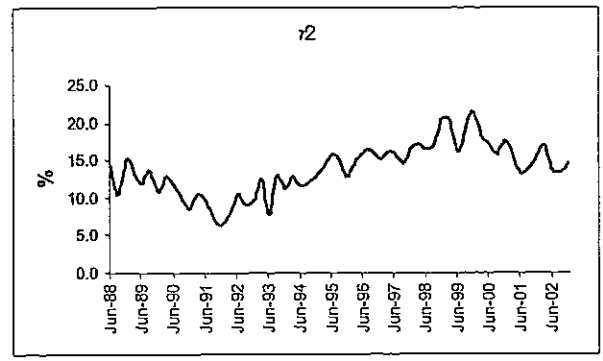


Figure 1b



Although the measures of the tariff are imperfect proxies of the effective marginal tax on imports, they implicitly capture the general movements in tariff rates over the period. Substitution bias may, however, arise from the fact that a tax on a given product may lead foreign production and domestic consumption of that product to fall. As a result, goods with very high tariffs may not be imported. The constructed tariff rate would therefore tend, *ceteris paribus*, to understate the actual tariff rate. The calculated tariff rate may also be a poor proxy for the actual level of protection, as non-tariff barriers such as tax incentives, extended to the manufacturing sector have been used instead of tariffs as a means of protection.

Two measures of real imports were considered: real imports with fuel (denoted by RIMWF) and real imports excluding fuel (denoted by RIMNF), the latter measure being used to account for the different tax regime on fuel and the different elasticities that may be associated with fuel given

the economy's dependence on the commodity. In calculating real imports, an index of import prices using the Standard International Trade Classification (S.I.T.C.) categories was computed from data obtained from the US Bureau of Labour Statistics. This price index was then used to deflate total general merchandise imports (c.i.f.). For the calculation of the real trade balance (RTB), real exports were computed using data from the Bank of Jamaica's database, for the period 1988-2002. The volumes of Jamaica's exports were deflated using implicit prices.

Data on real gross domestic product of the USA (denoted by USRGDP), obtained from the US Bureau of Commerce, was adjusted to reflect quarterly instead of annualised flows. The quarterly data on real domestic GDP was obtained from the Statistical Institute of Jamaica (STATIN) for the period 1996-2002, while Allen (2001) provided estimates for the pre-1996 period[40]. Data on the Real Effective Exchange Rate (REER) was extracted from the Bank of Jamaica's database.

The demand for imports was modelled in a vector error correction model (VECM) of the form

$$\Delta Z_t = \beta(L)\Delta Z_t + \delta U_{t-1} + \varepsilon_t \qquad \delta < 0 \tag{3}$$

where Z_t is a vector containing the real trade balance, real exchange rate, real domestic output, real foreign output and the tariff rate; U_t is the co-integrating vector. Z_t is also adjusted to include real imports and exports. The hypothesis that the tariff rate does not add statistically significant explanatory power to the system is then tested. This is achieved by estimating the VECM with the full set of variables (including the tariff rates), and then restricting the system by omitting the tariff rates. The variance-covariance matrix of the residuals are then recovered from both sets of estimates to compute the likelihood ratio statistics as follows:

$$(T-c)\left(\log\left|\sum_R\right| - \log\left|\sum_{UR}\right|\right)$$

$\sum_R$ and $\sum_{UR}$ are the variance covariance matrices of the residuals of the restricted and unrestricted systems, respectively. This statistic is distributed Chi square with $(nL + c)$ degrees of freedom, where n is the number of variables in the system, L is the number of lags, while c represents the number of constants or exogenous terms in the system. The Akaike Information Criterion (AIC)

[40] The two series were combined by extrapolating the series from STATIN with estimated growth rates taken from Allen (2001).

and the Schwartz Information Criterion (SIC) are employed to supplement the log Likelihood ratio test.

