2012

PRIVATE SECTOR ASSESSMENT REPORT (PSAR) with DONOR MATRIX (DMX) for JAMAICA

Prepared for the Compete Caribbean Program

David Tennant, PhD
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CHAPTER 1 – IDENTIFYING MARKET FAILURES

A. GOAL OF PSD IN JAMAICA

Vision 2030 Jamaica is the country's first long-term national development plan. It was produced through extensive collaboration between the Government of Jamaica (GOJ), the private sector and other civil society groups, and thus largely indicates shared societal perspectives and objectives. The plan aims to put Jamaica in a position to achieve developed country status by 2030. It seeks to redefine the strategic direction for Jamaica, moving the country from 'dependence on the lower forms of capital… to development of the country's higher forms of capital… cultural, human, knowledge and institutional capital stocks…' Importantly, Vision 2030 acknowledges that the central challenge facing the country is to, *inter alia,* 'create the conditions in which… productive enterprises are able to generate greater levels of wealth…'

Vision 2030 Jamaica has a clear and compelling mission… to prepare the conditions and means by which firms and individuals in the country will create wealth with ever-increasing levels of productivity that eventually compare favourably with the most productive nations in the world' (Vision 2030 Jamaica).

The early acknowledgement in the national development plan of the role of productive enterprises, speaks to the primacy of private sector development in the Jamaican planning process. Ensuring that the economy is prosperous is one of only four national goals that have been outlined in this plan. The national outcomes associated with this goal are instructive, and include:

- A stable macro-economy
- An enabling business environment
- Strong economic infrastructure
- Energy security and efficiency
- A technology-enabled society
- Internationally competitive industry structures.

These outcomes hint at the challenges currently facing the country, which must be targeted as part of any comprehensive programme of private sector development. The Vision 2030 more specifically identifies the challenges as including '*high public debt; low productivity in most sectors; fiscal imbalance; anemic export performance; weak infrastructure; poor educational performance; unemployment among youth (ages 15-24 years) as high as 23.6%; weak institutions; inadequate transparency and accountability in governance; and a high perception of corruption permeating public and private sectors.*'

With such a lengthy list of interrelated challenges, identifying a specific primary goal of private sector development is not easy, and may not even be feasible. Enhanced productivity, increased employment particularly among the youth, greater export earnings, and, ultimately, sustained economic growth with improved livelihoods are all critical and highly-touted goals of private sector development in Jamaica. The current national development plan effectively captures this widely-accepted broad goal by stating that:

> *'The choice for Jamaica to become a developed society requires us to forge an irreversible path to sustainable prosperity by strategically addressing those deficiencies which impede improvement in our productivity and constrain international competiveness…'*

This broad objective is echoed by the Private Sector Organization of Jamaica (PSOJ) which highlights strong, sustainable private sector led economic growth, job creation and development as the primary goal.[1] The country's National Export strategy expresses a similar objective in that it targets increased competitiveness of firms and enhanced business and trade environments as means to improve export performance, ultimately impacting on economic growth and employment generation.[2] The draft National MSME Policy envisions a highly entrepreneurial MSME sector 'which fuels economic transformation through innovation, creativity and high performance.'[3]

These goals of PSD in Jamaica, however, have to be met in an unusually stringent macroeconomic environment, characterized by tight fiscal constraints and unsustainable debt levels. In this context, the goals of PSD cannot be divorced from those of macroeconomic stability and political responsibility. This synergy is captured in the current National Development Plan, which notes that 'sustainable fiscal and debt policies enable governments to finance the provision of public goods and services over the long term without adversely affecting the availability of resources to fuel private sector growth.'

In the opening statement of the 2012/2013 budget debate, the Minister of Finance challenged the Jamaican parliament to pursue such a path. He noted that:

> *'…the best gift that this Parliament can give Jamaica in the 50th year of independence is a NEW AND BINDING COVENANT with the people of Jamaica; to achieve in the first instance fiscal consolidation and debt sustainability. A covenant that goes further, to pursue supply side initiatives and structural reforms to enhance Jamaica's growth and competitiveness, thus creating an environment in which all Jamaicans can begin to experience the sustained prosperity and sense of well being that they deserve.'*

From the review of public utterances and documentation from both the public and private sectors, the overarching goal of PSD in Jamaica seems to be increased prosperity for the citizenry, economic growth creation and employment generation. This is to be achieved through

[1] http://www.psoj.org/?q=psoj-economic-policy-committee
[2] http://www.jamaicatradeandinvest.org/nes/
[3] National MSME Policy (5th Draft 2011)

the enhanced productivity and competitiveness of businesses, and bolstered by fiscal consolidation and debt sustainability.

In seeking to achieve this goal, public and private sector leaders have seemed to coalesce around the priority areas previously identified as national outcomes under the broad rubric of a prosperous economy. These priority outcomes were echoed by the Minister of Finance (2012), who noted that the current medium-term economic framework, while seeking to achieve macroeconomic stability, should also focus on a more facilitatory business climate and decreasing transaction costs for businesses; lower energy costs; increased inflows of FDI; increased investment by Jamaicans in Jamaica; and rapidly improving productivity across all sectors of the economy, through innovation and entrepreneurship.

'The starting point in creating a prosperous future for Jamaica is to understand the wellspring from which economic prosperity flows. Prosperity is determined by the productivity with which a nation uses its resources to produce goods and services. The more efficiently a nation creates products and services that are highly valued and desired by its own citizens and by the world, the more prosperous it will be' (Vision 2030 Jamaica).

The government's PSD efforts thus far have placed special emphasis on micro, small and medium-sized enterprises (MSMEs). A comprehensive private sector development programme (PSDP) was completed in 2009. It was a five-year technical assistance programme funded jointly by the European Union (EU) and the GOJ. The PSDP had a total budget of €28.67 million for the development of MSMEs. Its broad objective was to:

> *'promote and impact, on a sustainable basis, Jamaica's overall socio-economic development, by strengthening the country's private sector. The targeted support that the PSDP provides to the sector will be crucial in achieving its objective, as the Programme is designed to increase the sector's contribution to GDP – especially the portion that comes from Micro, Small and Medium Enterprises (MSMEs).'*[4]

The PSDP focused on addressing the competitiveness challenges that the MSMEs face and sought to:

- *'Improve the macroeconomic environment by identifying and addressing policy and regulatory-level opportunities and constraints to MSME development;*
- *Provide firm and sector level assistance to companies in the MSME sector – improving their productivity and competitiveness via grants that are promoted and/or administered by private sector organizations and support institutions (PSOs); and*

[4] http://www.competejamaica.com/index.php?action=content&id=286

- *Strengthen private sector (intermediary) organizations and support institutions (PSOs) with a view to strengthening the ability of those organizations to increase the assistance they provide to MSMEs.'*[5]

The programme was primarily implemented by the Jamaica Promotions Corporation (JAMPRO), which worked closely with two other co-implementing agencies – the Private Sector Organization of Jamaica (PSOJ) and the Jamaica Business Development Centre (JBDC). Although the PSDP is now completed, the Target Growth Competitiveness Committee (TGCC) was established as a support component, and was intended to continue operating as a statutory body. The TGCC was comprised of representatives from government, the private sector, trade unions, and academia, and was chaired by the Minister of Industry Investment and Commerce. Under the previous administration, the Committee focused on:

• '*groundbreaking research into competitiveness related issues;*
• *policy lobbying initiatives that seek to positively impact the business environment; and*
• *public awareness of competitiveness related issues.*'[6]

Its achievements included an island wide survey of MSMEs, policy reports for the MSME sector, policy proposals related to nation branding, efforts to enhance the competitiveness of the cultural and creative industries, and removal of bureaucratic red tape in order to enhance productivity and competitiveness.[7]

It is not clear whether the current administration intends to continue with the TGCC. There have been no other comprehensive private sector development programmes since the completion of the PSDP in 2009. The EU announced in 2011 that it intended to undertake an evaluation of the PSDP in Jamaica, to 'determine what has been left of the programme and what is sustainable.'[8] The results of that evaluation have not yet been made public.

[5] http://www.competejamaica.com/index.php?action=content&id=286
[6] TGCC Annual Report (2009)
[7] http://www.competejamaica.com/index.php?action=content&id=276
[8] http://www.jamaicaobserver.com/NEWS/EU-to-appraise-Private-Sector-Development-Programme-in-Jamaica_8671288#ixzz1xEPWNbaf

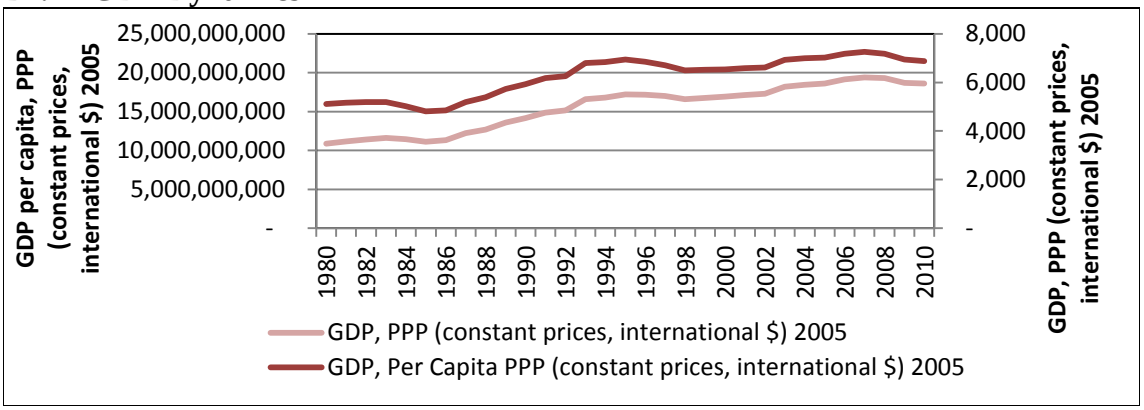
B. OVERVIEW OF JAMAICA'S ECONOMY

A thriving economy, stable macroeconomic climate and enabling business environment are among the most critical pre-requisites of business success. These are, however, also areas in which the Jamaican economy has consistently struggled in its recent past.[9] This section provides an overview of macroeconomic conditions in Jamaica. It focuses on domestic and international economic conditions, the productive structure and the institutional environment in the country.

