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An Export Development Model for Jamaica

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UNIVERSITY OF MIAMI

AN EXPORT DEVELOPMENT MODEL FOR JAMAICA

By

Maurice G. Fletcher

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

May 2012

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UNIVERSITY OF MIAMI

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AN EXPORT DEVELOPMENT MODEL FOR JAMAICA

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An Export Development Model For Jamaica

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This export development model for Jamaica initiates a system that progressively identifies appropriate, exportable products and services and creates market volume mainly through creative distribution to the Caribbean Diaspora. This model proposes a continuous supply chain identifying ways to create wealth for the country and helping to solve economic hardships without excessively burdening the government for investment capital. The development of large modern farms and factories, along with the establishment of efficient collection and processing stations, ensures reliability of exports that are sustainable and can be competitive in price and quality against similar products in the marketplace. The creation of a guaranteed market completes the ideal cycle. A full analysis of the various recommendations and timely implementation of the plan is expected to help Jamaica achieve its economic objectives.

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Summary

Jamaica has long suffered from an inability to create and maintain secure export markets. The intent of this research is to develop a model that allows Jamaica to catalogue its exportable products and create the appropriate and available shelf space to allow for the direct, guaranteed transfer of these products. Jamaica has to create an assortment of exportable items and establish a dedicated and certain market through which they will be channeled. The idea is to develop large mechanized and industrialized, state-of-the-art farms and modern factories to produce and package tangible, high quality products with supply chain reliability. Extensive research on how to extend product shelf life, improve product quality and stimulate consumer appeal is essential. Jamaica would also develop complementary products and services through non-traditional or alternative production methods such as wine fermentation, solar drying or flash freezing, to name a few. The country would also have to invest in modern packaging methods and build specialized plants at the product sources to ensure that goods are delivered in a timely manner, at the peak of freshness and at the highest possible quality. Establishing products of exportable quantity and quality, matched to a guaranteed market is the key to successfully building an ideal export industry. Improved packaging for marketability, safety and longer shelf life must reflect this quality. This creates a continuous, closed loop, sustainable supply chain that will incrementally improve and create great wealth for the country.

The country also has to create central collection and sorting points in local warehouses that are custom quarantined, so that products can be shipped from Jamaica without any bureaucratic delay at source or destination. Imperative to this is the fact that

Jamaica builds on the “Brand Jamaica” concept to develop internationally renowned, high quality, high demand product lines.

To ensure export, Jamaica has to create outlet shops or “malls” (shelf spaces), in key international cities, that can sell and distribute its products. These “malls” would incorporate local service industries and facilitate productions such as entertainment and cultural events. A few large “malls” could also be used as distribution hubs to smaller more localized shops eventually developing a comprehensive supply chain network making inroads into foreign markets. Internet sales and product distribution would also be facilitated from these malls. It is especially important to develop a strong marketing campaign to enhance product sales and to solicit the patronage of the Jamaican Diaspora.

Consideration should be given to the integration of products from the wider Caribbean Single Market and Economy (CSME) countries into this project to expand the scale of the operation and increase the demographics of the potential patrons to that of the entire Caribbean Diaspora. This would certainly improve the potential opportunities on the manufacturing and exporting side of the supply chain as well as on the sales and marketing or consumer side. Eventually the diversity and character of the mall will attract a variety of patrons from all sectors.

Strongest competition would most likely come from well established businesses in mature markets as well as from other countries seeking to establish a foothold in the same regions. It is therefore, peremptory that Jamaica understands the price and quality competition it faces in these marketplaces. Pricing can be controlled by removing middlemen from the supply chain and by operating the malls on a consignment basis, allowing the suppliers to carry the burden of the costs of supplying the goods and services. The

obvious benefit to suppliers would make the burden worthwhile and establish better commitment to the project.

Finally, this project can be financed through all Caribbean governments as well as through the stock market entries allowing investments from all sources, creating greater buy in and encouraging complete utilization of the export/import facilities. In the end, the increase in export of Jamaican and Caribbean-wide products would greatly help to improve the economy of the entire region.

The whole purpose of conducting this research and developing the proposed export model is to help Jamaica strategically plan its way out of poverty through the development of incrementally improving exports. On completing the plan, meetings will be convened with the relevant government agencies to seek the timely implementation of these concepts.

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Chapter 1: Introduction

For much too long, Jamaica has been known as a country of samples. The reason, quite frankly, is that Jamaicans tend to create excellent products for export but cannot maintain the supply on demand or standardize the products with high enough consistency and quality. Because of these quality issues and because of this inability of manufacturers to produce the volume demanded at the rate required, importers generally tend to shun Jamaican products. Competition is also quite fierce between exporters attempting to enter the world marketplace and there is no room for mediocrity.

Locally manufactured products that require imported raw materials are always at the mercy of the ever increasing currency exchange rate as well as the availability of foreign exchange or the lack thereof. Devaluations in the US only worsen the situation as the Jamaican currency is pegged to the US dollar. Suppliers may also sporadically terminate the supply of raw materials because of the inability of local manufacturers to pay their bills on time due to the unavailability of foreign exchange. This generally leads to disruptions in the supply chain and thus unreliability in product delivery. To reduce risks and financial exposure, companies keep their business small. Order quantities then become so uneconomically undersized that these companies cannot maintain viable export businesses. The uncertainty of whether the company can actually place an order because of size or credit worthiness further leads manufacturers to buy raw materials on the retail markets in small lots for high prices. The higher raw material costs generate higher priced goods that are non-competitive. The uncertainty of sales also means the uncertainty of production runs and thus an inability to purchase materials in economic quantities.

These inefficiencies filter down to the producers and manufactures, leading to an uncertainty in orders and, therefore, unwillingness to invest in larger, more efficient facilities. The uncertainty of purchases leads to an unavailability of reliable local raw materials sources. The production of indigenous raw materials is hampered by the uneconomical farm sizes, archaic operating techniques, predial larceny and the uncertainty of the final sale. Local produce are also often subjected to extreme and unpredictable weather conditions such as droughts, floods and hurricanes which can interrupt the supply chain and affect delivery guarantees. Corporate giants with the financial means shun agriculture because it is high risk and low ROI.

Manufactured, non-agricultural products are exposed to challenging levels of competition that are difficult for Jamaica to equal or exceed at this time. Jamaican factories are generally ill-equipped and outdated. Manufacturing plants are small scaled because of the proportionately small sized local market they support. Expanding and modernizing factories to create higher outputs at better efficiencies requires expensive outlays that cannot be justified for the small local market. The larger export markets are often too uncertain and elusive to guarantee returns on the required investment outlay. These products are also not highly demanded, even by locals, since they are often inferior in packaging and more expensive than their foreign counterparts. Increased quality and efficiency at higher, more reliable production rates are required for sustained exports.

Jamaica is a premier tourist destination and the island is famous for its beauty, athletes, music and culture. Jamaicans themselves are very well known internationally and their high profile nature makes them prime candidates for creating marketing buzzes and generating sales. Increasing Jamaica's visibility through this project will certainly

impact tourism and other service oriented products. Ugly crime problems as well as the fluctuating foreign exchange prices and high winter airfares continue to plague this industry but an overall economic turn-around could lead to lowered interest rates, stabilized currency exchange rates and reduced criminal activities that are now caused by economic deprivation.

Much research is required in product development and marketing. Products need to be catalogued, categorized and marketed. Internet marketing and sales are also very important in proliferating products to the much wider Caribbean and international population.

Businesses such as Banks, Building Societies, Airlines and large packaging and manufacturing corporations can play an integral role in developing the country's export base. Their involvement would increase funding opportunities and increase patronage to the export drive. Small companies would also be important in filling the gaps and, given a guaranteed market, could quickly evolve into large corporations even if they have to start as conglomerates.

Many of the country's problems can be overcome by increasing and stabilizing product supply and demand (the supply chain) thereby improving the economies of scale. This will allow Jamaica to be more competitive internationally and to develop and consistently maintain a much higher product and supply quantity with more reliability of product sales.

This strategic technological model is intended to modify Jamaica's course of action from its present mode of being a "sample country" to that of being a highly efficient organization taking a more holistic approach to generating exports and creating

wealth. This can be achieved by outlining ways to develop export shelf space and establish the required product supply and demand to complement the created export markets.

Chapter 2: Literature Review and Analysis

A technological model is generally a simplified description of a system or process to assist in its creation or development. To create a model innovators should first roadmap the required activities and then develop strategic plans to create the framework in which the processes can be created and managed.

Technology road-mapping is a form of technology planning that can help organizations deal with their increasingly competitive environment . . . (It) is particularly useful when technology investment decisions are not straight forward and for coordinating the development of multiple technologies, especially across multiple projects. [1]

It is important that developers focus on the process and not on the roadmap as an end result since it is the process that will create the continuity and the end results.

According to Bray and Garcia [1] the technology road-mapping process consists of three phases - preliminary activity, development of the technology roadmap, and follow-up activity as detailed in Table 1.

Technology road-mapping helps developers select the appropriate technology to pursue in a given timeframe and it is an important tool in technology planning. This technique is used to identify critical product needs that affect the selection and development decisions. It is driven by need rather than by solution and provides a way to identify, evaluate and select the best alternatives to satisfy the desired needs.

The main benefit of technology road-mapping is that it provides information to help make better technology investment decisions by identifying critical technologies or technology gaps that must be filled to meet product performance targets. It can also be used as a marketing tool to identify customer needs and help develop the technology to meet these needs.

Some companies do technology road-mapping internally as one aspect of their technology planning. However, at the industry level, technology road-mapping involves multiple companies, either as a consortium or an entire industry. By focusing on common needs, companies can more effectively address critical research and collaboratively develop the common technologies [1].

Table 1: Road-mapping Phases [1]

PHASES		ACTIVITY
1	Preliminary activity	<ul style="list-style-type: none"> (1) Satisfy essential conditions (2) Provide leadership/sponsor-ship (3) Define the scope and boundaries for the technology roadmap
2	Development	<ul style="list-style-type: none"> (1) Identify the “product” that will be the focus of the roadmap (2) Identify the critical system requirements and their targets (3) Specify the major technology areas (4) Specify the technology, drivers and their targets (5) Identify technology alternatives and their timelines (6) Recommend the technology alternatives that should be pursued
3	Create the Technology Roadmap Report	<ul style="list-style-type: none"> (1) Critique and validate the roadmap (2) Develop an implementation plan (3) Review and update

Technology road-mapping is very important in an increasingly competitive environment. This is particularly true when investment decisions are not straightforward for coordinating and developing several technologies especially when related to a company’s core competencies.

The proper implementing of technology requires the integrating of technology planning and business planning. Technologies and technological change have an impact, not only on manufacturing but also on all sectors of the economy. All activities are

affected by technologies. A key objective of technology management is, therefore, to ensure that technological resources are well linked to business requirements.

In practice however, one of the fundamental aspects in corporate strategic planning that is the alignment of business strategy towards possible products or services and potential markets on the one side, and the internal capabilities and technologies available, e.g. know-how, on the other side, often fails. Strategic business planning enforces the development of new products and strategies to meet the customer requirements. In contrast to this, technology planning often tends to develop and implement technologies based on the company's technological and achievement potential with no reference to the identified customer requirements [2].

The purpose of roadmaps is to forecast, visualize and evaluate complex systems. It helps greatly with the communication within and between projects and increases project manageability. Specht and Behrens (2005) explain that as a system, a roadmap is continuously enhanced and leads to increased interdependencies with other systems until the original system finally evolves into a novel system. Roadmaps can also provide the basis for planning and control since decision makers will more clearly see the formulation of the strategies.

The potential benefits of technology road-mapping include, identifying critical technologies and gaps, coordinating research activities within companies or industries, and improving technology marketing information. Once an organization identifies required technology enhancements or new technologies, they may be developed internally or collaboratively with external partners. Technology road-mapping is an effective tool for technology planning and coordination, which fits within a broader set of planning activities.

Strategic business planning normally pursues a market-driven option while technology planning is normally assigned to engineers and naturalists, who often focus

on technology-driven development. This often results in business plans that lack coordination between both departments. The product that the company is able to make well, may not be the product that consumers demand and an early adjustment between strategic business planning and technology planning is required to ensure the products are aligned to the consumers' needs.

At this point it is useful to define a Strategic Plan as a forward-thinking, future-oriented document that indicates where an organization is aiming, how it is going to get there, and how it will know when it got there. The term "Strategic" refers to the incorporating of the organization's goals and resources into the plan. "Planning" is intentionally setting goals and the approach by which to achieve them. Strategic Planning establishes long-term goals, informs annual objectives, suggests actions/strategies to achieve a mission, compels an organization to look forward and moves the organization from performance measurement to performance management.

Two types of strategic planning models have been established. In the *synoptic planning mode* the organization establishes the overall mission, assesses the internal and external environments, evaluates alternative actions and develops a plan to achieve the mission. In the *adaptive planning mode* incremental plans are initiated in response to problems or changes, and little attempt is made to integrate the effect that such incremental change is likely to make on other parts of the organization [3]. Most organizations will follow a mix of these models. The proposed model requires a proactive approach, in that the model will direct the building process. A reactive model would rely on market responses to move forward.

A strategic planning framework is the structure within which the model is developed and the plans implemented to create the desired output. It can be applied at the industry level to guide technology policies or at the company level to manage technology decisions

We propose a strategic planning framework that links an organization's technology choices with its overall mission through alignment with its competitive goals and strategies, and suggest an optimized portfolio [3].

Products from Jamaica are usually of the highest quality when provided as samples but often this quality is compromised during mass production. Profits are only viable when product demand can be continuously duplicated and matched by product supply. The consumer purchases products based on price and quality especially in a mature market. Jamaica has to drastically improve its product supply as well as to maintain consistent product quality. Quality Management is also an integral part of operational systems design.

“Quality cannot be inspected into a product...Inspection to improve quality is too late, too costly, and too ineffective...Quality must be designed in.” (Deming)

As the present financial crisis looms worldwide, the manufacturing base of developed countries is collapsing. The Economist [4] reports:

\$0.00, not counting fuel and handling: that is the cheapest quote right now if you want to ship a container from southern China to Europe. Back in the summer of 2007 the shipper would have charged \$1,400. Half-empty freighters are just one sign of a worldwide collapse in manufacturing. In Germany, December's machine-tool orders were 40% lower than a year earlier. Half of China's 9,000 or so toy exporters have gone bust. Taiwan's shipments of notebook computers fell by a third in the month of January. The number of cars being assembled in America was 60% below January 2008 [4].

Events such as these lead to a reduction in disposable income worldwide which may be reflected in a reduction in local tourism, further depressing the Jamaican

economy. At the same time, economic declines create a demand for lower priced agricultural products. In fact, the extent of the global impact of the present world financial crisis is still unknown. What is evident, however, is that a recession in the manufacturing sector is imminent.

Industrial production fell in the latest three months by 3.6% and 4.4% respectively in America and Britain (equivalent to annual declines of 13.8% and 16.4%). Some locals blame that on Wall Street and the City. But the collapse is much worse in countries more dependent on manufacturing exports, which have come to rely on consumers in debtor countries. Germany's industrial production in the fourth quarter fell by 6.8%; Taiwan's by 21.7%; Japan's by 12% - which helps to explain why GDP is falling even faster there than it did in the early 1990s. Industrial production is volatile, but the world has not seen a contraction like this since the first oil shock in the 1970s - and even that was not so widespread. Industry is collapsing in Eastern Europe, as it is in Brazil, Malaysia and Turkey. Thousands of factories in southern China are now abandoned. Their workers went home to the countryside for the new year in January. Millions never came back [4].

Without a continuous technological input, the manufacturing industry becomes inefficient, obsolete, non-productive and uncompetitive. The trend is not secular, temporary or cyclical as technology does not eventually revert to the "stone-age" and it continues to be the driving force behind wealth creation.

In spite of this industrial setback, nations still have to be fed. Jamaica does not have a large industrial sector. Its exports are largely non-manufactured and are mainly agricultural and services. Some are very traditional foods that have an international appeal because of the demands of the Jamaican Diaspora.

The Economist [4] continues, in the article, to make a point about "protectionist backlash abroad" referring to a bailing out of the industrial sector being seen by international competitors as an unfair intervention from the government.

Some say that manufacturing is special, because the rest of the economy depends on it. In fact, the economy is more like a network in which everything is connected to everything else, and in which every producer is also a consumer. The important distinction is not between manufacturing and services, but between productive and unproductive jobs [4].

Manufacturing is an important link in the supply chain, yet The Economist [4] believes that “government should not fiddle with sectoral plans” but instead support the financial sector as a means of reviving the economy. This may work well for economically stable, wealthy countries which are driven by financial institutions. In the case of Jamaica, however, the question must be asked: If the financial sector is not assisting the economy, which sector should the government seek to support? Support productivity.

The government, with its limited financial resources should seek to finance the most productive sectors. It must also plan and find ways to develop other sectors that can eventually become productive. The wider the productive base of a country the better its chance of financial success. The technology planning framework can be effectively used to structure the development of new opportunities.

The technology planning framework in Figure 1 establishes and identifies the process required to complete the task at hand. This process, when finished, is expected to ensure the development of new, extensive export shelf spaces leading to a consistent export market. The framework is based on the expected outcomes and benchmarks of the effort to create new exports, rather than on the theoretical process of generating a generic planning framework. The Export Development Model will outline how this framework can be achieved for agricultural exports.

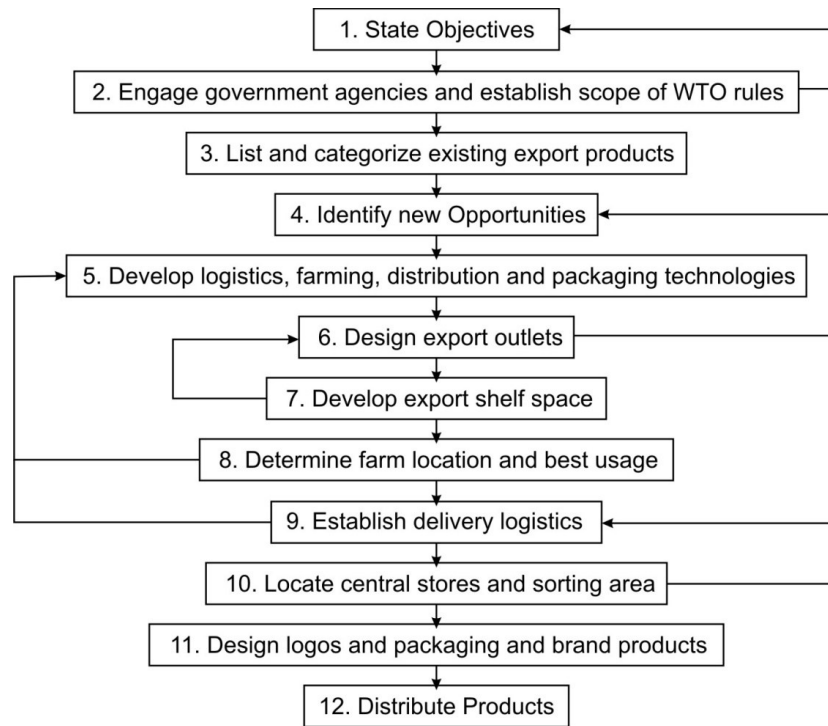


Figure 1: Technology Planning Framework (Modified from Chen, Ho & Kocaoglu [3])

Related Organizations

Detailed studies of several organizations are essential to the success of this project. The World Trade Organization (WTO) and its affiliates along with The International Monetary Fund (IMF) and World Bank regulations must be fully understood. The Bank of Jamaica (the local central bank) as well as the Export/Import Bank and Local banks will be included in the plan and key companies such as The Scientific Research Council (SRC), The Jamaica Tourist Board, The Jamaica Promotions Corporation (JAMPRO), The Jamaica Manufacturers Association (JMA) and The Caribbean Single Market and Economy (CSME) will be fully analyzed to determine the role they will play in developing the technological innovation plan.

It is important to understand the dynamics of these institutions and to determine their readiness to be integrated into the export plan. They are all important components in the export system and must all work in tandem for the benefit of the country overall.

WTO - General Agreement on Tariffs and Trade

In analyzing the WTO's General Agreement on Tariffs and Trade (GATT 1947) and (GATT 1994) it is noted that they primarily seek to protect both importers and exporters (contracting parties) who are members of the organization. As such they set out regulations that prevent any member from taking advantage of another member while allowing each member to claim their due from imports and exports while preventing the other members from dumping products or otherwise unfairly competing on the export market.

Each member shall accord to the commerce of the other members, treatment no less favorable than that provided for in the appropriate Part of the appropriate Schedule annexed to this Agreement [27].

Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product [27]:

- a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part;
- b) any anti-dumping or countervailing duty applied consistently with the provisions of Article VI;
- c) fees or other charges commensurate with the cost of services rendered.

The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in

specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production [27].

The general agreement is very specific on its anti-dumping laws and seeks to prevent governments from subsidizing products to unfairly compete with products from other member countries.

The members recognize that dumping, by which products of one country are introduced into the commerce of another country at less than the normal value of the products, is to be condemned if it causes or threatens material injury to an established industry in the territory of a member or materially retards the establishment of a domestic industry. For the purposes of this Article, a product is to be considered as being introduced into the commerce of an importing country at less than its normal value, if the price of the product exported from one country to another [27].

- (a) is less than the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country, or,
- (b) in the absence of such domestic price, is less than either
 - (i) the highest comparable price for the like product for export to any third country in the ordinary course of trade, or
 - (ii) the cost of production of the product in the country of origin plus a reasonable addition for selling cost and profit.

Due allowance shall be made in each case for differences in conditions and terms of sale, for differences in taxation, and for other differences affecting price comparability [27].

No member shall levy any anti-dumping or countervailing duty on the importation of any product of the territory of another member unless it determines that the effect of the dumping or subsidization, as the case may be, is such as to cause or threaten material injury to an established domestic industry, or is such as to retard materially the establishment of a domestic industry [27].

A flood of low priced Jamaican products into a member country could be construed as dumping, except that the product prices will not be government subsidized nor will they be replacing goods in the importers territory. Lower prices for local

products will be achieved by removing cost adding supply chain layers and as such products will be price reduced but not “dumped”. Efforts will still have to be made to avoid this labeling and its associated problems.

The members recognize that the granting by a member of a subsidy on the export of any product may have harmful effects for other members, both importing and exporting, may cause undue disturbance to their normal commercial interests, and may hinder the achievement of the objectives of this Agreement [27].

Accordingly, contracting parties should seek to avoid the use of subsidies on the export of primary products. If, however, a contracting party grants directly or indirectly any form of subsidy which operates to increase the export of any primary product from its territory, such subsidy shall not be applied in a manner which results in that contracting party having more than an equitable share of world export trade in that product, account being taken of the shares of the contracting parties in such trade in the product during a previous representative period, and any special factors which may have affected or may be affecting such trade in the product [27].

Also of concern in analyzing the WTO trade rules is its position on the role of government in facilitation export. Governments, acting as agents in the financing and creating of export markets and exportable products, can create advantages that may be seen as unfair.

Each member undertakes that if it establishes or maintains a State enterprise, wherever located, or grants to any enterprise, formally or in effect, exclusive or special privileges, such enterprise shall, in its purchases or sales involving either imports or exports, act in a manner consistent with the general principles of non-discriminatory treatment prescribed in this Agreement for governmental measures affecting imports or exports by private traders....such enterprises shall, having due regard to the other provisions of this Agreement, make any such purchases or sales solely in accordance with commercial considerations, including price, quality, availability, marketability, transportation and other conditions of purchase or sale, and shall afford the enterprises of the other contracting parties adequate opportunity, in accordance with customary business practice, to compete for participation in such purchases or sales [27].

The WTO directly addresses the policy of “Governmental Assistance to Economic Development” and recognizes that in attaining the objectives of its agreement

the progressive development of the exporter's economy can be facilitated, particularly for those members whose economies can only support low standards of living and are in the early stages of development. At present, this relates directly to the Jamaican economy and care must be taken to ensure compliance with the WTO.

The members recognize further that it may be necessary for those members, in order to implement programs and policies of economic development designed to raise the general standard of living of their people, to take protective or other measures affecting imports, and that such measures are justified in so far as they facilitate the attainment of the objectives of this Agreement. They agree, therefore, that those members should enjoy additional facilities to enable them (a) to maintain sufficient flexibility in their tariff structure to be able to grant the tariff protection required for the establishment of a particular industry and (b) to apply quantitative restrictions for balance of payments purposes in a manner which takes full account of the continued high level of demand for imports likely to be generated by their programs of economic development [27].

The members recognize finally that, with those additional facilities which are provided for in Sections A and B of this Article, the provisions of this Agreement would normally be sufficient to enable members to meet the requirements of their economic development. They agree, however, that there may be circumstances where no measure consistent with those provisions is practicable to permit a member in the process of economic development to grant the governmental assistance required to promote the establishment of particular industries with a view to raising the general standard of living of its people. Special procedures are laid down in Sections C and D of this Article to deal with those cases [27].

Consequently, a member whose economy can only support low standards of living and is in the early stages of development, can deviate temporarily from the provisions of the other Articles of the WTO agreement, as provided in Sections A, B and C of the Article. This Article with its related sections has been placed in Appendix F for the reader's convenience.

Members recognize that the export earnings of other members with poor economies and who depend on exports of a small number of primary commodities to sustain those economies may be seriously affected by a decline in the sale of such

commodities. Accordingly, when the exports of primary commodities by such a contracting party are seriously affected by measures taken by another contracting party, it may have to resort to the consultation provisions of Article XXII of this GATT Agreement.

In summary, it is important that Jamaican products are able to compete on price and quality without government subsidy and without unfairly competing with goods on the import market. It is also important to note that the GATT does allow for a country to be proactive in developing its economy through export particularly when the economy is poor and can only support low standards of living. Admittedly, Jamaica might have difficulties proving that its citizens do not enjoy a high standard of living. Nevertheless, the regulations address a poor country coping with imports and tariffs rather than with a country developing exports as being proposed in this paper.

The IMF and World Bank

The IMF and the World Bank, as is normal for all banks, are concerned with the country's development and consequent ability to repay its debt. As such, these organizations should pose no objections to Jamaica moving forward with a plan to greatly increase its export earnings and the standard of living of its citizens. The IMF has played a major role in shaping the socio-economic structure of Jamaica over the years. This, in fact, is the role of the IMF in world economy.

The IMF promotes international monetary cooperation and exchange rate stability, facilitates the balanced growth of international trade, and provides resources to help members in balance of payments difficulties or to assist with poverty reduction [28].

Through its economic surveillance, the IMF keeps track of the economic health of its member countries, alerting them to risks on the horizon and providing policy

advice. It also lends to countries in difficulty, and provides technical assistance and training to help countries improve economic management. This work is backed by IMF research and statistics [28].

Appendix G highlights Jamaica's position with the IMF which shows that all available capital has already been disbursed. Repayment has been scheduled as interest only for 2011 and 2012 but the ensuing years 2013, 2014 and 2015 require payments of \$182.43, \$270.95 and \$96.46 million US dollars respectively [28]. These figures will be insurmountable unless Jamaica institutes a plan to increase its revenues dramatically.

The World Bank in its May 2011 Country Economic Memorandum on Jamaica expresses positive views on the ability of Jamaica to unlock growth.

This Country Economic Memorandum assesses the key causes that have stalled Jamaica's economy over the past four decades and presents recommendations to unlock its growth potential. There is a basis for optimism in that Jamaica has had political stability, high rates of private investment, significant reduction of poverty in rural and urban areas, and improved income distribution. Nonetheless, this report shows that, since independence in 1962, long-term economic growth has been disappointing and underperformed most other countries [29].

While the IMF view may be encouraging it still expresses disappointment in Jamaica's long term economic growth and attaches the cause to low productivity, loss of competitiveness and crime.

Jamaica's poor growth performance and low productivity has three core 'binding constraints' amid many contributing factors. There are many potential obstacles to growth. The non-exhaustive list includes frequent natural disasters, low productivity of capital, loss of competitiveness, distortions from tax incentives, limited space for productive public spending due to high public debt, inadequate human capital, migration of skilled labor, the high cost of crime, and lapses in governance. The leading binding constraints are (i) crime, (ii) deficient human capital, and (iii) fiscal distortions (tax incentives and waivers as well as government's budget management policies and practices). The most significant growth impact will come from removing these key growth obstacles [29].

Crime is the most evident and severe problem in Jamaica. Once crime is established, it is difficult to overcome. It severely limits future growth and leads

to a vicious circle as low growth further increases crime and higher crime rates further reduce growth. Crime erodes social stability and makes rule of law a critical area of concern. It has a negative effect on human capital, creating incentives for migration among the most skilled, educated, and entrepreneurial citizens. It constrains business expansion and diverts resources from productive activities to crime protection. Because of crime and other structural conditions, investment in Jamaica tends to flow into isolated activities. All-inclusive resorts, mining, and Export Free Zones are the best examples of this ‘enclave’ development model with its low spillovers (while tourists avoid crime-ridden areas, their dollars remain in the resort; mining communities and international businesses are similarly isolated from the greater Jamaica). A 2007 United Nations–World Bank study illustrates the link between growth and lower crime rates. It states that Jamaica could experience an annual increase of 5.4 percent in per capita GDP, if it cut crime rates to the levels prevailing in Costa Rica [29].

The report continues by discussing Jamaica’s low level of human capital pointing to the poor quality of education and insufficient training of the labor force, “despite the country’s efforts”. Mention is also made of the government’s fiscal and budget management policies constraining growth.

Inconsistent, complex tax policy with numerous exemptions and special privileges has reduced tax revenue by an estimated 20 percent, significantly reducing the government’s spending capacity. The complex system of taxes and incentives also creates distortions for the allocation of capital and lowers investment productivity. High debt-servicing costs and a high wage bill have reduced the fiscal space available for productivity enhancing public spending, including public investment that is complementary to private investment and expenditure on education and health. Underlying institutional and political economy factors are major impediments to strengthening fiscal and expenditure policy and management of public finances [29].

The views of the World Bank are widely accepted in Jamaica and the Caribbean.

In fact, one reporter for the daily newspaper claims it is crushing to national pride.

Jamaica was one of the world's slowest-growing economies in the last four decades. In the 2000s, Jamaica's average real GDP growth ranked 180th out of 196 countries. Jamaica's ranking in terms of average real GDP growth continuously deteriorated during 1960-2008. Jamaica also lost ground against countries in Latin America and the Caribbean. Its ranking in the 2000s was 29th out of 34 countries [30].

After documenting the well-known fact that Jamaica has chalked up one of the highest debt-to-GDP ratios in the world, the report continues: Jamaica fell behind most of its per capita income peers. Comparing Jamaica with its closest 19 peers in per capita GDP shows that the country has lost ground between 1970 and 2008. Jamaica's real per capita GDP growth was 13 per cent, and its rank within this group of 20 countries fell from seventh to 18th. This growth was the lowest in the entire group. The best performer was Taiwan, advancing from 15th in 1970 to second in 2008, growing by 747 per cent [30].

Bank of Jamaica

The central bank, Bank of Jamaica, is responsible for instituting and maintaining fiscal policies. In particular, the policy of high interest rates has been disastrous to the local economy. This policy encouraged local banks to drastically raise their interest rates in order to remove excess capital from the economic system. The effects of this policy are reported in a later section on the effects of high interest rates on the implementation of technology. Much effort was made by the bank to stem the climb in exchange rates, to no avail. This will also be discussed. The third element of the fiscal policy of the bank was to offer guaranteed bonds at 30% interest rate which invited entrepreneurs to invest in bonds rather than commerce and industry.

In an interview with high ranking officials of the Bank of Jamaica the question as to why Jamaica embarked on a high interest rate policy arose. The response was that the high interest rate was not really a policy of the bank but a necessary instrument to prevent the movement from the local to foreign currencies. It was noted that high interest rate was not a political variable but instead was based purely on supply and demand. Jamaica has a volatile foreign exchange market and if it were not contained through the high interest rate mechanism the slide would have been uncontrollable. A country can always pump foreign exchange into the banking system to satisfy the demand and maintain the rates but when that foreign exchange is in short supply this is not possible. Instability in a

currency requires high interest rate as a means of control, no other means exist. A depreciating exchange rate means that people are changing out a currency for a foreign currency. The only way to reverse the flow is to increase interest rates. The rate of gain on the interest rate has to exceed the potential gain from the foreign exchange hoarding. Incentives encourage the retention of the local currency in lieu of the foreign currency.

From the inception of the high interest rate policy the term “Mopping up the Liquidity” was coined and used to explain the reason for the policy. This phrase did not originate from the bank but instead was a political instrument used to gain voter popularity. The concept was very clear to the populous, however, it meant that the high interest rate was introduced to remove all disposable income from the public so there was no money left in the system to purchase foreign exchange. The policy worked well in removing public disposable income and severely affected industry and commerce. There is little sign that it did stem the movement of the exchange rate.

Further inquiries into the high interest rate policy sought to clarify its expected outcome. The obvious response was, of course, to control demand for foreign exchange and to slow or reverse the depreciation of the local currency. The logic of the economics, however, was difficult to grasp. The interviewer failed to see how the increase in interest rate could stem or slow the demand for foreign currency when any downward movement in the dollar resulted in massive price increases in raw materials, finished goods, utilities and services. Bank loans, the means by which most companies survived, became insurmountable as interest rates quickly soared to as high as 99% even on existing loans, and many companies sank without a trace, putting further pressure on the economic system. This high interest rate policy has remained intact for 29 years and even though

the Government is now calling for banks to lower their rates, banks are still not readily reducing the rates on existing loans.

The interviewees noted that Brazil also embarked on a high interest rate policy and was very successful. Figure 2 maps Brazil's interest rate over a 10 year period. They believe that similarly, their expected goals have been achieved in Jamaica. Were it not for the policy, the dollar would have been out of control. Instead, the fiscal period saw an increase in government's reserves from US\$400 Million to US\$2.4 Billion. The positive effects from this policy have been to change the inclination of individuals from hoarding foreign exchange towards rewarding business for holding the local currency instead. This removed the uncontrollable demand on the currency and somewhat stabilized the exchange rate.



Figure 2: Interest rates in Brazil (Source: <http://www.tradingeconomics.com/brazil/interest-rate>)

When questioned on the negative effects from this policy, it was noted that Jamaica's import coefficient is extremely high (60%) meaning that a depreciation of 10% translates to an inflation of 6%. It is really a matter of picking the lesser of two evils.

The high interest rate policy has affected exports, imports and the ability to implement technological solutions. This policy has been described as a self-defeating cycle and should not be a long term policy. It is however the only option when a country's reserve currency is different from its local currency.

The obvious conclusion to this discussion must lead to Jamaica's present economic situation. Jamaica's economic outlook continues to be dismal. The present reserves of three billion dollars include about 900 million set aside for direct liabilities to IMF. Jamaica's present technological situation continues to be plagued by deficient resource availability. Some technological sectors are advanced but Jamaica is still not first world. The high interest rate policy has severely affected the country but without it Jamaica would have been much worse off.

The Export/Import (EXIM) Bank

The Export/Import (EXIM) Bank was established in May 1986 in response to Government's stated objective to enhance growth and development through an export led economy. The primary purpose of this bank is to provide financing and financial assistance for the export and import of goods, commodities and services between Jamaica and any foreign country and to encourage and develop trade between Jamaica and other countries by making arrangements for insurance for the benefit of exporters. The vision of the organization is "to facilitate Jamaica becoming a net exporting country by being a visionary, innovative and creative trade financing institution".

Today EXIM Bank is deeply entwined in the fabric of the Jamaican economy, providing financial support to a wide range of entities within the Productive Sector. With over 20 years of service, the Bank continues to operate as a profitable public institution. With the reaffirmation of the Bank's commitment to the productive sector in 2004, EXIM Bank has attained record levels of loan utilization, with the Bank's loan portfolio more than doubling in the 2007 financial year as compared to 2005. For the 2008-2009 financial year, a loan utilization goal of J\$6.00 Billion was set – one which we are well on the way to achieving. The Bank's strategic plan, Vision 2010, continues to focus on assisting entities operating within the EXPORT, MANUFACTURING, SMALL BUSINESS, INFORMATION TECHNOLOGY, MINING, TOURISM & SERVICES Sectors; but has now placed added focus on newly emerging subsectors, such as the Creative Industries and Health Tourism [31].

The EXIM Bank focuses on the financial needs of local exporters by securing low cost funding, improving customer service offerings, responding to the specific needs of its customers and harnessing technology to improve efficiencies within the bank.

The Scientific Research Council

The Scientific Research Council (SRC) was set up in May 1960 to aid in the research and development of new products. It is Jamaica's primary public sector agency, responsible for the fostering and coordination of scientific research and the promotion of its application. The SRC is an agency of the Ministry of Industry, Investment and Commerce.

Most of the Council's projects support the growth and development of the agro-industrial sector in Jamaica through research, adaptation of available technologies, creation of new and appropriate technologies and the provision of training and technical assistance. The Scientific Research Council is the only institution with a mandate by law to "collect, collate and review information concerning scientific research schemes or programs relevant to the development of the resources of Jamaica (and) to establish and maintain a scientific information center for collection and dissemination of scientific and technical information" [32].

The science and technology projects engaged in by the SRC reflect the goals and objectives of the Government of Jamaica and are implemented within the framework of the National Policy on Science and Technology. Activities

undertaken by the SRC have the potential to impact greatly on employment creation and income generation through the application of science and technology. "Making Science and Technology Work for you" is the slogan of the SRC which supports its vision of positively impacting the quality of life of all Jamaicans [32].

Scientific research plays a vital role in the transformation of traditional local products to self-sustaining, competitive and profitable global export commodities. This is a major factor in developing the level of exports that will make this project viable. The SRC has shown its potential over the years and may need to be re-tooled and staffed to meet the challenge at hand. The achievements of the Scientific Research Council over the last 40 years are listed in Appendix H and are quite impressive in spite of the possible visible lack of incentives and financial rewards through realizing award winning export oriented products.

The Jamaica Tourist Board

Tourism is a significant contributor to the local economy (at 20% bettered only by remittance at 21%) and the government fully supports it through the establishment of a number of technical support teams. In addition to a Ministry of Tourism, two other offices have been given the mandate of developing a growth path for tourism in Jamaica.