5.2 Results

The Augmented Dickey-Fuller (ADF) test for unit root indicates that all the variables, excepting real exports, are I(1) (see Table 7, Appendix). The Johansen Trace and the Maximum Eigenvalue statistics from the most parsimonious VECM indicated one cointegrating relationship between the variables.

The log likelihood ratio test and the differences of the AIC and the SIC statistics associated with the restricted and unrestricted systems, suggest that both measures of the tariff rate have a significant impact on the system (Table II).

Table II

Effect of Tariff Rates

	Log Likelihood Ratio Test		AIC Test (R - UR)		SIC Test (R - UR)	
Variables	T1	T2	T1	T2	T1	T2
Real Trade Balance	96.64	102.40	4.20	4.41	4.96	5.17
Imports (with fuel)	96.81	107.14	3.71	4.08	4.04	4.40
Imports (no fuel)	97.09	107.15	3.72	4.08	4.05	4.40
Exports	102.89	110.47	3.93	4.19	4.25	4.51
5% critical value:	*67.5*					

The long-run equilibrium coefficients in the VECM (Table III) point to the relative impact of the tariff rates on the variables of interest. In relation to the long run behaviour of the real trade balance, both measures of the tariff rate are insignificant at the 5.0 per cent level. However, $\tau 2$ has the right sign and is significant at the 10.0 per cent level, which implies that the imposition of the non-duty taxes and taxes on fuel on international trade play an important role in affecting trade volumes. The impact of the tariff is more important for imports (both including and excluding fuel) and there is no discernible difference between the responses of the two measures of imports. Real exports are, however, not significantly affected by tariff adjustments, which is consistent with *a priori* expectations. Importantly, the REER and GDP (both domestic and foreign) are right signed and significant in the long run.

Table III

Normalised Long Run Coefficients

Variable	REER	JGDP	USGDP	$\tau 1$	$\tau 2$
RTB	-2.80	2.35	25.03	1.34	
	-(2.88)	(0.80)	(8.89)	(0.46)	
RTB	-2.18	13.98	57.29		-9.03
	-(1.12)	(2.41)	(9.49)		-(1.48)
RIMPWF	1.46	4.05		-2.62	
	(13.76)	(14.55)		-(3.90)	
RIMPWF	1.74	4.75			-2.92
	(9.53)	(12.20)			-(3.64)
RIMPNF	1.36	3.92		-2.12	
	(14.70)	(16.16)		-(3.63)	
RIMPNF	1.57	4.50			-2.28
	(9.80)	(13.20)			-(3.23)
REXP	-0.72		1.29	1.26	
	-(3.79)		(6.51)	(1.20)	
REXP	-0.77		1.17		1.55
	-(3.99)		(5.18)		(1.50)

Numbers in parentheses are t-statistics

The short run responses of imports, as captured by the impulse response functions presented in the Appendix, (Figure A), are consistent with *a priori* expectations. Imports experience an immediate contraction over the first two quarters following the shock, but fall at a slower rate thereafter for up to two years. The responses of imports to shocks to $\tau 1$ are more erratic over the short term.

To account for policy shifts during the sample period the VAR systems were estimated using a reduced sample of 1991:01 to 2002:04, the period during which the most significant tariff adjustments occurred. Moreover, the paper evaluates whether or not the change in the exchange rate regime after 1991 would have a significant influence. The results, however, remained unchanged.

The hypothesis that the tariff rates considered in this paper are weakly exogenous[41] was also tested. Outside of the statistical efficiency gains associated with accounting for exogeneity, this issue has an intuitive appeal in that it can be established whether or not adjustments in tariff rates (including measures geared at enhancing compliance) in Jamaica are in response to the behaviour

[41] Ostry and Rose (1992) treated tariff rates as exogenous.

of selected macroeconomic variables, such as the current account. Table IV presents likelihood ratio statistics associated with the test proposed by Engle, Hendry and Richard (EHR) (1983) for weak (long run) exogeneity.