1. The Domestic Economy

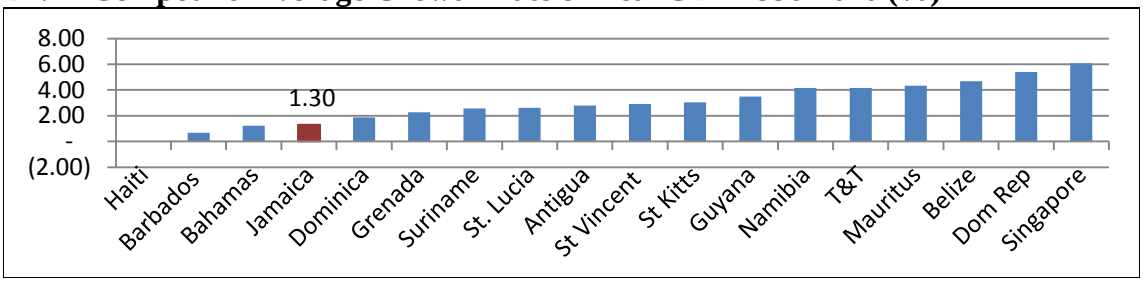
The Jamaican economy has performed relatively poorly over the past two decades. During the 1990s, Jamaica's real per capita GDP growth was in the lowest quartile of countries, and in the 2000s, Jamaica's average rate of real GDP growth ranked 180th out of 196 countries (World Bank 2003 and 2011). This is illustrated in figure B1.1, which highlights very little growth in real GDP and GDP per capita, particularly since the early 1990s. Figure B1.2 indicates that Jamaica's compound average real growth rate for the period 1990 to 2010 was only 1.3%, which is amongst the lowest for the regional and the extra-regional control group countries. In 2010, Jamaican per capita GDP (at US$7,673) was the third lowest in the region and fourth lowest when the extra-regional control group countries are considered. As shown in figure B1.3, only Haiti, Guyana, Namibia and Belize had lower per capita GDP figures than Jamaica.

B1.1 - GDP Dynamics



Source: World Development Indicators

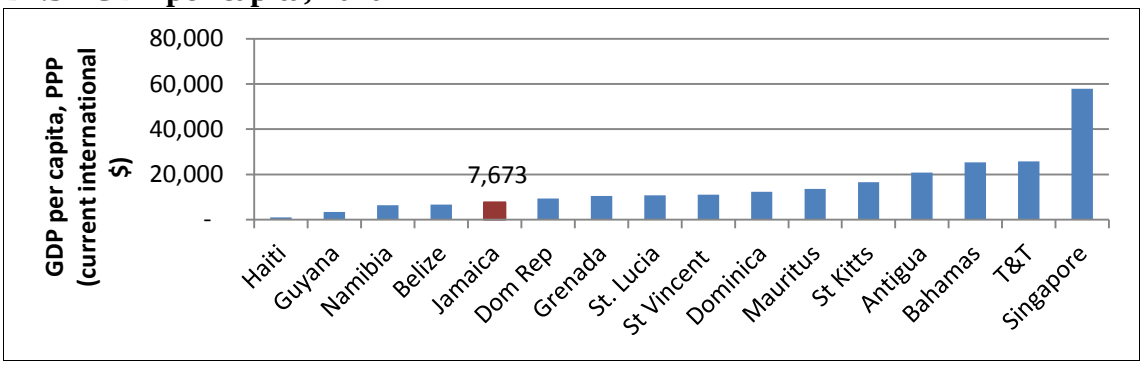
B1.2 - Compound Average Growth Rate of Real GDP 1990-2010 (%)



Source: Computed by author from data in World Development Indicators

[9] Tennant (2011)

B1.3 - GDP per capita, 2010

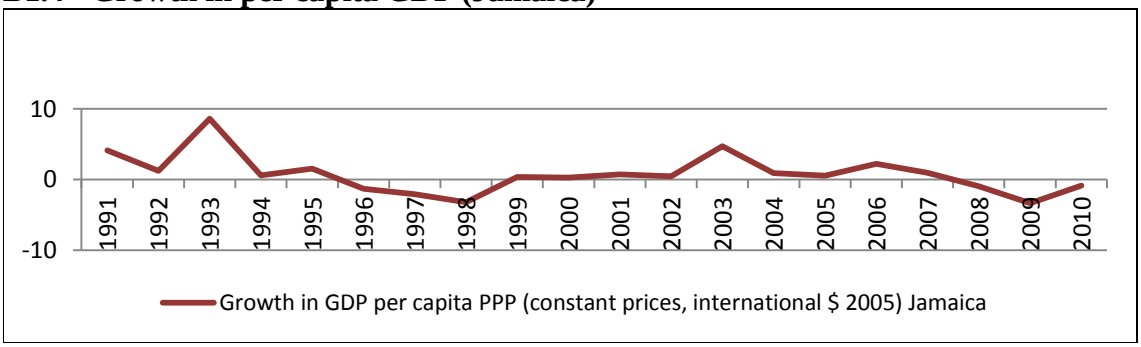


Source: World Development Indicators

The recent poor growth performance of the Jamaican economy is highlighted in figure B1.4, where it is shown that the economy has not yet recovered from the dramatic reduction in economic growth between 1993 and 1998. Even though GDP growth became positive as of 2000, this growth has barely offset the decline over the previous four years, and has again been negative since 2009, with, *inter alia*, the effects of the global crisis being felt.

At the beginning of the 2000s, key contributors to the country's poor economic growth performance were identified as: adverse weather conditions affecting the agricultural sector; difficulties experienced in the financial and insurance services sector; the government's anti-inflationary tight monetary policies; the poor external climate; the increase in real wages; the cost of crime; and increasing government consumption (World Bank 2003 and Deutsche Bank 2000). However, with poor economic performance continuing in most sectors of the economy,[10] the World Bank (2011) has identified widespread low productivity as the fundamental reason for Jamaica's disappointing economic performance.[11]

B1.4 - Growth in per capita GDP (Jamaica)



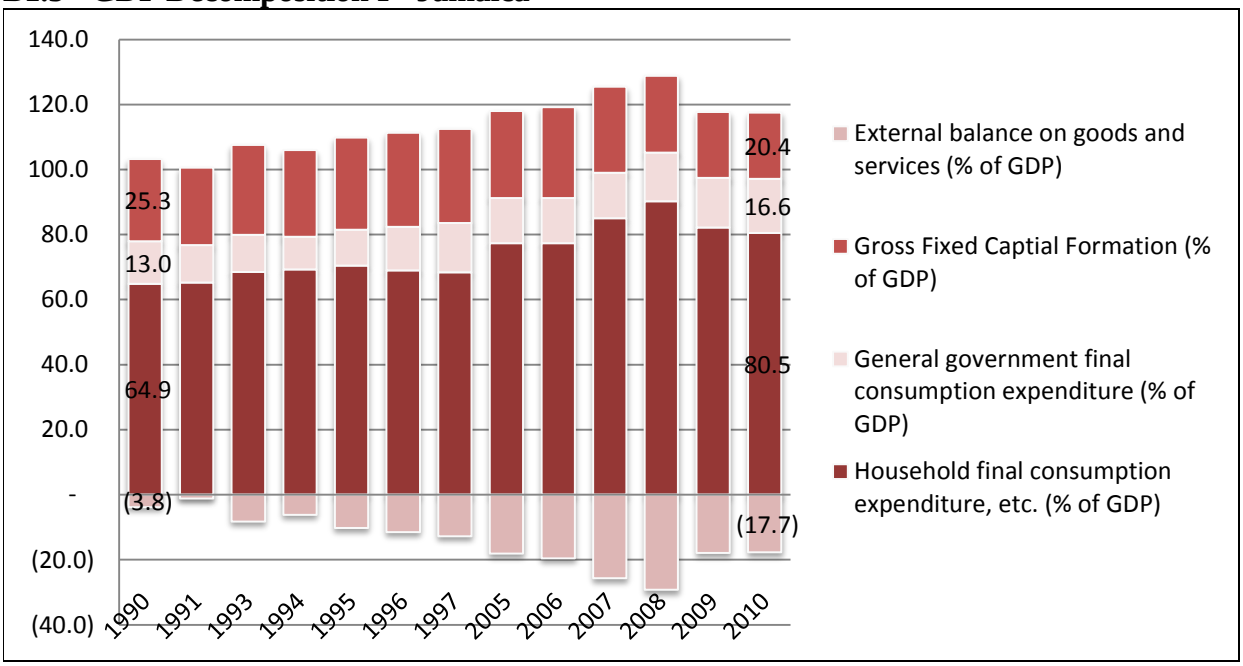
Source: World Development Indicators

[10] 'Of 46 economic subsectors, only financial services and telecommunications had growth rates of more than 4 percent a year between 1992 and 2008. During that period, 18 subsectors declined, and 19 grew at a rate of less than 2 percent a year. Even Jamaica's best performing sectors… underperformed compared with what similar sectors achieved in the rest of the world' (World Bank 2011).

[11] Extracted from Tennant (2011)

The challenges facing the Jamaican economy are further elucidated in figure B1.5, which decomposes the country's GDP. The first issue relates to the fact that the country has maintained consistent and increasing negative external balances in goods and services for much of the past two decades. When compared with the control group countries, Jamaica is the only country that was unable to achieve an external surplus at any point over the past 20 years, and had the highest deficits throughout the period.[12] Also significant is the fact that Jamaica had similar levels of investment (gross fixed capital formation) as did the control group countries, but was not able to achieve comparable levels of economic growth. Investment levels also decreased over the review period from 25% of GDP in 1990 to 20% in 2010.