First, the Tourism Office within the Office of the Prime Minister is an overseer to all the organizations within the industry established to develop the tourism product, such as the Jamaica Tourist Board (JTB) and the Tourism Product Development Company (TDPCo). Secondly, JAMPRO, Jamaica's export and investment promotion agency, also has a Leisure Industry Department responsible for the promotion, development and facilitation of investments within the sector.

Jamaica is a premier Caribbean tourist destination and as such, the Ministry of Tourism established the Jamaica Tourist Board (JTB) in 1955 to ensure that industry information would be available to its affiliates and the public. The Tourism Information Publishing Site (TIPS) was established to serve as the main source of information on the marketing and development of tourism in the region,

The Board is fully funded by the government of Jamaica and is responsible for worldwide tourism marketing and promotion for the island of Jamaica. It has as its mission the development and marketing of the tourist industry so that Jamaica remains the premier Caribbean tourist Destination. The JTB's mandate is aggressively pursued primarily through the promotion of Jamaica as a preferred travel destination; identifying new and emerging consumer groups, cultivation new relationships with travel partners and the dissemination of timely and useful marketing information to its offices and travel partners across the world [34].

Tourists generally consult the Jamaica Tourist Board before travelling to Jamaica and the JTB markets the uniqueness and diversity of destination Jamaica through creative programs and advertisements worldwide. Throughout the years, the JTB has been recognized for its exceptional leadership and outstanding service with accolades from industry and trade partners both regionally and internationally. The JTB is internationally diversified with offices in Kingston, Montego Bay, Miami, Toronto and London. Representative's offices are located in Berlin (Germany), Barcelona (Spain), Rome (Italy), Amsterdam (The Netherlands), Mumbai (India) and Tokyo (Japan)

The JTB was originally responsible both for marketing Jamaica as a tourist destination as well as for product development. Product development became the responsibility of the Tourism Product Development Company (TPDCo) with its establishment in the 1970s. In 1981, TPDCo was merged with the JTB. In 1993 the marketing and product functions were again separated and remain so to date. However, the statutory responsibility for this area still resides with the Board under the Tourist Board Act [34].

Jamaica's hospitality is world-renowned, with an intoxicating mix of natural beauty, friendly people and welcoming accommodations. Jamaica's tourism product is as diverse as it is warm and beautiful, and visitors keep coming back for more year after year.

In recent years, Jamaica has been ranked within the top five of the world's most favored tourist destinations. Jamaica was rated highest among her competitors in both the number of travel agents who ranked Jamaica first and also those who classified Jamaica among the top three in the Traveline Survey report on the Quality of Tourist Office Service, which was published in June 1998 [35].

To achieve its long term goals, the JTB has established a Master Plan. This Plan seeks to guide the industry's development over the next decade by creating a strategic vision for its growth and development and establishing an enabling environment to help it realize that vision.”

Objectives of the Master Plan

The critical objective of the Master Plan is to move the tourism industry on to a path of sustainability. The shift from the current unsustainable development to sustainable development will require the achievement of five main objectives:

Growth based on a sustainable market position. The industry needs to return to a path of sustained growth and to do so must develop a sustainable market position. In line with market trends, a sustainable market position must be based on Jamaica's heritage – natural, cultural, historic and built [35];

Enhancing the visitor experience. The current run down resorts must be made more attractive; gaps in the product offer covered through mobilizing investment; and the visitor experience made more rewarding and diverse through increasing the types and quality of attractions. The aim should be to achieve self-sustaining growth based on word of mouth referrals and high repeat visitors [35];

Community based development. For sustainable development, local communities must play a major role in defining, developing and managing the tourism experience so that they take ownership of the industry and are committed to

providing the visitor experience on which the success of the industry depends. Planning should be bottom-up, not top down [35];

An inclusive industry. From its current perception as an exclusive industry that benefits the few, the Jamaican people should come to view the industry as inclusive, benefiting them and the country as a whole. This will call for measures that ensure that the benefits of tourism are spread widely and to promote gender equality [35];

Environmental sustainability. The environment is the product. Its continued degradation threatens the future of the industry and the lives of successive generations. The industry must contribute to the preservation of the natural habitat [35].

To achieve the delivery of these objectives, a fundamental change is required to alter the way the industry is perceived by policy makers and industry leaders. To date, tourism has been regarded as an important industry for Jamaica because of its economic contribution. From now on, its success must be measured not only by the amount of GDP, foreign exchange and jobs it provides, but more importantly by the extent to which the industry serves as a vehicle for providing economic and social opportunities for the Jamaican people.

The Master Plan calls for investment of US\$2 billion over its ten year life. The vast majority of this (73%) will take the form of private sector investment in commercial ventures such as additions to the room stock and developing attractions and tours. Public sector led projects will require just over US\$552 million with nearly US\$230 million required from the Government of Jamaica (GoJ). The GoJ may also have to assist local financial institutions provide loan finance as the domestic financial sector has not recovered from its crisis [35].

Cost-Benefit Analysis of the Master Plan

The Master Plan is estimated to increase GDP resulting from growth in visitor expenditure, though at a diminishing rate as the industry's growth is slowing. In the early period of the Master Plan, costs will exceed benefits as the investment in the industry will

take time to result in an appreciable increase in GDP. But from year six onwards, net benefits would be positive.

Discounted cash flow analysis shows that the net return to the Master Plan to be a sizeable NPV of US\$780 million in GDP at a 15% rate of discount. The internal rate of return to the investment is a high 39%. Even if the costs were to increase by say 20%, an additional US\$400 million, to allow for the cost of infrastructure and other related investment, the NPV remains strongly positive at the 15% rate of discount. The Master Plan is more than justified in economic terms [35].

GDP generated by the tourism industry is expected to increase at the rate of 8.5% p.a., slightly higher than the rate of growth of visitor expenditure. A higher proportion of visitor expenditure would be spent on subsectors of the industry such as attractions and transport that have comparatively higher GDP contributions per dollar of spend. The Jamaican economy is forecast to grow slowly over the coming decade with an average growth rate of no more than 2% p.a. As a result, the industry's share of GDP should increase from 8% or so currently to 15% by the year 2010 [35].

The industry's foreign exchange earnings should rise in line with visitor expenditure at an average rate of 8.4% per annum over the Master Plan period. Of course, as visitor expenditure rises, so will the import bill of the industry. But assuming that the foreign exchange earned per dollar of expenditure remains constant, the net foreign exchange earned by the industry would increase from an estimated US\$800 million currently to be of the order of US\$1,800 million by the year 2010, making a huge contribution to the balance of payments [35].

Employment would increase from an estimated 75,000 currently to 130,000 by the year 2010, growing at an average rate of 5.7% p.a. over the Master Plan. With the workforce estimated to grow by an average 3% p.a., tourism's contribution to employment would increase from 8% currently to 10% [35].

It is envisaged that the tourism industry would, as a result of the Master Plan, play the lead role in economic development by 2010. It is expected to rival manufacturing as the second largest sector of the economy after distributive trades. It would reinforce its position as provider of foreign exchange generating much higher export earnings than merchandise exports and it would become a major employer, helping to eliminate unemployment.

Jamaica's economy is heavily dependent on services, most of which are Tourism related and the country derives most of its foreign exchange through the efforts of the JTB.

The Jamaica Promotions Corporation (JAMPRO)

Jamaica's investment and export promotion agency (JAMPRO) was established in 1988 to stimulate, facilitate, and promote the development of trade and industry, and export and investment activities in all sectors of the island's economy. The agency drives this process by focusing on a number of targeted sectors which include the creative industries (film, music and entertainment), manufacturing, tourism, agri-business, information and communication technology, mining, and professional services.

JAMPRO approaches its responsibilities from two perspectives - investment and trade promotions. In recent years the agency has been encouraging Jamaican nationals to invest in their own country. JAMPRO, in partnership with other government agencies, is also seeking to improve the business climate and the investment attractiveness of Jamaica.

In facilitating investment, JAMPRO guides investors through the necessary steps to making their projects possible, and also walks them through the approvals process and stays with them even after their investments are operational.

Operating under the direction of the Ministry of Industry, Investment and Commerce, JAMPRO's continuous mission is to promote Brand Jamaica, attract and land jobs and wealth-creating investments to Jamaica and secure lucrative markets for quality Brand Jamaican products.

The agency is committed to ensuring sustainable development arising from foreign direct investment into the country - both in terms of the environment and in the deepening of the absorptive capacity of the economy by encouraging growth in local direct investments.

In 2008, JAMPRO was the recipient of the international accolade: “Best Trade Promotion Organization (TPO) from a Small Country”, awarded at the 7th World Conference of Trade Promotion Organizations held in the Netherlands in October of that year [37].

JAMPRO posted the following message to presidents of the Jamaica Manufacturers’ Association (JMA) and the Jamaica Exporters’ Association (JEA) inviting their participation in the Expo Jamaica 2012:

On April 26-29, 2012, Jamaica’s best will be showcased at Expo Jamaica at the National Arena in Kingston, under the theme “Brand Jamaica to the World!” The Jamaica Manufacturers’ Association (JMA) and the Jamaica Exporters’ Association (JEA) has partnered to host this premier trade exposition to promote the world class quality products and services that Jamaica has to offer, in an effort to expand sales.

The increasing demand for our products worldwide, outstanding performance of our athletes, annual visitor arrivals, and appeal of our music are a testament to our international reach. Expo Jamaica presents an opportunity to capitalize on this reach by garnering international buyers and reinforcing the strength of Brand Jamaica.

The event also highlights the significant contribution that our manufacturers, exporters and service providers make to Jamaica’s socio-economic development by creating jobs, earning foreign exchange, and contributing to government revenues.

We welcome buyers to our beautiful island Jamaica to sample our products and enjoy an authentic Jamaican experience, and encourage residents to come out in their numbers to support Jamaican goods and services [37].

JAMPRO also targets overseas nationals to investment in Jamaica. The agency's Vice President for Planning and Corporate Development, Dr. Dana Morris-Dixon, expressed hope that Jamaicans in the Diaspora have strong interests in setting up businesses locally. She said:

A lot of these persons are interested in investing in Jamaica and we are trying to connect them to the investment opportunities here. In addition, given all of their influence, they are a good resource and (provide connection) to the markets that we are after... to showcase the Jamaican opportunities [37].

Of great interest to JAMPRO are the political and economic directives of the incumbent prime minister. In his inauguration speech, this newly installed prime minister of Jamaica, The Honorable Andrew Holness, addresses some issues that are important to this export plan and to the country at large. He stated:

We have developed a framework to reform the public sector. This is designed to improve the efficacy and efficiency of government. The recommendations from the taskforce must be implemented with as much consensus as possible, but as quickly as possible [38].

We have made progress generally in the economy. The Jamaica Debt Exchange shows how much we can accomplish if we are willing to cooperate and make sacrifices. Today we have the benefit of a stable dollar, the lowest levels of interest rates in decades, and low inflation. We have divested loss making entities that have been a burden on the National Budget and we have started work on reforming the tax system. Agriculture and tourism have shown growth despite the global environment. And we are now seeing signs of a resurgence of the productive sectors generally [38].

He also suggested ways to create jobs through investment as follows:

So how do we create jobs? We are well on our way to sustainable and meaningful job creation. We have set the necessary macro pre-conditions for investment and growth with stable exchange rates, stable interest rate, and stable inflation. Our next task is to resolve the micro economic environment for business. Even while we do this however, we are already seeing modest signs of growth. There are some key elements of the microeconomic agenda that I would like to highlight:

- Increasing the productivity of our labor force. Economic growth is closely correlated to increases in labor productivity, and productivity is a function of training. Close to 70% of our employed labor force is untrained. We must correct this. Already we have started to create workforce colleges under HEART and we have implemented the Career Advancement Program to ensure that large number of persons in the labor force and those entering the labor force are trained.
- Removing inefficient bureaucracy. Almost all the business people I meet complain about the convoluted and frustrating bureaucracy they encounter in doing business in Jamaica. Where there is inefficient bureaucracy that increases the cost of doing business, corruption and cronyism will exist. We must stamp out inefficient bureaucracy. This is a key goal of this administration and this is where there exists great potential for the infusion of

technology and business process engineering to make government more efficient.

- The high cost of energy is a universal cry across all divides in Jamaica. This government has developed an energy policy however we must act swiftly in implementation. I believe it is also universally agreed that Jamaica must diversify its energy sources and create competitive markets for the provision of electricity. This government is committed to the transformation of the energy sector.
- Investment Promotion. Our government must become more aggressive, more prospecting and more proactive seeking investments. Creating the macro and micro environment for investment is not enough. Sometimes it's the handshake that seals the deal. It is a wide world out there and Jamaica is a small country, 1 per cent of the gross international foreign direct investment globally could significantly help in solving Jamaica's problems. Let's start prospecting for opportunities.
- Greater utilization of public private partnerships. With our current fiscal constraints, there are certain viable investment projects for which the government cannot be financially involved in upfront capital expenditure. This creates an opportunity for the private sector to partner with the government in creative ways, utilizing assets such as lands, rights, or taking advantage of already programmed streams of recurrent government expenditure on a public service. This provides an avenue for the government to maintain fiscal discipline, while pursuing critical infrastructure projects that do not put the government into more debt, and at the same time creating meaningful mass employment that the country needs [38].

The Jamaica Manufactures Association (JMA)

The Jamaica Manufacturers' Association Limited (JMA) is the governing body for local manufacturing entities. It is a privately operated conglomerate of companies that seeks to protect the welfare of all as well as to support Jamaica's socio-economic improvements.

The JMA was established in 1947 as a limited liability company to promote the development of the manufacturing sector and increase its contribution to the socio-economic welfare of the country by creating jobs and improving the standard of living for all. Today, the Association represents manufacturers in all the manufacturing sub-sectors as well as institutions and organizations which provide services to these sectors (33X).

The Mission of the JMA: The fundamental purpose of The Jamaica Manufacturers' Association Limited is to serve our members through the efficient delivery of quality service that will impact positively on the development of the manufacturing sector, our employees, our associates, whilst contributing to the socio-economic welfare of the country (33X).

In January, 2008, the JMA, financed through the Canadian Corporation Fund (CCF), undertook a study to highlight drivers of hidden costs in the manufacturing sector. This study was born out of the frustrations felt by the manufacturing sector and in an effort to understand the nature of business environment in which they operate. The drivers identified were:

- The absence of an adequate pool of skilled recruits
- Crime and violence
- Bureaucracy
- Lack of “joined up government”
- Outdated Legislation
- Poor Utility Service

There was much concern about the outcome of the study. In particular, this lack of preparedness of entrants to the workforce was seen as a reflection of Jamaica’s education system as the opportunities for technical/practical training in the vocational education sector is quite limited. The government recognized this deficiency some time ago and in 1982, passed the Human Employment and Resource Training Act establishing a scheme for financing and implementing the training of persons with a view to employment and to provide trained and certified skilled workers for the manufacturing and services sectors. Today the HEART Trust/NTA (National Training Agency) and the Vocational Training

Development Agency (VDTI) are well established and directly linked with industry to work towards improving the quality of the workforce through training and certification.

The crime problem affects manufacturers directly as they cannot operate effective shift systems without incurring special transportation and security costs to safeguard employees travelling to and from work after dark.

The exorbitant energy costs as well as the quality of service provided by the utility companies and the problems brought about by disruptions in supply are causes for great concern. The JMA also seeks to realize improvements in power conditioning equipment, water purification plants and alternative energy systems. The full text of the study is in Appendix I.

Appendix J shows a comprehensive list of JMA members. Figure 3 graphically presents the list by percentage. Of interest is the fact that the Food and Agro Products Group is by far the largest (35%) indicating that this industry may be the most likely product base for a major export initiative. The list also shows some diversification in products which could mean a strong product base could be easily developed.

Manufacturing in Jamaica continues to be expensive and uncompetitive but the industry forges on with hope. Opening export markets coupled with the implementation of lean manufacturing techniques and incrementally reduced taxation will eventually create an efficient manufacturing sector.

The services sector is traditionally much greater than the manufacturing sector worldwide and is expected to play a lead role in the development of exportable products.

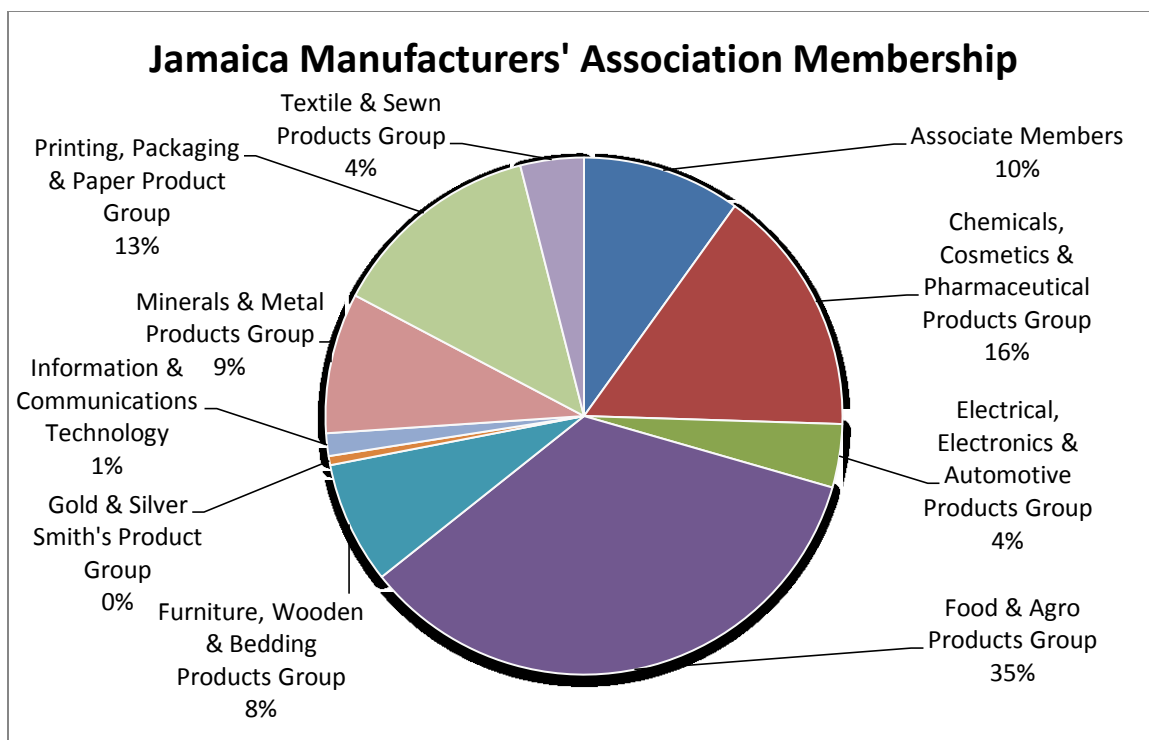


Figure 3: Membership of the Jamaica Manufacturers' Association
(Source: JMA 2011)

The Caribbean Single Market and Economy (CSME)

As the Caribbean region seeks to unite itself into a single economic force, it broadens the base from which this export plan can operate. If all the Caribbean islands join together as one entity it would become a stronger and more competitive unit than any of the individual Caribbean countries. This means a greater variety of goods could be produced, more stable supplies would be available and a much larger diaspora population would be attracted. Large production land spaces would become available (from Guyana) as well as economical fuel sources (from Trinidad). A greater variety of services (from across the Caribbean) and a much larger skills pool from which to extract regional experts in all related areas would also be available. Incorporating the CSME into the plan

also means widening the number of persons emotionally and socially connected to the plan and willing to participate, such as by purchasing from the outlet malls. This leads to an increase in patronage and sales and a greater potential for the success of the program.

What is the Single Market?

The Caribbean Community and Common Market (CARICOM) Single Market has been operating in the region for some time. It speaks to the concepts of uniting the region and reducing trade barriers between the various countries, specifically:

- Free intra-CARICOM movement of Goods
- Free intra-CARICOM trade in Services
- Free intra-CARICOM movement of Skills
- Free intra-CARICOM movement of Capital

Right to Establishment

Out of CARICOM, the more recent Caribbean Single Market and Economy (CSME) has been established to allow free movement for gainful economic activity within the region. Many opportunities have become available to wage-earners, self-employed persons and to persons establishing companies and other types of business organizations.

The CSME has mainly brought about the following changes:

- abolition of the Work Permit
- introduction of the CARICOM Skills Certificate (CARICOM Certificate of Recognition of Skills Qualification)
- definite entry for six (6) months
- indefinite stay in a Member State
- the right to transfer one's social security benefits from one CARICOM state to another

Travel between the Caribbean islands is now hassle-free as a necessary condition for persons to fully enjoy the rights connected to movement for the purposes of engagement in gainful economic activity. The CSME is accommodated by:

- the Common Embarkation-Disembarkation Card (ED-Card)
- the CARICOM line at immigration points
- the abolition of the need for a Visa
- the CARICOM passport

The CSME benefits the people of the Caribbean region by providing more and better opportunities to produce and sell goods and services and to attract investment. This export plan will greatly expand this opportunity by creating one large market among the participating member states.

The main objectives of the CSME are: full use of labor (full employment) and full exploitation of the other factors of production (natural resources and capital); competitive production leading to greater variety and quantity of products and services to trade with other countries. It is expected that these objectives will in turn provide improved standards of living and work and sustained economic development.

Key elements of the Single Market and Economy include:

Free movement of goods and services - through measures such as eliminating all barriers to intra-regional movement and harmonizing standards to ensure acceptability of goods and services traded;

Right of Establishment - to permit the establishment of CARICOM owned businesses in any Member State without restrictions;

A Common External Tariff - a rate of duty applied by all Members of the Market to a product imported from a country which is not a member of the market;

Free circulation - free movement of goods imported from extra regional sources which would require collection of taxes at first point of entry into the Region and the provision for sharing of collected customs revenue;

Free movement of Capital - through measures such as eliminating foreign exchange controls, convertibility of currencies (or a common currency) and integrated capital market, such as a regional stock exchange;

A Common trade policy - agreement among the members on matters related to internal and international trade and a coordinated external trade policy negotiated on a joint basis;

Free movement of labor - through measures such as removing all obstacles to intra-regional movement of skills, labor and travel, harmonizing social services (education, health, etc.), providing for the transfer of social security benefits and establishing common standards and measures for accreditation and equivalency [36].

Other measures

The CSME also seeks to harmonize laws: such as company, intellectual property laws. There are also a number of economic, fiscal and monetary measures and policies that are also important to support the proper functioning of the CSME. These include:

Economic Policy measure: coordinating and converging macro-economic policies and performance; harmonizing foreign investment policy and adopting measures to acquire, develop and transfer appropriate technology;

Monetary Policy measures: coordinating exchange rate and interest rate policies as well as the commercial banking market;

Fiscal Policy measures: including coordinating indirect taxes and national budget deficits [36].

Movement of People

This is an essential factor in an ever closer union among the people of CARICOM Member States. The Treaty on the CSMS abolishes discrimination on grounds of nationality in all Member States. Under the CSME, the free movement of persons across the Region entails the removal of work permits for the University Graduates, Media Workers, Sports Persons, Musicians, Artists, Managers, Supervisors and other service providers.

With the CSME, these persons will be able to travel to Member States with only a travel permit and, in some cases, an Inter-Caribbean Travel document complete with photograph.

Mechanisms will be established for the recognized degrees, diplomas, and certificates from certain institutions. Additionally, the provisions to harmonize and transfer social security gains will be beneficial to those who qualify.

Workers in these categories can now move freely to another Member State and enjoy the same benefits and rights as regards condition of work and employments as those given to national workers.

Freedom of movement includes the freedom to leave and re-enter any Member State of their choosing and also to have access to property either for residential or business purposes.

Movement of Goods

There are no import duties on goods of CARICOM origin. Tariffs and quantitative restrictions in all Member States are removed. The treatment of intra-regional imports will be different from those coming from the rest of the world.

In addition, there will be agreed regional standards for the production of goods throughout the Region. This could be a major incentive for producers/manufacturers to aim at a high standard of products. Manufacturers will be able to get their goods to over six million (14 million if Haiti is included) people in the Caribbean.

Movement of Capital

Citizens will be able to transfer money to another country through bank notes, electronic transfers, etc. without having to obtain prior authorization. No new restriction can be added and the restrictions that already exist will be removed.

There will also be the equal right to buy shares in any company in any Member State and the right to remove your capital from one Member State to another.

Envisaged under the CSME are the easy convertibility of our Region's currencies and the coordination of exchange and interest rate policies.

The free movement of capital will allow firms to have access to a wider market for raising needed capital at competitive rates, thus allowing for the productive sectors to become more competitive both regionally and internationally.

The free movement of capital will allow investors to diversify portfolios regionally and to share in the best performing firms (only if these firms have gone public) across the Region.

The movement of capital across the Region will result in increased investment opportunities and will promote investment.

Envisaged under the CSME too is the development of a regional capital market which would facilitate the free movement of capital. This will increase the attractiveness of the Region as an area for the investment both by regional and non-regional investors.

Removal of restrictions will encourage intra-regional investments in both real and financial assets by reducing risk and uncertainty over the ownership of real property, thus aiding in the development of the regional stock exchange.

Right to Establish

The right to work as a self-employed person has been provided for in respect of persons wishing to engage in non-wage earning activities of a commercial, industrial agricultural or artisanal nature.

Such nationals may create and manage economic enterprises, including any type of organization which they own or control (e.g. sole proprietorship, company, etc) for the production of or trade in goods, or the provision of services. Nationals exercising this right may move to another Member State on a permanent basis.

Affiliated with the right of establishment is the right to move the Technical, Supervisory and Managerial staff of such entities, as well as their spouses and immediate dependent family members. Persons within any of these five (5) named classes are not allowed to move in their own right unless they fall under one of the afore-mentioned nine (9) approved categories (where the member state recognizes these categories).

Several procedures have been approved for treatment of persons wishing to establish business enterprises in other member states. These involve:

Procedures at Point of Entry whereby Immigration must grant a definite stay of six (6) months, upon the national presenting a valid passport, return ticket and proof of financial resources for personal maintenance.

Procedures post-entry. This includes the requirement for a migrant CARICOM National to apply to the Competent Authority (usually the Registrar of Companies) of the receiving state, for registration of a business enterprise.

Integration of the Caribbean is important to the success of this export plan as it will facilitate both a wider product base in the system and a larger Caribbean Diaspora to supply.

Chapter 3: State of the Nation

Jamaica is the largest of the Caribbean islands situated just south of Florida, USA and is slightly smaller than the state of Connecticut. It is strategically placed in a major shipping lane feeding the Panama Canal and has a major trans-shipment, natural harbor port capable of handling over 12.5 million short tons annually. Jamaica also has two international airports located at either end of the island which are both fully equipped with modern facilities. As a sovereign nation, Jamaica has many natural attributes and it is useful to take an overview of its present situation.

Population

Jamaica currently has a total population of 2,695,600 persons (1,328,100 males and 1,367,500 females). It has fourteen parishes and the largest, Kingston & St Andrew, houses 651,880 persons while the adjoining community Portmore, is home to 265,600 persons. Kingston and St. Andrew coupled with Portmore contains more than one-third of Jamaica's population (917,418 persons) crammed into a very small area. This breeds a very high population density in the cities with a first world urban mentality to go with it. Jamaican cities are best described as third world townships with a first world appetite.

The Jamaican Diaspora is among the largest in the world commensurate to the size of its homeland population (according to Earl Jarrett, CD, JP - General Manager of Jamaica National Building Society, Feb 2, 2010). There are an estimated 2.5 to 3 million Jamaican Nationals living overseas (See Figure 5 for New York Area) and they represent a pool of talent with exciting possibilities and potential. They possess significant wealth and are members of the professional working class. The Diaspora utilizes opportunities afforded by migration to improve access to education, wealth and social mobility and

they tend to be highly literate and committed to Jamaica. The Diaspora maintains a high demand for traditional, “nostalgic” goods, exquisite food products, exotic spices and brands such as Wray & Nephew, Red Stripe, Lasco and Grace. They also crave authentic art and craft, theatre, music and are extensive travelers.

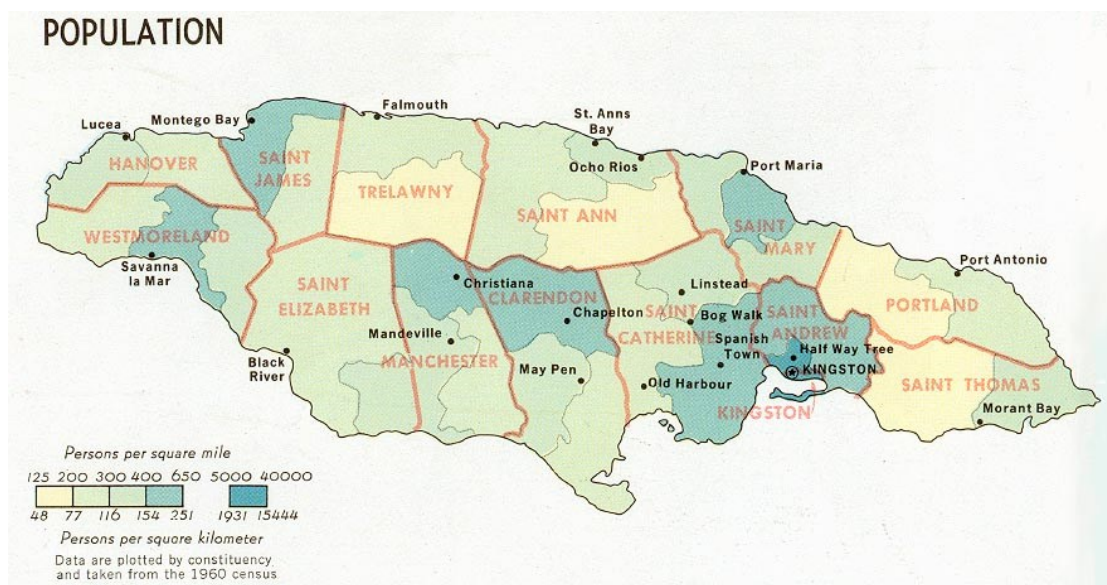


Figure 4: Jamaican Population Density (Source: Central Intelligence Agency)

The Jamaican Diaspora is quite large in the New York area, as shown in Figure 5, with a total of 292,427 in the New York Tri-State area alone (U.S. Census Bureau - 2009), and Jamaicans are in most major cities across the USA, Canada and England. Canadian statistics (www.statcan.gc.ca, 2001) places 180,800 Jamaicans in Ontario of 211,700 living in Canada all together. The Jamaican High Commission estimates the British Diaspora to be around 800,000 of which about 350,000 live in London (International Organization for Migration (IOM) 2007) while the rest of the population

tends to be widely dispersed. Jamaica is a former colony of the United Kingdom and Jamaicans are currently the tenth-largest foreign-born group in that country.

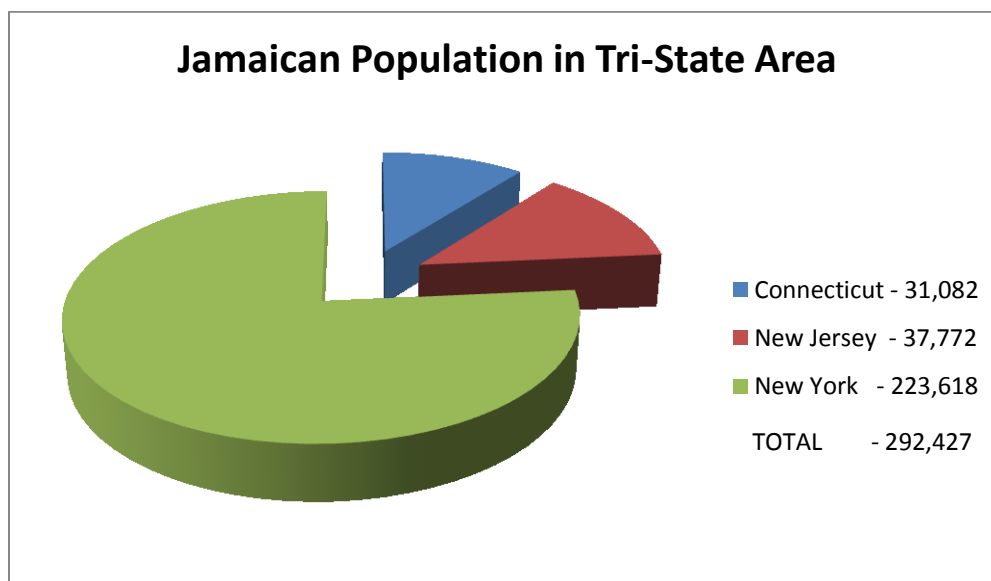


Figure 5: Jamaican Population in the New York Tri-State (Source: U.S. Census Bureau - 2009)

Jamaica was the first industrialized country in the Western hemisphere with its sugar plantations and was one of the first countries to have, railways, electric light, telephone and running water in the west. Today Jamaica is a world renowned tourist destination and is well known for its achievements in sports and entertainment.

Jamaica's major issues today are politics and crime. Harsh fiscal policies generally lead to high costs and low wages and economic measures generally do not seem to yield the desired results making it very difficult for business to survive in Jamaica. Jamaica is strategically placed in the Caribbean and the only natural hazards it faces are Hurricanes (especially from July to November).

The Economy

The US department of State, April 6, 2011, Bureau of Western Hemisphere Affairs, amply describes Jamaica's present financial state and economic outlook as follows:

Jamaica's economy is improving in the wake of the global recession, but still faces serious long-term problems: a sizable merchandise trade deficit, large-scale unemployment and underemployment, and a debt-to-GDP ratio of almost 130%. Structural weaknesses, low levels of government infrastructure investment, and high-cost energy erode confidence in the productive sector. High unemployment exacerbates the serious crime problem, including gang violence that is fueled by the drug trade. Jamaica's onerous debt burden--the fourth-highest per capita--is the result of government bailouts to ailing sectors of the economy, most notably the financial sector in the mid-to-late 1990s. The government faces the difficult prospect of having to achieve fiscal discipline in order to maintain debt payments while simultaneously attacking serious crime challenges that are hampering economic growth. It also needs to address the high cost of energy to successfully expand the economy. The private sector complains sharply about challenges to doing business on the island, but the government appears unwilling to recognize these obstacles and resolve them. Although official statistics show decades of economic stagnation in Jamaica, economists at the World Bank (WB) and Inter-American Development Bank (IDB) have estimated substantial growth of the informal sector. Such studies suggest that inclusion of the informal sector would raise Jamaica's GDP statistics by as much as 40%.

The country's economy is heavily dependent on services, which now account for more than 60% of GDP. Jamaica continues to derive most of its foreign exchange from tourism, remittances, and bauxite/alumina. Remittances account for nearly 20% of GDP and are equivalent to tourism revenues. Remittances dipped 15% from 2008 to 2009, but have recovered and are near where they were before the global economic downturn. Three of Jamaica's four bauxite/alumina firms suspended operations in 2009 due to falling demand amid the global economic downturn. Only one of the three had restarted some operations as of August 2010. Inflation rose to 11.7% in 2010 as a result of high prices for imported food and oil; inflation was 10.2% in 2009 and 16.8% in 2008.

Jamaica took two significant steps toward improving its economy in January and February 2010. The first was the Jamaica Debt Exchange (JDX), in which the country retired 350 high-priced domestic bonds and replaced them with 24 new bonds at lower rates of interest of about 12.5%. This helped reduce the debt servicing costs for Jamaica by about \$450 million per year and provided the country with some fiscal relief. Second, the Government of Jamaica signed a U.S. \$1.27 billion, 27-month Standby Arrangement with the International Monetary

Fund (IMF) to support the country's economic reforms and help it cope with the consequences of the global economic downturn. Despite these moves, the government has limited spending available for infrastructure and social programs, since debt servicing still accounts for a substantial amount of government expenditures.

The government has largely divested itself of Air Jamaica via a sale to Caribbean Airways. It also sold off former sugar estates, and is in the process of divesting its share of a major bauxite operation. These are notable successes, but there are still some former parastatals¹ that need to be privatized [36].

Further investigation into Jamaica's present economic situation yields very similar results to those expressed by the US department of State.

Jamaica is presently the seventh most debt burdened country in world (behind Zimbabwe, Japan, St. Kitts & Nevis, Greece, Lebanon and Iceland, see Table 2) (CIA Factbook). Jamaica has had a negative balance on its current account since 1963

Jamaica's debt-to-GDP ratio almost doubled between 1996 and 2003; it moved from 76% in 1996 to 147% in 2003. Off-budget liabilities are a root cause of rapid growth in the debt between 1997 and 2003. Interest payments are a contributory factor to the growth in national debt. Current debt dynamics are sustainable. Economic growth and increased revenue are the main solutions for significant debt reduction and fiscal improvement [5]

Jamaica's most recent IMF loan of \$1.27 Billion is being used primarily to reschedule debt in a Government Debt Exchange Program (JDX). This program seeks to

¹ An organization or industry having some political authority and serving the state indirectly (Concise Oxford English Dictionary).

exchange approximately JA\$700 (US\$8.2) billion local fixed and variable rates, and USD denominated bonds for new bonds with extended maturities and reduced interest rates. Government has been issuing bonds at 30% guaranteed interest rates for some time and is now struggling on the repayment. It is the largest borrower from the commercial banks, especially of foreign exchange and the Government is the most indebted financial institution in Jamaica.

Table 2: Country Comparison: Public debt (CIA Factbook 2010)

Rank	Country	(% of GDP)	Date of Information
1	Zimbabwe	233.20	2010 est.
2	Japan	199.70	2010 est.
3	Saint Kitts and Nevis	185.00	2009 est.
4	Greece	142.70	2010 est.
5	Lebanon	133.80	2010 est.
6	Iceland	126.30	2010 est.
7	Jamaica	126.20	2010 est.
8	Italy	119.10	2010 est.
9	Singapore	105.80	2010 est.
10	Barbados	102.10	2010 est.

Figure 6 shows Jamaica's GDP over the years. The GDP in 2008 was \$15.1 Billion which fell to \$14.6 Billion in 2009.