Table IV

Tests for Weak Exogeneity: Tariff Rates in Jamaica

	$\tau 1$		$\tau 2$	
System Including:	Likelihood Ratio	P-Val	Likelihood Ratio	P-Val
RIMPNF	5.31	0.02	2.45	0.12
RIMPWF	5.10	0.02	2.03	0.15
RTB	2.57	0.11	6.30	0.01
REXP	0.66	0.42	6.84	0.01

$\tau 1$ is weakly exogenous in the systems that include the real trade balance and exports, but appears endogenous in both systems that includes imports. The reverse is true for $\tau 2$. The tariff rate appears to be endogenous in the systems that includes imports, but is weakly exogenous in the systems that include the trade balance and exports. The analysis therefore suggests that tariff rates in Jamaica are not necessarily adjusted only in response to external factors, such as trade negotiations.

Block exogeneity (short run) tests (in Tables 8 and 9, Appendix) supports the view that imports, exports (in the case of $\tau 1$) and, by implication, the trade balance, are significantly affected by their determinants, inclusive of the two measures of protection. The tariff rate is exogenous in all cases however, except for $\tau 2$ in respect of the real trade balance. Of note, the REER is exogenous in all the systems. Selected pairwise Granger causality (GC) tests suggest that real imports are granger caused by domestic GDP, (the REER and the tariff rate do not significantly add to the explanation of real imports), while bivariate granger causation exists for real exports and US GDP.

6.0 Conclusion

Given the trends in multilateral, regional and bilateral negotiations, there is a likelihood that tariffs will be eliminated by the year 2020. This is expected to have a significant adverse impact on the Jamaican balance of payments. As the results indicate, imports appear to be sensitive to these adjustments. In all likelihood further increases in imports are anticipated in the near-term. The country has no *immediate* commitment to further liberalise trade, but given the advent of the

FTAA and the ACP/EU EPA, tariff adjustments will become almost unavoidable in the medium term.

In the context of the current balance of payments deficit, future tariff adjustments are to be approached with caution because of their potential adverse impact on the external accounts and the broader macro economy in the near to medium-term. At least, a reasonable adjustment period should be negotiated, as this would minimise the adverse macroeconomic effects. In addition, policies aimed at encouraging the production of tradable goods and services at competitive prices are essential to ensuring a sustainable external position. This could involve efforts to enhance macroeconomic stability and reduce security costs in Jamaica. The private sector could also be assisted, through the organs of the state, to take advantage of new trade opportunities and market outlets. Innovation should be promoted through research development, as well as, the establishment of a regulatory framework that is favourable for globalisation and trade liberalisation. Importantly, effort must be made to take advantage of the safeguard measures under the GATT, that allow developing countries to restrict imports, for temporary periods, in emergency situations, or in order to promote the development of new and/or infant industries.

7.0 References

Averbug, A. (2002) *Brazilian Trade Liberalization and Integration in the 1990s.* www.bndes.gov.br/english/studies/trade.pdf

Business Guide to the World Trading System, *International Trade Centre UNCTAD/WTO and Commonwealth Secretariat*, 1999, pp.3-13

Chaitoo, R. (2002), Tariff Negotiation Methods and Modalities in the FTAA: Implications for CARICOM, *Caribbean Regional Negotiating Machinery*

Dornbusch, R. External Balance Correction: Depreciation or Protection? *Brookings Papers on Economic Activity*, 1987, 1: 249-269

External Trade (Several Issues), *Statistical Institute of Jamaica*

Greenaway, D., Morgan, W. and Wright, P. (1998), Trade Reform, Adjustment and Growth: What Does the Evidence Tell Us? *Economic Journal, 108.*

Greenaway, D., Morgan, W. and Wright, P. (2002), Trade Liberalization and Growth in Developing Countries, *Journal of Development Economics*, Volume 67, Issue 1: 229-244.