B1.5 - GDP Decomposition I - Jamaica



Source: World Development Indicators

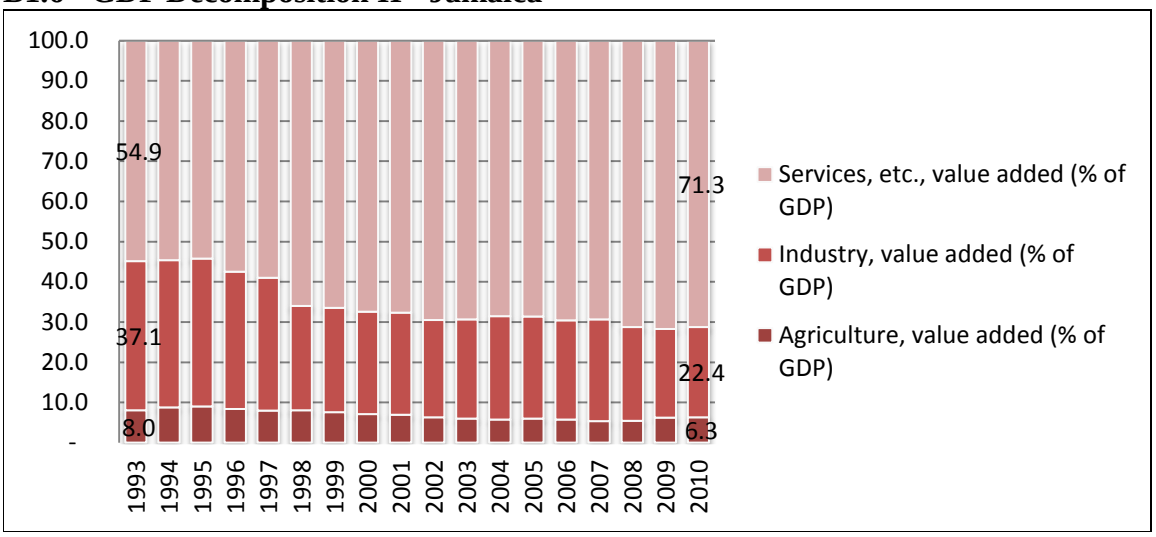
Figure B1.6 highlights the fact that Jamaica is a highly service-oriented economy, with services controlling a large and increasing share of GDP. Correspondingly, industry and agriculture are responsible for small and decreasing shares of economic activity. This is similar across the comparator countries, with the exception of Trinidad and Tobago.[13]

As indicated in figure B1.7, the services sectors also provide the largest share of employment in the country, with women being considerably more heavily reliant on these sectors for employment than men. A notable discrepancy that occurs in the Jamaican economy relates to the fact that whereas agriculture only contributes a very small share of GDP (6.3% in 2010), it

[12] For this analysis, the control group countries were limited to Antigua and Barbuda, Barbados, Singapore and Trinidad and Tobago, because of data availability. See figures A.1-A.4 in the appendix.
[13] See figures A.5 – A.8 in the appendix.

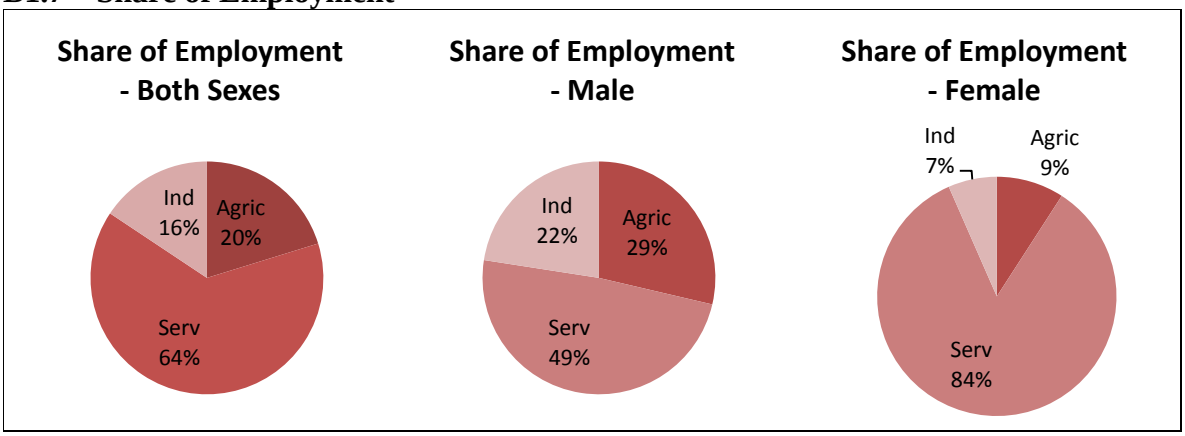
contributes one-fifth of the jobs in the economy, and is particularly important to men, providing employment for almost 30% of the male workers.

B1.6 - GDP Decomposition II - Jamaica



Source: World Development Indicators

B1.7 – Share of Employment



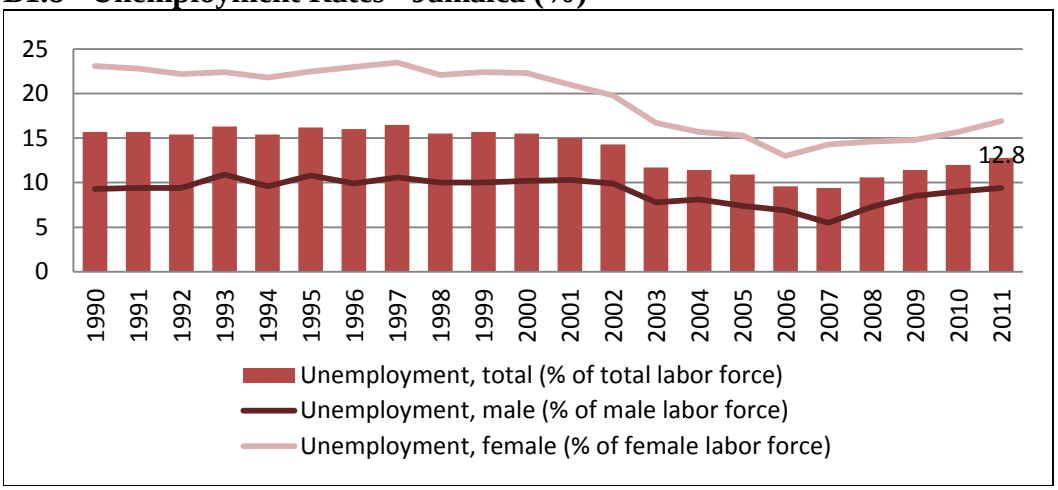
Source: Statistical Institute of Jamaica

Due to the low and often negative rates of economic growth, the unemployment rate in Jamaica has been relatively high, making the creation of jobs a key objective of PSD programs. As indicated in figure B1.8, in the 1990s, the unemployment rate remained relatively stable at (or just above) 15%. Since the early 2000s and up to the recent global crisis, some progress had been made in reducing the unemployment rate to a low of 9.4% in 2007. The rate has, however, steadily increased since the crisis, and in 2011 at 12.8%, Jamaica's unemployment rate was significantly higher than those of Barbados (8.1%), Trinidad and Tobago (4.6%), Mauritius (7.3%) and Singapore (5.9%). The Bahamas (14%) and the Dominican Republic (14.2%) had comparable levels of unemployment.[14]

[14] See figures A.9 – A.14 in the appendix for control group data.

As hinted at in the examination of the sectoral employment figures, and more clearly illustrated in figure B1.8 and tables B1.1-B1.3, there is also a notable gender dimension to the unemployment problem in the country. The gap between the male and female unemployment rates in Jamaica is persistent and large relative to the comparator countries. As at 2011, the male unemployment rate was 9.4%, while the female rate was 16.9%. This represents a difference of 7.5 percentage points, which is significantly larger than the gaps for the Bahamas (approximately 0), Barbados (2.6), Trinidad and Tobago (2.7) and Singapore (1.1). Mauritius had a comparable gap between the male and female unemployment rates of 7.9 percentage points, and only the Dominican Republic had a significantly larger gender gap of 14.3 percentage points.

B1.8 - Unemployment Rates - Jamaica (%)



Source: World Development Indicators

B1.1 - Labor Force Indicators - Both Sexes

Indicators	2010	2011
% of Population 14 years & over	74.2	74.2
Labour Force as % of Population 14 years & over	61.8	62.1
% of population 14 years & over Outside of Labour Force	38.2	37.9
Unemployment Rate	12.0	12.8

Source: Statistical Institute of Jamaica

B1.2 - Labor Force Indicators - Male

Indicators	2010	2011
% of Population 14 years & over	73.2	73.2
Labour Force as % of Population 14 years & over	69.9	70.6
% of population 14 years & over Outside of Labour Force	30.1	29.4
Unemployment Rate	9.0	9.4

Source: Statistical Institute of Jamaica

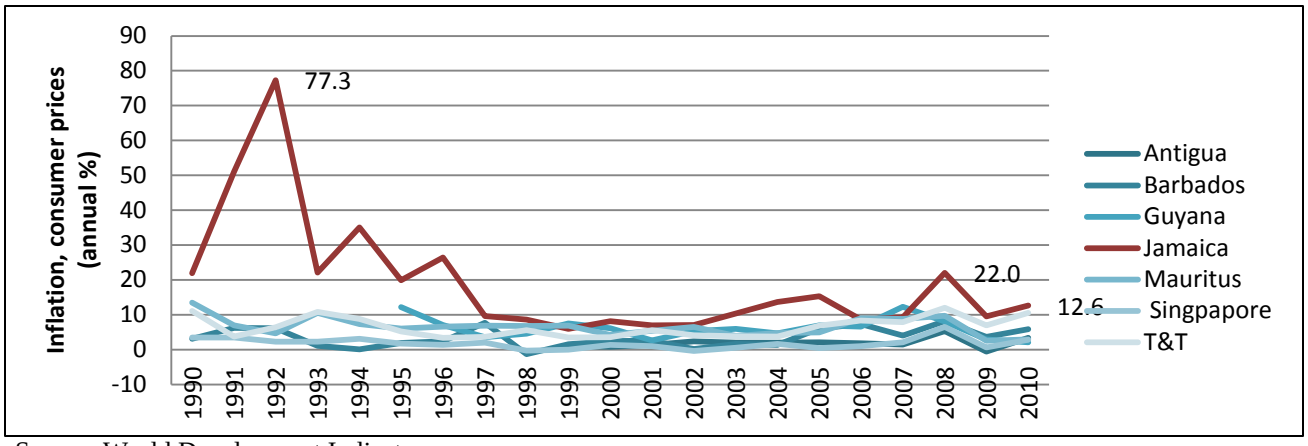
B1.3 - Labor Force Indicators - Female

Indicators	2010	2011
% of Population 14 years & over	75.1	75.1
Labour Force as % of Population 14 years & over	54.2	54.2
% of population 14 years & over Outside of Labour Force	45.8	45.8
Unemployment Rate	15.7	16.9