Dr. Densil A. Williams [6], in a contribution to the Daily Gleaner, accurately summarizes Jamaica's present situation and historic dilemma:

Jamaica's consistently low levels of economic growth over the last three decades have baffled even the brightest minds in economics. For a country so blessed with natural resources, good geographical proximity to the largest economy (as measured by GDP) in the world - the USA, a fairly high level of human capital, the economy has not lived up to its potential. Why has the Jamaican economy performed so poorly over the last 30 years? [6]

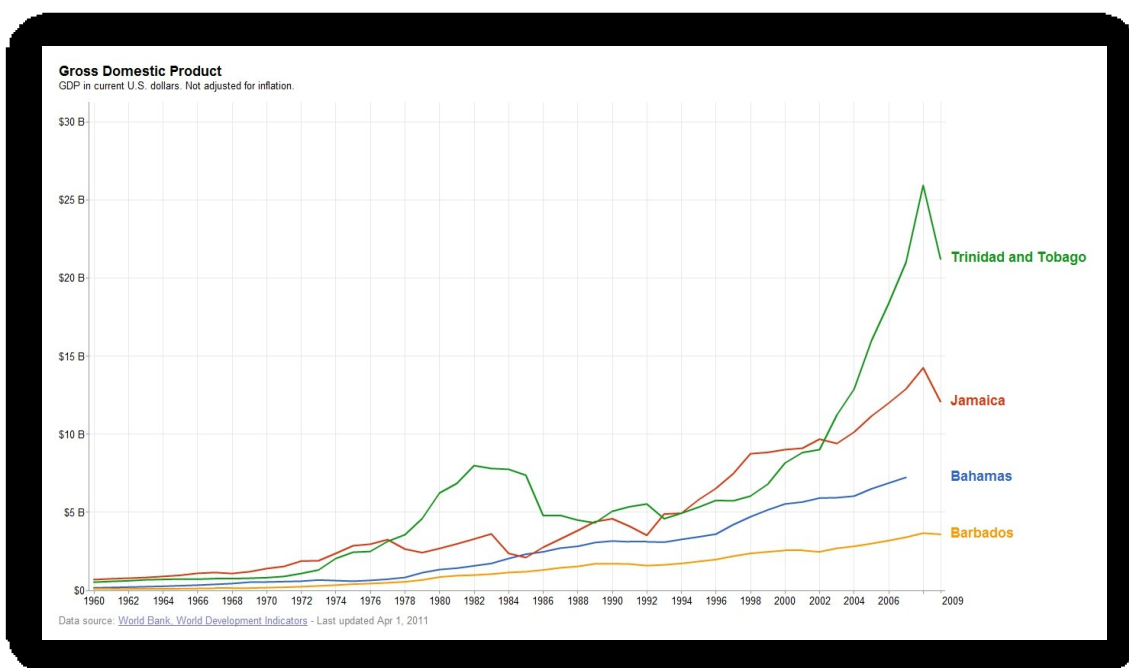


Figure 6: Jamaica's GDP (US\$) not adjusted for inflation.
Source: World Bank, World Development Indicators - Last updated April 01, 2011

He refers his readers to the Global Competitiveness Report as “the most authoritative and comprehensive report on the issues surrounding a nation's ability to compete and grow its economy to provide a high standard of living for its citizenry”. Jamaica presently stands 91st of 133 countries (See Table 3) and continues to see negative indexes year after year (See Figure 7). Jamaica's competitiveness has continued to deteriorate over the last three years. Williams continued by noting how troubling this was

“because it has serious implications for the growth and improved well-being of the citizens of the country...(and) to prevent social malaise such as crime, illiteracy, poor health, etc., it is important that a country improves its level of productivity, in order to improve its competitiveness position”.

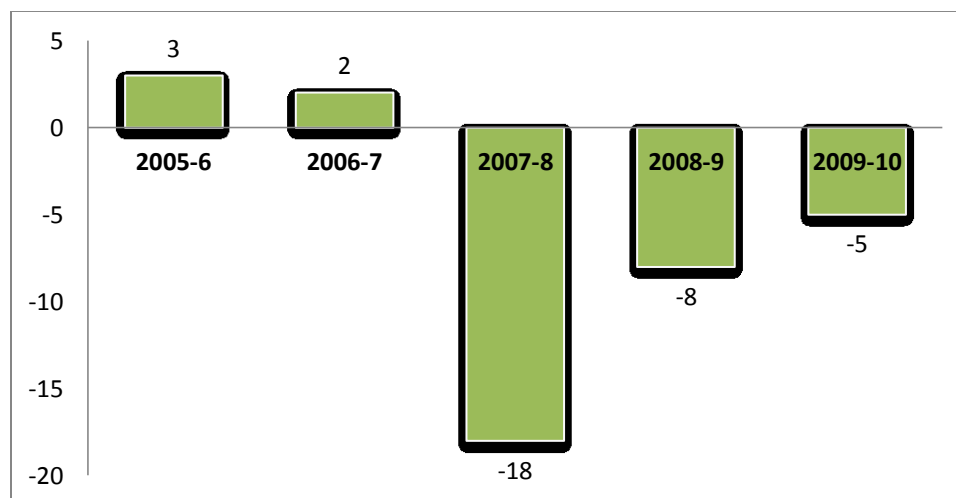


Figure 7: Change in Global Competitiveness Index Rank: Jamaica.

Source: The Global Competitiveness Report 2009-2010 (GCR 09/10)

JAMPRO summarizes Jamaica’s performance in the Global Competitiveness

Report as follows:

Compared to prior year’s performance, Jamaica slipped 5 places from 86th to 91st in the GCR 09/10 rankings. Interestingly, the GCI score decreased by -0.1 (from 3.9 to 3.8) – indicating that local business executives perceived an overall deterioration in Jamaica’s pillars of competitiveness. Of the 12 pillars, 3 exhibited improvements in rankings, 8 declined and 1 remained unchanged (See Table 3) [7].

Relative to other countries, Jamaica’s strongest performance was in the area of Financial Market Sophistication, with a rank of 46th (or an improvement of +13 places), over 2008-09. Although there were respective falloffs of - 24 and -16 places in the sub-categories in the ease of access to loans and venture capital availability, the regulation of security exchanges and the legal rights index

improved by +28 and +34 places. It should be noted that there was a direct relationship between the rankings and the scores assigned. However, in the area of soundness of banks, where the executives registered a lower average score by - 0.2, the corresponding ranking still improved by +15 places, indicating that Jamaica performed relatively well when compared to other countries [7].

Technological Readiness was the only other pillar that placed in the upper half of the rankings. It ranked 50th, reflecting a reduction of 5 places over the previous year [7].

The beacon of light in all of this darkness is that Jamaica is technologically ready to improve its competitiveness. This is a good base on which to utilize technological building blocks to create solutions.

The issue of productivity is not merely an economic phenomenon. A plethora of factors shapes the level of productivity of a nation. The Global Competitiveness Report argues that for a country to improve its productivity, it must possess what it calls basic requirements, which includes institutions, infrastructure, macroeconomic stability, etc, efficiency enhancers, such as education and training, efficiency in the goods, labor and financial markets; and, innovation and sophistication factors, such as sophistication of business operation and innovation. These, according to the report, are the basic pillars of productivity [7].

A deeper analysis of these various pillars of competitiveness reveals an inconvenient truth about Jamaica. The report revealed that macroeconomic stability in Jamaica, one of the most salient variables in the basic requirements pillar, is ranked 130 out of a maximum of 134. A scan of the report shows that of the 12 variables that comprise the basic requirements, macroeconomic stability performs the worst. This does provide some insights into our inability to be competitive, and also who should be blamed for the country's competitiveness slippage over the last three years [7].

Table 3 – Global Competitiveness Report 2009/2010 - Jamaica (CIA Factbook 2009)

		Rankings		Scores (max pt: 7)		Change	
		2009-10	2008-09	2009-10	2008-09	2009-10	2008-09
		(/133 Countries)	(/134 Countries)			Rankings	Score
GLOBAL COMPETITIVENESS INDEX		91	86	3.8	3.9	-5	-0.1
1st Pillar	Institutions	82	86	3.7	3.7	4	0
2nd Pillar	Physical Infrastructure	67	67	3.8	3.5	0	0.3
3rd Pillar	Macroeconomic Stability	131	130	2.3	3.2	-1	-0.9
4th Pillar	Health and Primary Education	88	77	5.1	5.3	-11	-0.2
5th Pillar	Higher Education and Training	77	82	3.8	3.7	5	0.1
6th Pillar	Goods Market Efficiency	69	63	4.2	4.2	-6	0
7th Pillar	Labor Market Efficiency	77	70	4.3	4.3	-2	0
8th Pillar	Financial Market Sophistication	46	59	4.6	4.4	13	0.2
9th Pillar	Technological Readiness	50	45	3.9	3.9	-5	0
10th Pillar	Market Size	100	98	2.9	2.8	-2	0.1
11th Pillar	Business Sophistication	79	69	3.8	4.0	-10	-0.2
12th Pillar	Innovation	82	68	3.0	3.1	-14	-0.1

The managers of the economic system over the last 30 years have been responsible for Jamaica's macroeconomic instability. During the last decade Jamaica has

seen massive increases in its exchange, interest and inflation rates. Jamaica is now the seventh most indebted country in the world with a balance of payment, debt-to-GDP ratio of over 126 per cent. Jamaica is presently unable to pay on the principal of its loans and can, therefore, see no way out of debt. Williams [6] notes that “these conditions create an environment that is inimical to business operation and increased productivity. The end result is an economy that cannot compete in the global economic system”.

However, one cannot be too parochial in the analysis of the Jamaican situation. Jamaica's heavy integration into the global economy makes some of the challenges to economic stability unavoidable. However, the big question is, were these challenges managed properly? As a small, open, import-dependent economy, the challenges of attaining macroeconomic stability in a global marketplace is not an effortless task. The economic manager of the day will have to possess a sophisticated understanding of the complex workings of the multiplicity of economic and financial interactions, cross-border production systems, flow of technology and, the flow of information and communication which bring economies together in a process we now call globalization [6].

Williams [6] discusses investor confidence and economic growth and explains that “financial globalization in very subtle ways undermines the power of the modern state in having full control over the management of its economic affairs”.

Given the borderless nature of world markets today, foreign investments and capital do not always adhere to national rules and regulation. They tend to find places that conform to their quest for profit. Indeed, capital and investments can move quickly from one economy to another because of a mere volatility in the currency. This footloose movement of capital and investment constrains the nation state to practice good macroeconomic management and fiscal and monetary discipline [6].

To retain the confidence of investors and capital, the State generally practices macroeconomic policies based on low inflation at the expense of growth and employment. This is exactly the path the Jamaican authorities took over the period of the 1990s, and it appears that the current economic managers have not changed course. Indeed, the results of this policy choice are manifested in the slippage in Jamaica's level of competitiveness. This policy does not lead to productivity [6].

In fact, targeting inflation eventually leads to high interest rates. Nobody produces under a high interest-rate regime. People sell their businesses and invest their money in financial instruments that give attractive returns. You cannot blame the investors; you have to blame the policymakers for this mistake. Rational investors will put their investments where the returns are highest. In small, open economies like Jamaica, there is clearly a premium on maintaining the confidence of investors and capital. However, using the wrong policy to attain this confidence will eventually lead to economic un-competitiveness. To improve the country's competitiveness, economic policymakers have to find the inclination to focus on Keynesian² growth policies and reaffirm the role of the State [6].

The Keynesian economic theory states that active government intervention in the marketplace and monetary policy is the best method of ensuring economic growth and stability in a country (www.investopedia.com). According to Williams [6], the government should be brought back in a proactive role in returning Jamaica to a competitive position. He explains:

It is orthodox for neo-liberal thinkers to see the role of the State as a mere facilitator of development and growth. The role of the State according to the dogma of the Washington consensus³ is limited to regulation and taxation.

² **Keynesian economics** (also called **Keynesianism** and **Keynesian theory**) is a macroeconomic theory based on the ideas of 20th century British economist John Maynard Keynes. Keynesian economics argues that private sector decisions sometimes lead to inefficient macroeconomic outcomes and therefore advocates active policy responses by the public sector, including monetary policy actions by the central bank and fiscal policy actions by the government to stabilize output over the business cycle. (Sullivan, Arthur; Steven M. Sheffrin (2003). *Economics: Principles in action*. Upper Saddle River: Pearson Prentice Hall. ISBN 0130630853).

³ The term **Washington Consensus** most commonly refers to an orientation towards Neoliberal policies that from about 1980 - 2008 was influential among mainstream economists, politicians, journalists and global institutions like the IMF and World Bank. The term can refer to market friendly policies that were generally advised and implemented both for advanced and emerging economies. It is sometimes used in a narrower sense to refer to economic reforms that were prescribed just for developing nations, which included advice to reduce government deficits, to liberalize and deregulate international trade and cross border investment, and to pursue export led growth. The term Washington Consensus is also sometimes used by economic historians to label an era, which depending on the author can range from at most 1979 - 2009 to at least 1989 - 2000.

However, the success stories of most emerging market economies (a term used to describe fast-growing and successful developing countries) such as China, India and Brazil, reveal that the State's role is more than a mere facilitator. In these economies, the State acts as an investor in sectors that have welfare gains. These include investments in education and training, the adoption of labor standards, tackling rising national inequality, and provision of social protection for the most vulnerable [6].

In this increasingly globalized world, the challenge that faces policymakers in reversing the slippage in Jamaica's competitiveness position is to find the right mix of policies that can improve productivity while maintaining the confidence of investors and capital in order to prevent capital flight. It does not have to be a zero-sum game in choosing between market-based policies as dictated by the guardians of the international financial architecture and statist policies as espoused by the anti-globalization movements, particularly the left. The emerging markets have shown that a configuration of elements of both sets of policies is good for growth and competitiveness. The new policy mix must ensure that the private sector and markets enjoy a central role in economic growth while sound public policies and institutions are put in place to provide the market with a strong enabling environment for production. Elements of the public-policy mix must include

investments in education and training, reduction of government bureaucracy, investment in innovation centers and entrepreneurship, provision of a social safety net to reduce the incidence of crime and violence, among other things. If Jamaica is to reverse its competitiveness slippage, it has to focus on this policy mix and move away from the low inflation model as a macroeconomic strategy.

The term was initially coined in 1989 by John Williamson to describe a set of ten specific economic policy prescriptions that he considered should constitute the "standard" reform package promoted for crisis-wracked developing countries by Washington, D.C.-based institutions such as the IMF, World Bank, and the US Treasury Department.

(Williamson, John: What Washington Means by Policy Reform, in: Williamson, John (ed.): Latin American Readjustment: How Much has Happened, Washington: Institute for International Economics 1989.)

Poor macroeconomic policies are not Jamaica's only problems. Transparency International, the global coalition against corruption, ranked Jamaica at 3.3 of a possible 10 on the Corruption Perceptions Index for 2010. This places Jamaica 87th of the 178 countries listed. Jamaica is perceived as one of the most corrupt countries in the Western hemisphere. The perception of corruption severely affects investment in a country (FDI) and also, consequently, affects competitiveness.

Politics, Fiscal Decisions and Economic History

To better understand the financial decisions that led Jamaica to its present economic condition, it is useful to review its socioeconomic and political history. The Rt. Honorable Edward Seaga has been an icon in Jamaica's political system for the last 45 years, thirty of which he has been at the highest office as Prime Minister or Leader of the Opposition. He has served as Minister of Finance and is one of the foremost authorities on the Jamaican political and economic system. In his recent books "Edward Seaga – My Life & Leadership Volumes I and II" he carefully explains the situation as follows:

In the 1950s and 1960s the dominant economic mantra was the need for foreign investment to establish manufacturing and industrial projects and create jobs for the labor force. This investment had to be attracted through generous tax and non-tax incentives to encourage job creation. The facts, 20 years later, showed that relatively few jobs were created by these capital-intensive industries, although a substantial amount of revenue was foregone and foreign exchange spent for their operations. The cost was greater than the return. Another waste, this time of more than a decade [8].

In the 1970s a new mantra was adopted. Shifting from economic to social priorities, socialism would attempt to distribute wealth by pulling down the rich. This would create an egalitarian society. It did not take long to learn from bitter experience, that the poor cannot be elevated by pulling down the rich, but by pulling up the poor. Another decade was lost because reality was swamped by the overpowering euphoria of the message that 'socialism is love' [8].

A dramatic about-turn in the 1980s raised the need for competitiveness to the level of a new mantra by, inter alia, minimizing the public sector as an agent of production and maximizing the private sector as the agent of growth. To achieve competitiveness, macro-economic stability had to be created. This stability, in the dictum of the IMF, had to be anchored by leveraging the exchange rate, adjusting it regularly to achieve competitiveness. The problem here was that each adjustment of the exchange rate created a new cycle of price increases, which reduced competitiveness. This was a vicious circle that forced me to intervene with a demand that the IMF discontinue this self-defeating policy. After a tense period the IMF finally agreed. This significantly helped to transform the struggling economy to a restoration of growth, after 15 years [8].

After decades of economic failures, Jamaica is now in its worst ever situation.

The lack of technological solutions over the years has caused a decline in productivity and competitiveness. Seaga explains from an agricultural perspective:

Several factors played a role in this decisive decline of agriculture. The underlying cause was very low productivity. It took 53 man hours to produce a ton of cane in Jamaica compared to 9.8 in Florida and 10 in Hawaii. Banana production was averaging 4 tons per acre compared to 12-15 tons in Central America. These low outputs indicated that bananas and sugar were being produced by low-level technology. The outcome was an inability to compete with cheaper products which were entering the UK market from elsewhere. The United Kingdom was the traditional purchaser of Jamaican bananas and sugar. Only special preferential treatment for these two crops by the British government had enabled them to be marketed there [8].

The glory days when agriculture ruled as king of the economy, as it had done for over 400 years, were at an end. The agricultural sector plummeted after 1965 from being the top contributor to the gross domestic product at 20.2 per cent to virtually half that figure, 9.9 per cent, in 1968 and, with continued decline, by almost half again to the current level of 5.2 per cent. Attempts to save the sector consumed more time, effort and Jamaican government financial subsidies than support given to any other sector. This proved unsuccessful in saving jobs and export earnings [8].

The Mining sector was also developed during this period and bauxite, cement and later gypsum became major contributors to the Jamaican economy.

The tourism industry was developed from a mere 44 rooms to presently over 30,000 rooms. The government of the day was proactive in building this industry which

is today responsible for 20% of the country's GDP. Air Jamaica was created to support the tourism industry and itself became a major part of Jamaica's development. As the country sinks deeper and deeper into "hard times" the airline company was recently sold. Seaga explains the development of the tourism industry and the national airline largely through the efforts of the Urban Development Corporation (UDC):

Tourism could be considered to have commenced in 1880 when the Mandeville Hotel in mid-island opened with 44 rooms. With its agreeable temperatures, this proved to be more of an attraction to local than overseas visitors. By the end of that decade the Titchfield Hotel was established in Port Antonio to provide a resort in one of the most picturesque seaside areas of Jamaica. That same year, 1890, the Myrtle Bank Hotel was constructed in Kingston with 55 rooms. It would provide for visiting businessmen and others. Kingston was also about to mount an international trade exhibition and rooms would be required. Interestingly, none of these first three efforts were in the areas of the island destined to become well-established international resorts - Montego Bay, Ocho Rios and Negril. These came later [8].

In the years that followed, a total of 106 hotels were built between 1890 and 1969 with 4,308 rooms. With the exception of nine establishments, these hotels were small, less than 100 rooms. Even those which exceeded 100 rooms could not be considered large, the biggest being the 199-room Kingston Sheraton. It was obvious that, to build an industry, larger hotels would be a necessity. Tax incentives were provided in 1955 to attract more development by offering a full write off of cost of the establishment and duty-free concessions for some furniture and building materials [8].

It was in the mid-1960s that a plan for a rapid expansion of hotel accommodation was made. This was a result of a deliberate decision not to wait for overseas investment to drive the development of tourism. By 1965, there were only seven hotels that were established by foreign interests [8].

The rapid expansion in the period from 1970, when the result of the new policy began to come into effect, was spurred by the reclamation of the 80-acre Turtle Beach in Ocho Rios, and the inclusion in the tourism development net of the magnificent, idyllic 7-mile Negril beach. They provided an impetus to Montego Bay, in particular, but other areas as well, to expand their hotel accommodation. Between 1969 and 1975, 52 hotels, comprising 4,702 rooms, were constructed. The driver of this wave of expansion was the UDC which was responsible for building 10 of these new hotels as joint ventures, using debt and equity financing. These 10 hotels were in the 'large' category and were mostly to be operated by

brand-name hotel chains - Pegasus, Hilton, Intercontinental, Hyatt and others. Holiday Inn followed, established by foreign financing and ownership [8].

This wave of expansion brought the total number of rooms to 9,010. There was now enough first-class accommodation to start an industry. But a major link needed to be added to make the tourism industry viable: air transportation. The limited number of seats available by air transport to Jamaica would be a serious obstacle to expansion [8].

As an independent country, Jamaica would be entitled to negotiate air transportation uplift and landing rights on a reciprocal basis with other sovereign countries. Thus, Jamaica would enjoy the right to conclude agreements with other countries for national carriers to transport passengers to and from their countries by granting reciprocal rights. This would open the skies for many additional seats. The tourism infrastructure was now in place. However, benefits expected in permanent jobs and foreign-exchange earnings were delayed until the 1980s as a result of the political instability which developed in the 1970s. But there was no delay in the lift of pride among Jamaicans. It soared with their own Air Jamaica [8].

The involvement of the UDC as owner-developer on behalf of the government was charting new waters. The degree of ownership by nationals of prominent sectors of the economy was minimal. The principal agricultural crops, sugar and bananas, were in foreign hands; so too were some dominant industries like oil-refining and utilities to provide electricity, telephone and ground transportation [8].

Interesting to note here is that the government through the UDC was the major catalyst in the rapid expansion of the tourism and airline industries. The UDC is a government owned company established to “ensure planned and orderly urban development across the island.” These were the days of rapid development and Jamaica was on the right track until the oil crisis and socialist ideologies arrived. The foreign exchange reserves were depleting and there was little option but to turn to the IMF and consequently devalue the currency. Seaga in a chapter in his book entitled “Realities and Delusions” sums up the situation Jamaica found itself in at the time:

From mid-1976, Finance Minister David Coore was on a secret mission, known only to Prime Minister Michael Manley. He was aware that the foreign-exchange

reserves were being wiped out, leaving a negative gap, and that revenue and loans together could not finance the budget, leaving another gap. In the autumn of 1976 he held a secret meeting with the International Monetary Fund, in Manila in the Philippines. Jamaica was now faced with an unavoidable prospect of securing support from the dreaded IMF to close the foreign-exchange gap [8].

I was keeping track of data published monthly by the Bank of Jamaica. The foreign-exchange reserves were being exhausted at a rate that would require the introduction of a considerable sum. I was aware that there was no alternative to a substantial devaluation; the IMF was willing to give support. I projected that a 40 per cent devaluation would be required. Three days before the 15 December general election I made a statement to that effect. Coore, realizing what effect this would have, immediately repudiated the statement [8].

By mid-January 1977 there were no more secrets [8].

Most newly independent countries of the past fifty or more years have followed a standard pattern in selecting one of the two principal strategies for development: industrialization attracted by generous tax incentives, or socialism driven by the state. Depending on the political ideology adopted, variations have been devised which soften the orthodox models [9].

To this deep concern was added Manley's political friendship with Fidel Castro, which sent signals as to what the future political direction of the country could be under his leadership. This signal later became more startling when, in an interview with a Soviet journalist, he spoke of his admiration for the Cuban and Soviet systems. With these cues, capital flight and reduced export earnings wiped out the foreign-exchange reserves, forcing the Bank of Jamaica to operate on negative balances for the first time. Extensive shortages, outages and stoppages followed, crippling the economy. Heavy expenditure on social programs extended the budget deficit to even more unsustainable levels, exceeding all but a few other countries. A record eight consecutive years of negative growth, backed by unprecedented inflation and historically high unemployment, filled out the most disastrous decade ever [9].

The new strategy to be pursued during the 1980s was liberalization of the economy:

- To encourage cheaper imports, which could reduce prices by competing with costly locally manufactured goods. This would help to contain inflation. Pressure on the reduction of costs would also improve the potential for exportable goods. Accordingly, restrictions on imports and high import duties were reduced substantially.

- To remove price controls, enabling reasonable earnings to encourage profits and job creation.
- To divest the commercial assets of government.

The World Bank promoted a plan to reduce export costs to earn more foreign exchange by a series of devaluations of the rate of exchange of the Jamaican dollar, but each devaluation increased local costs, pushing up consumer prices, in particular, out of the reach of the poor, and causing higher inflation and more suffering [9].

Manley, despite his emotional attachment to left-wing economic doctrine, allowed the IMF to guide him through the wilderness of the capitalist market system economy. He was prompted to abandon the auction system which maintained the pegged exchange rate. This caused the rate of exchange to move perilously. Within 17 months into the new term, the value of J\$1 fell from US\$0.18 to US\$0.07. Panic set in. Unfamiliar with the mechanisms of the market system, Manley allowed himself to be persuaded to remove the restrictions on foreign exchange moving freely in and out of the country. In September 1991 he made a fateful decision which precipitated an economic cataclysm. Exchange Control Regulations, which prohibited the movement of foreign exchange, were repealed, opening the door for capital flight without the Bank of Jamaica having reserves to weather the outflow. He expected compensating inflows of foreign exchange, which never really materialized [9].

With the door now open for capital flight, the exchange rate soared through the roof, interest rates and inflation zoomed through the window, and economic growth plunged through the floor. All but a small number of financial institutions collapsed. This was the beginning of an economic meltdown which eventually cost the government \$140 billion in compensation to failed institutions to enable them to protect depositors. This was 45 per cent of the GDP, ranking Jamaica third on the list of countries experiencing economic breakdown. Only Argentina (55 per cent) and Indonesia (50 per cent) were more severe [9].

I continue to believe in the future of Jamaica, located as it is a few hundred miles from the world's wealthiest marketplace, endowed with rich natural resources, gifted with people who are keen to learn and who can respond to training, and blessed with some of the most creative cultural talent in the world [9].

With these resources, Jamaica has no reason to be poor.

The fiscal problems were temporarily averted through a Bauxite levy. There had still been no technological solutions in effect, thus far, to improve GDP through increased export.

In 1973, the year before the first oil shock was experienced, Prime Minister Michael Manley negotiated an equally severe dramatic increase in the proceeds from bauxite by imposing a 7½ per cent levy on the world market price of aluminum. The levy replaced the system of corporate taxation which was the basis previously used. This provided an enormous increase in revenue, which jumped from US\$19.2 million in 1973 to US\$180 million in 1974, for instance. This huge jump allowed the increased bauxite revenue to set off 90 per cent of the price increase in oil, converted to Jamaican dollars [9].

There were two principal programs to deal with the gaps in the domestic and external accounts. These were the imperatives of the period. The IMF and government strategized to stabilize the domestic account, that is, reduce to a low level the huge excess of expenditure over revenue [9]

(The fiscal gap) which in 1980 amounted to 17.5 per cent of GDP, one of the highest in the world. The World Bank through a series of Structural Adjustment Loans would work with government to build a stronger base of foreign-exchange earnings by enhancing the performance of specific sectors to become substantial net earners of foreign exchange. These sectors, principally tourism and export garment manufacturing to begin with, would become two additional legs for the stool so that the economy would no longer rest on a single leg (bauxite). When the leg wobbled, the economy wobbled, and when it collapsed, the economy would collapse too. The economy would now be more structurally stable so that if one leg was damaged or broken the other two would maintain some stability. This structural adjustment strategy also involved the liberalization of the economy to remove barriers to competitiveness to improve export earnings and the conditions for growth: deregulation and divestment (privatization) [9].

The logic was credible but because of the immense size of the gaps to be closed the corrective measures would have to be powerful. This would require bitter medicine. The question was whether the political will, which did not exist in 1980 when the Manley government shunned the harsh IMF medicine, would be palatable now [9].

A period of structural adjustments loans totaling US\$191.4 million. These loans were aimed at achieving a broader base for external earnings.

The Jamaican economy has, over the decades, relied heavily on one or two commodities for the bulk of its foreign-exchange earnings. For many years, sugar and banana played that role. By the mid-1960s bauxite and alumina were dominating the Jamaican economy, generating in 1980, 72 per cent of the total gross export earnings. In 1981 we embarked upon a program of structural adjustment of the economy. This program included rebuilding the tourism and agricultural sectors, which were in continuous decline, to be major front-line earners of foreign exchange and developing new areas of opportunity for export manufacturing to enable that sector to play a larger role. The rebuilding of these sectors centered around a strategy of devaluation of the Jamaican dollar which the World Bank required to correct the lack of competitiveness of a weak currency [9].

Over the period 1981-5 tourism was rebuilt as a prominent sector of the economy. The performance of the tourism sector within the first three years of the implementation of the adjustment policies led to strong growth. However, in its fourth year, violent demonstrations brought on by an increase in the price of gasoline significantly affected the industry [9].

The agricultural sector, in particular the banana and coffee sectors benefited greatly from the government structural adjustments. Two million square feet of commercial factory spaces were developed through this program generating 23,000 new jobs. This government program netted US\$270 million in additional foreign exchange [9].

Agriculture, from the earliest days of colonialization to the mid-1960s, was the mainstay of the Jamaican economy. Sugar cane and bananas were the two dominant crops until 1965, when production began to slide on a virtually continuous basis thereafter in both crops. Between 1965 and 1975, for instance, exports of sugar declined from 425,000 tons to 253,000 tons. The lack of price competitiveness for these two crops weakened their position in the guaranteed preferential treatment they enjoyed in export markets. They were unable to recover earlier production levels over future years [9].

Both crops were grown on plantations in keeping with their historically traditional forms of cultivation. As demand diminished, several plantations were withdrawn from cultivation. The lands formerly in sugar cane and banana became largely unutilized. This was added to the already considerable unutilized land throughout Jamaica, totaling 185,000 acres. Lack of alternative crops with markets capable of yielding profitable returns was a principal cause of non-cultivation. A drive through the countryside of Jamaica would reveal much of this unutilized and under-utilized land.

The question must be asked: why, in a country with a number of outstanding farm products, which in many instances enjoyed the highest preferential market prices

in the world and for which demand generally exceeded supply, should a problem exist in expanding cultivation? [9]

It is of great importance to determine the success or failure of the strategies employed to effect recovery of the Jamaican economy, because the harsh measures employed for stabilization of the domestic account to bring expenditure and revenue into balance were often confused with those to structurally adjust the economy to bring the foreign currency deficit under tolerable control.

Some critics complained that the two programs made conditions worse for poorer people. At the outset conditions did become worse, for reasons which were both inevitable and distressing:

- The harsh stabilization measures cut expenditure to the bone and severely reduced public sector staffing.
- The painful structural adjustment increased the cost of imports, particularly food, through devaluation.

Jamaica has led the world in several premium products:

- the number one coffee in the world, the prized Blue Mountain coffee
- one of the most preferred cocoa beans
- the finest ginger
- the number one rated pimento
- unique citrus fruits developed in Jamaica: the 'ugli' fruit, a cross between the grapefruit and orange; the 'ortanique', an orange and tangerine hybrid - both in very strong demand
- the finest honey

Yet in no instance was full demand being met and, in the case of ginger and cocoa, production had dwindled to marginal levels [9].

It is obvious that there is a paradox in the agricultural system which frustrates agricultural production, leaving thousands of acres of idle land. Yet agriculture, notwithstanding unused land and under-production, accounted for 36 per cent of employment in the economy, making it the principal employer. The sector was critical to any program of economic expansion and social stability since it was the mainstay of rural existence [9].

It is in this context that agriculture continues to be of prime importance as the main employer and a significant earner of foreign exchange. The decline of the sector has to be dealt with to re-energize the rural areas and revitalize export earnings [9].

It would also be necessary to determine whether new crops with new markets should be introduced to utilize the land. A resource map showing land capability was used to determine crop suitability, and a lease for commercial size lots was structured which would be bankable for larger investors [9].

Profiles for 21 crops were prepared, some for existing products and others for new crops, indicating production costs and expenditure. The 21 sub-sectors selected were: rice, corn/sorghum, soya bean, beef, dairy, cassava, pineapple, banana, coconut, citrus, forestry, orchard crops (papaya, mango), cocoa, coffee, tobacco, ethnic crops (plantains, yams and dasheen), apiculture, ornamental agriculture and winter vegetables. Some 270,000 acres of land were identified for cultivation, additional to existing land in production [9].

The responsibility of the ministry was to get small growers in the vicinity involved in a 'mother farm' relationship, by which small farmers would be provided with seeds, fertilizers, agricides and technology by the mother farm, which would be responsible for marketing. USAID would provide technological assistance where necessary and government would invest in the start-up costs [9].

Agro 21, Spring Plain Project, Winter Vegetables are some of the programs the government spearheaded but what was noticeably absent was a guaranteed sales outlet for these products.

The effort to introduce high-tech agriculture did not fail, however, nor did Agro 21. The banana project, Victoria Banana plantation, a substantial employer of labor, was successful to the extent that it produced yields of up to 20 tons per acre, exceeding the yield of the best privately operated plantation, Eastern Bananas. The profit was healthy. So too with the fish farm, where high-technology methods of stocking used in Israel were employed. More than one variety of fish was raised in the same pond, each inhabiting a different level—some near the surface others near the bottom. Further, all female fingerlings were transformed to males to allow maximum growth by saving the energy which would have been expended in mating. This was done by a special technology. At the opening of the Spring Plain packing plant I cautioned that the gender conversion technology should not be allowed to escape into the wider population [9].

Other industries emerged with much success but yet again the missing component was the guaranteed export outlet.

In the span of a few years, 1982-7, apparel export earnings increased tenfold to over US\$100 million in foreign-exchange earnings. Likewise, in that period employment also jumped sharply from 2,000 to more than 20,000. This was the type of employment required for unskilled females. Female unemployment in the labor force decreased significantly for the first time, from 38.63 per cent to 26.1 per cent between 1982 and 1988. This included young girls, the other weak employment area in the labor force [9].

To round out the strategy for restructuring the economy, the stabilization program of the IMF and the structural adjustment of the World Bank were joined by another program, broadly referred to as the Caribbean Basin Initiative (CBI). This was a short term program initiated in 1984 by the USA to provide trade benefits to the Central American and Caribbean region. The USA joined the North American Free Trade Agreement (NAFTA) in 1994 with Mexico which favored Mexican imports.

Some of the problems which the CBI seemed inadequate to solve were due to inactivity on the part of the beneficiary countries, which set up no special institutions to seek trade and investment. But this was not always the case; Jamaica had established the Jamaica National Investment and Promotion, later JAMPRO, to actively seek trade and investment but it failed to land really big projects in the CBI program [9].

The concerns of the US domestic producers, that imports with preferential tariff treatment would lead to significant loss of markets, proved to be without foundation as the level of trade in the Basin countries was too small compared to overall US trade in each item to be significant. Two countries led in taking advantage of duty-free and reduced-duty concessions and by the early part of the 1990s were accounting for a substantial amount of the overall annual US imports from CBI countries. The specific items were leather footwear uppers and jewelry of precious metals From the Dominican Republic, and jewelry of precious metals and frozen beef From Costa Rica. Jamaica and other small countries in the designated group showed no dramatic change in exports to the United States. In the Jamaican case, over the 20 years from 1984 to 2004, annual exports increased from US\$396 million in 1984 to US\$460 million in 2001, then decreased to US\$370 million in 2004, showing insignificant change over the period. Clearly, the CBI trade was not a substantial boost to Jamaica and other small countries in

the region even though the benefits of duty-free concessions were supposed to be considerable. The smaller countries did not have the population base for a sizeable domestic market to benefit from the reduced cost derived from an economy of scale, nor were they able to modernize their plants to produce manufactured items cost effectively. Trinidad and Costa Rica were the exceptions in this group [9].

But the disappointment felt by myself and others who expected substantial results from the CBI was more than compensated for by the other major trading program, which was a companion measure in the US policy mix for the region. The production of selected types of apparel for export to the United States was a separate negotiation carried out under the Multi-Fiber Arrangement (MFA). The principal aim of the MFA was to “further the economic and social development of developing countries and secure a substantial increase in their export earnings from textile products to provide scope for a greater share for them in World Trade in these products” (Ministry Paper 29, 1986) [9].

As Seaga reflects in his epilogue it is evident that Jamaica’s problems are deep rooted in its political system and is perpetuated by its political activists. Poor fiscal and ideological decisions have set the country back decades.

In retrospect, I have learnt that the gap in the inter-digitated structure of the two Jamaicas is closing on all fronts, but too slowly. Populism continues to show strength, because the economy continues to show weakness. The rule of law is a paper-based fiction for the benefit of the privileged, because of constitutional gaps. Politicians are not anxious to close the constitutional gaps to level the playing field. System and order are creeping into the haphazard management, but indiscipline is broader and deeper. Corruption continues from strength to strength in financial schemes and operational modes. The frills of the society indicate progress, but the fundamentals do not. 'Politics' reigns supreme with self-interest at the core. Everyman, it seems, has his price, because it is everyman for himself in a society of greed. Youth are polarizing: entrenching the worst and intensifying the best. Women are Jamaica's stars. Their future is Jamaica's future. How things have changed, but not always for the better! [9].

I can see clearly now the reasons for a no-growth, low-growth, stagnant economy. The economic gains were never given a chance to be consolidated and accumulated. They were wiped away, sometimes for ideological reasons, at other times by the intense desire to deny paternity to others, or to claim innovation for self. This is the political culture. Twice the economy reached robust levels (in the late 1960s and 1980s), and twice it was ambushed - once by the reckless policies of an alien ideology and the bungling of repentant socialists, reluctant capitalists thereafter. But most damaging of all was the failure to adopt the policy of a pegged exchange rate adopted in all the more successful economies of the region,

preferring to follow the few who were riding the slippery slope of a plunging exchange rate. This helped to create a failed economy unknown anywhere else in the English-speaking countries of the region and most other economies elsewhere [9].

He concludes by explaining how the economy had to be restarted every time there was a political change with the biggest loser being the Jamaican economy making huge sacrifices to try to catch up. In spite of the political and economic upheavals, much effort was made in education as successive governments supported education, at all levels, as a priority.

The process of pulling up to earn more is best driven by opportunities to learn more'. All societies thrive on educational training to create a productive labor force from which some technology and some entrepreneurship will emerge to create growth. A society with a failed education system cannot generate products of merit with a claim to economic value, social respect and national pride. There is no educated country that is poor; no poor country that is educated. That is the key [9].