Gujarati, D., Basic Econometrics, McGraw Hill Inc., 1995

Henry, C. and Longmore, R, Current Account Dynamics and the Real Effective Exchange Rate: The Jamaican Experience, Working Paper 03/03, *Bank of Jamaica*, March 2003

Hudson, S., and Stennett, R., Current Account Sustainability in Jamaica, Working Paper 02/11, *Bank of Jamaica*, June 2003

Infometrics, Review of Import Tariffs Beyond 2005, *The Ministry of Economic Development, Australia*, 2002

International Monetary Fund (1998), Trade Liberalization in IMF-Supported Programmes, *World Economic and Financial Surveys*, Washington DC.

Khan M., and Zahler, R. (1985), Trade and Financial Liberalization Given External Shocks and Inconsistent Domestic Policies, *IMF Staff Papers*, 32: 22-25

King, D. (2001), Globalization, Trade Policy and Sustainable Human Development in Jamaica, Department of Economics, *University of the West Indies*, Jamaica.

Krueger, A. (1978), Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences, Lexington, MA: Ballinger Press for NBER.

Krueger, A. (2003), Moving on from Cancun: Agricultural Trade and the Poor, IMF, Speeches.

Laursen, S. and Metzler, L. (1950), Flexible Exchange Rates and the Theory of Employment, *Review of Economics and Statistics* 32: 281-299

Ministry Papers (Several Issues), Ministry of Finance and Planning, Jamaica

Ministry Papers (Several Issues), Ministry of Foreign Affairs and Foreign Trade

Ostry J.D. (1991), Trade Liberalization in Developing Countries, *IMF Staff papers*, 38 (3), September: 447-479.

Ostry J.D. and Rose A.K. (1992), An Empirical Evaluation of the Macroeconomic Effects of Tariffs. *Journal of International Money and Finance*, Volume II: 63-79

Pacheco-Lopez, P. (2003), The Impact of Trade Liberalization on the Trade Balance, the Balance of Payments and Economic Growth: The Case of Mexico, mimeo Department of Economics, University of Kent

Razin, A. and Svensson, L. (1983), The Terms of Trade and the Current Account: The Harberger-Laursen-Metzler Effect, *Journal of Political Economy*, Vol. 91 (1): 97-125.

Santos-Paulino, A. (2002) Trade Liberalisation and the Balance of Payments in Selected Developing Countries, *Department of Economics, Keynes College*, University of Kent

Schott, J, (2003) Unlocking the Benefits of World Trade, *The Economist*, 1 November 2003

Sodersten B. and Reed, G., (1994) *International Economics*, Macmillan Press Ltd., : 3-38

Stotsky, J., Suss, E., and Tokarick, S. (1997), Trade Liberalization in the Caribbean, *Sistema de Información al Comercio Exterior.*

Teclemariam, K.B. and Van Zyl, J. S., (2002) The Impact of Trade Liberalization on Some Economic Variables: An Implication for African Countries, *Economics Working Paper Series*, Department of Economics, University Free State, Working Paper 07/02.

The Customs Act, General Provisions to the First Schedule, 1993, Ministry of Finance and Planning, Jamaica

The Customs Act, The Customs Tariff (Revision) (Amendment) 1995, 1999, Ministry of Finance and Planning, Jamaica

The Jamaica Gazette Supplement, Proclamations, Rules and Regulations, Vol. CXXV, Friday, 26 April 2002, No.24

U.S. Trade Agenda (2003), Office of the US Trade Representative

Van Wijnbergen, Sweder, Tariffs, Employment and the Current Account, *International Economic Review*, October 1987, 28: 691-706

World Trade Organization, *The GATT years: from Havana to Marrakesh.*

World Trade Organization Annual Report (Several Issues)

World Trade Organization, International trade statistics (Several issues)