Source: Statistical Institute of Jamaica

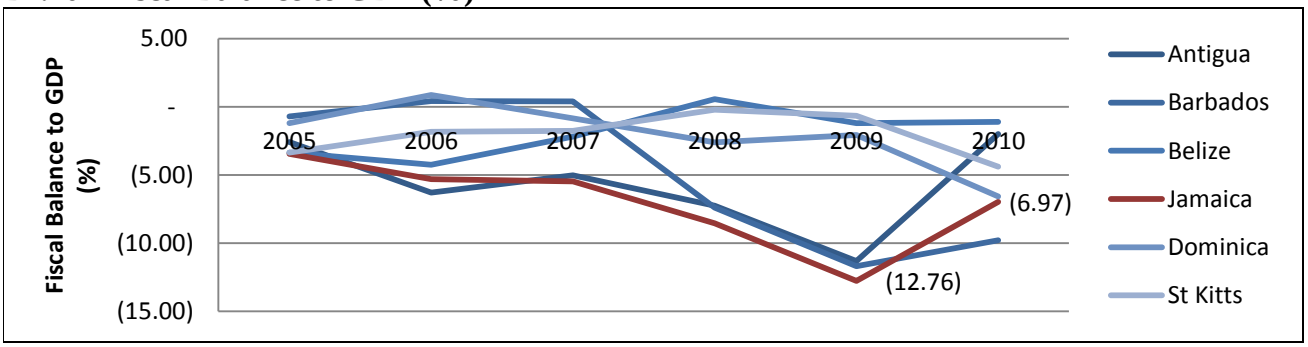
Macroeconomic instability has contributed to Jamaica's poor growth and employment performance, by making the domestic business climate relatively unstable and challenging. Figures B1.9 – B1.11 present three important indicators that highlight the extent of the problem. The Jamaican inflation rate was very high in the early 1990s and, although decreasing, was unstable throughout that decade and higher than that of the comparator countries. The challenges experienced by businesses were further exacerbated by the fact that the eventual reduction in the inflation rate was achieved through tight monetary policies, which caused heightened interest rates. Additionally, relatively high fiscal deficits and the bail-out of financial institutions following the crisis of the mid-to-late 1990s, led to increased domestic borrowing that was significantly higher than that of the control group countries.

B1.9 – Inflation Rates (Jamaica and Control Group)



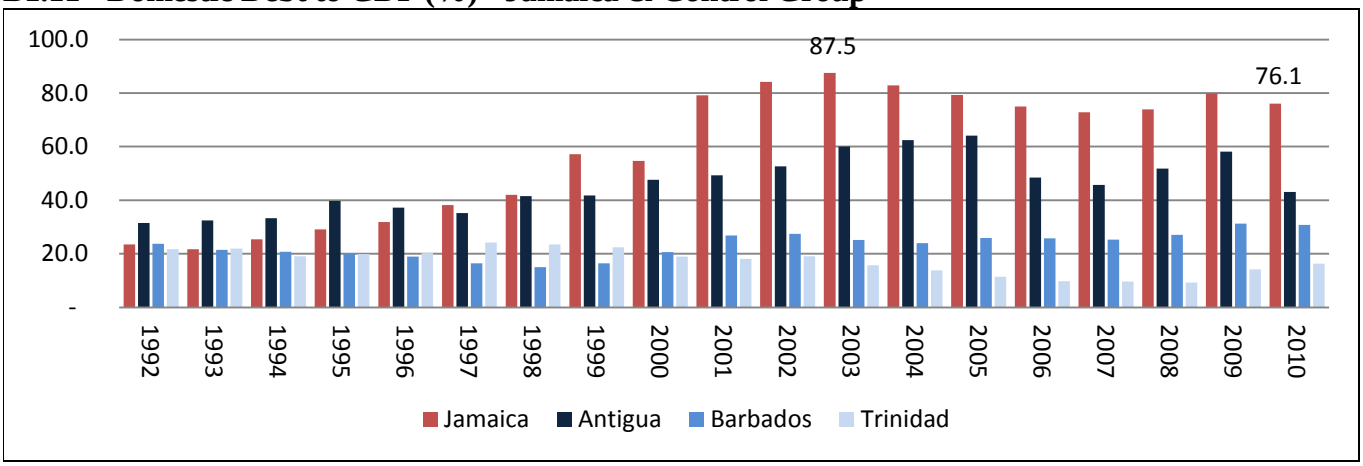
Source: World Development Indicators

B1.10 - Fiscal Balance to GDP (%)



Source: Caribbean Policy Research Institute (2012)

B1.11 - Domestic Debt to GDP (%) - Jamaica & Control Group



Source: Caribbean Policy Research Institute (2012)

The combination of relatively low per capita income, very slow economic growth and adverse macroeconomic conditions has negatively impacted the Jamaican business climate. In spite of levels of investment comparable to the control group countries, Jamaican economic growth rates have been among the lowest in the world. This suggests that Jamaican businesses face significant challenges in being productive, and is attested to by the fact that investment levels have declined since the beginning of the 1990s. Among the challenges associated with the domestic macro-economy in the recent past are the heightened interest rates, which have had implications for businesses' access to affordable finance, the fiscal deficits, which necessitated relatively harsh tax measures, and the instability in the inflation rate, which shortened planning horizons.

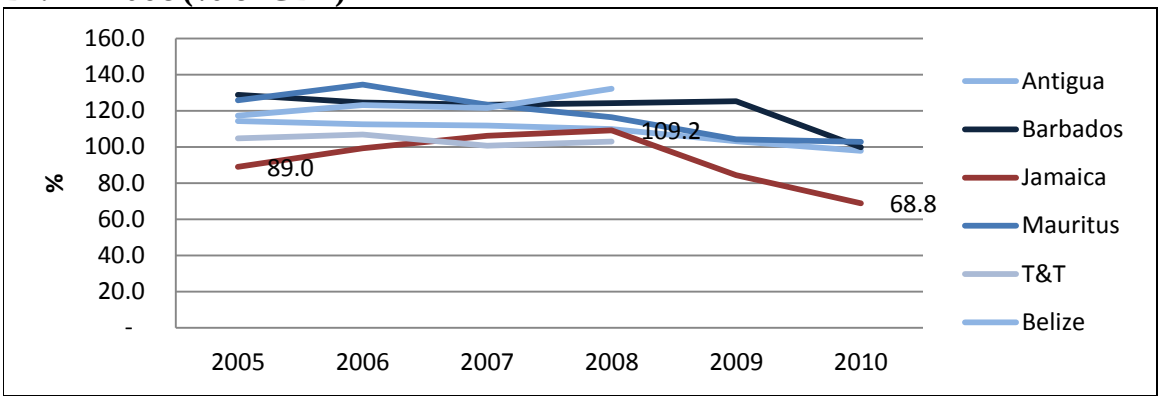
Although the government made some progress in stabilizing the economy since the mid-1990s, there have been some recent reversals of the positive trends. There was a significant reduction in the rate of inflation, with the targeted single-digit inflation rates being met. Bank of Jamaica (BOJ) projections, however, suggest that the country will return to double-digit inflation rates within this fiscal year, due to the general consumption tax (GCT) being imposed on a larger number of goods. This, however, is in line with a broader program of tax reform, and the BOJ projects that once the economy adjusts to the new measures, single-digit inflation should again be achieved by fiscal year 2013-14.

The monetary policies pursued by the GOJ have indicated a strategic focus on expansion of the economy. This is reflected in the declining trend in GOJ Treasury bill rates, with concomitant benefits to the private sector through reduced interest rates. However, recent fiscal profligacy, relatively high debt levels, and un-kept commitments to the IMF have increased uncertainty about the medium-term outlook for the Jamaican economy. There is a widespread sentiment that if the GOJ is unable to sign an agreement with the IMF in the near future, interest rates will again increase, as funds will have to be sought from more expensive sources. The signing of an IMF agreement, is, however, contingent on the government implementing more stringent tax and public sector reforms than it has shown a proclivity to do.

2. The International Economy

Jamaica is a small open economy, which is heavily impacted by external shocks. This is clearly illustrated in figure B2.1, with the country's ratio of trade to GDP increasing steadily to 109% in 2008, and falling precipitously thereafter due to the effects of the global crisis. Jamaica's vulnerability to external shocks is highlighted by the fact that although its trade to GDP ratio is lower than most of the control group countries, the reaction to the crisis was relatively early and exaggerated.

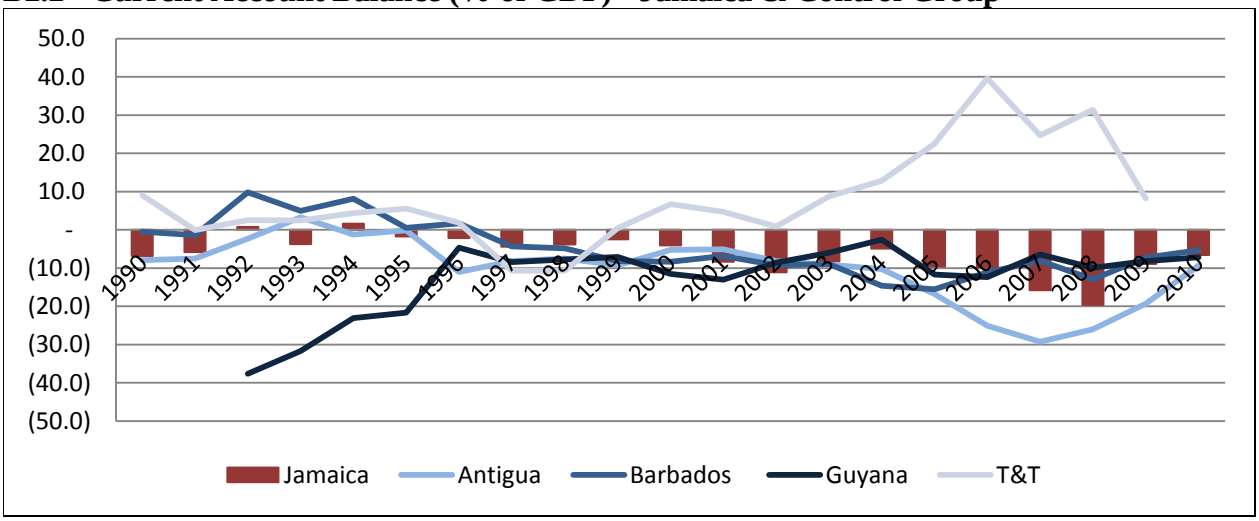
B2.1 - Trade (% of GDP)



Source: World Development Indicators

A similar trend is evident in the current account balance to GDP ratio presented in figure B2.2. With the exception of two years in the early 1990s, Jamaica's current account balance has been negative. There was a steady increase in the deficit between 1995 and 2002, and again between 2004 and 2008. A broadly similar trend is evident for all the Caribbean control group countries, except for Trinidad and Tobago. The persistence of the current account deficit raises questions about how it is financed, and about the trade patterns of the country.