In a malfunctioning education system in which more than 80 per cent of school leavers do not have enough passes to graduate, failure, frustration and, anger are the outcomes. If the oppressive system cannot be pulled down and the education system cannot be pulled up; if the economy is shackled by limited opportunities for producing legitimate wealth and the disrespected masses have ladders that are too short to scale the walls of deprivation for betterment, the inevitable recourse is the illegal routes of illegitimate pursuits: crime and drugs. Check every corner in every inner-city community and every shop step in rural communities and the 'wutless boys' and 'careless gals' will be found. Far more disillusioned young people are being produced by a malfunctioning education system annually than the limited means of economic betterment can absorb. Of the remainder, most fit into the manpower needs uncomfortably, one way or the other. But many are misfits ready for solutions that are an easy way out. One way to circumvent the conundrum, in part, is migration. Jamaicans have always been a migrating people determined never to be held down by shortcomings at home. But the process of migration selects from the middle and the top, not from the bottom. So the misfits will still remain. What then will be the real outcome? [9].

While faith and justice are the pillars of stability, respect is the true dynamic that drives the need to succeed, to be 'somebody'. Jamaican women 'man' half of the households of Jamaica. The burden of domestic pressures does not prevent many women from pursuing careers which often require further training or study. The core determination to achieve is part of the assertive coping strategies of the

challenging and competitive upbringing which makes many women symbols of achievement in Jamaica society. They are the core strength of the family, bastions of the church, backbone of political support, determined players in civic organizations, achievers in scholarship and a source of great reliance at any workplace. As such, they are more than women or mothers; they are a resource base of overwhelming strength did not bring hardship to our regional sister states; independence has not failed Jamaicans; it is Jamaicans who have failed independence, and it is Jamaicans who must reset the course to return it to its auspicious start. A generational change, if possible, is needed to return to the independence years to start again to map a new course to avoid further distress [9].

Many feel that the Jamaican flag should be flown upside down as the accepted international signal of distress. But the design of this flag is unusual. It is the same pattern whether it is flown upside down or downside up. Maybe this is meant to convey that there will be no need to signal any lasting distress in this, our, Jamaica [9].

After 45 years in the Jamaican political system Seaga has certainly proven himself quite knowledgeable about the political and economic system, and at the very least, an expert historian.

One major factor that has been responsible for Jamaica's lack of growth over the last 30 years is the high interest rate policy. This factor is reviewed in detail.

Chapter 4: High Interest Rates and the Implementation of Technology

Jamaica has long ago embarked on a high interest rate policy, largely through the conditionality of the International Monetary Fund (IMF) program. The expressed purpose of this was to stem the slide in the value of its currency by “mopping up the liquidity”, thus removing any excess money from the economic system that could be used to purchase foreign exchange. At the same time technology continues to be progressively responsible for wealth creation worldwide and could be pushed out of the reach of the average farmer, manufacturer, retailer or consumer due to excessive interest rates and high currency exchange rates. It is important that this be examined as to how the interest rates and foreign exchange rates have affected the affordability and implementation of technology in Jamaica.

The Inception

In the early seventies when Jamaica started to feel the effects of the increasingly higher oil prices, the solution was to seek financial assistance from international funding agencies. The agencies pointed out, at that time, that the value of Jamaica’s currency was too high for it to benefit from economically priced exports and advised Jamaica to lower its exchange rates and then peg the rates to its economy. Subsequent visits from the lending agencies also led to adjustments in bank interest rates and lending policies as a preliminary condition to the disbursement of new loan funds. The third pre-condition for financial assistance, of interest at this time, was for Jamaica to liquidate its major assets that incessantly drained its budget. These government-owned companies such as the Telephone and Electric Power Companies, and more recently, the National Airline, were costing the country by way of subsidies that the government could no longer afford.

Thirty years later Jamaica is in an even more desperate situation with no more assets to either liquidate or from which to earn and the visible lack of technological solutions is now a major cause for concern.

The value of technology can be realized through proprietary research and technological innovation. Capital investments in research is a vehicle for wealth creation through technology, but when the very means by which to fund research is severely hampered by high interest rates and the absence of foreign exchange, it is even more reason for concern. The country continues to be stifled and to spin headlong, out of control into debt and poverty with minimal funds being used to develop, innovate or acquire proprietary technology or to otherwise fully utilize appropriate technology in the agricultural, manufacturing and services sectors.

The Policy of High Interest Rates

Brailsford et al. [10] studied three Asian countries (Thailand, Malaysia and the Philippines) that embarked on a high interest rate program to protect the value of their currencies. All of these countries returned to normal market rates within one year with stabilized currencies. Brailsford et al thus questioned the use of high interest rate policies to defend the currency, noting that other significant economic consequences can be associated with high interest rates. “For example, sharply higher interest rates, if sustained, will lead to a marked slowdown in economic activity [10]”. Jamaica has maintained this high interest rate policy since its inception in 1980, a staggering 31 years.

According to Ohno et. al., [24]:

During the Asian crisis, some crisis-hit economies raised domestic interest rates persistently in an effort to appreciate their currencies. Although Asian currencies

eventually stabilized, it is still debated whether high interest rates contributed to the restoration of stability [24].

The Asian currency turmoil and subsequent return to stability was a regional phenomenon, in which interest rate policies of individual economies did not seem to have any significant impact on calming collective market psychology [24].

As the Asian crisis unfolded in 1997 and continued well into 1998, many of the adversely affected countries, especially those with IMF-supported programs, initially raised interest rates significantly to prevent further precipitation of their currencies. This was partly a spontaneous policy response of the monetary authorities and partly a result of external pressure including IMF conditionality. The immediate impact of the high interest rate policy, however, was disappointing. Market confidence was not restored and, on some occasions, currency falls even accelerated [24].

Gordon [23] noted that Jamaica had a highly regulated economy for a long time that needed to be structurally adjusted. A period of economic alterations in the 1980s resulted in the elimination of price control and a liberalization of the financial system. This also included the freeing up of the foreign exchange control towards a market based management system. The financial liberalization, however, was not accompanied by a strengthening of the supervisory capacity of the monetary authorities and this led to serious irregularities in the financial market and weakened the economic situation.

During this period, minimal funds were spent on technological research and development to establish proprietary technology for wealth creation. The fiscal measures had neither stemmed the slide of the dollar nor ease the pressure on the government coffers.

To make matters worse, Jamaica lost much of its foreign exchange reserves after a massive exodus in the early seventies due to the impending threat of communism (then called democratic socialism). Brian Meeks [14], in his 1991 article on Michael Manley, noted that by the end of 1976 some US\$300 million had left the country and the

government was faced with a negative net foreign reserve situation for the first time in its history. Meeks [14], in his article, continues to explain that Manley thought that Jamaica was then destabilized by external forces (including the CIA), over the next few years, to stem the rise of any communistic posture in the region.

Even with a declining economy and a continually sliding dollar, Jamaica has stuck dutifully to its high interest rate policy and to date, has shown no real sign of economic recovery.

The Education Development Centre (EDC) of Canada [17] amply describes Jamaica's present economic outlook:

The global crisis has pushed Jamaica in recession, forcing the government to seek the support of the IMF and other multilaterals such as the World Bank and IDB. An agreement with the IMF is still under negotiation. EDC expects the economy to contract 4% this year (2009) and 1½% next year, following a 1% contraction in 2008. Two credit rating agencies have downgraded the sovereign external debt rating, while another has it on negative outlook [17].

The current account deficit is expected to average 14% of GDP this year and next. There is an increased risk of capital shortfalls as global credit growth slows and risk aversion remains high. The JMD has depreciated 20% y/y, and foreign exchange reserves remain under pressure [17].

The government's debt burden is very high. Debt-to-GDP stood at 120% in 2008 and interest payments on this debt were equal to 50% of government revenues. This debt service burden is likely to rise to 50-60% in 2009-10 while debt-to-GDP is likely to exceed 140% by the end of 2010 [17].

Figure 8 graphically summarizes the contraction in Jamaica's GDP (economy). A negative 4% growth in 2009 leaves little doubt as to what faces Jamaica for 2010. When viewed without inflation adjustments, however, Jamaica shows a fair increase in GDP over the years as can be seen in Figure 9.

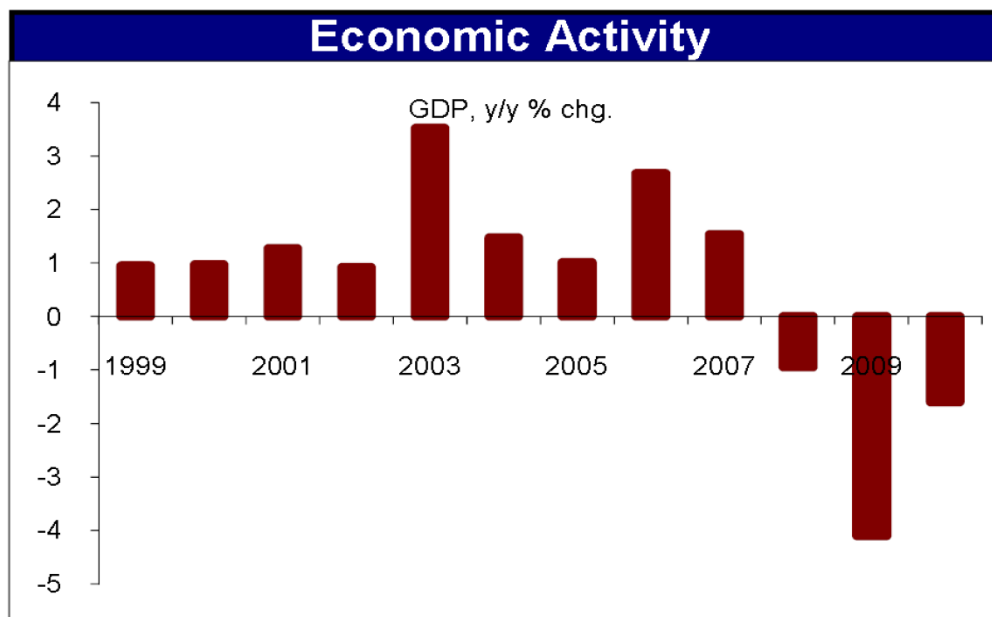
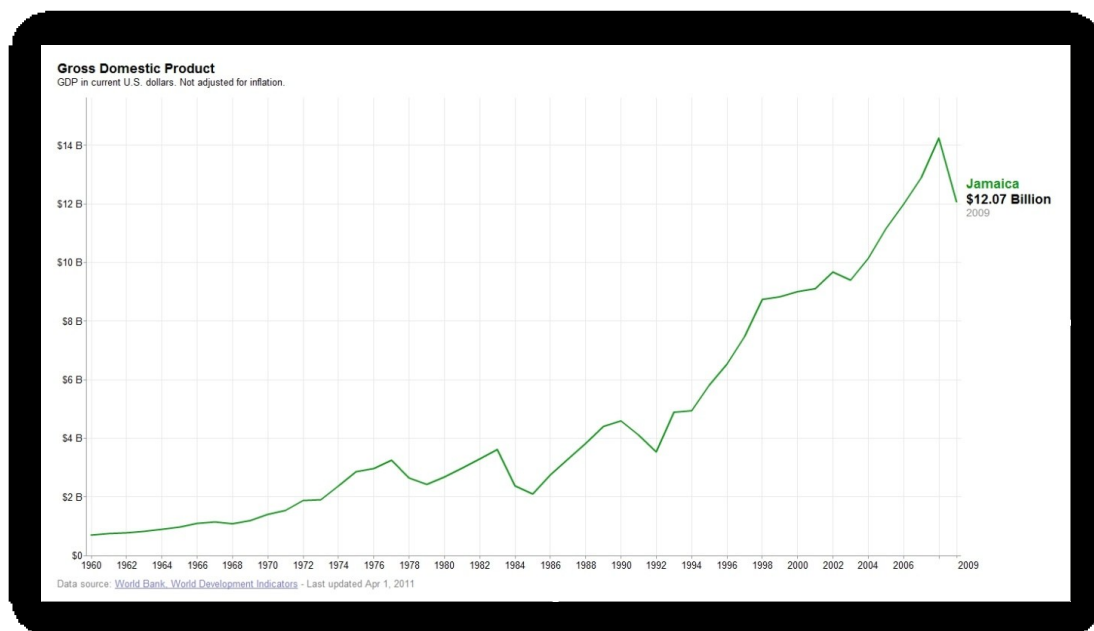


Figure 8: Jamaica's economic activity showing GDP year to year percentage change (Source: Education Development Centre, Canada) [7].



Data source: World Bank, World Development Indicators - Last updated April 01, 2011

Figure 9: Jamaica's GDP in current U.S. dollars. Not adjusted for inflation.

The Effect of the High Interest Rate

Utami and Inanga [22] analysed the influence of interest rate differential on exchange rate changes. They found that interest rate differentials have “positive but no significant influence on changes in exchange rate for the USA, Singapore, and the UK relative to that of Indonesia”. This was based on the International Fisher Effect⁴ theory in four countries, namely, the USA, Japan, Singapore, and the UK and based on their levels of economic development and industrialization and compared to Indonesia as the home country.

The Fisher Theory describes the long-term relationship between inflation and interest rates. Investopedia explains that:

All things being equal, a rise in a country's expected inflation rate will eventually cause an equal rise in the interest rate (and vice versa). The International Fisher Effect - IFE states that an expected change in the current exchange rate between any two currencies is approximately equivalent to the difference between the two countries' nominal interest rates for that time. The rationale for the IFE is that a country with a higher interest rate will also tend to have a higher inflation rate. This increased amount of inflation should cause the currency in the country with the high interest rate to depreciate against a country with lower interest rates. (Investopedia)

The International Fisher Effect (IFE) theory suggests that foreign currencies with relatively high interest rates will tend to depreciate because the high nominal interest rates reflect expected rate of inflation (Madura, 2000). This theory also proposes that changes in the spot exchange rate between two countries will also

⁴ The International Fisher (IFE) effect is a hypothesis in international finance that says that the difference in the nominal interest rates between two countries determines the movement of the nominal exchange rate between their currencies, with the value of the currency of the country with the lower nominal interest rate increasing. This is also known as the assumption of Uncovered Interest Parity (Wikipedia).

tend to equate the differences in their nominal interest rates (Demirag and Goddard, 1994) [22].

Utami and Inanga [12] did find a significant negative influence on changes in exchange rates for Japan, however, over a five-year period (2003-2008). Overall results did show that inflation rate differentials do have a significantly positive influence on interest rate differential.

Exchange rate control could be very costly, and even become pointless, when speculators attack a currency, in even under government protection. High interest rate will prevent capital outflows, hinder economic growth and, consequently, hurt the economy (Solnik, 2000). Several factors could cause exchange rate changes. These include changes in foreign exchange supply and demand, balance of payments problems, rising inflation, interest rate, national income, monetary supervision, changing expectations and speculation (Khalwaty, 2000) [12].

Unfortunately, Jamaica must check “yes” to all of these factors.

The two primary purposes of maintaining the high interest rate policy are to increase export and to stem the movement of the currency. Figure 10 does show an increase in GDP over the years but it is difficult to attribute this increase to high interest rates or the decreased exchange rate or even purely to exports. What we have seen is a significant decrease in locally manufactured goods and a clear decline in technology driven manufacturing, both of which rely heavily on technology, which is being pushed out of reach by interest and exchange rate increases. There has also been a dramatic decrease in ownership of once major government assets such as Utility Companies and Hotels, while the debt burden continues to climb [17]. We no longer manufacture, instead we import and re-package and, therefore, much of the earnings from these imports do not remain in the country to support its currency.

High interest and exchange rates do not favor importations. As such, over the years the continued decline in the economy has been driven by the continually falling

exchange rates. The changing exchange rate itself is a deterrent to foreign direct investments (FDI) as it indicates instability in the country. Traditionally, anyway, FDI does not transfer proprietary technology to its host country, but instead, utilizes mature technology to reap benefits from low cost labor and huge tax breaks which lead to a greater outflow of capital as profits. There is no indication that the rise in FDI, impacts the development of higher value-added exports. These observations are echoed in the World Bank (2005: 48) publication, “Time to Choose” which notes that:

Focus has been on low value, low technology intensity activities. FDI had contributed little to dynamic specialization in higher value-added production due to limited knowledge transfers and weak research and development spillovers. The relatively low quality of regional production and exports is reflected in the technological intensity of exports [20].

This matter will be revisited later in this document.

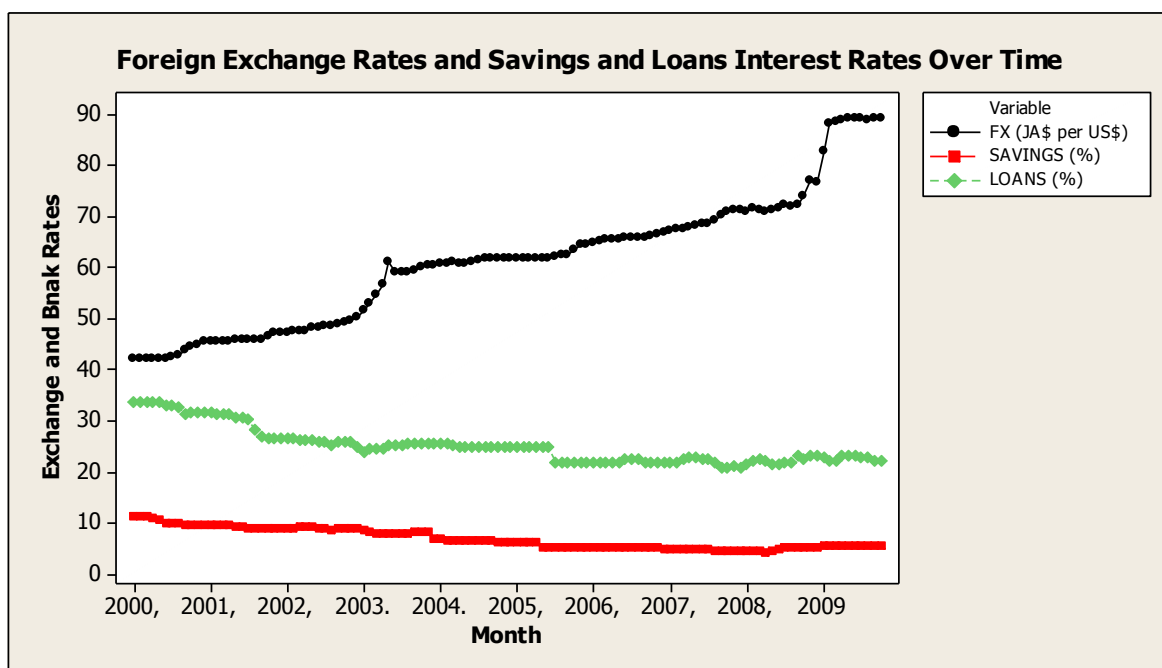


Figure 10: Foreign Exchange Rate and Savings and Loans Interest Rates over time

When we compare the Jamaican interest rate with its exchange rate chronologically we note a direct inverse relationship as shown in Figure 10. The Jamaican dollar has shown no real sign of revaluation in the last 29 years, since the inception of the high interest rate policy. Appendix C provides some regression data on the interest and exchange rates comparison

The graph shows a falling interest rate since 2000, however, the current interest rate of an average of 24% is still repressive and non-productive. We also observe, with grave concern that slight downward movements in interest rates generally lead to huge increases in the foreign exchange rates. This may seem to argue well for the imposition of these high interest rates to stem the rise in foreign exchange rates but higher rates also mean a decline in the ability to afford technology to drive wealth creation. High rates and fluctuations also facilitate speculators with free capital to earn from the movement of the dollar. The high rates also lead to numerous economic difficulties as noted by several researchers. Furthermore, the demand for foreign exchange seems unquenchable at any rate.

According to conventional wisdom, currencies that come under speculative attack can be defended with high interest rates. By raising interest rates high enough, the conventional wisdom argues that the monetary authority can make it prohibitively costly for speculators to take short positions in the currency under attack [25].

Although there appears to be little evidence in support of the conventional wisdom, there is also little evidence in support of the contrarian view that raising interest rates weakens currencies under speculative attack. In fact, the main finding of this paper is the striking lack of any association whatsoever between changes in various measures of monetary policy and the outcome of speculative attacks [25].

If interest rates are not affecting currency rates, then what is? As the country pushes more towards services and away from agriculture and manufacturing, it has found

that its services industries (including tourism), demand large amounts of foreign exchange. Since there is less technological input in services, it appears that they would require less foreign exchange financing, but services are built on imported consumables which demand foreign capital. This means continued pressure on the exchange rate without the technological means to support it.

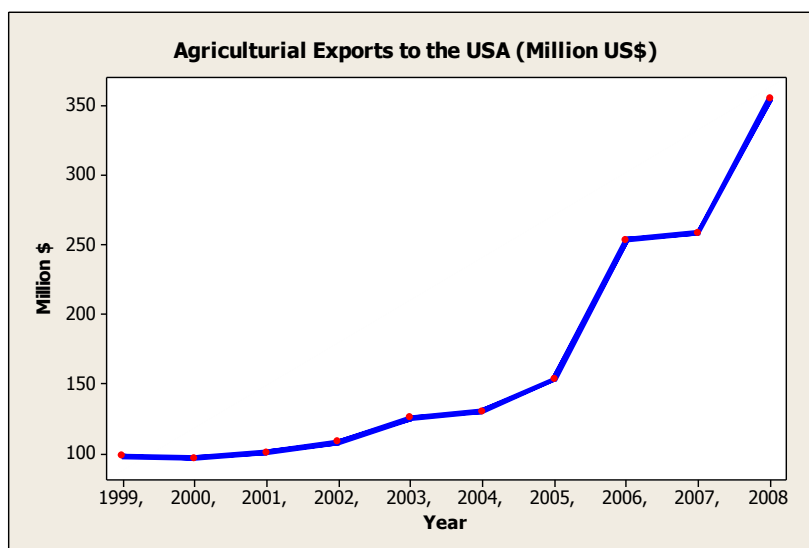


Figure 11: Agricultural exports to the USA (Source USDA Economic Research Service, <http://www.ers.usda.gov/Search/?qt=Jamaica>)

Again it is difficult to deny the fact that Jamaican exports in sectors such as agriculture have increased dramatically over the years. The USA alone has seen an increase of over 350% in imports from Jamaica (Figure 11). These figures do not include traditional exports such as Sugar and Bananas since these are exported primarily to Europe. Worthy of noting, however, is the fact that the largest exporter of agricultural products, imports more than 70% of their raw materials and manufacture just over 50% of its products in Jamaica. The second largest exporter to the USA imports 90% of its raw

materials. This increase in export should have reflected greater land use in agriculture.

Unfortunately, this is not the case, since manufacturing of agricultural products in Jamaica simply means packaging.

Table 4: Area in Farming in Jamaica 1996 and 2007

Items	2007		1996		Change 1996-2007	
	Area in Hectares	Percent of Total	Area in Hectares	Percent of Total	Absolute Change	Percent Change
Total Land in Farming	325,810	100.0	421,550	100.0	-95,740	-22.7
Active Farmland	202,727	62.2	273,229	64.8	-70,502	-25.8
Crops	154,524	47.4	177,580	42.1	-23,056	-13.0
Pasture	48,203	13.8	95,649	22.7	-47,446	-49.6
Inactive Farmland	114,048	35.0	134,204	31.8	-20,157	-15.0
Ruin and Fallow	80,560	24.7	87,300	20.7	-6,740	-7.7
Woodland and other land on farm	33,488	10.3	46,905	11.1	-13,417	-28.6
Land identified to be in farming but no information reported	9,035	2.8	14,116	3.2		
Note: preliminary data subject to change						

(Source: Statistical Institute of Jamaica, <http://statinja.gov.jm/agricensus.aspx> [8])

Instead of increased acreage, less land is being used in agriculture when compared to the 1990s (Table 4). This is an indication that even though agricultural exports are increasing, the agricultural sector is not reaping its maximum potential benefits since not all available arable land is in use. The sector would realize greater benefits were it able to tool up, produce efficiently and completely and then be able to amply supply exports with

surpluses for local the market as well. Much of the agricultural raw materials needed in manufacturing are imported. What is expected is that as we use technology to create new products and to improve farming methods, we should be able to increase the farm land usage and yield to satisfy the demands for agricultural products. Instead, farming is becoming progressively less competitive and the alternative is to import cheaper produce from other countries. Large mechanized farms are obviously more efficient than small manually operated mini farm plots but the large farms require more start-up capital and expensive, modern, agricultural technology to be efficiently operated and managed. Large farms also require a guaranteed outlet to attract the initial financial outlay.

The Statistical Institute of Jamaica reports:

The 2007 Census of Agriculture identified approximately 326,000 hectares of land in farms. This represents a decline of 81,624 hectares representing just over 20 per cent since 1996. Approximately 62 per cent of the land in farming may be classified as active farm land; that is land allocated to crops and pasture [18].

Land in crops declined by over 23,000 hectares between 1996 and 2007 but represented a higher proportion of farmland in 2007. The approximately 154,500 hectares in crops in 2007 represented 47 per cent of farmland. The 177,580 hectares in crops in 1996 accounted for approximately 42 per cent of the total land in farms. In relation to land in pasture, the 48,200 hectares reported in 2007 was just about 50 per cent less than the approximately 95,600 hectares reported in 1996. In relation to the parish distribution, the parishes with the largest proportion of the total land in farming reported are: Clarendon (14 per cent), St Catherine (12 per cent), St Ann and Westmoreland (11 per cent). St Elizabeth which reported an estimated 11 per cent of farmland in 1996 accounted for 9 per cent of the total in 2007 [18].

The fact is that Jamaican land usage has shrunk over the years in proportion to its exports. Land utilization is not at its full capacity and increased food exports should have led to the development of larger, more technological farms. Instead it is leading to increased raw material imports and continued pressure on the Jamaican currency.

Concern must also be raised about the Jamaican civilians since they are facing unprecedented inflation levels. Both the foreign exchange rate and the bank interest rates directly impact the standard of living. The current inflation rate stands at 22% (Figure 12) as the country faces another impending tax increase. The country cannot pay its bills and has very little left from which to earn an income except increased taxation. Figure 12 also shows the increases in inflation rates for the past seven years. Under the high interest rate policy, the problem seems to be getting worse. The inflation indices are shown in Appendix D.

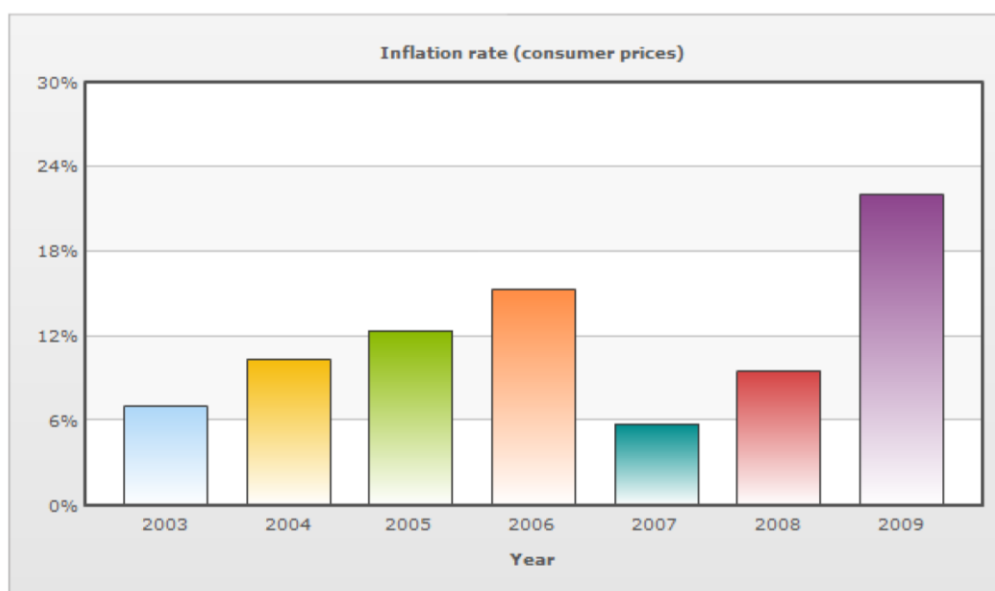


Figure 12: Inflation rate (consumer prices) 22% (2009 est.)
 (Source: CIA World Factbook - Unless otherwise noted, information in this page is accurate as of September 17, 2009)

Jamaicans are a resilient people and as such they have fashioned several means by which to survive economic hardships. This attitude has led to the development of an informal economy that baffles the most seasoned economists. From the Informal Commercial

Importers, the barrel economy⁵ and the remittance industry to the street hustlers and extortionists, Jamaicans have found ways and means to carve out a living in spite of harsh economic downturns. The informal sector can be defined as micro businesses that are outside of government regulation and the tax net and are also too small to take advantage of export opportunities. Table 5 shows the distribution of employment in the informal sector as reported by the Inter-American Development Bank.

Table 5: Employment in the Informal Sector

Jamaica: Employment by Industry Group (in percent), 2001		
	Informal	Formal
Agriculture, forestry and fishing	48	7.4
Mining, quarry, and refining	0	1.1
Manufacturing	3.9	10.3
Gas, electricity, water	0	1.6
Construction	3	11.6
Wholesale, retail, hotels and restaurants	26.4	17.4
Transport, storage, and communication	4.5	7.3
Financing, insurance, real estate and business services	0.8	6.1
Community, social and personal services	13.4	37.2

Source: IADB, 2002.

⁵ The Jamaican Diaspora continuously ships barrel loads of food and merchandize to their relatives in Jamaica to help them through difficult times. The income to the country from this is often uncalculated in the GDP but is known to be a significant component of the informal sector. This is called the Barrel Economy.

This informal sector has been responsible for about 40 percent of Jamaica's total economic activity [19].

Torero and Thomas [27] investigated the important role the informal sector played and noted:

Despite Jamaica's lackluster economic growth during the 1990s, the decade saw a considerable reduction in poverty (from its peak of 44% in 1991 to 17% in 2001). While many factors undoubtedly contributed, one as yet unexplored possibility is that the robust performance of the country's informal sector lifted Jamaicans out of poverty without appearing in official economic statistics. [27]

They estimated that more than half of the 2001 workforce were informal, a total of 496,330 persons as they illustrated in Figure 13.

It must also be noted that, as in any capitalistic society, there are those who are unaffected by economic misfortunes. Exorbitant top level salaries and access to "perks," shield them from the economic realities but leave them vulnerable to criminal elements as the gap between the rich and poor widens and people seek ways to make ends meet by any means. It is difficult to examine economic misfortunes without mentioning crime and politics. People will resort to criminal activities as a result of poverty, and more so when politically motivated: crime in Jamaica has traditionally been caused by long standing feuds but increasingly there have been more crimes related to the wealth imbalance and politics.

Anthony [16], in investigating the true root causes of crime and a solution in Trench Town, disagrees with economy-crime link and explains that:

Even Haiti which is much poorer than Jamaica had less crime before Aristide was kidnapped. Incredible is it not? The poor in Jamaica were never rich. Why were there not wholesale criminal neighborhoods forty years ago when they were also poor then? Poverty does not cause crime the way a bacteria cause disease or else everywhere in the world where poverty exists, crime would be rampant. But this

is not the case. Instead there is a much stronger link between the major political parties and crime incidence than there is between financial status and crime. It is clear that the hatred between the lower level members of the major political parties has led to some crime in the past, leads to crime today and will do so in the future [16].

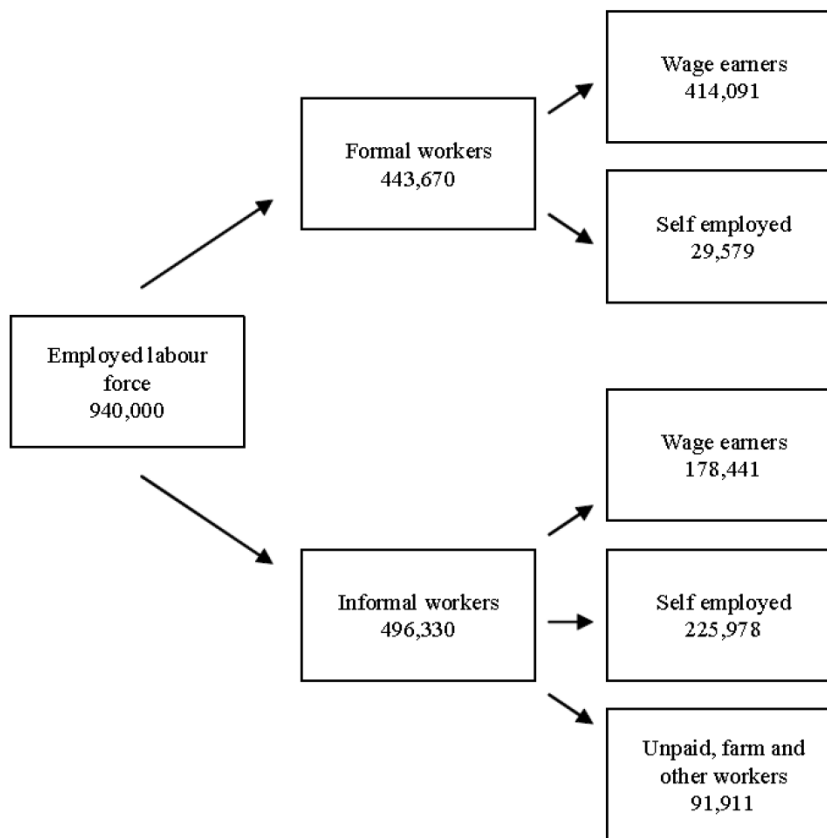


Figure 13: Total Jamaican Workforce (2001) [17]

Regardless of one's outlook, crime leads back to economics, particularly when poverty gets to the point of desperation. Many businesses in the country suffer from an organized extortion system to which even government agencies have succumbed and subscribed. If the government is unable to manage the judicial system, command the police force effectively, improve the corruption Index and implement social

infrastructures that control crime and violence, then there is little hope. The root of the evil is money. According to Blavy in the IMF Working Paper WP/06/235:

Crime exacts high costs on the economy. Jamaica had one of the highest rates of intentional homicide in the world in 2001 (44 per 100,000 inhabitants), lower only than Colombia and South Africa. Crime increased steadily over the last two decades, reflecting severe social problems, including high unemployment, organized crime associated with the drug trade, and the creation of slums (World Bank, 2003). Crime limits business expansion and investments to improve productivity. It also adversely affects productive activities by limiting night shifts and longer opening times, and provides an incentive for firms to relocate outside of Jamaica [15].

Under a previous IMF program between 1978 and 1980, the Cost of Living index increased by some 40% while real wages declined by some 20-30% and unemployment began to increase. Meeks [14] notes the following comment by Kari Levitt while interviewing Michael Manley:

“I think it is now clear that the neo-liberal model has failed to deliver either stability or growth. Floating exchange rates and perpetual devaluations proved to be disastrous, and have mercifully been abandoned in favor of exchange rate stability. They failed to close the trade gap, which has now been aggravated by the reduction in duty on motor vehicles, and the encouragement of the importation of used cars, and is out of control. Last year, two thirds of bank credit was allocated to consumption expenditures. The manufacturing industry is in decline, unable to compete with imports from higher wage CARICOM countries. Equipment is run down. Plants are closing. The "mopping up of liquidity" by issue of CDs has acted as an engine of redistribution from the poor to the rich...the model is not working. Perhaps it can work in other countries where political democracy was suspended for long periods of time--as in Chile. Be that as it may, it is not working in Jamaica.”[14]

Weisbrot [13] also comments that:

It is also worth noting that the IMF has a history of over-optimistic projections in many countries. So it is not so easy to separate forecasting errors from an underlying bias toward overly restrictive fiscal and monetary policies [13].

Countries like Jamaica whose government budgets were negatively impacted by oil price increases, depended heavily on the IMF and implemented their measures

relentlessly. These tough measures were often used as part of the rationale for government spending cuts and tight fiscal policies. The IMF should have anticipated that the resulting economic problems were inevitable and treated the loan agreement differently when they formulated their macroeconomic policies for Jamaica. Weisbrot [13] also explains that:

The purpose of IMF lending during a world recession should be – as much as possible – to provide sufficient reserves so that borrowing countries can pursue the expansionary macroeconomic policies that high-income countries are capable of, in order to minimize the loss of employment and output, as well as more permanent or long-lasting damage that sometimes occurs in the most vulnerable countries. Of course some countries headed into this downturn with unsustainable fiscal or current account deficits; but even in these cases there should be a strong bias towards waiting until the world recession has passed before attempting to adjust these deficits. Other countries may have an unsustainable debt burden; in these cases there is an argument for more and speedier debt cancellation in the near future, rather than trying to improve the fiscal balance while the economy is crashing [13].

Jamaica has experienced persistently low growth despite high rates of investment. Real GDP grew, on average, by 1.6 percent a year from 1980 to 2004, while investment rose from 15 percent of GDP to 33 percent over the same period. Understanding this puzzle of high investment and low growth is (the) key to addressing the obstacles to lifting economic growth, improving debt sustainability, and alleviating poverty [14].

On the macroeconomic front, public debt ballooned during the 1990s and has averaged above 110 percent of GDP for the last decade. Total public debt was 144 percent of GDP during the FY 2003/04, placing Jamaica among the most indebted countries in the world. Its share of domestic debt (67 percent of GDP) was unusually large, with external debt totaling 77 percent of GDP. Combined with high unemployment, emigration, and rising crime rates, macroeconomic uncertainty created by this large debt overhang likely had negative feedback effects and may have dampened further output growth [15].

Jamaica faces the challenges of economy of scale. It is a very small country and extremely vulnerable to external events, such as natural disasters and first world depressions, which can directly impact national income and impede the economic growth process.

Meanwhile, in the rest of the world, technology continues to be the catalyst for wealth creation through the establishment of exports. Proprietary technology is important to economic stability or at least the country must be able to afford technology licenses. Technology is not only important to the manufacturing sector, it is equally important in the services sector as technology is essential for the services sector to operate competitively. Communication and computer technologies are obviously critical to the services sector. Without technology it is difficult to avoid constraints to economic growth. Blavy [15] notes that as the real effective exchange rate appreciates and labor costs increase substantially, competitiveness will decline. Real exchange rate movements are commonly used to measure competitiveness. In Jamaica, the real effective exchange rate appreciated by more than 35 percent from 1990 to 2001 leading to a decline in external competitiveness [15]. As an illustration of its impact, the World Bank (2003) reports a 50 percent decline in Jamaica's market share of world merchandise.