8.0 Appendix

Table 1

Chronology of Trade Liberalization under the GATT/WTO			
Implementation period	**Place/Name of Round**	**Subjects Covered**	**Countries**
1947	Geneva	Tariffs (Industrial Goods)	23
1949	Annecy	Tariffs (Industrial Goods)	13
1951	Torquay	Tariffs (Industrial Goods)	38
1956	Geneva	Tariffs (Industrial Goods)	26
1960-61	Dillon Round	Tariffs (Industrial Goods)	26
1964-67	Kennedy Round	Tariffs and Anti-dumping measures	62
1973-79	Tokyo Round	Tariffs, non-tariff measures, "framework agreements"	102
1986-1994	Uruguay Round	Tariffs, non-tariff measures, rules, services, intellectual property, dispute settlement, textiles, agriculture, creation of WTO	123
2001-2005	Doha Round	Uruguay Round implementation concerns, agriculture, services, market access (non-agriculture), intellectual property, investment, treatment competition, transparency in government procurement, trade facilitation, anti-dumping, subsidies, regional agreements, dispute settlement, environment, e-commerce, small economies, trade, debt and finance, trade and technology transfer, technical cooperation, least-developed countries, special and differential	143

Source: WTO Secretariat

Note: The Seattle Ministerial in 1999 and the Cancun Ministerial in 2003 have been excluded from the list, as these were primarily mid-term reviews that were generally deemed to be unsuccessful rounds.

Table 2

Reductions in agricultural tariffs and subsidies in the Uruguay Round

	Developed countries 6 yrs: 1995-2000	Developing Countries 10 yrs: 1995-2004
Tariffs		
Average cut for all agricultural products	-36%	-24%
Minimum cut per product	-15%	-10%
Domestic support		
Cuts in total support for the sector	-20%	-13%
Exports		
Value of subsidies (outlays)	-36%	-24%
Subsidized quantities	-21%	-14%

Source: WTO Secretariat

Table 3

Average FTA Applied, MFN Tariffs and WTO Bound Rates for selected group of FTAs

FTAs	Year	RTA Applied Rates[/a]	MFN Applied rates	WTO Bound rates
CARICOM		0.0	11.7	59.6
Antigua and Barbuda	2000		14.5	58.7
Dominica	2001		13.1	58.7
Grenada	2001		11.2	56.6
Guyana	2001		11.7	56.7
Jamaica	2001		10.7	49.8
St. Kitts and Nevis	2001		11.5	75.9
St. Lucia	2001		10.1	61.9
St. Vincent	2001		10.9	62.5
Trinidad & Tobago	2001		11.2	55.7
NAFTA		1.6	8.0	14.7
Canada	2000		4.4	5.1
Mexico	1997		15.5	34.9
USA	2001		4.0	4.0
MERCOSUR		0.1	10.6	32.3
Argentina	2001		11.6	31.9
Uruguay	2001		11.0	31.7
Brazil	2001		12.9	31.4
Paraguay	2001		10.7	33.5
Chile	2001		8.0	25.1
Bolivia	2001		9.3	40.0
ASEAN		3.9	8.1	22.0
Indonesia	2001		8.0	37.1
Malaysia	2001		9.2	14.5
Philippines	2001		7.0	25.6
Singapore	2001		0.0	6.9
Thailand	2001		16.5	25.7
SADC		5.2	14.5	77.1
South Africa	2002		10.7	19.1
Congo, Dem. Rep.	2001		18.6	96.2
Tanzania	2000		17.9	120.0
Zimbabwe	2001		19.0	94.1
Botswana	1996		11.1	18.8
Mozambique	2001		13.4	97.5
Mauritius	2001		10.6	93.9