B2.2 - Current Account Balance (% of GDP) - Jamaica & Control Group

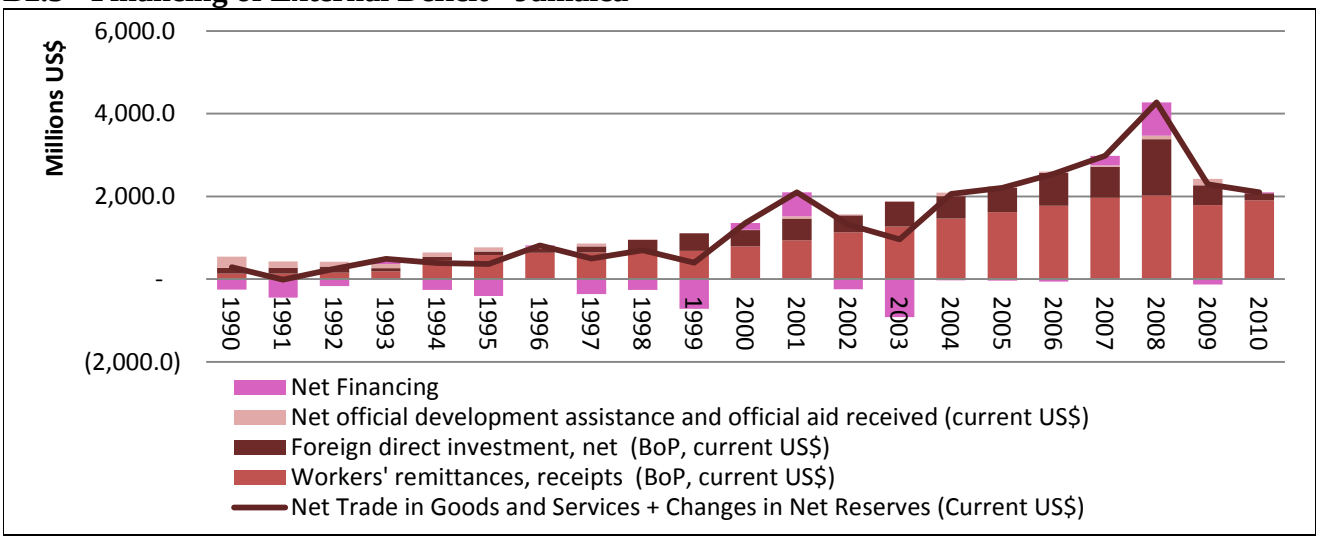


Source: World Development Indicators

Figure B2.3 clearly indicates the high reliance that Jamaica places on remittances to finance the current account deficit. Such remittances increased steadily between the 1990s and mid 2000s, but were adversely impacted by the global crisis. A similar trend (albeit on a smaller scale) was also evident for FDI. By contrast, aid receipts have been negligible since the early 1990s. The need for net financing has been sporadic, but at times significant. This coincides well with the trend exhibited in figure B2.4, wherein Jamaica's external debt stock to GNI ratio decreased significantly throughout the 1990s, remained largely stable in the early 2000s, but began to steadily increase as the effects of the global crisis on remittances and FDI began to be felt.

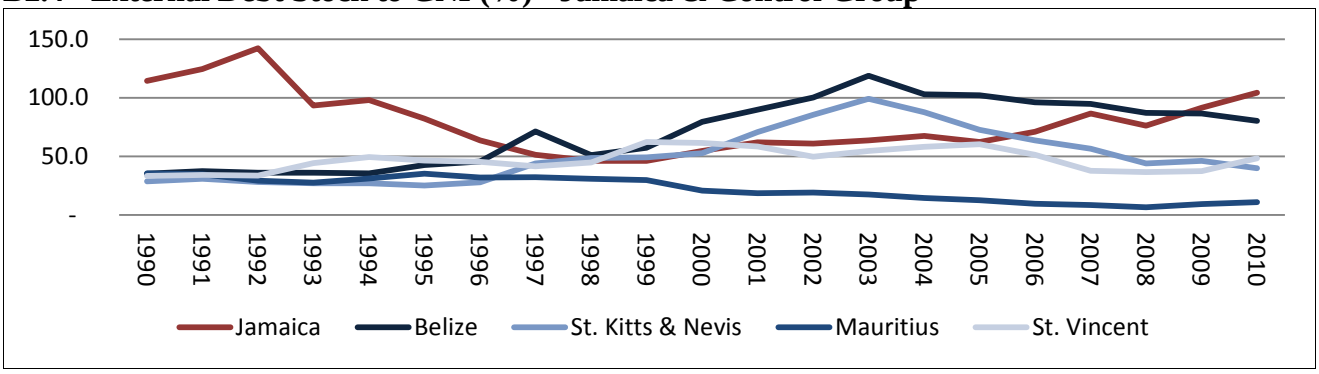
The rapidly increasing level of external debt since 2008, especially when considered in light of Jamaica's overall high level of total public indebtedness (132% of GDP in 2010) is a matter of concern. This is because a debt overhang depresses investment and growth by increasing uncertainty, thus causing entrepreneurs to either exercise their option of waiting or to reduce their planning horizon. As indicated in table B2.1, this has resulted in the relatively low sovereign foreign currency short-term and long-term ratings (C and B-, respectively) recently ascribed to the country by Standard and Poors.

B2.3 - Financing of External Deficit - Jamaica



Source: Computed by author from data in World Development Indicators

B2.4 - External Debt Stock to GNI (%) - Jamaica & Control Group



Source: World Development Indicators

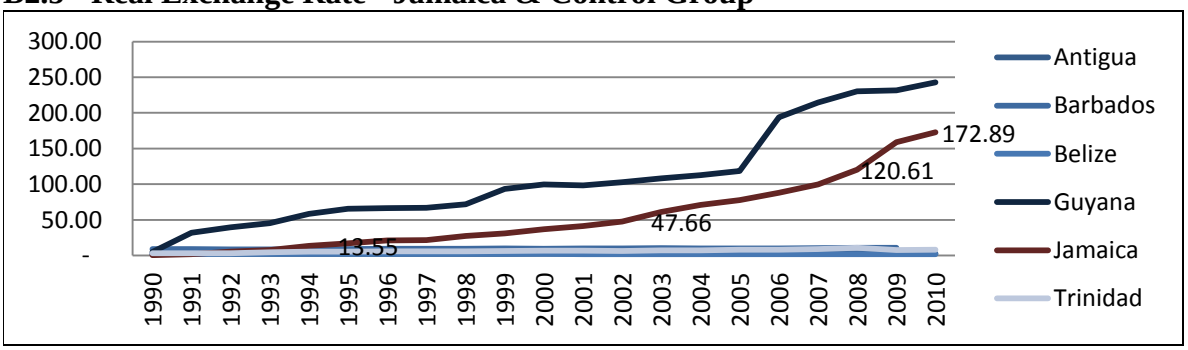
B2.1 – Standard & Poors - Sovereign Foreign Currency Ratings (July 2010)

	Long-term	Outlook	Short-term
Jamaica	B-	Stable	C
Bahamas	BBB+	Stable	A-2
Barbados	BBB	Negative	A-3
Belize	B	Stable	B
Dominican Republic	B	Positive	B
Grenada	B-	Stable	C
Suriname	B+	Positive	B
Trinidad and Tobago	A	Stable	A-1+
Singapore	AAA	Stable	A-1+

Source: www.standardandpoors.com/ratings/articles/en/us/?assetID=1245218243415

Another challenge facing the private sector in Jamaica is the steady and relatively high rate of depreciation of the real exchange rate with the US dollar. As shown in figure B2.5, the only regional comparator country with a higher rate of depreciation is Guyana. This is a matter of concern for the private sector in Jamaica, because, as will be highlighted in subsequent sections, many firms are heavily dependent on imports from the USA. The real depreciation of the Jamaican dollar thus increases their cost of operations and reduces their competitiveness.

B2.5 - Real Exchange Rate - Jamaica & Control Group



Source: Sutherland (2012)