The private sector, in particular small domestic producers, has had minimal access to capital given the limited scope of the financial sector. The government sector is the biggest borrower and often leaves very little in the financial system for commercial use. The small farmers suffer the most since there is no system in place to buffer their very vulnerable assets. To make matters worse, the government continues to offer bonds at rates that compete with the most reasonable returns on investments from the commercial sector making it easy for those with funds to earn interests without commercial risks. Many proprietors closed their factories and invested the cash in government bonds known as "easy money".

Blavy [15] admits a lack of statistical evidence but shows an IMF overestimation of the capital stock and mis-measurement of the Jamaican situation. He observes that:

High investment may also reflect a substitution of capital for labor due to high real wages and labor rigidities, rather than an expansion in production capacities. In particular, imported machinery and equipment became relatively less expensive after the real exchange rate appreciation experienced in the 1990s. [15]

Finally, crime-prevention-related investment contributed weakly to increases in production capacities. While crime reduction may yield high long term returns, its immediate impact on economic growth is limited. [15]

Industrial machinery and equipment, and large transport equipment experienced a steady decline from 1995 to 2004—corresponding to the steady decline of industrial production capacity. This contrasts with a steep increase in “other machinery and capital goods,” which possibly reflects the trend increase in the informal economy, investment in crime prevention, and replacement investment [15].

The economic measures imposed are to prevent spending and to control the economy at a manageable level rather than to direct spending in ways that can improve Jamaica’s financial position through entrepreneurship and research towards proprietary technology and its use to create wealth. The country is in a dilemma. After years along this economic track, the country’s high interest rates and high exchange rates, in a financially starved climate, can no longer support the necessary infrastructure to create entrepreneurial wealth. Grier and Lin [12] explain that:

Theoretically, the exchange rate is not a policy objective of the monetary authority under a freely floating exchange rate regime. It is determined by the market. The monetary authority is not obligated to maintain the exchange rate at a certain level. In our view, it only makes sense to speak about speculative attacks and crises prevention in fixed exchange rate regimes [12].

There is no evidence that these restrictive internal monetary measures have led to an improvement in Jamaica’s economy. The better way to improve standard of living is

through increased export; technology being the instrumental resource that can best create exports. Without modern technological means, the situation is dismal.

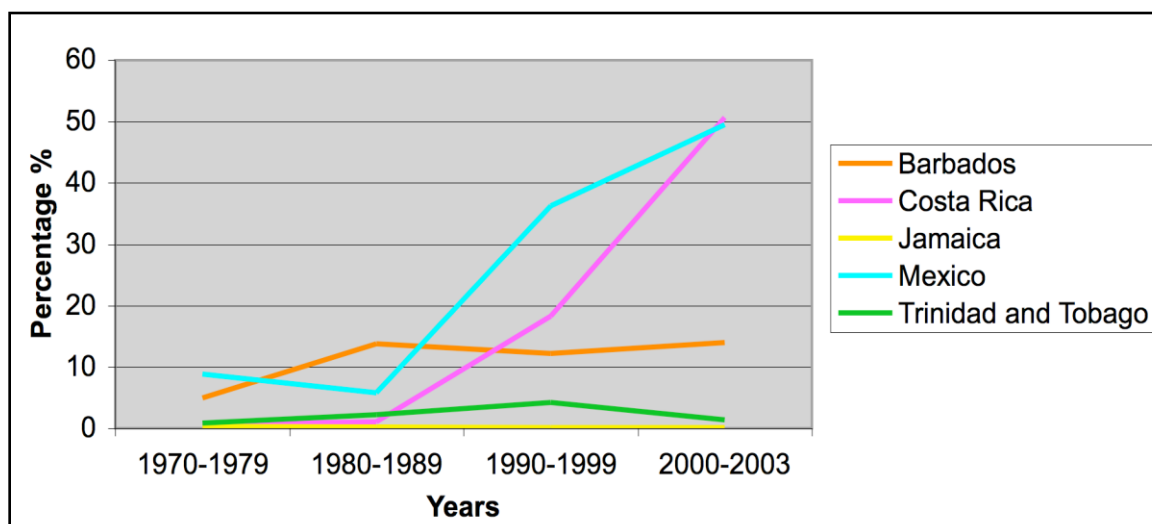
Economic growth in the region over the last two decades has averaged 1.8% per year, compared to annual growth of 3.5% in the world-economy and 4.3% for developing countries (IDB-INTAL 2005). The poor economic performance is reflected in a declining share of world trade in all major markets. For example, in the period 1985 to 2002 the region's share in the EU and NAFTA markets dropped from 0.15% to 0.1% and from 0.71% to 0.27%, respectively (CARICOM 2006) [20].

The CARICOM region, over the last three decades, has been able to generate a trade surplus (taking into account merchandise trade and trade in services). However, reduction of preferential trading agreements and the lack of technological development in the region have led to a relative decline in export earnings due to the lack of competitiveness. Nurse [20] observes that:

The region's merchandise export performance has seen some dramatic shifts and reversals in the last three decades. The first shift was from primary to manufactured exports over the period 1970 to 1995. In this timeframe the share of primary exports dropped from 82% to 42% while manufactured exports rose from under 20% to a peak of 58%. The growth of manufactured exports was short-lived and experienced a rapid decline in merchandise share to 25% in the ten-year period from 1995 to 2005. Primary exports rebounded in share to approximately 75%. This scenario is attributed to the decline in value of manufactured exports as well as the rise in the value of primary exports, principally hydrocarbons from Trinidad and Tobago. Indeed, Trinidad and Tobago increased export earnings from this sector accounts for more than 100% of the rise in primary exports for the region in the period. This is against the context of a significant drop in traditional primary exports like sugar, bananas and rice that have seen an erosion of trade preference in the EU market on account of WTO liberalization (CARICOM 2006: 77 – 87) [20].

Reducing the concentration of primary goods in total exports is an important indicator of diversification. An increase in industries that utilize higher technology levels and produce export goods that have higher technological content suggest improved competitiveness. In terms of high value-added exports (i.e. high tech) most countries export less than 10%, indicating that the region has not yet developed or attracted such capabilities and industries (The World Bank 2004) [20].

Nurse explains durables and diffusers as types of goods selected due to their dynamic natures, high technology content and the potential for increasing value, export potential and links to the world economy. As such, he presents Figure 14 which compares the CARICOM and Central American export countries from 1970 to 2003. From this we see that Jamaica has maintained a high dependence on traditional low value-added, low technology exports and thus has experienced limited diversification over the last three decades. Jamaica has also underperformed relative to other economies in the region such as Costa Rica and Mexico.



Source: UNECLAC Economic Survey of Latin America and the Caribbean 2005 – 2006.

Figure 14: Exports of durables and diffusers of technical progress as a percentage of total exports to the rest of the world selected [20]

Nurse [20] also explains that the shift towards services exports is a key element of the region's economic performance. He notes that:

Services exports have been the key driver of Caribbean development in the last decade or more both in terms of share of GDP, employment and export earnings. . . In 2002 services accounted for 47% of total exports. However, when Trinidad

and Tobago is excluded CARICOM share of services in exports jumps to 62%. The picture is even more dramatic for the smaller economies of the OECS where services exports approximate 80% of total exports. This indicates that the region, with the exception of Trinidad and Tobago, has moved increasingly away from merchandise trade to trade in services, the bulk of which are tourism earnings [20].

The comparison of goods and services exports in the region is illustrated in Table 6:

Table 6: Goods and Services, Share of Total Exports, 2002

REGION	GOODS (%)	SERVICES (%)
CARICOM	52.8	47.2
CARICOM (-) T&T	38.3	61.7
OECS	20.3	79.7

Source: IDB-INTAL 2005: 82.

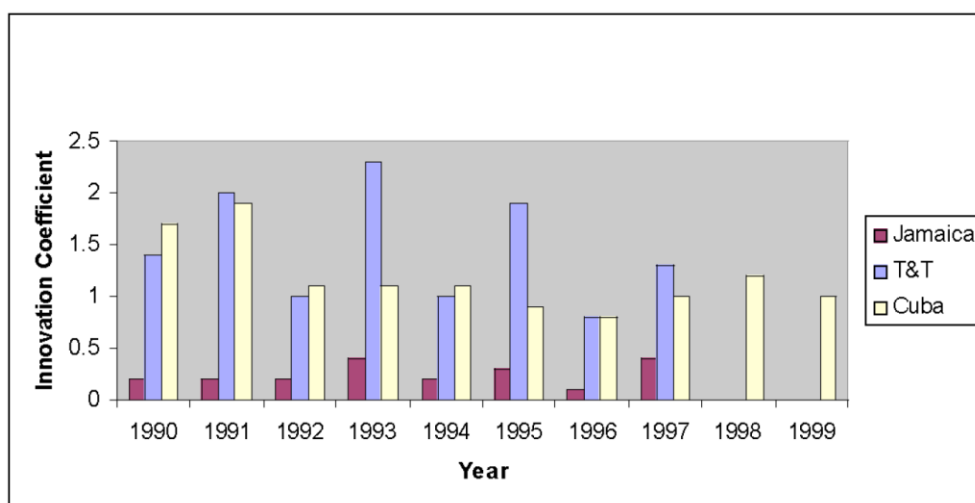
Caribbean countries invest little in research and development (R&D). Throughout the region R&D expenditures are estimated to be an average of 0.13% of GDP. This level of investment is considered extremely low by developing countries' standards.

A good indicator of a country's research effort and thus the amount of proprietary technology it develops is the number of patents it registers annually. Figure 15 shows a meager amount by Jamaica and a total deficiency since 1997. Between 1965 and 2006 Jamaica registered ninety (90) patents in the USA (bettered only by Bahamas (378), Cuba (162) and Bermuda (147) of a total of 1,333 for the entire region)

Based on the available statistics for the period 1990 – 1999, the innovation coefficients in three countries (Jamaica, Trinidad and Tobago and Cuba) are lower than the average for Latin America and the Caribbean, which has averaged 2 per

100,000 inhabitants. The innovation coefficient for the Caribbean countries has also fluctuated and dropped such that levels in 1999 are lower than at 1990, except in the case of Jamaica, which has the lowest ratio when compared with Trinidad and Tobago and Cuba [20].

In Trinidad and Tobago, over 95% of the patent applications are from non-residents. This suggests that there is a low level of R&D occurring nationally and at the level of the local firm. It is also noted that patent registration by non-residents is part of a complex of strategies by transnational firms to protect intellectual property rights as well as exercise monopoly rights thereby limiting competition in foreign markets (Stewart 2000) [20].



Source: UN Information Economy Report 2006

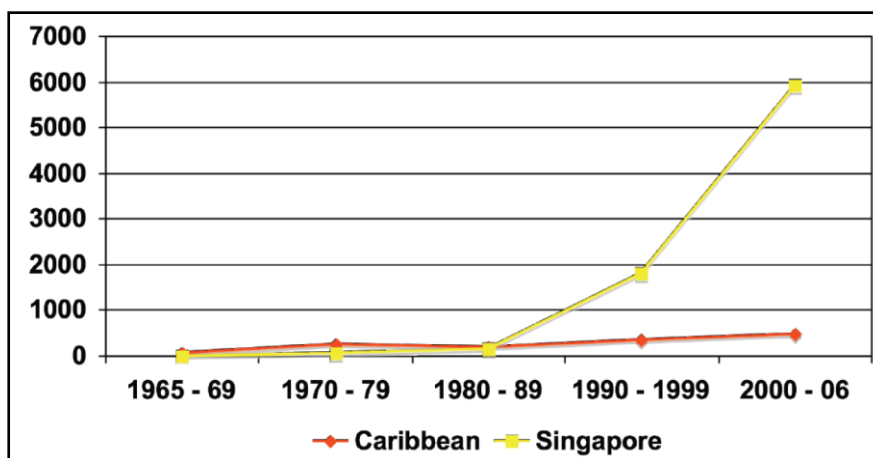
Figure 15: Innovation Coefficients in the Caribbean (patent applications by residents/100,000 inhabitants) [20].

Caribbean patent registration is very low in relative terms when the whole region is compared with Singapore, for example. Singapore like many Caribbean territories had patent registration in the single digit numbers in the early period, 1965-1969, with small increases in the 1970s to 52 and up to 144 in the 1980s.

Singapore's growth in patent registration occurs in the period 1990 -1999 (1755) and in 2000-2006 period when patent registration tripled to a total of 5937 (see Figure 16).

The culture of 'production under license' still persists. Several relatively large CARICOM firms have opted to produce foreign patented products under license when the life cycles of their indigenous product line have matured rather than engage in further product innovation. The sale of these goods is often limited to the domestic market resulting in net outflows of foreign exchange to the patent-holders (CARICOM 2005: 130) [20].

Jamaica has made some efforts to improve its development and application of technology. There has been some strategic planning on technology policies. For example, Jamaica's National Council for Science and Technology (NCST) has prepared a strategic plan for 2005 – 2010, which suggests improved utilization of technology for competitive and profitable business as well as encouraging more efficient technological efforts for national development. The strategic plan also provides a situational analysis and identifies some select targets (see Table 7).



Source: USPTO (2007).

Figure 16: Utility Patent Registration by Caribbean countries and Singapore in the United States, 1965-2006 [20].

Table 7: Select Science & Technology (S&T) Benchmarks and Targets [10].

Measures	Current Situation	2010 Target
R&D as a share of GDP (%)	0.2	0.5
Receipts of royalties and license fees (US\$ per 1,000 people)	2.3	4.0
New products brought to market (per year)	32 (2003)	50
Primary exports as a share of merchandise exports (%)	80	70
Post-secondary graduates in science, math, engineering (tertiary education (%))	5	10
Number of trained S&T persons employed locally in S&T (per million pop.)	678 (2003)	1,000
Internet users (persons)	228,400	500,000

Source: NCST 2005

Jamaica is also using forecasting techniques to develop a master implementation plan and strategy for information and communication technology (ICT) implementation. The five-year plan is called E-Powering Jamaica 2012 and provides detailed objectives and tactics for implementation.

Seven key pillars are identified for investment and growth (see Figure 17). The overarching mandate is based on e-Inclusion, i.e. open access to ICTs and participation in a knowledge-based society. The goal is to use ICTs to accelerate human and economic development toward global competitiveness [20].

The plan is designed to concentrate on the first three (3) years and will seek to implement these six areas of the E-Powering Strategy [26].

- e-Inclusion
- Education and Training Network

- Readiness and Infrastructure Development
- e-Business and Industry Structure
- e-Government
- Policy and Legal Framework

Success in these areas will pave the way for the remaining two dimensions of the E-Powering Strategy 2007-2012. The Implementation plan will also support the Vision 2030 Jamaica National Development Plan.

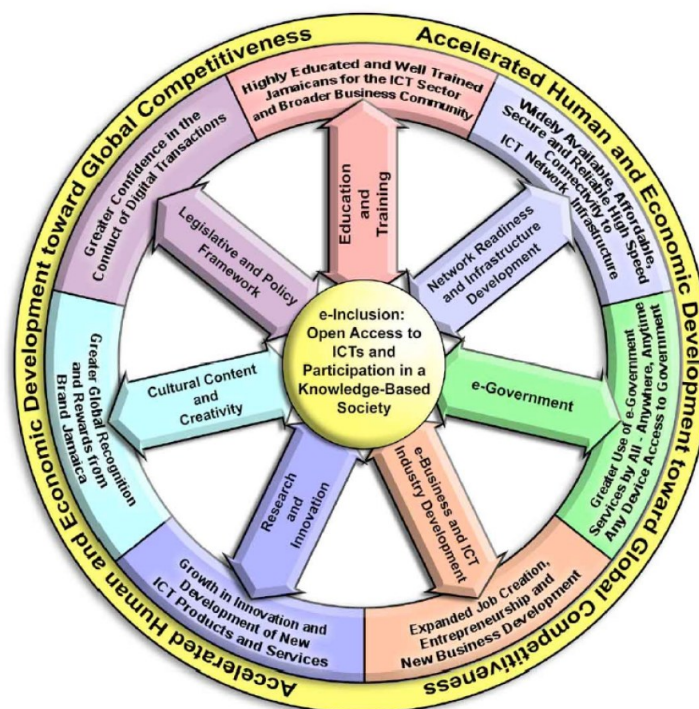
Another innovation which seeks to improve the country's economic outlook is Brand Jamaica. It encourages trade and investment in Jamaica and utilizes the concept of Nation Branding as a tool for achieving competitive advantage for Jamaica's products and services. The Jamaica Trade and Invest (JTI) Company has been established as a link between international entrepreneurs and Jamaican opportunities. The agency aims to establish and maintain sustainable development from foreign direct investment into the country in terms of developing the business environment and in encouraging growth in investments. It serves to package and promote Jamaica as a legitimate and respectable business and investment destination [21]. A part of their award winning marketing campaign claims:

Business Brand Jamaica captures the essence and dual nature of the great Jamaican people. Creative and supportive with an unyielding, enterprising spirit, we continue to be pioneers, reaching great heights and blazing trails around the world [21].

The creative and innovative side of the Jamaican people is exemplified by the exotic cuisine, pulsating rhythms, tantalizing designs and indomitable human spirit for which we are internationally renowned [21].

Jamaica may have a long way to go in implementing technological solutions and realizing the economic benefits but it is important that the need for such solutions has

been recognized. It is not enough just to make these plans; funds must now be put in place to materialize these efforts and to start Jamaica on the road to economic recovery.



Source: CITO (2007)

Figure 17: Jamaica's National Information and Communications Technology Strategy, 2007 - 2012 [10].

Conclusion

Jamaica is in a serious predicament with a large negative balance of payment, minimal assets, high taxes, high interest rates, a weak currency and no operating capital. Proprietary technology is the key to wealth creation and economic stability. The high interest rate policy that Jamaica implemented 30 years ago has not done its job in stabilizing the currency and the economy. Instead it has completely mopped up the liquidity and thus adversely affected the ability to competitively earn foreign exchange

through manufacturing and agriculture. The services sector is important and continues to earn for Jamaica but the country must begin to replace the excessive raw material imports with locally produced goods.

At the same time, Jamaica must become more creative in increasing the line of exportable commercial products and services and begin to earn capital for its debts and social responsibilities. To this end Jamaica must sacrifice funds for technological development and agricultural modernization in an effort to improve efficiency, increase supply and ameliorate quality, thus overcoming competitive demands.

Borrowing more money without a firm, feasible technological plan is economic suicide since the public and private sectors are already at their breaking point. Personal income taxes are already above 40% and consumption taxes are already as high as 25%. Harsher tax measures are not the answer. This will only serve to further muzzle the creativity and innovativeness of the country and its people.

High interest rates are not the way to improve standard of living. This can only be achieved through increased export which is catalyzed through access to capital. Other countries faced with similar economic crises have managed to improve their situation without the use of high interest rates but rather through the strategic use of technology.

Key Findings and Recommendations

It is easy to recognize that Jamaica's economic situation is dismal, to say the least. Years of technological neglect coupled with repressive interest rates and continuously downward spiraling exchange rates have left the country in a state of financial paralysis. Recovery seems insurmountable. High yielding government instruments create an "easy

money” route that does not make investments in technology based industries worthwhile to cash loaded investors, at the same time the cost of borrowed money is too high.

On the other hand, as Jamaicans utilize their ingenuity and resourcefulness, they need only the right catalytic opportunities to spur them in the right direction towards economic recovery. Without the light of technology Jamaica will continue down the dark road of economic disaster.

Jamaica has fallen into a fast sinking bottomless economic depression and needs a solution now. There are several systems in place that help to stifle the possibilities of economic recovery. Heading the list are high interest rates and a high and unstable exchange rates. Technology is well known to be the creator of opportunities but it is being pushed out of reach by these very same factors. Jamaica is stuck in a closing loop and must find a way to harness what is left of its meager resources to break this cycle towards economic recovery.

After 30 years under the high interest rate regime, Jamaica has shown little or no sign that this policy has been of any benefit. The expressed purpose of the high interest rate policy was to stem the fall of the exchange rate. There is no evidence at all that this has worked, except to say that the exchange rate may have been worse off without the policy. What has resulted from the combination of high interest rate and high exchange rate is the depletion of government and private sector funds which could have been used to create technological opportunities. Proprietary research and product development are almost non-existent and the supplies of basic raw materials in the country are mainly from imports. Jamaica must recognize the urgency of the situation and begin to harness its expertise towards proprietary research.

Jamaica's situation may appear impossible but the resourcefulness of its people, given the right opportunities, can be utilized to create wealth for the country. Wealth begets wealth and any sustained movement in the right direction will lead to economic success. The question then is how to turn the country around and start it heading in the right direction. The answer is Technology.

Since high interest rates have not been proven effective in controlling the economy and have, instead, all but stifled the business sector, it is full time to revisit this policy and seek to strategically replace it with activities that build commerce and increase exports. The economic system must reward those who create exports, not those who hoard large amounts of capital and speculate on the currency. Only through increased exports can Jamaica's economic situation be improved.

It is important that the opportunities are holistic, meaning that an export opportunity must not only have the product development input but must also have the market creation and sustenance output. Along with these, Jamaica must establish the know-how and the means to create the process that will continuously improve the development-to-export system.

Jamaica must urgently seek to put in place technological solutions that can create opportunities and generate wealth. Proprietary research and practical implementation of technology leading to increased exports are Jamaica's only chance. Affordability of the means to develop and implement these plans may need to come through special international loans or grants that can create the opportunities the country needs. The development or activation of research centers concentrating on practical, "North Pole"

(focused) research is critical since we must begin to create opportunities and compete based on technology.

Recovery may be difficult but it is not impossible. Jamaica has to acquire and utilize the correct technological tools necessary to create exports and the product and process development to go hand in hand. Jamaica also has to create increased demands and develop the market to accept its products through improved quality and wider product variety. The country should opt to engage itself as a single business force, rather than as several disjointed companies, to undertake these ventures. Only through these means will Jamaica grow toward wealth creation.

Chapter 5: An Export Development Model for Jamaica

There is hope for Jamaica to turn its economy around by creating and implementing technological solutions that lead to increased exports through a guaranteed, closed loop, supply chain. This model suggests ways to execute such a plan and to develop a sustained supply chain. The plan also outlines plans to establish competitive supplies and create wealth for the nation.

The suggestion is to build outlet malls in major cities worldwide and then establish the goods and services supplies to these malls. Local products would be developed and shipped to the malls on a consignment basis. Reaching the Diaspora directly guarantees sales and closes the supply chain loop. The process is then continuously developed and tuned towards perfection.

Aims and Objectives

In aiming to build a model that can help to create exports and a strong supply chain, the following objectives are important and will be integrated in the model:

- Promote Economic Opportunity – Provide outlines of programs and services that can enhance the quality of life and make Jamaica an attractive location for quality jobs and businesses.
- Brand Jamaica – Explain the strategy of building on the existing quality of local products and increasing their appeal and availability. Furthermore, seek to build reputable brands rather than just export products.
- Economic Development – Show how the supply chain can increase GDP, improve the balance of payment ratio and reduce the debt service ratio for an improved economic climate.
- Organizational Development – Illustrate how organizing labor and management can lead to increased production efficiency.
- Effective Services – Integrate the creation of effective social and financial services in the model in keeping with the societal needs.
- Public Infrastructure – Suggest ways to build public infrastructure that create opportunities for upward social mobility.
- Increase Infrastructure Maintenance – Link model to optimized investment in existing roads and facilities resulting in increased value to the public.

- Crime Reduction – Create the opportunity for decrease crime with community oriented enforcement and other strategies that target crime categories or offenders through the financing and creation of effective public services that help to reduce societal stress.
- Cottage Industries – Develop the plans for community owned cottage industries with guaranteed market output.
- Develop Vibrant and Healthy Communities - Suggest programs and services that promote the safety, vitality, and health of people within the communities.
- Safeguard the Environment – Include in the model, the need to wisely manage the natural resources and preserve local heritage while creating economic development and effective services.

Enablers

What enables this proposed project to be successful? What exists, what does not, how can Jamaica build a successful export market and close the export cycle for continuous nation building?

Jamaicans have proven themselves innovative and ready to take on the challenge. They only need the opportunity. Over the years they have created internationally craved products, not only for the Diaspora but for a wide cross-section of individuals who have had the good fortune to sample the products. Jamaica has also developed strong services that need only to be connected to the proper markets to realize success. Jamaica has also developed strong brands that are internationally renowned. Most are no longer owned by Jamaica.

These elements form the basis for a large potential export market but progress is hampered by the lack of cohesiveness in the market building effort. Companies are unwilling and, to some extent, unable to properly establish their own export markets and the government has traditionally not put itself in a position to lead and finance the export development drive. Times are now desperate as all traditional economic measures have

failed to yield any major success, making the way for the last resort, technological efforts.

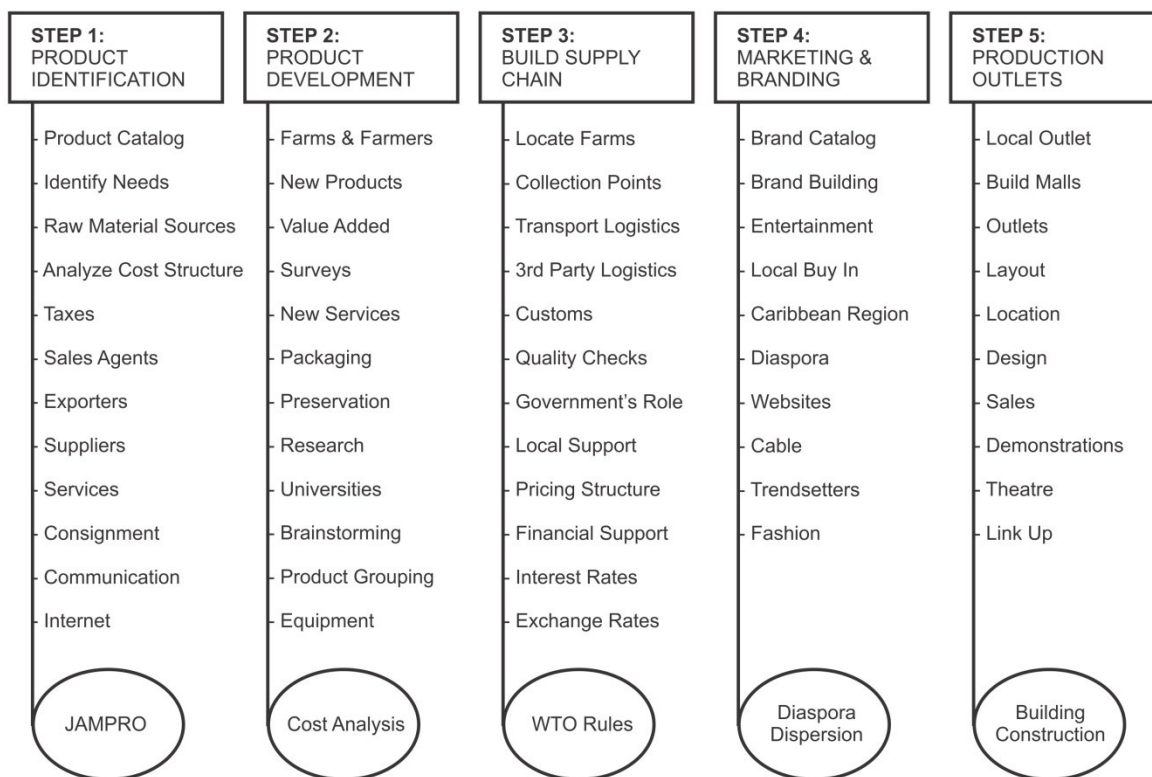
Government is now ready to listen to technological solutions; companies are now willing to sit at the round table and collaborate, openly sharing knowledge and expertise for the building of the nation and consequently the success of all involved.

The Model

The purpose of the model is to clearly outline the steps required to achieve the plans and to stepwise show how it can be achieved. Table 8 illustrates the model, step by step and the details each component. It also shows the relationship between each component and the system as it presently exists. The model proposes five steps towards building a sustainable supply chain:

- (1) Product identification
- (2) Product development
- (3) Build supply chain
- (4) Marketing
- (5) Production outlets

A fundamental list of Jamaican products, as provided by the Jamaica Manufacturers' Association, is shown in Appendix A. This list would need to be reorganized and categorized with the aim of cataloging the products into a user friendly database. The list would then be assessed to establish export readiness. Opportunities for brand building would then be analyzed thus helping to group and evolve these products into internationally demanded exported items. An example of the difference between a product list and branding is evident in the "Made in Jamaica Catalogue" which features several world renowned, strong Jamaican brands. These products are easily recognizable and highly demanded globally. This catalog is referenced in Appendix B.

Table 8: Stepwise Outline of Supply Chain Development Model

The five steps are detailed as follows:

Step 1 - Product Identification

The first step in developing the model is to determine what products already exist and their state of readiness for export as the starting base. This means producing a comprehensive online and print catalog, categorizing and detailing the existing products. This exercise will also help to identify what the existing products need to reach the desired level of quality and consistency of supply as well as what complementary products can be easily developed from this point.

The availability of raw materials needed to meet product demand is critical and the development of local suppliers is important for the long term sustainability and profitability. It is expected that much of the raw materials will be imported initially but a conscious program to research and find indigenous replacements will generate new industries.

A careful analysis of the present cost structure of local raw materials is critical. Many factors push the cost of local raw materials out of reach, such as high production costs, lack of affordability and use of the appropriate technology due to costs and high foreign exchange rates and limited development and modern retooling of the sources and factories. Other extraneous reasons also exist such as excessive taxes, high union demands, political influence and extortion. The analysis will identify the true root causes of the un-competitiveness of indigenous raw materials and will also discover any unusual cost that may be present.

Many exporters presently supply their overseas markets through sales agents or brokers who add as much as 33% to the cost of the products. The model being proposed gives exporters direct connection to their export markets without agents thereby reducing the shelf cost of the goods and increasing the profit margin.

Services can also be created and exported through this medium and offered through the production outlets. Services will greatly expand the product base of the outlets and make shopping more interesting and entertaining to the Diaspora.

To avoid the high overheads of the costs of stocks, the malls will only accept products on consignment, as in a zero inventory model. This means the exporter is responsible for the quality of the product and its salability and will only get paid when the

product is actually sold. Bad products will be naturally culled from the system and exporters will soon learn that quality is imperative.

The outlet malls will facilitate internet sales and, therefore, the development of websites and e-commerce is essential. The malls will also facilitate computer services for electronic real-time communication amongst exporters, suppliers and consumers. This allows the zero-inventory model to work allowing exporters to track their own sales and manage their inventories.

Much of step 1 can be managed by JAMPRO that is already set up for this type of service of cataloging and brand building. The development of new products and the continuous improvement of existing products can also be managed by JAMPRO staffed with the right people. This task could begin immediately.

Step 2 - Product Development

The second step of the model requires the development of large, efficient and technologically operated farms. Farmers may need re-training in the modern techniques of crop management and control. The traditional farming methods would also be analyzed to extract techniques that create quality products. It would be useful to develop and staff small pilot farms to help with product research under controlled conditions. Scientific agriculture requires not only farmers on the fields but scientists as well. This would launch a new career path for young Jamaicans and create better buy-in for the project. This is also an opportunity for members of the Diaspora to return with first world expertise and help to create the new frontier. This model will create several of these opportunities.

Non-traditional farming techniques can lead to the development of new products, for example, rather than producing just mangoes for exports, the modern farmer will now be able to produce solar dried mango chips properly packaged for improved shelf life and better marketability. The implementing of value added products to the farmers' crop portfolio will greatly improve the profitability of the farms. It is not expected that the farms would do the research into the new products, which would be the job for the Scientific Research Council (SRC) or similar entity. The research centers would create the products and supply them to the farmers for cultivation. It will eventually be necessary to create more research centers to constantly improve the product variety, quality and consistency of supply.

Surveys in the market place can also be used to identify products that the consumers would like to have. This "market pull" can be used to focus research into the development of new, market friendly products. Similarly, new services can be developed to meet the expressed market needs.

An essential part of product development is packaging. A large modern packaging plant may be the way to start the model off. Eventually each large farm or export company will have its own specific packaging plant so that produce can be sealed as quickly after reaping as possible to preserve their state of freshness. Modern and traditional preservation processes must also be employed to maintain and enhance the quality and variety of the products. A few examples of these processes are solar crop drying, fermentation, flash freezing and pasteurization. New products may also mean new, varied and better ways to package existing products, for example bananas can be

sold as green produce, ripe fruit, chips, flour, bread, or as a drink, depending on the processing and packaging.

Extensive research is required to maximize the quality of existing products and to create new complementary products. New research institutes can be built to support the work of the present Scientific Research Council (SRC) as well as the Universities can be solicited to participate. Encouraging the practical, “north pole” research culture in the learned society will be extremely beneficial to the country in the short run. Students and Academics alike will learn more from the practical information and be able to brainstorm better solutions faster.

Different research centers should handle different groups of products to better benefit from the concentration of expertise and specialized machinery would be required to facilitate the research and development of products.

The fundamental elements of products, at this stage, must be quality and cost, as the majority of sales will be from mature products. Driving costs to a competitive minimum will require continuous analysis of the entire supply chain. The constant analysis and minimizing of costs must, therefore, be entrenched in the entire process from inception.

Step 3 - Build Supply Chain

An essential part of keeping costs to a minimum will be to minimize transportation costs. Farms, processing and packaging centers must be located such that all factors are at their maximum efficiency and minimized cost. Whilst the location of farms might be largely due to land availability and utility supplies, the location of processing and packaging centers will be maximized to minimize transportation costs and

time to processing. Smaller, decentralized farms would need to feed centrally located hubs for collection and delivery to the export centers. The efficient collection and delivery of products is an area that would develop third party logistics companies as this is critical to the efficient operation of the entire supply chain. The chain would best operate on “Just-In-Time” principles. Third party logistics companies will be valuable throughout the supply chain and presents a major opportunity for job creation.

Collection and delivery is naturally a very sensitive topic and accurate checks and balances must be put in place. It is also a weak point in the chain where losses can occur and contraband materials introduced into packages. Extreme security measures may be necessary but more importantly, the selection and operation of the contract carriers. This is an opportunity for the development of security services.

Extreme security measures will also be required at the export centers and it would be worthwhile to establish foreign customs clearance within these centers. This will facilitate the efficient flow of products as once they clear customs in Jamaica they would have no further delays. Furthermore, rejected goods would not incur freight charges to the foreign ports and back and could be easily redirected to local markets in such a case. Many times products are rejected by foreign importers for minor reasons. For example, the fruit is too small or too large or they are not the right color. This kind of rejection would be greatly reduced as the products are being exported to locally owned shelf spaces. This is not to say quality will be compromised.

Before the goods reach the customs center (though locally located) they must be subject to established quality checks. Exporters will be fully aware of these checks and

any person who sends goods to the supply center that are not to the quality standards do so at their own cost.

Many of these required infrastructures will not be able to be developed by private enterprise and the government must seriously evaluate its position in commercial sector. It must become proactive as it did with the UDC in building the tourism sector. The government must take the lead role in developing this supply chain and become the example in creating new industries. Fully operational companies can be divested later to interested entrepreneurs. It is also critical that the government lobbies full support from the local citizens as well as the Diaspora in much the same way and eagerness of soliciting votes for an election.

The government's posture will affect the overall prices of the products as it can choose to participate on a not-for-profit basis or operate at a high profit margin. The best way is to concentrate on building the entire supply chain as the high profits will come later.

The government must also take the initiative to financially support the entire project. It can do so by direct funding, providing venture capital to entrepreneurs, loans from international lending agencies or by selling shares through the local and international stock markets. Local banks and business would also invest in the project as their returns would be immediate. The success of this project would certainly improve the GDP and exchange rate situations as well as lead to better banking conditions at reduced interest rates. The overall aim is to raise the standard of living of the citizens.

This model is based on export and international trade and is, therefore, subject to the rules of the World Trade Organization (WTO) and the General Agreement on Tariffs

and Trade (GATT) agreements. It is important that the model fits within the guidelines of the agreements and a complete analysis is essential. The government must not subsidize the cost of the actual products as this is against WTO rules. It cannot be overemphasized that the WTO has the ability to prevent the success of this model so it is important that all plans remain within the boundaries of this organization.

Step 4 – Marketing & Branding

Jamaican athletes and entertainers are some of the most recognized individuals in the world. They are trendsetters. Music and sports are areas that Jamaicans have excelled beyond imagination in. Bob Marley is one of the most popular entertainers worldwide boasting the album and song of the millennium (album: Exodus, song: One love) Bob's t-shirts and other memorabilia are perpetually on sale globally. Bob creates the opportunity for his own store in this plan. Certainly Usain Bolt is presently one of the most important athletes after his multiple world records in the sprints from the last Olympic Games. Also quite noticeable is the marketing power of these individuals. The German manufacturer who sponsored Bolt sold two million pairs of sneakers within one hour after he won his race. Jamaicans are generally high profile and very noticeable individuals and would be valuable in marketing Jamaican products.

Effective marketing programs are required, not just to build products as is normally the case, but to build strong brands. Associating products with high profile entertainers can create strong brands and great demand in all products, particularly in the fashion and entertainment industry. A comprehensive catalog of Jamaican brands would enhance the portfolio of products produced and online availability of the catalog would help to concretize the brands.

The strong local entertainment industry would help greatly in profiling the products and building the brands. This would encourage the Diaspora to buy into the brands and thus increase sales. The branding efforts would also be advertised locally as it is important for Jamaicans at home to buy in to the brands. When locals accept products it legitimizes the products and they encourage their friends and family in the Diaspora to buy these products. The marketing campaign would also target the Caribbean region as they too normally follow the trends set by Jamaicans. The fashion industry would benefit greatly from marketing and branding through entertainers as fashion complements entertainment.

Fashion and entertainment are major components in this model and represent services that Jamaicans are renowned for. The fashion creates the opportunity for clothing and accessories stores as well as major fashion personalities in fashion design, modeling and make-up. This is another major opportunity for job and career creation.

The Jamaican Diaspora is diverse and would not be easily serviced just through the outlet malls. Strong internet and cable marketing and sales are very important to the success on the program as it would greatly increase the product availability and market penetration.