Source: WTO Secretariat
/a – Are approximate values

Table 4

Average Tariffs Applied on Jamaica's Main Import Items

	1993	1995	1999
CONSUMER GOODS			
Food			
Aerated water	30.0	25.0	20.0
Infant Formula	20.0	17.5	10.0
Fish (Snapper, mackerel etc.)	26.1	25.5	28.4
Chicken & Parts Thereof	20.0	24.0	28.7
Non-Durables			
Medicaments	9.8	9.710.24	15.0
Printed Books/Periodicals	0.0	0.0	0.0
Napkins/sanitary towel/Diapers/Toilet Tissue	26.7	23.3	20.0
Paper/Paperboard	5.0	0.0	0.0
Other Non-Durables			
Jewellery	30.0	30.0	30.0
Watches and Calculators	30.0	30.0	30.0
Semi-Durables			
Tennis Shoes/Slippers/Footwear	21.3	22.8	15.8
Articles of Plastics	13.9	11.2	7.4
Durables			
Motor Cars	19.8	19.8	25.0
RAW MATERIALS			
Food			
Corn Seed	0.0	0.0	0.0
Refined Sugar	40.0	0.0	0.0
Wheat	0.0	0.0	0.0
White rice	30.0	25.0	25.0
Industrials Supplies			
Sodium Hydroxide (Caustic Soda)	5.0	0.0	0.0
Paper Product(paper, boxes)	19.0	13.9	10.6
Bottles/Bottles for Soft-drinks/Jars	15.0	10.0	4.6
Fuels			
Bunker (c grade oil)	15.0	15.0	10.0
Motor Spirit Gasoline (Unleaded)	3.8	3.8	3.8
Parts & Accessories			
Parts for Aircraft engines	5.0	5.0	0.0
Tyres	10.3	7.0	6.7
Parts/Accessories for M/V	8.2	8.6	13.9
CAPITAL GOODS			
Transport Equipment			
M/V for transport of goods	7.7	5.8	5.8
Coaches and Buses	7.9	5.4	5.7
Construction Materials	16.5	10.9	8.4
Machinery & Equipment			
Telephonic & Telegraphic Applications	5.0	5.0	5.0
Data Processing Equipment	5.0	5.0	0.0
Average Tariffs for Selected Items	14.9	12.0	11.0

Source: The Customs Tariff Schedule 1993, The Customs Tariff Revision, 1995, 1999, Jamaica

Table 5

Jamaica's Schedule of Near-term Commitments						
		Implementation Period				
Levels		2004	2005	2006	2007	Comments
Multilateral	WTO					
	Subsidies & Countervailing Measures				X	
	TRIPs		X			
Regional	_CSME	X				
	Economic Partnership Agreement				X	For implementation 1 January 2008
	FTAA		X			
Bilateral	CARICOM/Costa Rica		X			Outstanding issues to be addressed
	CARICOM/Cuba	X				Provisionally applied since December 2002
	CARICOM/Dominican Republic	X	X			Signed in 1998. Trade in majority of goods to have been implemented in 2003 with the remainder in 2004. Outstanding issues remain

Table 6

A review of the impact of trade reform measures on the trade balance of selected countries with IMF-supported programmes

Countries	IMF Programmes				Trade Balance			
Africa	ESAF	EFF	SAF	SBA	5 yrs. Before	Yr. of Implementation	5 yrs After	Effect
Benin	1/25/93				-8.70	-7.97	-5.81	+
Burkina Faso	3/31/93				-8.84	-8.26	-10.90	-
Equatorial Guinea	2/3/93				-11.39	6.20	-10.12	-
Ethiopia			10/28/92		-6.36	-11.08	-9.66	+
Lesotho	5/22/91				-101.33	-107.60	-88.94	+
Mali	8/28/92				-5.32	-5.97	-4.06	+
Mauritania	12/9/92				6.62	-4.91	8.98	+
Mozambique	6/1/90				-31.46	-46.87	-30.24	+
Sierra Leone	4/3/92				0.38	1.67	-10.49	-
Zimbabwe	9/11/92	1/24/92			3.99	-3.77	2.07	+
Asia								
Bangladesh	8/10/90				-8.69	-5.47	-4.51	+
Mongolia	6/25/93				-3.85	3.89	1.70	-
Nepal	10/5/92				-13.26	-10.74	-21.41	-
Philippines				2/20/91	-4.36	-7.07	-11.66	-
Sri Lanka	9/13/91				-7.45	-8.94	-7.42	+
Europe								
Hungary		2/20/91			1.12	1.07	-5.71	-
Poland		4/18/91			1.95	-0.93	-2.23	-
Middle East								
Egypt				5/17/91	-7.65	-15.82	-12.52	+
Jordan				2/26/92	-24.52	-33.47	-27.12	+
Western Hemisphere								
Argentina		3/31/92			5.16	-0.61	-0.35	+
Guyana	7/13/90				1.07	n.a.	-11.24	-
Jamaica		2/11/92			10.77	11.48	14.67	+
Panama				2/24/92	-2.34	-5.16	-5.65	-
Peru		3/18/93			-0.03	-2.12	-3.54	-