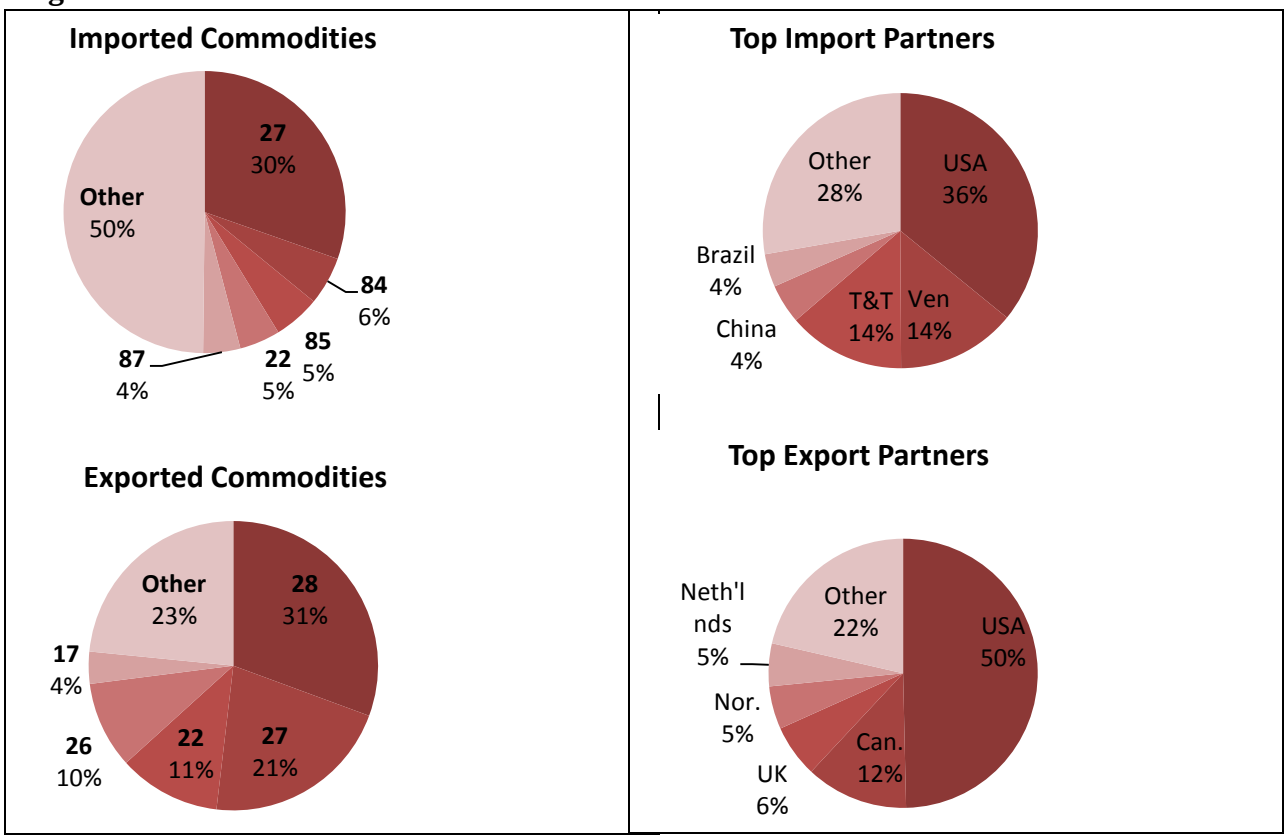
International Trade

Figure B2.6 highlights a number of the features of Jamaica's trade patterns that help to explain the country's vulnerability to external shocks.[15] A large proportion of the country's imported commodities are intermediate goods necessary for domestic production. Fuel comprises almost a third of imported commodities, and capital goods (machinery, boilers, electrical equipment, sound and visual recorders, etc.) represent an additional 11%. The largest proportion of the imported commodities (36%) is sourced from the USA, highlighting the aforementioned dangers of the depreciating real exchange rate with the US dollar. Trinidad and Tobago and Venezuela are also major import partners, as providers of fuel. On the export side, 52% of the goods exported by Jamaican firms are concentrated in bauxite and mineral fuels, and 68% of the goods

[15] See table A.1 in the appendix for additional details.

are exported to North America and the UK, with exports to the USA comprising 50% of the total. This represents a severe lack of diversification both in the goods exported and the countries to which they are exported.

Figure B2.6 – Jamaica's International Trade Patterns



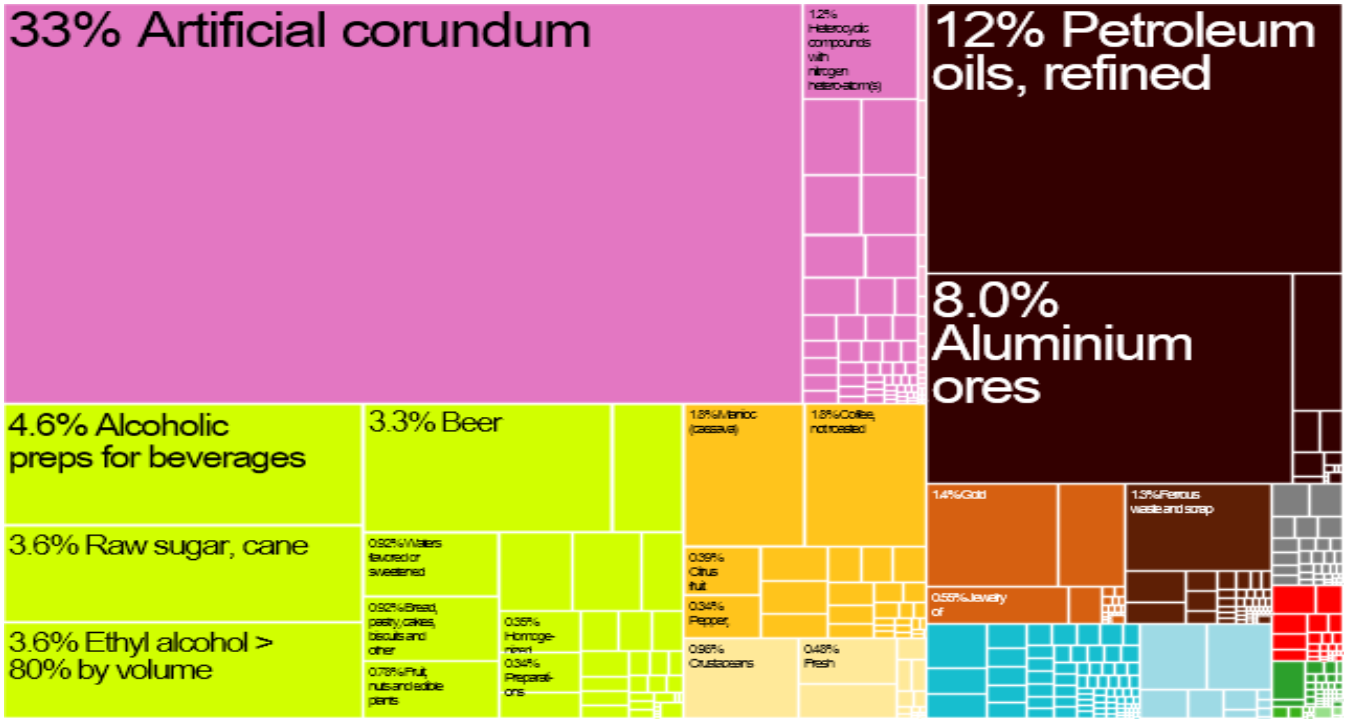
Source: UN COMTRADE Website

Key: 27 = Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes
84 = Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof
28 = Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes

The lack of diversification in the Jamaican goods exports is compounded by low interconnectedness between the industries. Both issues are illustrated in the country's treemap of exports for 2010 (figure B2.7). Here it is shown that artificial conundrum (primarily representing the bauxite industry) dominates the goods exported from Jamaica, comprising a third of all exported commodities, but has very few spin-off industries. The other industries comprise a relatively small share of total commodities exported. A comparison with figure B2.8 indicates decreased diversification over time, as the garment industry, which in 1995 had a relatively large share of goods exports, declined to a negligible proportion by 2010, and was not replaced by any other industries of note.[16] The dominance of primary commodity exports (or those with low value-added) is also noteworthy due to the volatility of commodity prices.

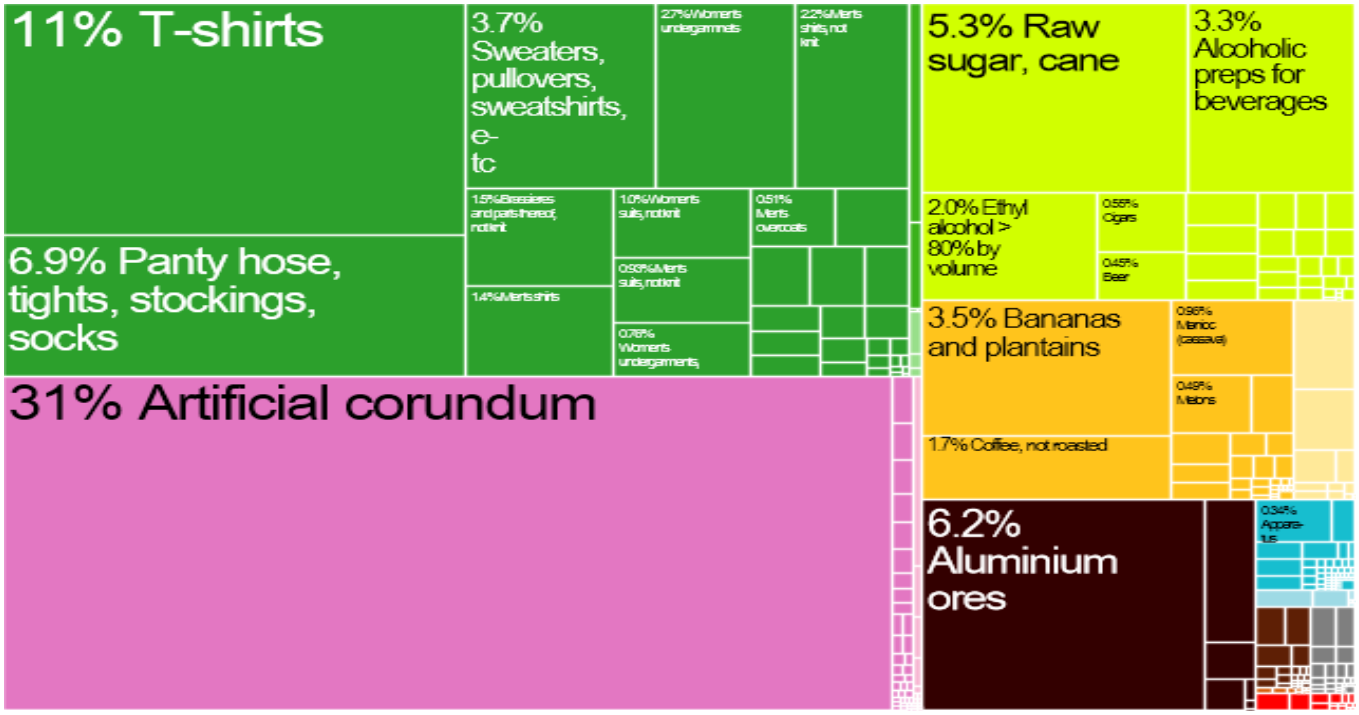
[16] The figures for the comparator countries (Barbados and Trinidad and Tobago) are provided in the appendix, and they indicate that Barbados is considerably more diversified than Jamaica both in terms of goods exported and the