A radio/cable station operated from within the mall would be ideal for advertising and diversifying income. The stations could be internet based and available only with the confines of the mall live, it would still produce the effect of building the brands.

Exposing these plans to the Caribbean basin would greatly increase the size of the Diaspora and the number of patrons supporting the malls. It would also increase the

product variety and the project viability. If the project is funded by all the Caribbean nations it would require less financial input from each and yet lead to greater support.

Step 5 - Production Outlets

The mainstay of the model is the guaranteed shelf spaces which allow the Jamaican Diaspora to access Jamaican products directly. This guarantee allows local entrepreneurs to freely invest in export business, slowly building them into large corporations. Direct access removes the need for brokers and thus reduces the price of the products to consumers leading to increase sales. It also allows the marketing agents to build brands and create market pulls. The production outlet malls close the supply chain loop and incrementally develops the local export market and eventually the standard of living in the country.

To guarantee markets and close the supply chain loop, the model proposes that Jamaica builds malls strategically placed in areas with a high population density of Diaspora. These malls would market and sell Jamaican brands and services and create great demand for local products. The malls also act as a hub to distribute products to smaller stores across the country. This will greatly increase sales and product penetration.

One mall should be built locally to provide training and facilitate preliminary marketing, product and layout experiments. This ensures that exports are tried and proven, further enhancing branding and sales. Furthermore, excessive or customs rejected products would be sold through the local mall or distributed from its wholesale hub. All demonstrations and rehearsals would be first presented at the local mall to ensure that what is exported is of the highest quality and represents brand Jamaica. The model suggests that a standard layout be researched and utilized. An exact replica of the mall

will be built locally to facilitate individuals being able to relate to their friends where special products can be found. It is also useful to maximize the layout of products to provide maximum visibility and appeal for the products since whatever is developed in the local mall can be easily duplicated in all the malls. Efficiency in the layout of the mall would also increase pedestrian traffic and enhance the shopping experience.

Overseas malls would be located in major cities worldwide, built one at a time, where there is a high enough concentration of Jamaican or Caribbean nationals to make the mall viable. The mall must be designed with a Caribbean overtone to provide shoppers with a tropical experience further selling the beauty of the island and its people and thus encouraging tourism.

Each mall would contain a venue and/or amphitheater for local theatrical and cinematic productions. This space could also be used for fashion shows, cooking demonstrations and Caribbean lectures to name a few activities. The artistic industry would benefit from this exposure and would eventually be creating high caliber productions. The radio and/or cable station, would be a great attraction for the malls and would allow persons to connect (link up) with each other over the air. A mall filled with Jamaican style activities would be much more than a shopping hub, it would be a grand meeting place and an emotional connection to a little part of home, Jamaica.

Shelf Space

The overall aim of the model is to stabilize the supply chain by starting off at whatever level of distribution (called guaranteed shelf space) and then incrementally improve the supply chain until it becomes the driving force of wealth creation for the nation. Once sales become guaranteed on a product the development of the supply of that

product will follow. It is clearly understood that raw materials may need to be imported to facilitate the growing demand of a product but that import will be eventually substituted, where practical, with purely indigenous materials. What is important is that a steady stream of exports be generated so that the supply stream can be steadily and incrementally improved.

The certainty of sale in a large market creates a different business model from that of a company operating in an uncertain and/or small marketplace. The risks in the large guaranteed markets are much less. The large, guaranteed market allows a company to plan their development based on reliable forecasting and materialistic expectations in a stable and growing (not declining) market. A positively developing large market allows for the creation of technology pushed products. Research and development in the creation and sustaining of technologies becomes important and creates opportunities for huge and diversified business development. This is the premise of this plan and the challenge is how to create adequate shelf space with the certainty of sale that leads to the development of businesses with a solid raw material base and reliably sustained supply of quality finished goods.

Shelf space can be defined as an unlimited market displaying and selling products and once that shelf space is guaranteed the product supply must be developed to match the market. Once the product connected to the right market place it will sell limited only by price and quality. The Johnson & Johnson model of 1900 proposed that increasing shelf space will increase sales. We are now proposing that increasing export shelf space will lead to a country's export development and the increased ability to create and sustain growth.

The creation of shelf spaces that guarantee sales is a fundamental concept of this plan and it requires the development of shopping facilities in areas where the Diaspora is prevalent.

Large Farms

To supply a large, fast growing, guaranteed market, the supply chain must function with precision. Supply must be available on demand. Erratic product supplies will certainly defeat the plan. It is imperative, therefore, that major effort be made to develop the product sources that can guarantee the supplies demanded. For agricultural products it will be necessary to develop large farms.

Large mechanized farms are much more economical and efficient than small manually farmed plots. This is a requirement for reliable product supply. Without a guaranteed sale for the output from the large farm, however, the large size becomes inefficient and cumbersome as they will certainly overproduce to the point of waste. If Jamaica increases its shelf space with certainty, it must increase the size of its farms and thus the output, while reducing the price and increasing the volume of sales. A terrain/weather/soil study will identify the best locations for large farms and proper feeder roads where necessary as well as identify the products most suitable for each farm. Collaboration with a major agricultural machinery manufacturer may be necessary to be able to quickly acquire the machines needed to efficiently farm produce. Some crops may require original, unique or non-mechanized reaping methods and that will need to be engineered in as required. The model begins with the available exports and builds as confidence in the market increases. Consistent and secure sales allows for confident investments in large, mechanized, efficient and competitive farms. Larger farms mean a

more consistent and reliable supply chain and consequently greater profits. The market will also tend to pull the products it needs and consistent sales eventually lead to the right selection of crops. Modern farming methods would become affordable even through research in methods such as genetics to give greater yields of higher quality.

Eventually each large farm will be outfitted with its own processing and packaging plant so that products will leave the farms ready for export. Reducing the time between reaping and packaging will also lead to fresher products, a more efficient system and less chance of product contamination. It is imperative that no opportunity be allowed for the introduction of contraband products in the supply stream.

Praedial Larceny

Special efforts must be made to control praedial larceny as this is a major deterrent to the development of farms. This single unfortunate social deviance results in losses of up to 20% of the gross output of the agricultural industry. Large Farms naturally reduce the risks by allowing limited access to the central areas, double fenced canine patrolled control of the periphery could help to secure smaller farms, main gate secured entrance, traceable produce, certificates required for product distribution and retail, no access to market without license and proof of ownership of farms and produce are just some suggestions that may help to stem the problem.

It is hoped that a social buy-in from the general public and the visible benefits the model derives will help to reduce or completely eliminate larceny problems.

Product Catalogs

Having one's own sales outlet has its advantages. One can sell products that would not normally be worth the while of other companies to import, to market and to

sell. Furthermore you can sell ethnic products such as roasted breadfruits, the value of which others might not immediately understand but may eventually adopt. One of the first major exercises in creating a strong and diverse product base would be to identify and categorize all local, exportable products. This would allow marketing and product research and development teams to maximize availability, quality and presentation of these products and to develop new products where possible.

To realize the full spectrum of possible products, in all available forms, a comprehensive product catalog or database would be essential. This catalog would not only list each and every product but to seek to categorize them for possible efficient distribution grouping and marketing. The catalog would also quickly identify products and by-products that could be developed from existing products and/or facilities. New products help to broaden the product base and improve the store appeal.

Research

Shelf life and quality are major concerns particularly with non-traditional exports. Products must also meet international standards and not breach any laws. Serious research & development is the only way to create proprietary technology that can directly suit Jamaica's needs and so boost our product exports and economy.

Research centers will be consistently looking at ways to create and improve product lines and packaging methods. Scientists and engineers will be required to develop products into efficient income producers in high demand. Jamaica already has a large variety of world renowned high quality products that may have been spawned by the Jamaican weather, crystal clear water or traditional farming culture. With proper research, all products will eventually get to its highest possible level of quality.

The Scientific Research Council (SRC) has already shown its skills in agricultural product development and many more of these services will be required. This is another opportunity for job creation.

Product Development

With the help of scientific and engineering researchers, several non-traditional, non-agricultural new products and services can be developed. Such products could include software, personal services and educational games as well as craft and cultural artifacts. The craft industry offers great opportunities to the artistic sector to create artifacts, paintings and services of great value for sale through stores in these malls. There is already a wide range of products in the entertainment industry ranging from music to videos and the malls would provide a consistent outlet for these products. Live performances would also be easily accommodated in the proposed malls creating new avenues for employment. There are also opportunities for actors, directors and playwrights in rebuilding the Jamaican cinematography industry.

Jamaicans are known to be very industrious. Given the right opportunity to supply the Jamaican owned and supported malls, it will be interesting to see the ideas and concepts that will emerge from these individuals. In the long run the diversification of the products and services will help to create a better shopping experience at the mall.

Packaging

Quality packaging requires large, modern facilities. It is imperative that immediate steps be taken to address the problem of proper packaging. Packaging is important from a marketing and brand building perspective as well as for keeping the products at their peak of freshness, improving their public appeal and shelf life. The

quality of a product is enhanced by the quality of its packaging. Packaging at source may even be important for some perishable products. In such cases the appropriate packaging plants must be strategically located on or near major farms. Quality, speed and versatility in packaging are essential to the development of products and so must be made available locally from very early in this project. With high quality across the board, it is expected that the only reason for rejecting goods for export will be overstocking, in which case such products will be redirected to local or alternative markets.

Research in packaging methods that can improve product shelf life will be critical in the development of new and complimentary products. Packaging for display and brand building is the foundation of the marketing personnel job function and will be a major factor in creating product demand.

A central, well equipped packaging facility can be developed initially, at the start of the project, to package all products, but as product volumes and variety increases, it will be necessary to locate smaller, more specialized packaging plants at the product sources. This may raise safety issues with transporting the products to a central shipping warehouse but the necessary security measures can be easily implemented.

Marketing

Marketing is the most critical soft skill required in this project. An entire department dedicated to marketing and brand building will be necessary. Marketing teams should consist of experts from all generations and persuasions as variety and versatility are the keys to building brands and products with a wide consumer appeal without losing the Jamaican flavor. The image of the individual products as well as the overall product line is critical. While the project will cater primarily to Jamaican

Diaspora, they will not be the exclusive target. In fact, it is desired that as many other cultures as possible embrace this project and support the malls. It is, therefore, important that the marketing team be sensitive to promoting brands to a culturally diverse population.

The consumers' impression and expectation of the quality of a product on the shelf can initially only be estimated by the appearance of its packaging. First impression is critical in brand building as some consumers may never give a product a second chance. One bad experience will proliferate more quickly than several good experiences. When a product is established as high quality, similarly packaged products will be assumed to be of the same high quality. This is not a route to pass off low quality goods to the marketplace under high quality brands as the first thing to be destroyed and lose credibility will be the brand itself. Scientists and engineers must constantly work to continuously improve the quality of the product and thus develop and maintain the quality of the brand. It is the responsibility of every single product to protect Brand Jamaica. Only so will marketing be able to establish and maintain strong product brands.

Endorsements from local entertainers, athletes and other high profile Jamaicans could also greatly improve the image and acceptability of the Brand Jamaica product line. Jamaica's success in international sports and entertainment, over the decades, make them prime candidates for endorsing products. Using indigenous scenery, situations and personnel may add a nostalgic touch to a marketing campaign and help improve product demand. For example, a group of persons enjoying a domino game in a deep rural setting would be a great nostalgic touch useful for branding alcohol. Jamaicans are naturally a noticeable people and will definitely attract their friends and others to the malls.

Funding

Local investors would be the primary source of acquiring funding for this undertaking since they would stand to benefit directly. The investment could be by way of ownership of the various stores in the mall or it could be from a direct investment in the project. The immediate benefits and high return on investments make this a lucrative investment. Local banks would be wise to invest in this nation building process as they also stand to gain from both the direct investment and from the improved wealth in the nation. Funds could also be solicited through the private offerings and the local stock market at very attractive rates. This would also improve the buy-in of the citizens in the project. As this is an organization that is expected to grow quite rapidly, there should be no shortage of funds to materialize this project. The recent upsurge of Unregulated Financial Organizations (UFOs) has proven that at high interest rates large amounts of cash can be acquired.

The Diaspora would be the second most valuable source of investors. They could access the investment opportunities directly from Jamaica or through international stock markets. The project, as a company, could be registered and listed on the NYSE and elsewhere to attract even more capital to be able to expand into chain stores and improve the distribution logistics. Jamaica should, however, maintain controlling interest in the organization to ensure the core reasons for the existence of the malls are preserved.

International funding agencies would be the third and most important source of funding. There may also be the possibility of some funds being offered as grants, For maybe the first time, loans from this source would be proactively used by the government

to generate funds and improve its balance of payment. Agencies should have no hesitation offering this kind of loan or grant.

The government must be prepared to invest heavily in this project in order to secure ownership of the malls and so preserve their original purposes. The first mall will be the most difficult to finance, however, proceeds of this mall will subsidize the building of future properties. Furthermore, the success of the first mall will make it much easier to attract funding agencies and individual investors as the potential return on investment will be more visible.

Central Sorting Warehouse & Customs

A large central packaging and shipping warehouse will be required to receive goods from across the island. Goods will then be sorted and finalized for shipping. This warehouse will be secured and bonded to facilitate customs clearance locally before shipping. Products rejected for customs breach should be negligible or non-existent since goods will only be rejected for legal issues and not for compatibility problems. If US customs clearance is actually made available at the central warehouse then there would be no need for further regulations checks in the USA meaning that products would not reach overseas and then be rejected, as is quite often the case, costing manufacturers large amounts of capital.

The large sorting and packaging warehouse must be able to accommodate the thru-put volume of products without adversely affecting their quality and speed of proper packaging. The primary purposes of centralizing the sorting warehouse are to guarantee quality and increase security of the products against illicit and contraband items as the

exports clear customs. If this stage can be expedited from the supply chain the project has a greater chance of success.

The packaging stations in this warehouse must be ultra-modern and efficient. Centralizing the packaging facility will allow for better, faster packaging machines to be scheduled and multi tasked for the greatest efficiency and utilization.

Trucking and Transportation Logistics

Third party logistics and supply chain management will be determined as the project folds out. Strategically placed collection and redistribution points must reduce the overall time to deliver products. The location of local packaging stations relative to the central sorting warehouse as well as the ports will have to be determined. Local Trucking businesses will be required. This is another opportunity to develop a large complimentary business from this project as trucks are generally the easiest and most cost effective way to move products around inland. A trucking company would facilitate the delivery of goods to the malls as distribution centers and then from these malls to individual stores across the country.

Airline cargo capacity may be important to some, time sensitive products. A Cargo plane managed by Air Jamaica (or an alternative) flying to Miami daily would be an asset and a trucking service from Miami to the rest of the USA would be essential. Cargo planes may not have to return empty since, as expected, imports would also increase.

Shipping will also be required for less time sensitive and bulkier exports. Jamaica currently has a large trans-shipment facility so shipping cargo space could become

available and relatively inexpensive. Cost logistics and transport model heuristics will be required to help to reduce overall costs.

Tax and Profit

This entire project will certainly raise questions about taxes versus profits. Maximizing both these factors may defeat the purpose of the project, but if high profits from the project are used to reduce taxes or vice versa then success is inevitable. Government ownership and control of these mall facilities will tempt government ministers to push for high profits while maintaining high excise and other taxes. This will erode the competitiveness of the products in the system. The government should recall that the purpose of this project is to increase exports. High profits from the mall operations should be translated into reduced taxation for businesses further encouraging their participation. Individuals, small and micro business and large corporations alike would greatly benefit from this project and begin to experience rapid growth.

Zero-Inventory Model

To reduce the cash outlay for stocks and thus increase the profitability of the operation, the products will be delivered to the malls and paid for only when sold (a zero inventory model). In this way all suppliers become partners and will maintain a vested interest in the product quality, the marketing and thus the entire operation. This also guarantees the lowest prices and best quality to the consumer, increased patronage, and the highest possible profits for the entire operation.

This consignment model requires modern, real-time communications services. This is another potential for a major business operation. It is important that exporters are kept informed of the sales of their products in the malls as all forecasting will be based on

these sales reports. Forecasting determines production quantities and micro-adjusts the supply chain to provide the exact amounts of goods at the correct time, maximizing supply chain efficiency. Supply chain efficiency is a fundamental requirement for export competitiveness.

Exporters will be making a huge sacrifice to supply products without collecting soon afterwards. This means short term financing to the exporter, a service that only the banks can offer. It is imperative that bank interest rates are not prohibitive so as to undermine this project. As the continuous supply chain develops and expands, consignment delivery will become much easier.

Training

This project is expected to generate jobs both locally and within the overseas malls and supply chain system. To ensure all staff is as efficient as service oriented as possible, proper training facilities must be provided. The Human Employment and Resources Training Institute along with the major tertiary institutions will assist in developing highly skilled and courteous employees required at all skill levels.

Many opportunities will also be developed requiring highly trained Scientists, Engineers, Businessmen and Educators. Tertiary institutions must be involved with this project from the inception to help train and develop personnel required to man the functional workstations, to generate and manage ideas and to create and implement solutions. A sound understanding of the supply chain and all its nuances and unique components is absolutely required through continuous research and training is the only way to ensure continuous improvement and increased competitiveness.

Employment

Priority for employment should be given to Jamaicans or people of Caribbean descent, in order to preserve the ethnic flavor of the organization. Remittances from these persons could also help Jamaica to earn foreign exchange. Discrimination rules will apply and will override this posture. Persons already living abroad would not have to be relocated and should, therefore, be the first choice. Employees from other nationalities would help to give the project a necessary touch of diversification and would still be well within the ambit of our motto “Out of Many One People”. After all Jamaica is a country of complete integration of all people.

Specialists who manage special services will have to be given special consideration but overall the project will make room for employment at all levels, both locally and internationally.

Store Design

If Jamaica should create large malls in key cities primarily in the United States where many Jamaicans now live and still nostalgically crave products from home, these malls would be well supported by the Diaspora. It would be best if the malls themselves remind the patrons of home. The malls could be designed and constructed to mimic Caribbean environments. Palm trees and beach scenes would be a welcome sight in the middle of a winter storm and would help to create the ambiance required to make the Caribbean Malls special.

Some special features of the malls would greatly help the project. A large supermarket would display and sell Jamaican produce and foods. A large department store would feature Jamaican fashions and accessories. A fine dining restaurant would

add some finesse as it would be great to be able to dine and enjoy some authentic traditional dishes to some soothing Caribbean music. An amphitheater would display Caribbean talents and several smaller shops would carry miscellaneous products and services. An important addition could be a radio and television station broadcasting within the mall, over the internet and through cable services. This station would help with the marketing and advertising of products and services and create a media channel to display local talents. Overall, the mall would represent the Caribbean and be just like home.

These malls would eventually get popular enough to support more diverse activities such as music, plays, dance, cooking lessons and other entertainment treats to entice patrons. Caribbean restaurants would be the mainstay of the Food Court and the supermarkets would be essential for these malls to be able to consistently supply local dishes. These Caribbean malls could also include government and other offices for people desiring to business in the Caribbean. Embassies, Consulates and other government offices would be best housed in the well sculptured Caribbean Malls.

The design of the mall could be standardized to make the best use of an efficient design. A similar mall to those overseas would be located in Jamaica to sell exactly the same products. Jamaicans finding deals in the local shops would quickly advise their friends and family overseas, the consistency of the mall design and layout allowing them to quickly and easily locate their product. The consistency of design also allows for marketing experiments to fine-tune product placement and display. This will help to popularize the layout and the products internationally since Jamaicans are well known trend setters. The consistent mall design would also save on architectural design and

construction costs since the building process would be standardized. If the malls are designed and managed from the same mold, many complementary possibilities will arise; for example, one person may be shopping in one mall, another may be shopping online and someone in a different mall may be paying the bill. This would easily save on remittance costs. Finally purchasing for a chain of stores across several malls allows for bulk purchasing and cost minimization which the local malls would be the chief beneficiary.

Mall Size, Design and Layout

A critical decision in building the export development model is to determine the size and location of the proposed outlet malls. Should the mall be located in an urban or suburban area and should the mall be small, medium or large? Large malls are expensive but more attractive to customers if the shop variety and prices are reasonable or low, but large malls are difficult to locate in urban areas because of the limited availability of appropriate land building and parking spaces.

Table 9 shows a matrix of costs for mall sizes and locations. The prices relate to New York properties and are typical for large North American cities. The prices are estimates and would be subject to an actual design and location data.

A research of some typical popular malls may help to put this into perspective. Macy's flagship store on W.34th Street in Manhattan with a building size of 2,092,088 sq. ft. and no public parking is in a prime urban location. Suburban malls will have more square footage due to larger parking requirements. Mall of America, a popular suburban mall, has a 4.2 million sq. ft. building size, 12,550 parking spaces and located on a 78 acre site.

Table 9: Standard Mall Sizes and Related Construction Costs (sq. ft.).

SIZE	URBAN	COST	SUBURBAN	COST
SMALL	100,000 - 249,999	\$135	>500,000	\$125
MEDIUM	250,000 - 499,999	\$130	500,000 - 750,000	\$120
LARGE	500,000 - 1,500,000	\$125	>750,000- 2,000,000	\$115
MEGA MALL	>1,500,000	\$120	>2,000,000	\$110

The size of the shopping center is really a function of the site area and whether the format accommodates only horizontal development or potentially vertical development. A typical New York suburb, Mount Vernon, is only 4.4 sq. miles so it doesn't have many shopping centers. Yonkers has more to work with and has three large shopping centers that are either under development or redevelopment. A medium size shopping center in that area might be approximately 100,000 sq. ft. There is one planned for downtown Yonkers that will be 650,000 square feet. Mall of America cost \$650 million to build including land acquisition. This mall opened in 1992 and has over 500 stores. A typical 50,000 square foot building with 45,000 square foot roof top parking in Manhattan would cost about \$20 million exclusive of land acquisition and soft (miscellaneous) costs.

The estimated construction costs for the suburban areas would be from \$115 - \$120 per square foot. Land acquisition in the suburbs would be approximately \$500,000 - \$1 million per acre depending on the location. An additional 20-30% will need to be added to the costs for contingencies. Urban construction cost tends to be higher by about

10-15% yielding costs of approximately \$125-\$135 per square foot. Land acquisition is similar but would be closer to the \$1 million per acre estimate. Incidentals would be in the same margin of 20-30% additional of the hard cost.

There are tax incentives to doing these types of developments which could alleviate some of the costs, especially if the mall is located in blighted urban areas.

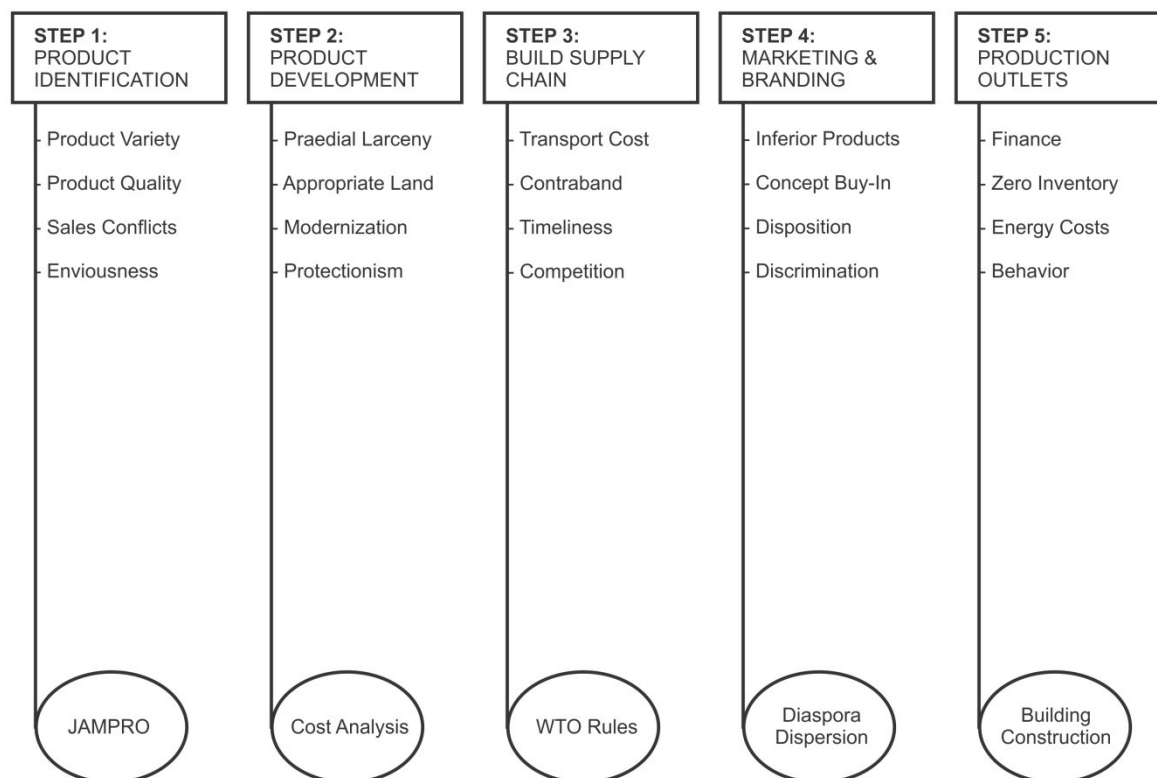
The design of the mall and the quality of the finish and décor will also affect the final price of the mall. The final size of the mall may also be influenced by the support shown by individuals and companies interested in investing in the project. The basic store designs will need to be included in the malls and these will limit the minimum size the mall can be.

While it may be difficult to find appropriate locations for the malls and to properly estimate the land acquisition and construction costs. It is a very necessary exercise that is critical to the success of the model. The choice may be between small urban malls and medium to large suburban expanses.

An overall adaptation of the model with a detailed study of its parameters and scientific research and analysis of its suggestions will yield the best answers.

Risk Identification, Analysis and Mitigation

It is important that the risks involved in this model are examined and mitigated. A detailed cataloging and analysis of the risks must be undertaken to help to fully understand the parameters and constraints of the project and to avoid unforeseen problems or blatant errors. Table 10 suggests some of the possible risks that may exist in the conceptualization and development of the supply chain.

Table 10: Risk Identification of the Supply Chain Development Model

These represent some of the more obvious risks and are outlined as follows:

Product Variety

It is possible that on cataloging the exportable Jamaican items, the product base turns out to be too small. This would mean that there is insufficient product variety to start a meaningful retail business. This situation, although highly unlikely could be solved by importing products from other Caribbean islands or elsewhere or by developing new products, given time. It is expected that the Malls will sell all available products and price and quality will drive the sales. Branding will also help to improve the consumers' perception of quality and improve sales as well as the acceptance of new products.

Product Quality

Product quality cannot be compromised and pre-screening stations will seek to eliminate this possibility. Poor quality goods will severely damage to reputation of the Malls and irreparably compromise the entire project. However, the supply chain will operate on a Fixed-Period system, that is, re-stocking up to a preset inventory level where quality will drive sales and eventually unsold stocks will be returned to the exporter or dumped. Pre-testing products in a local Caribbean Mall will help to ensure quality. Extensive research will be required to improve the quality and shelf life of products.

Sales Conflicts

Existing exporters may have problems with exclusivity contracts where they exist. Some organizations may cancel existing import contracts if they believe the Malls are offering unfair competition or they may take similar action just to “teach them a lesson”. It may be necessary, in such cases to develop alternate export companies internally to facilitate the delicate handling of such possibilities.

Enviousness

The conflict situations could also stem from straight envy or from the project separating the consumers into “us and them” where patrons feel alienated because the Mall is not of their culture. The Malls, though labeled “Caribbean” will still stock and sell any available product and will certainly not be catering just to the Diaspora. This diversification is required to broaden the consumer appeal and the project must be carefully implemented that all feel welcome in the true spirit of the Caribbean.

Praedial Larceny

It is difficult to build a proper supply chain with a high level of larceny anywhere in the system and for this project to work, particularly in a lean environment, larceny cannot be tolerated. Extreme measures will be required and must be enforced to cull this awful problem but it requires a high level of cooperation from all citizens. An example of this cooperation would be for everyone to purchase meat or produce only from licensed vendors and for agricultural inspectors to require, at any time, certificates of purchase for products. An alternative or complimentary process is to use criminal forensics to investigate and apprehend perpetrators until the threat is eliminated. The very act of getting serious with praedial larcenists itself could become a deterrent. Larger farms may be less susceptible to such crimes.

Appropriate Land

With a fast growing and expanding supply chain, it is remotely possible for Jamaica to run out of agricultural land space even when using modern greenhouses, and other land saving techniques. Utilizing 100% of available land space is all a country could ask for, however, in the event that space becomes inadequate, other Caribbean countries have vast land spaces that could be easily utilized to supply the shortfall.

Modernization

Modernization will require research, over time, to ensure the developed techniques fit Jamaica's conditions. Some modern techniques have already been tried and proven and the technology could be easily transferred to the farmers. There is a risk, however, that with whole scale conversions to modern techniques, farming could lose the

tacit knowledge of the traditional farmers who have been utilizing hand-me-down techniques for decades. That tacit knowledge could be the reason for the superior quality of some products. Scientists must study the existing farming techniques and understand the theories behind them and so somehow preserve these traditions, retain or improve the qualities and tune the modern techniques to include this tacit experience.

Protectionism

Importing countries have a tendency to block imports that may threaten their own products. Import blocking is allowed and sanctioned by the WTO. This is a risk that may be difficult to mitigate except that there may not be many products that fall in this category and the products themselves are being sold directly to the Caribbean sector.

Transport Cost

Jamaica's trans-shipment port makes it very easy to access container cargo space to major countries worldwide. Shipping costs are a normal part of exporting. Inland trucking is also very available although Jamaica will very quickly have to, incrementally, develop and manage a large trucking fleet. This fleet will also deliver from the Mall hubs to local stores across the country. Transport logistics will then help to minimize the inland transportation costs.

Contraband

Many unscrupulous persons may attempt to pass contraband items through the supply chain. This is always a possibility. Fortunately, Jamaica has had years of experience fighting this problem and are very aware of the required measures. Custom

bonded export warehouses will help to prevent problems in this area and this area would have to be under high (military if necessary) security twenty-four hours a day.

Timeliness

As Jamaica's situation is quite desperate and very urgent, the timeline for implementing this project must be short. Building a proper supply chain, however, cannot be compromised. To expedite the project while maintaining sound principles, the supply chain will be built on a phased basis. From the outset, the supply chain will have great value and with continuous improvement the chain will become more efficient and thus more profitable. Government and private investors alike could begin to see return on investments immediately. Expert project management research will be required to develop and compress the time line for this project.

Competition

Product Life Cycle theory indicates that eventually all products face competition. The same theory explains that the way to overcome this competition is to continuously innovate and improve. It is a risk that the Malls will face competition but by continuously improving they should triumph. The bond between the Caribbean and its Diaspora is culturally strong and can survive challenges.

Inferior Products

By the natural selection of supply and demand as well as through quality driven market volume, inferior products will be eventually removed from the system or must be scientifically improved through research or innovation to remain in the supply chain. New products may also face a similar challenge and must employ marketing and brand

building principles to create market share. Since products are supplied on a zero inventory system, owners of inferior products will not survive the supply chain improvements.

Concept Buy-In

There is a possibility that the local public and/or the Diaspora may not buy-in to the project. In such a case, the Malls would revert to becoming just another real estate agency and be able to create wealth from the shop rentals. As a last resort, the Malls can be sold to recover expenses. This would be very disappointing and this non-acceptance would completely oppose the expected behavior of the Caribbean Diaspora.

Disposition

To present a certain concept of the Mall, a particular type of person must be employed to relate to the patrons. Some persons, regardless of training, do not behave as the employee would prefer. It is important that a culture of good workmanship and a pleasant demeanor be groomed into the Mall personnel from inception. This must be clearly stated and continuously insisted upon. Individuals who are unable or unwilling to comply must be moved to less sensitive jobs or dismissed.

Discrimination

To preserve the authentic Caribbean flavor, the Mall may want to employ Caribbean nationals. This would be discriminatory and against the laws of most countries. Careful screening of employees is allowed, however, and clear explanations of expectations must be set out. Non-Caribbean nationals could be hired in non-sensitive positions. Interestingly, Caribbean nationals may not conform to expectations and they

too would have to be placed in non-sensitive positions or dismissed. Quality must be maintained and this means not only in products and facilities but in staff as well. The Mall must be operated with the precision and care of an amusement park.

Finance

Of great concern is the manner in which this project can be financed. It is important that the government takes a leading role in this project and ensures that it maintains control of the operation of the mall. It is a high risk that the mall may fall in the hands of profiteering businessmen who will seek to operate the mall for maximum profit. At worst, the government should own controlling interests in this project to maintain sanity and control greed. Funds can be raised through international agencies and private sector loans. Since this is an income generating business venture with securities, loans should be readily available. Alternatively the shops could be sold and the government could retain the ownership of the infrastructure and main common facilities.

Zero Inventory

The Zero Inventory model may sound like a pipe dream to some but it has its benefits in controlling costs and quality. These are two factors that are critical to the success of the project. This model, however, requires high levels of communication between vendor and retailer. It is a risk that this communication level does not come cheap and would be unattainable in the short run. Fortunately, simple internet services could be employed and even though the communication may not be instantaneous, it would suffice. As the project builds, dedicated, high power servers could be employed to connect the vendors to the malls. Inventory control and movement is also a high risk area

for white-collar crime and general dishonesty. Accurate accounting methods must be employed to prevent problems.

Energy Costs

High and still rising energy costs may threaten the viability of the project. To keep the costs of operating the Malls down to a minimum, alternative energy sources should be employed. Depending on the location of the malls, Solar and/or Wind energy should be considered. It is also important that architectural designs be utilized to ensure such factors as proper air flow and zero energy waste with minimal air-conditioning requirements are optimized. Keeping costs to a minimum will help to improve the competitiveness of the Malls.

Behavior

It must be acknowledged that some Caribbean people can be loud and aggressive particularly when gathered in large numbers. Rowdiness would certainly distract from the quality of the Mall's ambiance and it must be avoided. It is expected that national pride will override and that the inherent love for one's country and an eagerness to see it thrive will be enough to overcome this problem. If the root cause of the behavioral issues is because the Mall is cheap then the prices must be increased to allow the "Mom & Pop" stores who purchase wholesale from the Malls to sell cheaper. Failing social science solutions, well trained security will have to be employed to skillfully keep the peace without alienating the people from their Mall.

Chapter 6: Implementation and Conclusions

Jamaica is technologically ready and economically eager to start strategically planning its way into competitiveness. Wealth creation is best created through exports of goods and services and Jamaica already has some of the most sought after products and brands as well as the powerful marketing tools to establish stable, incrementally increasing exports. What is missing is the guaranteed shelf space of export market that can consistently move products and build the supply chain. This will be materialized through the Caribbean Malls.

Preliminary discussions have been initiated with key government agencies and manufacturing associations to seek ways to implement the concepts laid out in this export development plan. Discussions through leading universities and involving scholarly experts will help to fine-tune these ideas into workable solutions.

The main concept of this export development plan is the build Caribbean Malls in countries that have large populations of Caribbean Diaspora. The malls are designed to attract all types of patrons and will give priority to the importation of Caribbean products and services thus offering a guaranteed sales outlet to the region. The malls will be designed in the décor of the Caribbean region to represent “home” away from home.

The value of a guaranteed market (shelf space) to a developing export initiative cannot be overemphasized. The guarantee allows for confident investment in developing the controlled sales outlet that will demand its own products and prioritize their acceptance. The effort to build such a market is the duty of the government but it must be ensured that the WTO rules are not breached. The government must be proactive in

developing this export initiative as it did with developing the now well established and major income earner, the tourism industry.

A guaranteed market requires dedicated patrons comprised primarily of first and second generation Jamaicans living overseas, the Jamaican Diaspora. It is important that the market be extended to the entire Caribbean Diaspora to broaden the base of the patronage. The sentimental attachment these persons have to their homeland is a strong and unbreakable bond and they yearn for the opportunity to deliver their support. This passion for the Caribbean Mall will then eventually filter into the wider community and develop into a major export opportunity for the entire Caribbean.

Following the establishment of the malls and marketplaces the region must now build the supply chain as it develops products and services to match the created demand. Over time small conglomerates of companies will naturally evolve into large, reliable export capable corporation. Tremendous opportunities will be created for individuals to form small companies to develop products and services for the supply chain. Marketing and product branding will be given high priority in order to establish the market penetration and long term value of the products. Improved packaging and product development through the employment of Scientists and Engineers with modern facilities and equipment will ensure the supply chain is continuously improved in efficiency and competitiveness. Over time a viable export market will be established, the result of which will be increased export earnings and an improved standard of living for all nationals of the region.

Chapter 7: Recommendations

It is strongly recommended that a pilot mall be established in Brooklyn, New York to offer local products and services to the more than 250,000 members of the Diaspora of that area. As the project unfolds and begins to establish its true value, other malls will be established in other major cities worldwide. This international diversification will demand a strong and expert supply chain management system, the genesis of which must be established early in the project. The malls will be designed with a Caribbean flavor to excite the nostalgic core emotions of the Diaspora. Eventually this bond will be dispersed to patrons from all nationalities. Initially the malls will carry all available products and services but will eventually give priority to local products as soon as they are available and up to standard. Caribbean products must compete on price and quality in order to be established in a mature market.

Scientists and engineers must be employed to improve the Caribbean products and services to compete internationally. High yielding farms, attractive and effective packaging and efficient and reliable transportation services must be established to bring the supply chain up to speed. Scientists and engineers must also eventually develop a spate of complimentary products and services to widen the product base offered through the supply chain. The wider the product base the more satisfied the patrons.

To greatly increase the patronage to the malls, it is highly recommended that all Caribbean nations be involved in this project. Including the wider Caribbean will also increase the number of products immediately available for export. Collectively, the Caribbean nations also have greater financial and physical resources to make this project viable, for example land space in Guyana and energy sources in Trinidad.

Governments should not look towards these malls as high profit opportunities as this will defeat the purpose of the malls which is to establish and sustain large, viable, guaranteed export markets. Exporters must also seek primarily to establish their quality and efficient product and supply, rather than seeing this as an instant payday. Their commitment to the project will be through offering their goods on consignment, maintaining responsibility for the product until it is sold, and working hard to ensure their products are of the highest quality and delivery guarantees.