Source: IMF
Note: Enhanced Structural Adjustment Facility (ESAF), Extended Fund Facility (EFF), Structural Adjustment Facility (SAF), Stand-By Agreement (SBA).

Table 7

Unit Root Tests

	ADF			
Variables	Lags	Levels	Lags	1st Diff
Trade Balance	7	1.0	6	-4.6
Tariffs				
$\tau 1$	1	-1.6	0	-14.8
$\tau 2$	2	-1.1	1	-8.7
Other				
USGDP	4	0.6	2	-27.6
REER	1	-1.0	0	-5.7
JGDP	2	-3.6	1	-10.2
Imports				
RIMPNF	4	-0.2	3	-4.0
RIMPWF	4	-0.1	3	-4.1
Real Exports	3	-4.0		
1% Critical Values:		-3.6		-3.6

Table 8

Pairwise Granger Causation Tests:

Exclude	Chi-sq	P-Val	Chi-sq	P-Val
	Dependent variable: D(RIMPWF)			
D(REER)	2.18	0.14	2.13	0.14
D(JGDP)	5.32	0.02	4.71	0.03
D($\tau 1$)	0.67	0.41	0.03	0.86
	Dependent variable: D(REER)			
D(RIMPWF)	0.00	1.00	0.00	0.99
D(JGDP)	1.77	0.18	1.75	0.19
D($\tau 1$)	1.86	0.17	0.27	0.60
	Dependent variable: D(JGDP)			
D(RIMPWF)	1.03	0.31	0.09	0.76
D(REER)	0.99	0.32	0.46	0.50
D($\tau 1$)	5.30	0.02	0.83	0.36
	Dependent variable: D($\tau 1$)			
D(RIMPWF)	2.55	0.11	0.04	0.84
D(REER)	0.83	0.36	0.00	0.95
D(JGDP)	0.39	0.53	0.93	0.33

Table 9
Pairwise Granger Causation Tests:

Exclude	Chi-sq	P-Val	Chi-sq	P-Val
Dependent variable: D(REXP)				
D(REER)	0.35	0.55	0.51	0.48
D(USGDP)	4.84	0.03	3.59	0.06
D(τ1)	0.89	0.35	2.17	0.14
Dependent variable: D(REER)				
D(REXP)	0.02	0.90	0.05	0.83
D(USGDP)	0.64	0.42	1.41	0.23
D(τ1)	0.47	0.49	0.22	0.64
Dependent variable: D(USGDP)				
D(REXP)	9.35	0.00	6.18	0.01
D(REER)	0.45	0.50	0.79	0.37
D(τ1)	0.55	0.46	2.51	0.11
Dependent variable: D(τ1)				
D(REXP)	0.28	0.60	1.17	0.28
D(REER)	0.00	1.00	0.07	0.79
D(USGDP)	0.15	0.70	2.32	0.13

Figure A

Impulse Responses:
Real Imports to One Standard Deviation Shock to τ1 and τ2