B2.7 - Treemap of products exported from Jamaica to World in 2010



Source: The Economic Complexity Observatory

B2.8 – Treemap of products exported from Jamaica to World in 1995



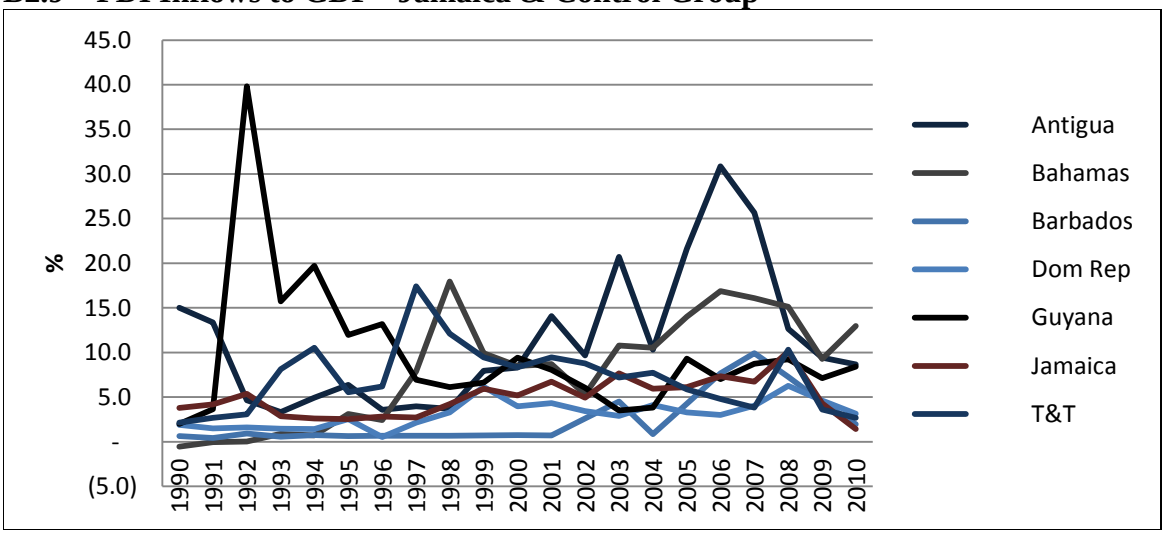
Source: The Economic Complexity Observatory

main export partners. Trinidad and Tobago, while having a high concentration of exports in the petroleum industry, are able to foster more spin-off industries.

Foreign Direct Investment

As previously indicated, FDI inflows, since the late 1990s, have played an increasingly significant role in the financing of the external deficit, but have experienced a marked decline since 2008, with the effects of the global crisis being felt. Figure B2.9 compares the ratio of FDI inflows to GDP for Jamaica and the regional control group countries, and indicates that Jamaica has been an average performer in its ability to attract FDI (relative to GDP), with countries such as Antigua and Barbuda, the Bahamas and Guyana consistently having a higher ratio than Jamaica. Also evident is the higher post-global crisis volatility of FDI inflows to Jamaica relative to that of all the other countries, with the exception of Antigua and Barbuda.[17]

B2.9 – FDI Inflows to GDP - Jamaica & Control Group



Source: http://unctadstat.unctad.org

Tables B2.2 and B2.3 present the available data on FDI inflows disaggregated by sector. Table B2.2 highlights the fact that much of the FDI inflows to the country between 2007 and 2009 went to the hotel and restaurant sector, reflective of the overseas investment in large hotel properties. The only other major sector to which FDI inflows were directed during this period was classified as unspecified computer and related activities. Column 3 in table B2.3 aids the interpretation of this broad classification, as it is seen that the transport, storage and communications sector has the largest number of new affiliates established since 2000 (8), followed by wholesale and retail trade (5), and business activities (4). Although these three sectors also have the largest total number of affiliates in the country (see column 1), affiliates in the hotels and restaurants sector and the financial sector, along with those in the transport, storage and communications sector have created the largest number of jobs (column 4).

[17] A similar analysis of the FDI Outflows to GDP ratio was conducted for the period 1990 to 2010 (see figure A.25 in the Appendix), and the ratio for Jamaica fluctuated between just above and just below 1%. Since the global crisis, however, there has been a consistent decline in FDI outflows from Jamaica (relative to GDP); but at 0.5% in 2010, it was the highest of the regional control group countries.

B2.2 – FDI Inflows by Sector

Industry	2009		2008		2007	
	Inflow (US$mn)	Per capita in US$	Inflow (US$mn)	Per capita in US$	Inflow (US$mn)	Per capita in US$
Total (merchandise and services)	540.9	202	1,436.60	535	866.5	321
Business activities (Unspecified computer and related activities)	136.6	51	257	96	164.5	61
Finance						
Hotels and restaurants	155.4	58	196	73	196.9	73
Unspecified secondary	23.5	9	75.2	28	46.7	17
Non-metallic mineral products			2.3	1	5.2	2
Mining and quarrying	30.8	12	74.2	28	216.6	80

Source: Investment Map Website

B2.3 – Sectors with Potential to Attract Investment - Jamaica

Industry	# Affiliates in Country	# Parent Companies with Affiliates in Country	# Affiliates Established since 2000	# Employees in Affiliates	Leading Home Country
Total (merchandise and services)	142	115	24	25,042	USA
Other services	5	5	2		USA
Community, social and personal service activities	2	2	1		USA
Public administration and defence	4	3		10	USA
Business activities	24	19	4	2,501	USA
Finance	18	13	3	4,523	USA
Transport, storage and communications	20	17	8	5,836	USA
Hotels and restaurants	11	11	1	3,612	USA
Wholesale and retail trade	22	20	5	1,571	USA
Construction	3	3	1	120	T&T
Electricity, gas and water	2	2	2	1,730	USA
Motor vehicles and other transport equipment	3	3		76	USA
Machinery and equipment	5	5	1	279	USA
Metal and metal products	7	7		194	USA
Non-metallic mineral products	1	1		254	T&T
Rubber and plastic products	2	2		203	USA
Chemicals and chemical products	16	15		780	USA
Coke, petroleum products and nuclear fuel	4	4		60	UK

Industry	# Affiliates in Country	# Parent Companies with Affiliates in Country	# Affiliates Established since 2000	# Employees in Affiliates	Leading Home Country
Publishing, printing and reproduction of recorded media	3	3		63	USA
Wood and wood products	6	6		185	USA
Textiles, clothing and leather	2	2		73	USA
Food, beverages and tobacco	11	9		2,201	UK
Petroleum	1	1	1		Sweden
Mining and quarrying	4	4	1	2,401	USA
Agriculture and hunting	1	1			USA

Source: Investment Map Website

The Jamaican economy is susceptible to external shocks, and the goods-producing sectors are dominated by international trade patterns that could adversely affect growth prospects. This is due to, *inter alia*: (i) a high dependence on imported fuel and intermediate goods necessary for domestic production, and a significant concentration of imports from the USA; (ii) a consistently and relatively high real rate of depreciation of the Jamaican dollar to the US dollar, which increases the cost of imported inputs; (iii) a severe lack of diversification both in the goods exported (which are typically primary commodities or goods with low value-added content), and the countries to which they are exported (dominated by the USA); (iv) persistent current account deficits, the financing of which is heavily reliant on remittances from the USA and UK. This further increases the susceptibility of the economy to external shocks, as experienced during the recent global crisis; and (v) a high level of total public debt to GDP and recently increasing levels of external debt to GDP in the post global crisis period. As previously indicated, if the GOJ is unable to sign an agreement with the IMF, the country's ability to access to international lines of credit will become more difficult and costly.

3. The Productive Structure

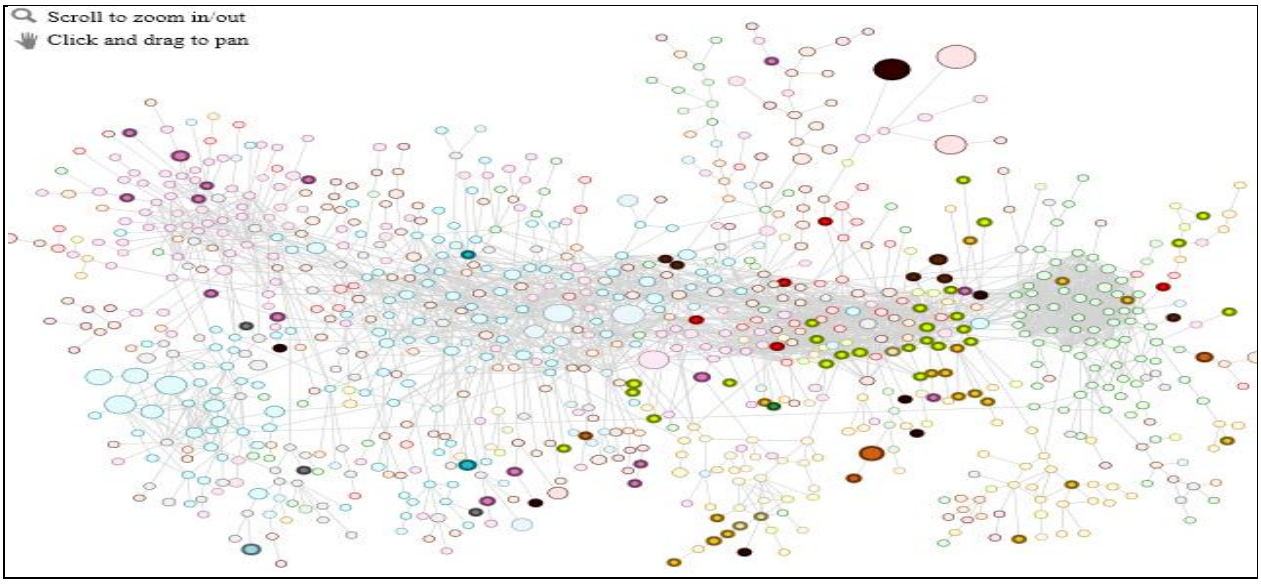
Whereas the previous section provided a broad macroeconomic overview of Jamaica, this section will examine the productive structure of the country, focusing in greater depth on industry, agriculture and services, with the objective of identifying large and fast-growing sectors.