Overall the emphasis must be on establishing and maintaining a supply chain leading to a long term process of expert supply and continuous demand. The process is not easy but it is viable.

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Appendix A

Catalog of Jamaican Products

The following is a listing of products that are made in Jamaica by Jamaican companies.

Chemicals, Cosmetics & Pharmaceutical Products Group

Acrylic Teeth – Jamaica Tooth Manufacturing Co. Ltd.

Adhesive – Advanced Adhesive Systems Ltd.

Aromatic Oils – Starfish Oils

Automotive Chemicals – Mackchem Chemicals Ltd., Cool Petroleum Ltd.

Candles – Aisha Marie Products, Starfish Oils

Cooking Gas – Industrial Gases Ltd.

Cosmetics – La India Cosmetics, P.A. Benjamin Mfg. Co. Ltd., Jencare Skin Farm, Cosmetics International Ltd., Associated Manufacturers Ltd., Yono Industries Ltd.

Fertilizer – Agricultural Chemical Plant T/A Lascelles Ltd., Newport Fersan (Ja.) Ltd.

Foam – Polyflex Foam Co. Ltd., Seal Sprayed Solutions Ltd.

Fuels/Lubricants – Cool Petroleum Ltd., Jamaica Biofuels Ltd., Petroleum Company of Jamaica Ltd.

Hair Products – La India Cosmetics, Leon's Beauty Products, Orion Sales Ltd.

Household Cleaning Products – Barco Caribbean Ltd., Associated Manufacturers Ltd., Advanced Chemicals Lab. Ltd., Clean Chem Ltd., Consumer Packaging Ltd., Kirk Distributors Ltd., P.A. Benjamin Mfg. Co. Ltd., Quality Chemicals

Ltd., Shirlhome Chemicals Corp., Supreme Chemicals Ltd., Versachem International Ltd., Zep Products Ltd.

Industrial Chemicals – Advanced Chemicals Lab. Ltd., Diverseylever Jamaica Ltd., Industrial Chemicals Company, KS Chemicals Distributors Ltd., Musson (Jamaica) Ltd.

Insecticides/Pesticides – Latin American Exporters, Advanced Chemicals Lab. Ltd., Windsor Laboratories, Agricultural Chemical Plant

Laundry detergents – Blue Power Ltd., Clean Chem Ltd., Consumer Packaging Ltd., Theos Industries Ja. Ltd.

Optical Spectacles – Central Optical Co. Ltd.

Paints/Paint Products – Berger Paints (Ja.) Ltd., Brandram-Henderson (W.I.) Ltd., Edgechem Jamaica Ltd., Sherwin Williams (W.I), Fleetwood Jamaica Ltd.

Perfumes – Parfums Jamaica Ltd., La India Cosmetics

Personal Care Products – Windsor Laboratories, Supreme Chemicals Ltd., P.A. Benjamin Mfg. Co.Ltd., Mac's Pharmaceuticals & Cosmetics, E.W. Abrahams and Sons Ltd., Cosmetics International Ltd., Barco Caribbean Ltd., La India Cosmetics

Pharmaceuticals – Mac's Pharmaceuticals & Cosmetics, Supreme Chemicals Ltd., P.A. Benjamin Mfg. Co. Ltd., Windsor Laboratories, Federated Pharmaceuticals

Sanitizing Chemicals – Shirlhome Chemicals Corp., KS Chemicals Distributors Ltd.

Soaps – Advanced Chemicals Lab. Ltd., Jencare Skin Farm, Pretti Slippery, Starfish Oils, Zep Products Ltd.

Toilet Bowl Cleaner – Blue Power Ltd., Zep Products Ltd.

Water Treatment Chemicals/Equipment – Chem-Quip Water Treatment Ltd.

Electrical, Electronics & Automotive Products Group

Automotive Products – Turbolife Mfg. Co. Ltd.

Electrical Fixtures – CMP Home & Office Ltd., Prosperous Manufacturing Ltd.

Electric Power – Jamaica Public Service Co. Ltd.

Gasketing – Bearings & Seals Ltd.

Gasoline/Oils – Petrojam Ltd.

Gas Stoves – Serv-Wel Industries Ltd.

Industrial Machine Products – Hamilton’s Industrial Machine Shop

Lighting Fixtures – Citrad Ltd.

Muffler System Products – Muffler Specialists Ltd.

Surge Protectors – Nicorp Ltd., Professional Services Ltd.

Television Assembling – UBT Corporation Ltd.

Welding Products – Elarc Welding Products

Food & Agro

Alcoholic Beverages - Big City Brewing, J. Wray & Nephew Ltd., Red Stripe,
Value Manufacturing Co. Ltd.

Baked Products - Baking Enterprises/Yummy Bakery, Breads & More, Captain’s
Bakery Ltd., Chocolate Dreams, Consolidated Bakeries (Ja.) Ltd., Continental Baking
Co. Ltd., Cost Cub Ltd., Dolci Jamaica Ltd., Honey Bun (1982) Ltd., International

Biscuits Ltd. (Seprod Group), Jamaica Biscuit Company Ltd., Jamaica Flour Mills Ltd., Poly foods Ltd., Loybar Jameric, Tortuga Caribbean Rum Cake Ja. Ltd.

Biscuits/Cookies - Captain's Bakery Ltd., Continental Baking Co. Ltd., International Biscuits Ltd. (Seprod Group), Jamaica Biscuit Company Ltd., Restaurants of Jamaica Ltd.

Bottled/Canned Foods – West Best Foods Ltd., Musson Jamaica Ltd., Grace Food Processors (Canning) Ltd.

Canned Ackees - Sunshine Food Processors Ltd.

Carbonated Beverages – Pepsi-Cola Jamaica Bottling Co. Ltd., Wisynco Group Ltd.,

Cheese - Dairy Industries (Ja.) Ltd. (Grace Kennedy & Co. Ltd.)

Chips - Poly Foods Ltd., Restaurants of Jamaica Ltd., Trinjam Food Processors Ltd.

Cigars - Barrington Cigars (Ja.) Ltd.

Coffee - Greenwich Mountain Estate Ltd., Jamaica Standard Products Co. Ltd., Mavis Bank Coffee Factory Ltd.

Cooking Oil - Caribbean Products Ltd. (Seprod Group)

Corn Products – Seprod Ltd./Jamaica Grain & Cereal Ltd.

Drink Mixes/Bag Drinks – Windsor Laboratories, Salada Foods Jamaica Ltd., Quench Industries

Essential Oils/Flavourings - Carribean Flavours & Frangrances Ltd., Flavorlan Ltd. Easispice Manufacturers Ltd., Island Spice Ltd., P.A. Benjamin Mfg. Co. Ltd., International Ingredients Ltd.

Flour/Mixes - Jamaica Flour Mills Ltd.

Food Supplements - Immuno Venture Products Ltd.

Ice - Island Ice & Beverage Co. Ltd.

Ice-Cream - Debz and Ranaz Limited, Mother's Enterprises Ltd., Scoops Unlimited Ltd., Smith & Stewart Distributors Ltd.

Jams - Roberts Products Co. Ltd., King Pepper Products Ltd.

Juices – Tyco Food Ltd., Coldfield Mfg., Econo Products Jamaica Ltd., Golden St. Mary Traders Ltd., Grace Food Processors (Canning) Ltd., Jamaica Citrus Growers Ltd., O. Jay Coolers Ltd., Roberts Products Co. Ltd., RST Industries Ltd., Spike Industries Ltd., Serge Island Dairies Ltd., Trade Wind Citrus Ltd., Caribbean Producers (Jamaica) Ltd.,

Meats - Caribbean Broilers Group, Copperwood Ltd., Grace Food Processors (Meat) Ltd., Jamaica Broilers Group Ltd. (Best Dressed Foods Division), Lillan Limited, Spanish Grain Store, Rainforest Seafood Ltd.

Pasta/Macaroni - Buccaneer Traders Ja. Ltd., Jamaica Macaroni Factory Ltd.

Patties - Juici Patties Ltd., Mother's Enterprises Ltd., Taste Limited
Pepper shrimp - Home Choice

Porridge/Oats - Caribbean Foods Ltd., Creation Foods Ltd., Grace, Seprod Powdered Beverages/Soy Based – Lasco Foods Ltd.

Root Tubers (Yams) – Tourejon Food Processors Ja. Ltd.

Roots/ Energy Drink – Roxy Industries Ltd., B.A.B.A Ltd., Nature Fresh

Sea food – Buccaneer Traders Ja. Ltd., Caribbean Aquaculture Co. Ltd.

Seasoning/Spices/Sauces – Associated Mfrs. Ltd., Easispice Manufacturers Ltd., Fachoy Foods Ltd., Grace Food Processors (Canning) Ltd., Gray’s Pepper Products Ltd., Island Spice Ltd., King Pepper Products Ltd., Nestle-JMP (Jamaica) Ltd., P.A. Benjamin Mfg. Co. Ltd., Roberts Products Co. Ltd., Spur Tree Spices Jamaica Ltd., Walkerswood Caribbean Foods Ltd.

Soups – Spicy Hill Farms Ltd., Nestle-JMP (Jamaica) Ltd., National Processors Ltd. (Grace Kennedy & Co. Ltd.)

Syrups – Cal’s Manufacturing Ltd., Pings Distributors Ltd., PR Enterprise, Tropical Syrup Mfg. Co. Ltd., Vap Ltd., Virginia Dare Jamaica Ltd.

Tea – Perishables Jamaica Ltd., Salada Foods Jamaica Ltd.

Veggie Chunks - Creation Foods Ltd., Grace

Water – Wisynco Group Ltd., Pepsi-Cola Jamaica Bottling Co. Ltd., Jamaica Spring Water Co. Ltd., Jam Agua Ltd., Golden St. Mary Traders Ltd., Barco Caribbean Ltd.

Wines – J. Wray & Nephew, Roxy Industries, Vap Ltd.

Yogurts – Dairy Industries (Ja.) Ltd.

Furniture, Wooden & Bedding Products

Beds/Bedding Products – Boss Furniture Co. Ltd., Foam and Accessories Ltd., Island Dreams Bedding & Furniture, McIntosh Group of Companies, My Foam Company Ltd., Therapedic Caribbean

Caskets – Kenrick Manufacturing Co. Ltd.

Hardwood/Laminate Flooring – Dougall Flooring Ltd.

Joinery/Cabinets and Countertops – Cameron Industries & Joinery Ltd.,
Hardware & Lumber Ltd., Jamaica Fibreglass Products Ltd., Millwood Industries Ltd.,
Taylor’s Wood Products

Living Rooms Suites/Sofas – Boss Furniture Co. Ltd., Foam and Accessories
Ltd., Frontline Products Manufacturing Co. Ltd., Island Dreams Bedding & Furniture
Medical & Laboratory Furniture – Goncura Co. Ltd.

Roofing Sheets - Sassari Jamaica Ltd.

Sporting Goods – Emkay Sports (1995) Ltd.

Windows/Doors - Millwood Industries Ltd., Sassari Jamaica Ltd., Taylor’s Wood
Products

**Wooden, Metal, Fibreglass, (Office, School, Restaurant, household and Hotel
Furniture)**- Jamaica Fibreglass Products Ltd., Hard Ware & Lumber Ltd., VGC
Holdings Ltd., B.W. Manufacturing Company

Wood Fillets/Mouldings - Sassari Jamaica Ltd., Touchwood Jamaica Ltd.

Gold & Silver Smith’s Products Group

Gold & Silver Jewellery – Swiss Stores Ltd.

Mineral & Metal Products

Aluminium & UPVC Windows & Doors– Modern Windows & Roofing Mfg.
Co. Ltd., RAD Industries & Services Ltd., Tropicair Ltd, Windows Ltd.

Calcined Lime – Cemex Jamaica Ltd.

Chain Link Fencing/Assembling – New Era Fencing Ltd., Tank-Weld Ltd.,
Crowne Industries Ltd.

Crushed sand and stone/ Paving Stones – Millenium Paving Stones Ltd., Sha-Gore Aggregates Ltd.

Grey Portland Cement – Caribbean Cement Company Ltd.

Guttering – Soljam Ltd.

Hurricane Shutters – JHA Associates Ltd., Modern Windows & Roof Mfg. Co.

HVAC Ducting – General Ducting Co. Ltd.

Louvre Frames – Naco Successors Ltd.

Marble and Onyx Slabs and Tiles/Cabinetry – Exotic Stone Creations, Shag-Roc Ltd.

Petroleum Gas Cylinders – VGC Holdings Ltd.

Roofing Panels & Sheets & Other products – Quality Dealers Ltd., Arc Systems Ltd.

Thinset & Grout – Quality Walls & Floor Products Ltd.

Printing, Packaging & Paper Products

Bean Bags – Free Form Factory

Compact disc and records- Laser Works Ltd., Sonic Sounds Recording Mfg. Co. Ltd., Tuff Gong International Ltd.

Computer Forms - Xsomo International Ltd. (formerly Moore's Business forms)

Corrugated Carton Boxes – AMG Packaging & Paper Company Ltd., Corrpak Jamaica (Div. Of Commercial Holdings Ltd.)

Diaries/Planners – Touchline Industries Ltd.

Embroidery & Screen Printing – Logostitch Manufacturing Ltd., V.R. Gifts & Souvenirs Ltd.

Emboss Seals/ Laser Engraving – Seals and Engravables

Metal Cans – Crown Packaging Jamaica Ltd.

Paper Bags, Napkins, Hand towels – Dealaz Manufacturers & Distributors Ltd.

Paper Machine Rolls – Kovertra Ltd.

Paper Cups – Containers Company Ltd.

Plastic Bags, Utensils & Plates – Poly-Pak (Jamaica) Ltd., Supreme Bags Ltd., Wisynco Group Ltd.

Plastic Pet Bottles- Bay Packaging & Containers Ltd., Poly Pet Company Ltd., Sweetcraft Ltd., United Plastics Ltd.

Polypropelene Bags, Rope & Wire – Jamaica Bags Ltd.

Printing Services – Lithographic Printers Ltd., Mapco Printers Ltd., Peer Tree Press Ltd., Pheonix Printery Ltd.

PVC Pipes/Buckets – Omni Industries Ltd.

Self Adhesive Labels – Labels Jamaica Ltd., Labels and Supplies Centre

Tissue – K&B Trading, J.W. Manufacturing Co. Ltd.

Water Tanks – Greif Jamaica Ltd., Rotoplastics Jamaica Ltd., Rototech International Ltd.

Textile & Sewn Products

Bed Linen/ Table Cloth – Perry’s Manufacturing Ltd.

Corporate/School Uniforms – Designs by Marc, Heffes Sales Company Ltd.

Drapery/Blinds – Oliver’s Decorating

Hats – Cinderella Hats & Bridal House Co. Ltd.

Leather Shoes/ Bags – Ledermode Ltd. (Alkali Group)

Mops – Air Watt Mfg. Co. Ltd.

Sports Wear – Crimson Dawn Mfg. Co. Ltd.

T-Shirts/Leisure Wear – J& E Industries Ltd., Prints & Paints Ltd./A. Richard

Vassell & Associates, Sun Island

Source: The Jamaica Manufacturers' Association Ltd.,

85A Duke Street, Kingston,

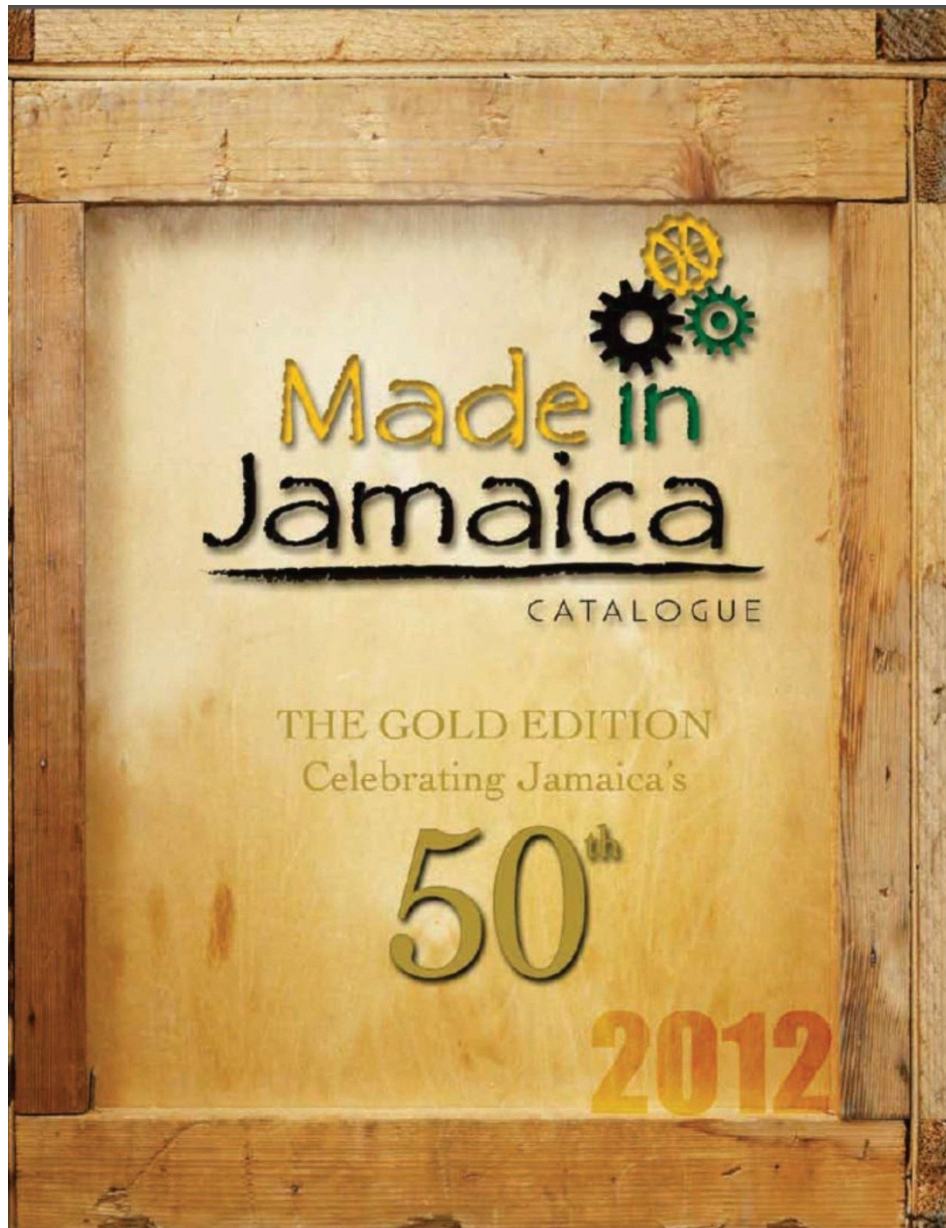
email: jma@cwjamaica.com,

website: www.jma.com.jm

Appendix B

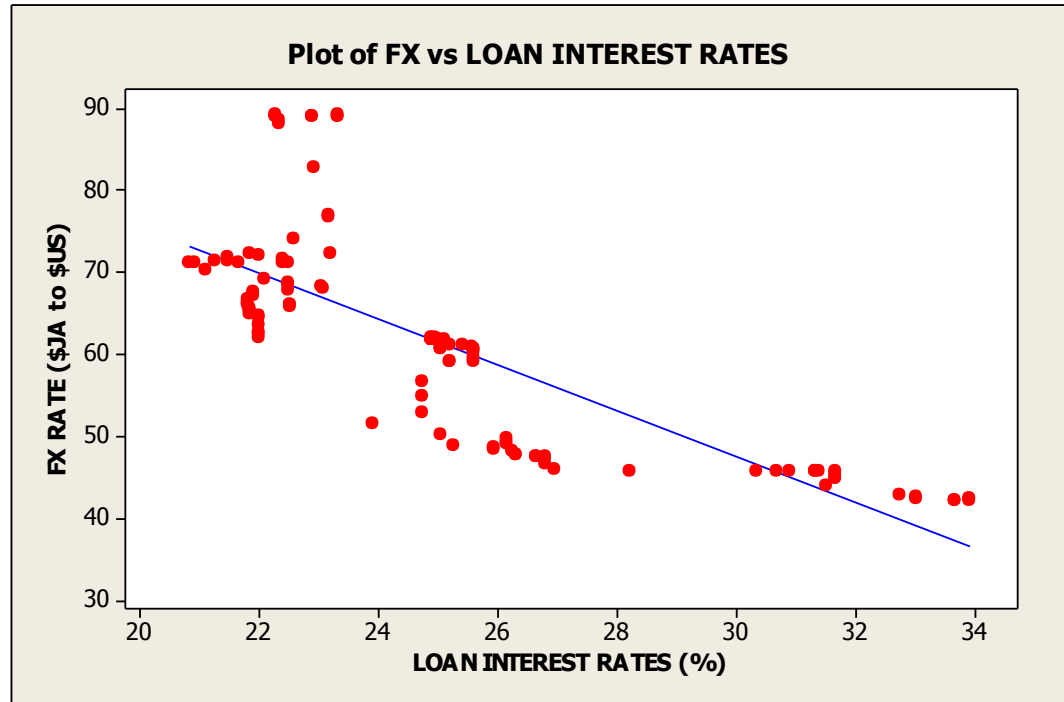
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<http://www.jamaicacatalogue.com/>



Appendix C

Regression Data for FX Rates vs. Exchange Rates



Regression Analysis: FX versus LOAN INTEREST RATE

The regression equation is
 $FX = 132 - 2.80 \text{ LOAN}$

Predictor	Coef	SE Coef	T	P
Constant	131.622	5.234	25.15	0.000
LOAN	-2.8046	0.2061	-13.61	0.000

$S = 7.92270$ $R\text{-Sq} = 61.5\%$ $R\text{-Sq}(\text{adj}) = 61.2\%$

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	11623	11623	185.17	0.000
Residual Error	116	7281	63		
Total	117	18904			

Unusual Observations

Obs	LOAN	FX	Fit	SE Fit	Residual	St Resid
1	33.9	42.250	36.489	1.949	5.761	0.75 X
2	33.9	42.250	36.489	1.949	5.761	0.75 X
3	33.9	42.150	36.489	1.949	5.661	0.74 X
4	33.7	42.070	37.190	1.902	4.880	0.63 X
5	33.7	42.070	37.190	1.902	4.880	0.63 X
110	22.3	88.060	68.967	0.931	19.093	2.43R
111	22.3	88.460	68.967	0.931	19.493	2.48R
112	23.3	88.980	66.218	0.821	22.762	2.89R
113	23.3	89.020	66.218	0.821	22.802	2.89R
114	23.3	89.090	66.218	0.821	22.872	2.90R
115	22.9	89.050	67.424	0.865	21.626	2.75R
116	22.9	88.980	67.424	0.865	21.556	2.74R
117	22.3	89.050	69.191	0.942	19.859	2.52R
118	22.3	89.160	69.191	0.942	19.969	2.54R

R denotes an observation with a large standardized residual.

X denotes an observation whose X value gives it large leverage.

Appendix D

Inflation Indexes

Y	Inflation	Rank	Percent	Date of
2	7.00%	50		2002
2	10.30%	37	47.14%	2003
2	12.40%	203	20.39%	2004
2	15.30%	212	23.39%	2005
2	5.80%	144	-62.09%	2006
2	9.50%	189	63.79%	2007
2	22.00%	207	131.58%	2008

Definition: This entry furnishes the annual percent change in consumer prices compared with the previous year's consumer prices.

Source: CIA World Factbook - Unless otherwise noted, information in this page is accurate as of September 17, 2009

Appendix E

Jamaica National Export Strategy

The targeted industries of the National Export Strategy are:

Agro-processing (Food & Beverages)

The international demand for Jamaica's unique and diverse range of food products continues to grow, with exports increasing by 43% in 2008. The agro-processing industry, within the wider industry of manufacturing, contributes to adding value to Jamaican agricultural products as well as to employment opportunities in rural areas. The objectives for the agro-processing industry are to i) increase exports by 15% each year by improving access to overseas buyers ii) introduce five (5) new products to the export market by 2012 iii) drive the adoption of full global best practices by 60% of the industry iv) improve Jamaica Agro Processors Association (JAPA) so that it is an effective and vibrant association.

Aquaculture

Fish, crustaceans and mollusks have been one of Jamaica's best performing exports in the non-traditional export category, making the aquaculture industry a potential champion export for Jamaica with growth opportunities for production and export. The objectives for the aquaculture industry center on improving production efficiencies, while reducing costs of production, ultimately resulting in i) improved growth rate of fish by 10-20% ii) improved feed conversion (from 2 to 1.5) iii) increased profitability of firms by 20% iv) increased recovery from 70% to 80% (world average) by 2011 v) significant improvement in brood stock quality (hardiness and fecundity) vi) reduced losses from

theft vii) increased export value of 15% annually viii) increased acceptability and accessibility of Tilapia as a main protein source.

Coffee

Jamaica's Blue Mountain coffee, one of the island's top ten exports, remains an iconic brand globally and a symbol of quality product from Jamaica. There is significant export potential that may be realized from both increased production and export volume; increased value of export by expanding the percentage of value added production locally, as well as development of value-added products.

The industry objectives for coffee are to i) access new market niches in at least three countries ii) increase the volume of exports by 20% (iii) improve 'clean bean' yield to 980 kilograms per hectare (from 590) iv) increase premium exports to 45% of total (green bean) export (from 23% baseline) v) increase sales to the tourism industry by 15%.

Education

Jamaica has an active and vibrant education industry with a number of well-established public and private institutions and a range of study offerings in an attractive location. This industry has strong growth potential and could develop a viable education export industry capable of providing significant foreign exchange earnings.

The objectives for the Education industry are to i) achieve export earnings of over US\$30 million ii) attract 1,000 additional extra-regional students at tertiary institutions with differential fee structures per year iii) attract 1,000 additional regional students at tertiary institutions with homogenous fee structures per year iv) attract three foreign

English language training (ELT) providers to Jamaica and increase the number of ELT students by 500.

Entertainment

Jamaica is known globally for its cultural and creative industries, which are a major contributor to the local economy. Within the Creative Industries, Dance, Drama, Film and Music are among the strongest export services and have the greatest potential to promote our culture and creativity. Estimates of music export earnings are as high as US\$100 million, while film location projects may contribute US\$14 million to the local economy.

The objectives for the entertainment industry are to i) increase music exports by US\$50 million over five years ii) increase exports across the industry by 20% annually iii) strengthen the industry by focusing on the formalization and development of enterprises iv) enhance the institutions that support the industry to improve coordination and business approach to its development.

Fashion, Jewelry, Accessories

Jamaica's vibrant fashion industry may be considered the strongest goods producing industry in Jamaica's creative industries. Jamaica's total export figures for the apparel and jewelry industries include items manufactured locally for international firms as well as the export of items not manufactured locally, but not captured as re-exports, such as wristwatches.

The objectives for the fashion, jewelry and accessories industry are to i) develop a strong national fashion cluster that will be sustained following the termination of the Private Sector Development Program (PSDP) ii) create a competitive fashion industry

producing quality garments to international-level standards to meet market demands iii) create a nationally and regionally prominent industry based on the increased awareness of the Jamaican cluster iv) increase production of locally designed and manufactured fashion products.

Information and Communications Technology (ICT)

As a recognized leader in ICT services in the region as well as in target markets, Jamaica has the opportunity to build on this position and tap into the large US market. Jamaica has an active ICT industry centered on software development services and the largest call center industry in the region. Exporting is already taking place across the segments of this market, with exports from the call center industry alone conservatively estimated to be between US\$300-400 million.

The objectives for the ICT industry are to i) double annual contact centre/Business Process Outsourcing (BPO) exports by US\$150 million ii) establish a venture capital fund to support the ICT industry iii) attract 15 foreign contact centre/BPO service providers to the country iv) facilitate the set-up of at least five local BPO service providers v) establish an association representing 60% of firms in the industry within the first two years of implementing the NES.

Mining

Jamaica has a range of commercially exploitable minerals, including a wide variety of limestone, hard volcanic rocks, bauxite, marble, base and precious metals, sand and gravel. These minerals are of major significance to Jamaica's economic development, particularly their contribution to the national economy, their impact on, and

linkages with other industries, and their overall contribution to GDP. In fact, since 1985 the Minerals Industry has contributed at least 5.2% to Jamaica's annual GDP.

The industry objectives for mining are to i) increase mineral exploitation, value-added production, local consumption and export of minerals and mineral products, and to expand and modernize the minerals industry ii) ensure the effective management of mineral resources iii) develop a modern legislative framework and supporting institutions which enable continued development of the minerals industry iv) create a strong and profitable industry.

http://www.jamaicatradeandinvest.org/nes/target_industries.php

Appendix F

Excerpts from: The General Agreement on Tariffs and Trade (GATT 1947)

Article XVIII*

Governmental Assistance to Economic Development

1. The contracting parties recognize that the attainment of the objectives of this Agreement will be facilitated by the progressive development of their economies, particularly of those contracting parties the economies of which can only support low standards of living* and are in the early stages of development.*

2. The contracting parties recognize further that it may be necessary for those contracting parties, in order to implement programs and policies of economic development designed to raise the general standard of living of their people, to take protective or other measures affecting imports, and that such measures are justified in so far as they facilitate the attainment of the objectives of this Agreement. They agree, therefore, that those contracting parties should enjoy additional facilities to enable them (a) to maintain sufficient flexibility in their tariff structure to be able to grant the tariff protection required for the establishment of a particular industry* and (b) to apply quantitative restrictions for balance of payments purposes in a manner which takes full account of the continued high level of demand for imports likely to be generated by their programs of economic development.

3. The contracting parties recognize finally that, with those additional facilities which are provided for in Sections A and B of this Article, the provisions of this Agreement would normally be sufficient to enable contracting parties to meet the

requirements of their economic development. They agree, however, that there may be circumstances where no measure consistent with those provisions is practicable to permit a contracting party in the process of economic development to grant the governmental assistance required to promote the establishment of particular industries* with a view to raising the general standard of living of its people. Special procedures are laid down in Sections C and D of this Article to deal with those cases.

4. (a) Consequently, a contracting party, the economy of which can only support low standards of living* and is in the early stages of development,* shall be free to deviate temporarily from the provisions of the other Articles of this Agreement, as provided in Sections A, B and C of this Article.

(b) A contracting party, the economy of which is in the process of development, but which does not come within the scope of subparagraph (a) above, may submit applications to the CONTRACTING PARTIES under Section D of this Article.

5. The contracting parties recognize that the export earnings of contracting parties, the economies of which are of the type described in paragraph 4 (a) and (b) above and which depend on exports of a small number of primary commodities, may be seriously reduced by a decline in the sale of such commodities. Accordingly, when the exports of primary commodities by such a contracting party are seriously affected by measures taken by another contracting party, it may have resort to the consultation provisions of Article XXII of this Agreement.

6. The CONTRACTING PARTIES shall review annually all measures applied pursuant to the provisions of Sections C and D of this Article.

Section A

7. (a) If a contracting party coming within the scope of paragraph 4 (a) of this Article considers it desirable, in order to promote the establishment of a particular industry* with a view to raising the general standard of living of its people, to modify or withdraw a concession included in the appropriate Schedule annexed to this Agreement, it shall notify the CONTRACTING PARTIES to this effect and enter into negotiations with any contracting party with which such concession was initially negotiated, and with any other contracting party determined by the CONTRACTING PARTIES to have a substantial interest therein. If agreement is reached between such contracting parties concerned, they shall be free to modify or withdraw concessions under the appropriate Schedules to this Agreement in order to give effect to such agreement, including any compensatory adjustments involved.

(b) If agreement is not reached within sixty days after the notification provided for in subparagraph (a) above, the contracting party which proposes to modify or withdraw the concession may refer the matter to the CONTRACTING PARTIES which shall promptly examine it. If they find that the contracting party which proposes to modify or withdraw the concession has made every effort to reach an agreement and that the compensatory adjustment offered by it is adequate, that contracting party shall be free to modify or withdraw the concession if, at the same time, it gives effect to the compensatory adjustment. If the CONTRACTING PARTIES do not find that the compensation offered by a contracting party proposing to modify or withdraw the concession is adequate, but find that it has made every reasonable effort to offer adequate compensation, that contracting party shall be free to proceed with such modification or

withdrawal. If such action is taken, any other contracting party referred to in subparagraph (a) above shall be free to modify or withdraw substantially equivalent concessions initially negotiated with the contracting party which has taken the action.*

Section B

8. The contracting parties recognize that contracting parties coming within the scope of paragraph 4 (a) of this Article tend, when they are in rapid process of development, to experience balance of payments difficulties arising mainly from efforts to expand their internal markets as well as from the instability in their terms of trade.

9. In order to safeguard its external financial position and to ensure a level of reserves adequate for the implementation of its programme of economic development, a contracting party coming within the scope of paragraph 4 (a) of this Article may, subject to the provisions of paragraphs 10 to 12, control the general level of its imports by restricting the quantity or value of merchandise permitted to be imported; *Provided* that the import restrictions instituted, maintained or intensified shall not exceed those necessary:

- (a) to forestall the threat of, or to stop, a serious decline in its monetary reserves, or
- (b) in the case of a contracting party with inadequate monetary reserves, to achieve a reasonable rate of increase in its reserves.

Due regard shall be paid in either case to any special factors which may be affecting the reserves of the contracting party or its need for reserves, including, where special external credits or other resources are available to it, the need to provide for the appropriate use of such credits or resources.

10. In applying these restrictions, the contracting party may determine their incidence on imports of different products or classes of products in such a way as to give priority to the importation of those products which are more essential in the light of its policy of economic development; *Provided* that the restrictions are so applied as to avoid unnecessary damage to the commercial or economic interests of any other contracting party and not to prevent unreasonably the importation of any description of goods in minimum commercial quantities the exclusion of which would impair regular channels of trade; and *Provided* further that the restrictions are not so applied as to prevent the importation of commercial samples or to prevent compliance with patent, trade mark, copyright or similar procedures.

11. In carrying out its domestic policies, the contracting party concerned shall pay due regard to the need for restoring equilibrium in its balance of payments on a sound and lasting basis and to the desirability of assuring an economic employment of productive resources. It shall progressively relax any restrictions applied under this Section as conditions improve, maintaining them only to the extent necessary under the terms of paragraph 9 of this Article and shall eliminate them when conditions no longer justify such maintenance; *Provided* that no contracting party shall be required to withdraw or modify restrictions on the ground that a change in its development policy would render unnecessary the restrictions which it is applying under this Section.*

12. (a) Any contracting party applying new restrictions or raising the general level of its existing restrictions by a substantial intensification of the measures applied under this Section, shall immediately after instituting or intensifying such restrictions (or, in circumstances in which prior consultation is practicable, before doing

so) consult with the CONTRACTING PARTIES as to the nature of its balance of payments difficulties, alternative corrective measures which may be available, and the possible effect of the restrictions on the economies of other contracting parties.

(b) On a date to be determined by them* the CONTRACTING PARTIES shall review all restrictions still applied under this Section on that date. Beginning two years after that date, contracting parties applying restrictions under this Section shall enter into consultations of the type provided for in subparagraph (a) above with the CONTRACTING PARTIES at intervals of approximately, but not less than, two years according to a programme to be drawn up each year by the CONTRACTING PARTIES; *Provided* that no consultation under this subparagraph shall take place within two years after the conclusion of a consultation of a general nature under any other provision of this paragraph.

(c) (i) If, in the course of consultations with a contracting party under subparagraph (a) or (b) of this paragraph, the CONTRACTING PARTIES find that the restrictions are not consistent with the provisions of this Section or with those of Article XIII (subject to the provisions of Article XIV), they shall indicate the nature of the inconsistency and may advise that the restrictions be suitably modified.

(ii) If, however, as a result of the consultations, the CONTRACTING PARTIES determine that the restrictions are being applied in a manner involving an inconsistency of a serious nature with the provisions of this Section or with those of Article XIII (subject to the provisions of Article XIV) and that damage to the trade of any contracting party is caused or threatened thereby, they shall so inform the contracting party applying the restrictions and shall make appropriate recommendations

for securing conformity with such provisions within a specified period. If such contracting party does not comply with these recommendations within the specified period, the CONTRACTING PARTIES may release any contracting party the trade of which is adversely affected by the restrictions from such obligations under this Agreement towards the contracting party applying the restrictions as they determine to be appropriate in the circumstances.

(d) The CONTRACTING PARTIES shall invite any contracting party which is applying restrictions under this Section to enter into consultations with them at the request of any contracting party which can establish a *prima facie* case that the restrictions are inconsistent with the provisions of this Section or with those of Article XIII (subject to the provisions of Article XIV) and that its trade is adversely affected thereby. However, no such invitation shall be issued unless the CONTRACTING PARTIES have ascertained that direct discussions between the contracting parties concerned have not been successful. If, as a result of the consultations with the CONTRACTING PARTIES no agreement is reached and they determine that the restrictions are being applied inconsistently with such provisions, and that damage to the trade of the contracting party initiating the procedure is caused or threatened thereby, they shall recommend the withdrawal or modification of the restrictions. If the restrictions are not withdrawn or modified within such time as the CONTRACTING PARTIES may prescribe, they may release the contracting party initiating the procedure from such obligations under this Agreement towards the contracting party applying the restrictions as they determine to be appropriate in the circumstances.

(e) If a contracting party against which action has been taken in accordance with the last sentence of subparagraph (c) (ii) or (d) of this paragraph, finds that the release of obligations authorized by the CONTRACTING PARTIES adversely affects the operation of its programme and policy of economic development, it shall be free, not later than sixty days after such action is taken, to give written notice to the Executive Secretary⁶ to the Contracting Parties of its intention to withdraw from this Agreement and such withdrawal shall take effect on the sixtieth day following the day on which the notice is received by him.

(f) In proceeding under this paragraph, the CONTRACTING PARTIES shall have due regard to the factors referred to in paragraph 2 of this Article. Determinations under this paragraph shall be rendered expeditiously and, if possible, within sixty days of the initiation of the consultations.

Section C

13. If a contracting party coming within the scope of paragraph 4 (a) of this Article finds that governmental assistance is required to promote the establishment of a particular industry* with a view to raising the general standard of living of its people, but that no measure consistent with the other provisions of this Agreement is practicable to achieve that objective, it may have recourse to the provisions and procedures set out in this Section.*

⁶ By the Decision of 23 March 1965, the CONTRACTING PARTIES changed the title of the head of the GATT secretariat from "Executive Secretary" to "Director-General".

14. The contracting party concerned shall notify the CONTRACTING PARTIES of the special difficulties which it meets in the achievement of the objective outlined in paragraph 13 of this Article and shall indicate the specific measure affecting imports which it proposes to introduce in order to remedy these difficulties. It shall not introduce that measure before the expiration of the time-limit laid down in paragraph 15 or 17, as the case may be, or if the measure affects imports of a product which is the subject of a concession included in the appropriate Schedule annexed to this Agreement, unless it has secured the concurrence of the CONTRACTING PARTIES in accordance with provisions of paragraph 18; *Provided that*, if the industry receiving assistance has already started production, the contracting party may, after informing the CONTRACTING PARTIES, take such measures as may be necessary to prevent, during that period, imports of the product or products concerned from increasing substantially above a normal level.*

15. If, within thirty days of the notification of the measure, the CONTRACTING PARTIES do not request the contracting party concerned to consult with them,* that contracting party shall be free to deviate from the relevant provisions of the other Articles of this Agreement to the extent necessary to apply the proposed measure.

16. If it is requested by the CONTRACTING PARTIES to do so, *the contracting party concerned shall consult with them as to the purpose of the proposed measure, as to alternative measures which may be available under this Agreement, and as to the possible effect of the measure proposed on the commercial and economic interests of other contracting parties. If, as a result of such consultation, the CONTRACTING

PARTIES agree that there is no measure consistent with the other provisions of this Agreement which is practicable in order to achieve the objective outlined in paragraph 13 of this Article, and concur* in the proposed measure, the contracting party concerned shall be released from its obligations under the relevant provisions of the other Articles of this Agreement to the extent necessary to apply that measure.

17. If, within ninety days after the date of the notification of the proposed measure under paragraph 14 of this Article, the CONTRACTING PARTIES have not concurred in such measure, the contracting party concerned may introduce the measure proposed after informing the CONTRACTING PARTIES.

18. If the proposed measure affects a product which is the subject of a concession included in the appropriate Schedule annexed to this Agreement, the contracting party concerned shall enter into consultations with any other contracting party with which the concession was initially negotiated, and with any other contracting party determined by the CONTRACTING PARTIES to have a substantial interest therein. The CONTRACTING PARTIES shall concur* in the measure if they agree that there is no measure consistent with the other provisions of this Agreement which is practicable in order to achieve the objective set forth in paragraph 13 of this Article, and if they are satisfied:

- (a) that agreement has been reached with such other contracting parties as a result of the consultations referred to above, or
- (b) if no such agreement has been reached within sixty days after the notification provided for in paragraph 14 has been received by the CONTRACTING PARTIES, that the contracting party having recourse to this Section has made all reasonable efforts to reach an agreement and that the interests of other contracting parties are adequately safeguarded.*

The contracting party having recourse to this Section shall thereupon be released from its obligations under the relevant provisions of the other Articles of this Agreement to the extent necessary to permit it to apply the measure.

19. If a proposed measure of the type described in paragraph 13 of this Article concerns an industry the establishment of which has in the initial period been facilitated by incidental protection afforded by restrictions imposed by the contracting party concerned for balance of payments purposes under the relevant provisions of this Agreement, that contracting party may resort to the provisions and procedures of this Section; *Provided* that it shall not apply the proposed measure without the concurrence* of the CONTRACTING PARTIES.*

20. Nothing in the preceding paragraphs of this Section shall authorize any deviation from the provisions of Articles I, II and XIII of this Agreement. The provisions to paragraph 10 of this Article shall also be applicable to any restriction under this Section.

21. At any time while a measure is being applied under paragraph 17 of this Article any contracting party substantially affected by it may suspend the application to the trade of the contracting party having recourse to this Section of such substantially equivalent concessions or other obligations under this Agreement the suspension of which the CONTRACTING PARTIES do not disapprove;* *Provided* that sixty days' notice of such suspension is given to the CONTRACTING PARTIES not later than six months after the measure has been introduced or changed substantially to the detriment of the contracting party affected. Any such contracting party shall afford adequate

opportunity for consultation in accordance with the provisions of Article XXII of this Agreement.

Section D

22. A contracting party coming within the scope of subparagraph 4 (b) of this Article desiring, in the interest of the development of its economy, to introduce a measure of the type described in paragraph 13 of this Article in respect of the establishment of a particular industry* may apply to the CONTRACTING PARTIES for approval of such measure. The CONTRACTING PARTIES shall promptly consult with such contracting party and shall, in making their decision, be guided by the considerations set out in paragraph 16. If the CONTRACTING PARTIES concur* in the proposed measure the contracting party concerned shall be released from its obligations under the relevant provisions of the other Articles of this Agreement to the extent necessary to permit it to apply the measure. If the proposed measure affects a product which is the subject of a concession included in the appropriate Schedule annexed to this Agreement, the provisions of paragraph 18 shall apply.*

23. Any measure applied under this Section shall comply with the provisions of paragraph 20 of this Article.

Appendix G

Jamaica: Financial Position in the International Monetary Fund as of August 31, 2011

Summary of IMF members' quota, reserve position, SDR holdings, outstanding credit, recent lending arrangements, projected payments due to the IMF, and monthly historical transactions with the Fund.

I. Membership Status: Joined: February 21, 1963; Article VIII

II. General Resources Account:	SDR Million	%Quota
<u>Quota</u>	273.50	100.00
<u>Fund holdings of currency (Exchange Rate)</u>	815.35	298.12
<u>Reserve Tranche Position</u>	0.00	0.00

III. SDR Department:	SDR Million	on	%Allocati
<u>Net cumulative allocation</u>	261.64		100.00
<u>Holdings</u>	207.63		79.36

IV. <u>Outstanding Purchases and Loans:</u>	SDR Million	%Quota
Stand-by Arrangements	541.80	198.10

V. Latest Financial Arrangements:

Type	Date of Arrangeme nt	Expiration Date	Amount Approved (SDR Million)	Drawn (SDR Million)	Amount (SDR)
By	Stand- 2010	Feb 04, 2012	820.50	541.80	541.80
	EFF 1992	Dec 11, 1996	109.13		77.75
By	Stand- 1991	Jun 28, 1992	43.65	43.65	43.65

VI. Projected Payments to Fund ^{1/}

(SDR Million; based on existing use of resources and present holdings of SDRs):
Forthcoming

	1	201 2	201 3	201 4	201 5	201
Principal			28	175. 91	266. 3	95.6
Charges/Interest		1.97	7.68	7.15	4.04	0.84
Total		<u>1.97</u>	<u>7.68</u>	<u>182.</u>	<u>270.</u>	<u>96.4</u>

^{1/} When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

VII. Implementation of HIPC Initiative: Not Applicable

VIII. Implementation of Multilateral Debt Relief Initiative (MDRI): Not Applicable

IX. Implementation of Post-Catastrophe Debt Relief (PCDR): Not Applicable

Prepared by Finance Department, IMF

Appendix H

ACHIEVEMENTS

SCIENTIFIC RESEARCH COUNCIL

(An agency of the Ministry of Industry, Commerce and Investment)

Celebrating Over Forty Years of Achievement

1960 – 2007

Empowering Lives! Creating Wealth!

Waste Management / Alternate Energy

The Scientific Research Council is the sole provider of anaerobic technology in Jamaica. The SRC provides technical support to the National Water Commission, communities, schools, farmers and housing developers in commissioning and maintaining waste treatment systems.

- Reuse of treated sewage and wastewater for irrigation and soil conditioning. Impact: Sidgrains pilot project established and demonstrated that treated wastewater can grow crops economically, and reduce the use of potable water for irrigation.
- Biogas/Anaerobic Technology developed to promote the use of alternate sources of energy, supplement total energy demand, utilize waste and provide organic fertilizer and biogas while preserving healthy environment. SRC has commissioned over 150 biodigesters on farms/households island-wide. Since 1993 SRC has enhanced this technology with the development of polishing ponds. The ponds utilize air to further treat water after it leaves the drying bed.
- 1996 – Development of Biodigester Septic Tanks (BST) to replace septic tanks. BST uses anaerobic technology to treat household waste. SRC works with housing developers and communities to implement BST.
- 2002 – Development of Upflow Anaerobic Sludge Blanket (UASB) Reactor. Utilizes anaerobic technology to treat industrial, agro-processing and municipal waste. This refined anaerobic system, efficiently treats complex waste. The Process Development Division of the SRC is currently commissioning a UASB

reactor (the first in Jamaica) to treat food waste produced by the Food Technology Institute at SRC.

Agro Industry

A number of new food products are developed from local raw materials for commercialization and subsequent divestment to private sector. These activities provide socio-economic benefits to Jamaica in areas such as income generation and employment creation. SRC provides training and consultancy services, enabling the development and establishment of micro-businesses.

- Pioneered Development of Solar Crop Dryer, designed to dry spices, nuts, fruits and vegetables to obtain higher earnings. SRC encouraged small farmers and exporters to use solar drying technology to preserve pineapple, paw paw, mangoes, peanuts, peas, ginger, pepper and banana. Impact: Extended shelf life of tropical fruits and vegetables and diminish loss incurred during storage. Development of value added foods
- 1984 - Solar Salt Technology developed to produce solar salt by evaporation. Impact: Provide solar salt, used as raw material for the growth of chemical industries, producing caustic soda and plastic resins – chemicals which Jamaica import at costs exceeding US\$60 million annually. Technology transferred to local entrepreneur in 2001 with potential to create employment.
- 1984 - Introduced New Variety of Sugarcane - Worked with Sugar Industry Research Institute towards introducing a new variety of sugar cane, called energy cane, that would yield a higher increase in sucrose content and greater volume of molasses and fibre.
- Developed technology for the crystallizing and syruping of ginger. Technology transferred locally.
- Developed and put into effect sophisticated technology for making multi-purpose caramel. Technology transferred locally.
- Developed composite flours comprising of 20%-30% indigenous material (yam, breadfruit, cassava, banana), as a substitute for imported wheat flour. Especially suited for persons who are allergic to gluten found in wheat.
- Contributed to the Development of Local Industries - Developed suite of award winning sorrel products under the Hope Gardens Jamaica label and stimulated demand for agricultural produce. Utilizes local produce (sugar, ginger, mango, guava, pineapple and spices) in the making of value-added products.

Natural Products and Analytical Services

- Nitrogen Fixation – development in nitrogen fixation through locally developed strains of Rhizobia will allow up to 50% increase in yield of legume, crops

(notably red peas). Experiment conducted in St. Catherine proved that potassium improved the growth and nodulation of red peas. The addition of inoculants phosphate and potassium yielded a 23% increase in red peas per hectare.

- Isolated narigin, the bitter principle of grapefruit. Synthesized narigin dehydrochalcone (100 times sweeter than sugar).
- Developed a process for the isolation of pectin from lime peel. Pectin is used as thickening agent in food.
- Prepared levulinic and oxalic acids from molasses. These acids are fine chemicals for pharmaceuticals and agricultural pesticides.
- Prepared furfural from bagasse, coconut-shell and coffee husks. Furfural is a fine chemical for agricultural pesticides, plastics as well as refinery chemical for lubricating oils.
- Prepared sebacic acid, food flavoring, plasticizer and perfumery chemicals from castor oil.
- Developed an efficient process for the production of ginger oleoresin, the essential ingredient in ginger flavor. This should eliminate high transportation and export costs for root ginger making it more economically feasible.
- Prepared cellulosic derivatives (applicable to the surfactant, detergent and protective coating industries) from bagasse and coconut husks.
- Prepared modified cassava starch for application in baby foods and sauces. Modified cassava is easily digested.
- Developed an analytic method of evaluating the pungent principles (gingerol, shogaols) of ginger. These are indices of ginger quality for the world market.
- Developed procedure for extracting the coloring principle (bixin) from annatto. Renders annatto more useable as coloring matter for foods.
- Fermented flavoring chemicals e.g. monosodium glutamate and citric acid, reducing the need for importation of these products annually.
- Synthesized carvone – a peppermint flavored chemical – from limonene, a chemical from citrus oils. Carvone is utilized in the flavoring of liqueurs, candles and toothpaste.
- Isolated a new essential oil with perfumery characteristics from *Merchanthis fragrans* (a wild plant).
- Prepared sucrose esters for detergent purposes. Esters help particles to stick together.
- Developed sun tan lotion using local oils. (Commercialized by local manufacturer).
- Perfected the complexity of assaying the toxic level of hypoglycin in the Ackee fruit.

Food and Nutrition

- Evaluation of feeding programs – was instrumental in bringing about guidelines for the proper feeding of students in residence in schools and children's homes, and adults in penal institutions.
- The introduction to Jamaica of enriched formulations (patties and quick bread) for the School Feeding Program. Impact: Provision of nutritional meal for students.

- Participation in the formulation, evaluation and execution of the National Food and Nutrition Policy. Impact: Influence policy development and implementation.
- The development of enriched crackers and biscuits for use in maternal and child health programs.
- Production of an in-depth series of nutrition education material, which comprise films, slides and various publications. Notable of mention are the following publications:
- “Breadfruit for economy Pt. 1” – (selection of recipes designed to illustrate the diversified use of the breadfruit).
- Some publications for children are ‘Farmer Brown’, ‘Food We Eat’, ‘Jimmy Whitestrong’ and ‘Nutrition in Rhymes’.

Mineral Resources

- Mineral Resources Pilot Project – Utilized local raw material to make clay tiles, ceramics and sanitary ware.
- Developed acid resistant floor tiles, decorative pieces, drain pipes and roof tiles.
- Researched and developed clay bricks and blocks as part of a low-cost housing program.
- Impact: Local ceramic industry benefited from the SRC’s research work in the use of fluxes and glazes for stone and earthenware.
- Ceramic products prepared from Frenchman’s clay using local sand as a source of silica and imported nepheline syenite as flux. Satisfactory wares were made. Impact: Substitution of the imported nepheline by the locally abundant Newcastle prophyry rock.
- Researched and promoted a limestone deposit to maximize the use of the Island’s extensive limestone resources. Impact: Whiting developed resulting in import substitution.
- Red mud -Through a pilot project, levels for the use of red mud in cement manufacturing, and the production of red mud refractory bricks for use in manufacture of ceramic kilns established.

Technologies/ Processes Developed - Service to Industry

- 1983 - Devised means of making Invert Sugar that was previously imported by Electric Arc Jamaica Ltd., for use in the production of welding rods. Saved expenditure of scarce foreign exchange.
- 1987 to 1993 - Isolated insecticides/pesticides from local plants for commercial use against ticks and fleas.
- 1984 - Rat Bait Developed. SRC in collaboration with Storage and Infestation Division developed rat bait, made in cake form, utilizing relatively new compound. The bait is suitable for homes, warehouses and fields and can withstand any climatic condition. Commercialized in 1989.
- Soya Bean Processing Project Initiated. SRC in collaboration with Nutrition Holdings and the Ministry of Industry, Commerce and Investment did a feasibility study and submitted it along with recommendations to the Ministry, for the

erection of a three hundred (300) ton per day processing plant at Port Esquivel. Recommendations were accepted and the plant was operationalized.

- Identified Potatoes Suitable for making French Fries. Conducted studies on 36 varieties of potatoes and assisted farmers in identifying varieties of potatoes (Belchip and F74123 (Canadian) and Crystal and Russett-Burbank (American) and Cardinal (Dutch) suitable for making French fries in the fast food business. Increased utilization of potatoes by over 1,000 tons annually.
- Spice Industry - benefit from the development of jerk seasoning formula.
- Food and Meat Industry - benefited from dried meat sausage that needed no refrigeration.
- Food industry - benefited from heat penetration process for low acid canned foods, which allowed the export of low acid canned foods including callaloo, red peas and ackee.
- Biovegetal (organic fertilizer) - utilized waste, which could be harmful to the environment, to produce up to 10,000 tons of locally produced organic fertilizer. Implications - reduce importation of chemical fertilizer and significant reduction in fertilizer prices to the agricultural sector. Benefit to horticulture, tree crops and vegetable farmers while contributing to making environment healthy.

Aquaculture Industry

- Artemia - (Brine Shrimp) – Artemia is important as a starter feed. Most fish need live feed after hatching. The goal of the Artemia project is to support the aqua-culture industry by providing locally produced fish feed; reducing the cost of some of the ingredients of fish feed, and the final cost to the consumer. Impact: Developed novel fish feed products – decapsulated and normal brine shrimp eggs available in cans produced from Artemia grown in Yallahs Salt Ponds for ornamental fish industry. Reduce importation, saving foreign exchange.

Agricultural/Horticultural Sector

- Tissue Culture Technology (root and ornamental crops) – production of disease free plantlets has increased plant yields (example banana) reducing the need for the importation. Tissue culture plantlets produced for small farmers showing good results in fields. Development of the largest Musa gene bank in the Caribbean.

Mushroom Cultivation – promote cultivation of oyster mushroom.

- **Establish feasibility for growing mushroom locally.** Provide technical assistance and spawn to farmers facilitating the commercial production and sale of local mushroom.
- Solved pests and disease problems affecting mushroom

- **Recycling and composting using spent mushroom waste.** Successfully established a composting system, using mushroom and other organic waste.
 - Compost produced and sold locally.
 - Provide training and consultancy service to mushroom farmers.

Popularization of Science and Technology

- **Science and Essay & Poster Competition** for secondary and high school students that portray application of S&T and seek to develop students' awareness of S&T and careers in science. Launched in High schools in 1984. Now in High Schools and Primary schools island-wide.
- **STIN Network** – 1984 SRC named the focal point for STIN Network. STIN is an integration of libraries, documentation centers, and other information units involved in S&T. Its primary objective is to enable users to have ready access to S&T information available both locally and overseas. Benefits: efficient utilization of limited resources – comparative acquisition, reduction in duplication and wider availability of information.
- **Caribbean Energy Information System (CEIS)** – SRC is the regional focal point for the CEIS network. The network consists of eighteen countries committed to the pooling and exchange of energy information. CEIS has spearheaded programs aimed at educating policy makers and consumers about clean technology, reducing energy costs, and renewable energy.
- **Information Dissemination:** Participate in Agricultural Shows and exposition, public forum, present papers locally and overseas; publish Science & Technology (S&T) articles in international reference journals. Publication of scientific journals (Jamaica Journal of S&T).

“SRC, Making Science And Technology Work For You”

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Appendix I

JMA Projects

Private Sector Development Program (PSDP)

Project Date: 24 January, 2006

The JMA was awarded a grant contract in 2006 to implement four activities under the Capacity Building Scheme of the PSDP which is funded by the European Union and administered by JAMPRO. The Association commenced and completed the following activities:

Buy Jamaican Build Jamaica Campaign:

- An Impact Assessment of the Buy Jamaican Campaign on the Jamaican Public and Manufacturers.
- Essay Competition

Trade Liberalization:

- Members of the JMA staff were trained in Negotiation Techniques and a Trade Liberalization Survey conducted among members.

Review of Awards Criteria:

- The criteria for the JMA Annual Awards Competition was revised which resulted in small and new companies winning awards in categories such as New Manufacturer of the Year, Breakthrough Manufacturer and Small and Medium Exporter.

Membership Development:

- Requirements for starting a manufacturing business
 - Census of manufacturers
- Under the market penetration component of the program, JMA also benefited

from funding for participation in Trade Fairs.

USAID/EAST/JMA Resource Centre for Cleaner Production

Project Date: 11 June, 2004

Between 1999 and 2004 the United States Agency for International Development (USAID) Environmental Audits for Sustainable Tourism (EAST) Project worked with the members of the Jamaica Manufactures' Association Ltd. (JMA) to implement to improve their environmental management practices and performance. The EAST project conducted 22 environmental audits for manufacturing companies which included J. Wray and Nephew, Appleton Distillery, Dairy Industries, H.D Hopwood, BARCO, EDGECHEM, LASCO FOODS, Produce to Products Sun Island, Master Blends, Gauron Food Products Ltd., JALEX Manufacturing Company LTD, Jamaica Drink Company, GRACE (Canning) and Jamaica Broilers. Manufacturers who have benefited from environmental audits can vouch for the positive impacts recommendations implemented have had on generating costs savings and improving their environmental performance.

The Project also provided funding for workshops on Environmental Management Systems, Trade and Environmental Laws, Regulations and voluntary standards and a study tour in November 2002 to Miami, Florida to visit facilities that were ISO 140001 certified, in the process of preparing for ISO 14001 or had implemented an EMS. Facilities visited include Montenay Power Corporation, facility providing electricity to sections of Dade County from garbage and the Department of Environmental Resource Management, which has implemented a Pollution Prevention project with several facilities using fines to assist their retrofitting.

RESOURCE CENTRE FOR CLEANER PRODUCTION

In 2004 the first-ever Resource Centre for Cleaner Production in the Caribbean was officially opened at the JMA Head Office, Kingston, Jamaica. The Resource Centre for Cleaner Production was designed to serve as a resource base on energy conservation, waste management, pollution control, water conservation, eco- friendly manufacturing processes; provide training tools on environmental management systems and best practices; and provide information on Jamaican and international environmental regulations.

In June of 2005 EAST project funding came to an end. However, in recognition of those companies who continue to improve their environmental performance, the EAST trophy was renamed the USAID Award for the Best Environmental Management Programme for the JMA member who has demonstrated commitment to reduce and improve their environmental performance with the implementation of water and energy conservation projects and solid waste management projects. The USAID Award for the Best Environmental Management Programme is presented at the JMA's Annual Awards Banquet.

Hidden Cost Project

Project Date: 07 January, 2008

The JMA with financing from the Canadian Corporation Fund (CCF) undertook a Hidden Cost Study to highlight drivers of hidden costs in the manufacturing sector, which is utilized as a lobbying tool.

Drivers of hidden costs identified in the study were:

- **The absence of an adequate pool of skilled recruits:** This has led to manufacturers having to make a significant investment to employee education and

training, to ensure that entrants to the workforce can perform on the job. This lack of preparedness by entrants to the workforce is seen as a reflection of Jamaica's education sector, and the limited opportunities for technical/practical training in the vocational education sector. It has been recommended that the JMA's working relationship with the HEART Trust/NTA be focused on certifying "on the job" training activities to complement classroom-based certification programs. This process has begun as the JMA has an excellent working relationship with HEART and is currently collecting data on the training needs of the manufacturing sector to facilitate the customization of programs for the sector.

- **Crime and violence:** As is well known, the crime situation in Jamaica has an adverse impact on productivity in many areas of the country. This particularly affects manufacturers who cannot operate an effective shift system, or if they do, they incur special transportation and security costs to safeguard employees travelling to work after dark. The JMA seeks continued dialogue with the Ministry of National Security in the formulation of an Industrial Security Strategy focusing on the issues that affect the productive sector.
- **Bureaucracy:** Despite the Government's efforts to improve its systems, there is still a high level of bureaucracy in many of the regulatory processes employed by the public sector. Not only does this impact on the efficiency of the sector, but also create opportunities for abuse and corruption. The JMA supports efforts to rationalize systems, and encourages the greater use of technology to simplify business processes and strengthen controls.
- **Lack of "joined up government":** In a related concern, manufacturers highlight the lack of "joined up government". Time is Money is a recurring theme in the study, and the necessity of visiting multiple agencies to carry out a single transaction means that significant amounts of non-productive time are spent "on the road". The JMA applauds the Government's initiative to create One-Stop Shops, and looks forward to the application of this concept across the public sector.
- **Outdated Legislation:** Several instances of out-dated laws and regulations were highlighted in the study, which include user fees, license fees and other regulatory costs. Many of these charges are no longer relevant in today's economic conditions, and impact on Jamaica's competitiveness. Indeed, the Prime Minister's recent Economic Stimulus Package removed Customs User Fees, which is a clear recognition that the cost of doing business in Jamaica must be rationalized. Work is taking place in these areas through such initiatives as the USAID-sponsored "Legs and Regs" Project, but the process of modernization must be accelerated and broadened to optimize Jamaica's competitiveness.
- **Poor Utility Service:** The leadership of the JMA has already expressed alarm at the current high cost of energy and potential hikes in electricity cost. The Hidden Costs Study also draws attention to the quality of service provided by the utility companies and the problems brought about by disruptions in supply. The study points to the requirement for additional capital investment in such items as power conditioning equipment and water purification plants. The manufacturing sector is very open to the concept of alternative energy systems, and recognizes the Government's initiatives in this area. However, recent experiences have shown

that attention will have to be paid to lessening the cost of importing such equipment and integrating such systems with the public utility services.

GOJ/CIDA ENACT Program

Project Date: 11 January, 2004

Under the Government of Jamaica (GOJ)/Canadian International Development Agency (CIDA) Environmental Action (ENACT) Program Extension, Environmental Management Programs (EMPs) were implemented in three (3) companies, two (2) companies were granted ISO 14001 certification, and an Environmental Management Systems (EMS) Guide for manufacturers was developed.

<http://www.jma.com.jm/index/projects/all>

Appendix J

Jamaica Manufacturers' Association Membership

Associate Members

Air Jamaica Ltd

Airways International Ltd

Allied Insurance Brokers Ltd

Bureau of Standards, Jamaica

Cap-Pack Solutions Ltd

Capital & Credit Merchant Bank

City of Kingston Co-Operative Credit Union Ltd.

Corporate Strategies Ltd.

Courts (Jamaica) Ltd

Deloitte & Touche

Dolphin Cove Limited

Factories Corporation of Jamaica Ltd

Fraser, Fontaine & Kong

Gore Development Ltd

Heart Trust

IBM Trade Corporation

Infotech Caribbean (Jamaica) Limited

International Shipping Ltd

Jamaica Packaging Industries Ltd.

Jamaica Pegasus Hotel

Jamaica Trade & Invest

Jamaica Wood Products & Furniture Asscn. Ltd

Laparkan Jamaica Ltd.

National Commercial Bank Ja. Ltd

Paramount Trading Jamaica Ltd.

Peat Marwick

Price Waterhouse Coopers

Quality Chemicals Ltd

S.N.H. Worldwide Trading Co. Ltd.

Scientific Research Council

SGS Supervise Jamaica Ltd

Singer (Jamaica) Ltd

Small Businesses Association of Ja

University Of Technology

Watronix Information Technology

Chemicals, Cosmetics & Pharmaceutical Products Group

Advanced Adhesive System Ltd

Advanced Adhesive Systems Ltd.

Advanced Chemicals Lab. Ltd. (Minott Equipment & Chemicals Ltd.)

Aisha Marie Products

Associated Mfrs. Ltd

Barco Caribbean Ltd.

Berger Paints (Ja.) Ltd.

Blue Power Ltd
Brandram Henderson W.I. Ltd
Brandram Henderson W.I. Ltd.
Central Optical Co. Ltd.
Chem-Quip Water Treatment Ltd
Clean Chem Limited
Cochin Mal-A-Bar (Jamaica) Ltd
Consumer Packaging Ltd
Cool Petroleum Ltd.
Cosmetic International Ltd
Diversey Jamaica Ltd
E. W. Abrahams & Sons Ltd
Edgechem Jamaica Ltd.
Federated Pharmaceuticals Co. Ltd./Agricultural Chemical Plant
Fleetwood Jamaica Ltd.
Industrial Chemicals Co.
Industrial Gases Ltd.
Industrial Gases Ltd.
Jamaica Biofuels Limited
Jamaica Tooth Mfg. Co. Ltd
Jencare Skin Farm
Jgj Products Ltd
Kirk Distributors Ltd.

Ks Chemicals Distributors Limited

La India Cosmetics

Latin American Exporters Ltd.

Leon's Beauty Products

Mac's Pharmaceuticals & Cosmetics

Mackchem Chemicals Ltd

Musson (Jamaica) Ltd

Newport-Fersan (Ja.) Ltd.

Orion Sales Limited

P. A. Benjamin Mfg. Co. Ltd.

Parfums Jamaica Ltd.

Petroleum Company of Jamaica Ltd

Polyflex Foam Co. Ltd

Seal Sprayed Solutions Ltd

Sherwin Williams (W.I.) Ltd.

Shirlhome Chemicals Corp

Starfish Oils

Steinhol Chemicals Ltd.

Supreme Chemicals Ltd.

T. J's. Manufacturing Co. Ltd.

Theos Industries Ja. Ltd

Versachem International Ltd.

Windsor Laboratories

Yono Industries Ltd.

Zep Products Ltd.

Electrical, Electronics & Automotive Products Group

Balmoral Automotive Mfg. Co. Ltd

Bearings & Seals Ltd.

Citrad Ltd.

CMP Solutions Ltd.

Elarc Welding Products

Hamilton's Industrial Machine Shop

Jamaica Public Service Co. Ltd.

Muffler Specialist Ltd.

Nicorp Limited

Petrojam Ltd

Professional Services Ltd

Serv-Wel Industries Ltd

Turbolife Mfg. Co. Ltd

Wigton Wind Farms Ltd.

Food & Agro Products Group

Associated Mfrs. Ltd

B.A.B.A Limited

Baking Enterprises (1988) Ltd. /Yummy Bakery

Barco Caribbean Ltd.

Barrington Cigars (Ja.) Limited

Big City Brewing Co. Ltd
Blue Ribbon Manufacturing Ltd
Breads & More Ltd.
Buccaneer Traders Ja. Ltd.
Cal's Manufacturing Limited
CANA Distributors' Ltd.
Captain's Bakery Ltd. (The)
Caribbean Aquaculture Co. Ltd
Caribbean Broilers Group
Caribbean Flavors & Fragrances Ltd. ISO 9002
Caribbean Foods Ltd
Caribbean Producers (Jamaica) Ltd.
Caribbean Products Ltd. (Seprod Group)
Chicken Mistress Limited
Chocolate Dreams
Coldfield Mfg. Co. Ltd
Coleyville Bakery Ltd.
Consolidated Bakeries (Ja.) Ltd
Continental Baking Co. Ltd (National Baking Co. Ltd)
Copperwood Ltd
Cost Club Ltd./Bashco Trading Co. Ltd
Creation Foods Limited
Dairy Industries (Ja.) Ltd (Grace, Kennedy & Co. Ltd)

Debz and Ranaz Limited

Dolci Jamaica Ltd

Easispice Manufacturers Ltd

Econo Products Jamaica Ltd.

Estate Industries Ltd. (J. Wray & Nephew Group)

Everglades Farms Ltd.

Fachoy Foods Ltd.

Farmer Joe Enterprise Ltd.

Flavorlan Ltd

Food Ingredients Ltd

Fruit Essentials of Jamaica Ltd.

Golden Delight Bakery

Golden St. Mary Traders Ltd

Grace Food Processors (Canning) A Division Of GK Foods & Services Ltd

Grace Food Processors (Meat) Ltd.

Gray's Pepper Products Ltd.

Greenwich Mountain Estate Limited

Heminics Company Ltd

Home Choice

Honey Bun (1982) Ltd.

Immuno Venture Products Ltd.

International Biscuits Ltd

International Ingredients Ltd

Island Dairies Ltd
Island Ice & Beverage Limited
Island Spice Ltd
J. Wray & Nephew Ltd.
J3R Food Products
Jam Agua Ltd.
Jamaica Biscuit Company Ltd
Jamaica Broilers Group Ltd. (Best Dressed Foods Division
Jamaica Citrus Growers Ltd.
Jamaica Drink Co. Ltd. (Wisynco Group Ltd.)
Jamaica Flour Mills Ltd.
Jamaica Macaroni Factory Ltd.
Jamaica Producers Group Ltd
Jamaica Spring Water Co. Ltd
Jamaica Standard Products Co. Ltd.
Jamaican Teas Ltd.
Juici Beef Ltd
King Pepper Products Ltd
Lasco Foods Ltd
Lethe Spring Water Ltd
Lillan Limited
Loybar Jameric T/A Totally Delicious
Mavis Bank Coffee Factory Ltd

Mother's Enterprises Ltd
Musson (Jamaica) Ltd
My Dad's Import/Export & Agro Processors Ltd.
NASA Farms Ltd
National Processors Ltd. (Grace, Kennedy & Co. Ltd.)
Nature Fresh
Nestle-Jmp (Jamaica) Ltd
O.Jay Coolers Ltd
P. A. Benjamin Mfg. Co. Ltd.
Pepsi-Cola Jamaica Bottling Co. Ltd
Perishables Jamaica Ltd.
Pickapeppa Company Ltd. (The)
Pings Distributors Ltd.
Pioneer Chocolate Co. Ltd
Pioneer Meat Products Ltd.
Poly Foods Ltd
PR Enterprise
Prestige Bakery Ltd
Produce to Products Ltd. T/A Ruth's Mango Sauces
Quench Industries
Rainforest Seafood Ltd.
Ramble Enterprises Ltd.
Red Stripe (Desnoes & Geddes T/A Red Stripe)

Restaurants of Jamaica Ltd.
Roberts Products Co. Ltd.
Roxy Industries Ltd
RST Industries Ltd
Salada Foods Jamaica Ltd
Scoops Unlimited Ltd
Seprod Ltd. /Jamaica Grain & Cereals Ltd
Serge Island Dairies Ltd. (Seprod Group)
Smith & Stewart Distributors Ltd.
Spicy Hill Farms Ltd
Spike Industries Ltd.
Spur Tree Spices Jamaica Ltd.
Sunshine Food Processors Ltd
Sweet Italy Ice Cream Ltd
Tastee Limited
Tortuga Caribbean Rum Cake Ja. Ltd.
Touregon Food Processors Ja. Ltd
Trade Winds Citrus Ltd
Trinjam Food Processors Ltd.
Tyco Food Ltd
Value Manufacturing Co. Ltd.
VAP Limited
Virginia Dare Jamaica Ltd

Walkerswood Caribbean Foods Ltd

West Best Foods Ltd

Windsor Laboratories

Furniture, Wooden & Bedding Products Group

B. W. Manufacturing Company

Beal Industries Ltd

Bellina Jamaica Ltd. T/A Wassi Art

Boss Furniture Company Ltd.

Cameron Industries & Joinery Ltd

CMP Solutions Ltd

Dougall Flooring Ltd

Emkay Sports (1995) Ltd.

Five Star Furniture Company Ltd.

Foam & Accessories Ltd

Frontline Products Mfg. Co. Ltd

Goncuro Company Ltd

Hardware & Lumber Ltd.

Heart Trust NTA/ Portmore Heart Academy

Island Dreams Bedding & Furniture

Jamaica Fibreglass Prods. Ltd

Kenrick Mfg. Co. Ltd

Mcintosh Group of Companies Mcintosh Bedding/Sealy

Millwood Industries Ltd

Morgans Group

My Foam Company Ltd.

Quest Woodcraft Manufacturing

Serv-Wel Industries Ltd.

Taylor's Wood Products

Today's Home Centre Ltd.

Touchwood Jamaica Ltd

Willis Woodwork & Fabrication Industries Ltd.

Gold & Silver Smith's Product Group

American Jewellery Co. Ltd

Swiss Stores Ltd

Information & Communications Technology

Claro

Digicel (Mossel Jamaica Ltd. T/A Digicel Ja. Ltd.)

E-Services Group International Ltd

LIME

Trade Board Ltd.

Minerals & Metal Products Group

Arc Systems Ltd.

Asphalt Emulsions Ltd.

C. A. Industries Ltd

Carib Metal Successors Ltd

Caribbean Cement Co. Ltd
Cemex Jamaica Limited
Choice Alloy Aluminium Products Ltd.
Clarendon Alumina Production Ltd
Crowne Industries Ltd.
Exotic Stone Creations
General Ducting Company Ltd.
Jalex Manufacturing Co. Ltd
Jamaica Mesh Co. Ltd
JHA Associates Ltd
Joshua Blocks Ltd
Maincrete Ltd.
Millennium Paving Stones Ltd
Modern Windows & Roof Mfg. Co. Ltd.
Naco Successors Ltd.
New Era Fencing Ltd.
Quality Dealers Ltd.
Quality Wall & Floor Products Ltd.
R.A.D. Roofing Specialists
Rugby Jamaica Lime & Minerals Ltd
Sha-Gore Aggregates Ltd
Shag-Roc Limited
Tank-Weld Ltd

Tropicair Limited

Tropical Metal Products

V.G.C. Holdings Ltd

Windows Ltd

Printing, Packaging & Paper Products Group

AMG Packaging & Paper Company Ltd

Bay Packaging & Containers Ltd

Best Signs Ltd

Caledonia Outdoor Advertising Co. Ltd

City Graphics Ltd

Containers Company Ltd

Cool Bags Ltd.

Corrpak Jamaica (Div. Of Commercial Holdings Ltd.)

Crown Packaging Jamaica Ltd

Crystal Clear Leasing Limited

Dealaz Manufacturers & Distributors Ltd.

Digital Imaging Ltd

Free Form Factory

Greif Jamaica Ltd

Iprint Digital

J. W. Manufacturing Co. Ltd

Jamaica Bags Ltd

K & B Trading and Manufacturing Ltd.

Konvertra Limited
Labels & Supplies Centre
Labels Jamaica Ltd.
Laser Works Limited
Lithographic Printers Ltd
Mapco Printers Ltd
Modern Visuals Ltd
National Outdoor Advertising Ltd
Omni Industries Ltd
Pear Tree Press Ltd.
Phoenix Printery Ltd
Poly Pet Company Ltd.
Poly-Pak (Jamaica) Ltd
Print Big
Red River Limited
Rotoplastics (Jamaica) Ltd
Rototech International Ltd
Seals & Engravables
Sigtex Limited
Sonic Sounds Recording Mfg. Co. Ltd
Supreme Bags Ltd
Sweet Craft Ltd
Tac Printing & Marketing Co. Ltd

Touchline Industries Ltd

Tuff Gong International Ltd

United Plastics Ltd

V.R. Gifts & Souvenirs Ltd.

Wisynco Group Ltd.

Xsomo International Ltd. (Formerly Moore's Business Forms)

Textile & Sewn Products Group

Air Watt Mfg. Co. Ltd.

Cinderalla Hats & Bridal House Co. Ltd

Crimson Dawn Mfg. Co. Ltd.

Designs by Marc

Heffes Sales Company Ltd.

J & E Industries Ltd

Ledermode Ltd. (Alkali Group)

Logostitch Manufacturing Ltd

Lormars Garment Mfg. Co. Ltd

Oliver's Decorating

Prints & Paints Ltd. / T/A Richard Vassell & Associates

Stogies Ltd.

Sun Island Jamaica Ltd

Wynlee Trading Company Ltd.