Industry and Agriculture

It was previously shown that Jamaica is producing and exporting a very narrow range of primary commodities and goods with low value-added content. The most recent Product Space Map of Jamaica in figure B3.1 confirms that finding, and further indicates the challenges that the country will face in moving into new high-growth sectors in the future. In 2010, the most tightly connected products exported by Jamaica all fell in the foodstuff category, were of low economic complexity, and were largely on the periphery of the central region of the map. The only goods

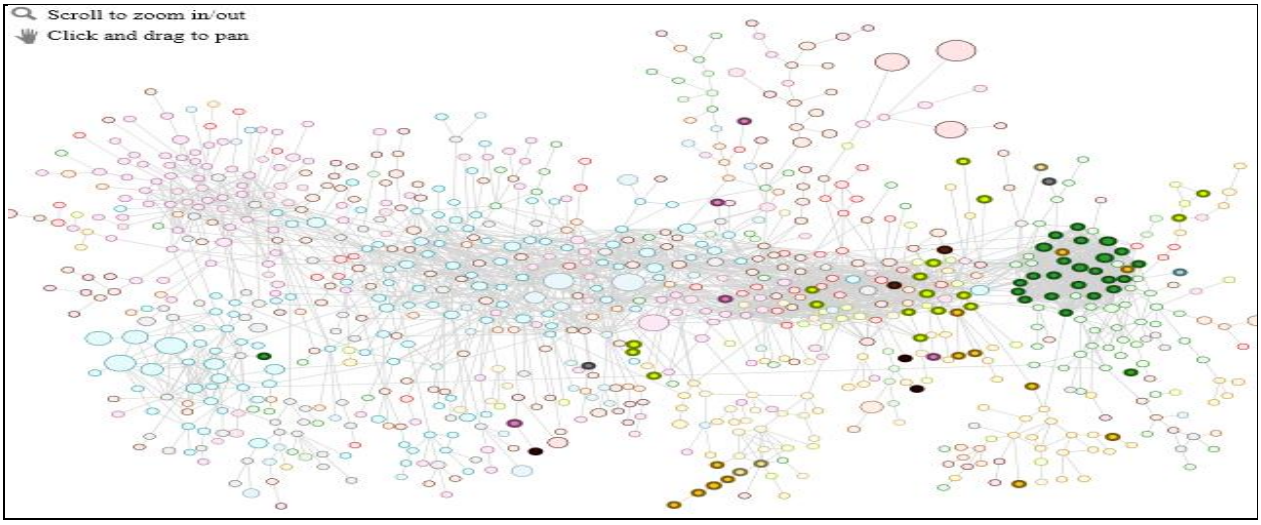
exports that could be considered within the central region were sausages, sauces and seasonings, flavored or sweetened water, and other printed matter. These exports, however, had no close links with any of the other goods exported by Jamaican firms, and so further growth into these or other closely linked industries is unlikely, as coordination in the accumulation of capabilities would be difficult. Because it is strongly argued that the development process implies increasing product diversity and complexity, this analysis highlights the major challenges facing the Jamaican economy in this respect. A comparison of figures B3.1 and B3.2 further indicates that the situation has worsened over time, because Jamaica has lost her comparative advantage in textiles, and no other industry has taken its place in the center of the network.

B3.1 – Product Space Map for Jamaica in 2010



Source: http://atlas.media.mit.edu/explore/product_space/export/jam/all/show/2010/

B3.2 – Product Space Map for Jamaica in 1995



Source: http://atlas.media.mit.edu/explore/product_space/export/jam/all/show/1995/

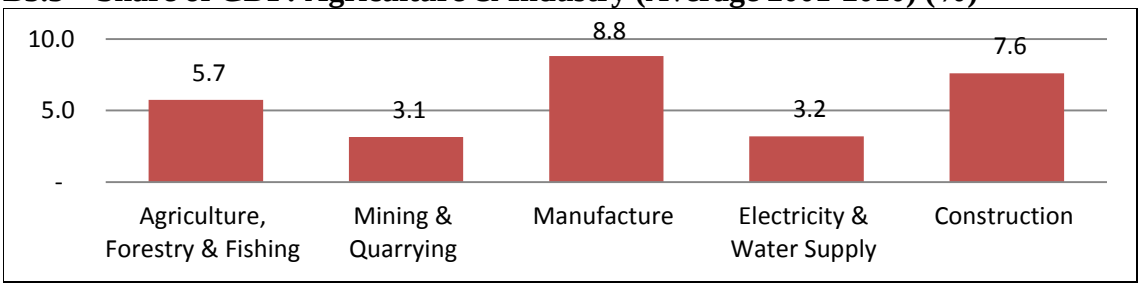
Because the Product Space Map for Jamaica does not indicate any obvious candidates for large and fast-growing sectors, the identification of such sectors is based on an analysis of each sector's contribution to GDP (figure B3.3), and growth of real value added over the past decade (figure B3.4). Each sector's share of total employment, disaggregated by sex will also be considered (figures B3.5 and B3.6).

These figures indicate that over the period 2001 to 2010, of the sectors classified under agriculture and industry, the manufacturing, construction and agriculture sectors had the largest shares of GDP (8.8%, 7.6% and 5.7%, respectively). These sectors also had the largest shares of total employment for 2011, with the agriculture sector dominating, having contributed 17.5% of employment, followed at a distance by the construction and manufacturing sectors (8.3% and 6.8%, respectively).

The disaggregation of employment by sex, however, indicates for all the non-service sectors the discrepancy between the number of jobs created for men and women. As an example, although the construction sector is one of the largest contributors to GDP and to total employment, it employs a negligible share of women.

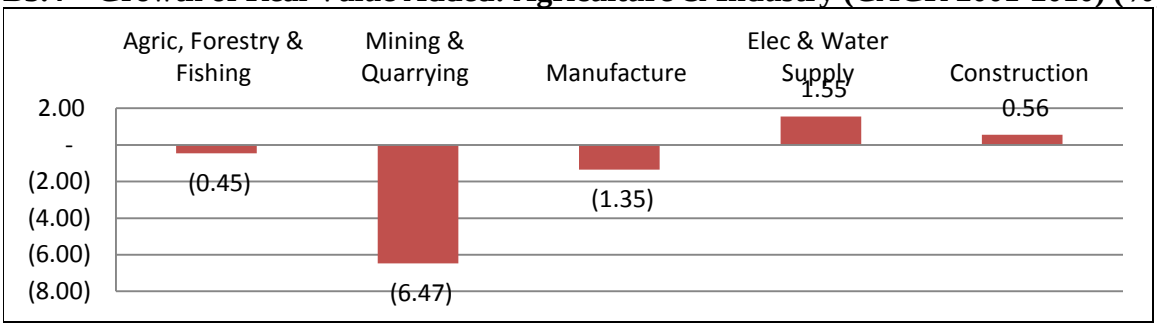
The shares of GDP for all the sectors were fairly stable over the decade, with only the mining sector experiencing a precipitous decline because of the global crisis. It thus difficult to identify a fast-growing sector from amongst this sub-set of sectors, as the largest compound average growth rate (CAGR) over the decade was a very modest 1.55% achieved by the electricity and water supply sector. The only other sector to have grown over the decade is construction with a CAGR of 0.56%.

B3.3 – Share of GDP: Agriculture & Industry (Average 2001-2010) (%)



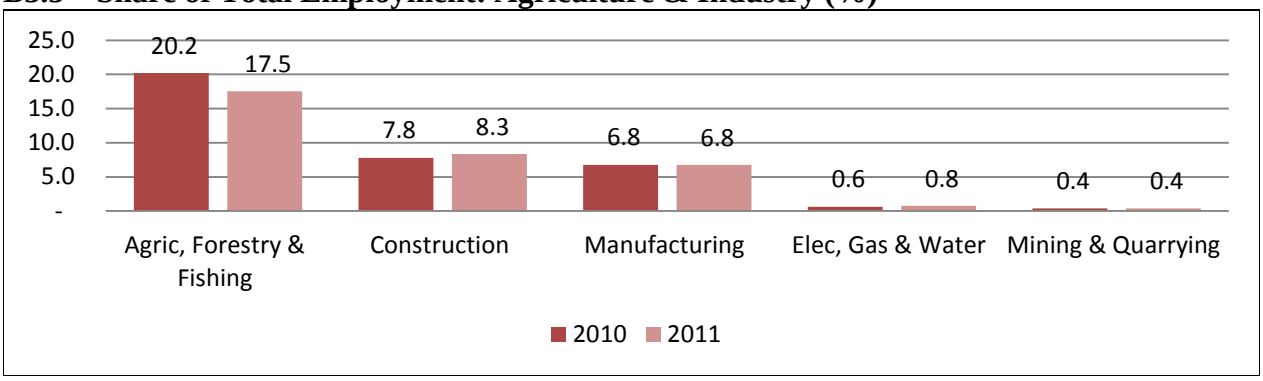
Source: Statistical Institute of Jamaica

B3.4 – Growth of Real Value Added: Agriculture & Industry (CAGR 2001-2010) (%)



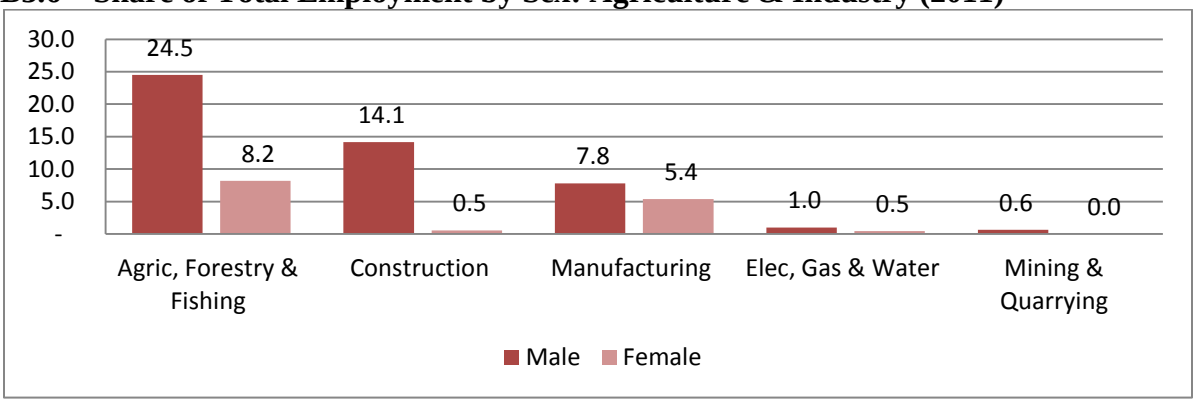
Source: Computed by author from data in Statistical Institute of Jamaica

B3.5 – Share of Total Employment: Agriculture & Industry (%)



Source: Statistical Institute of Jamaica

B3.6 – Share of Total Employment by Sex: Agriculture & Industry (2011)



Source: Statistical Institute of Jamaica

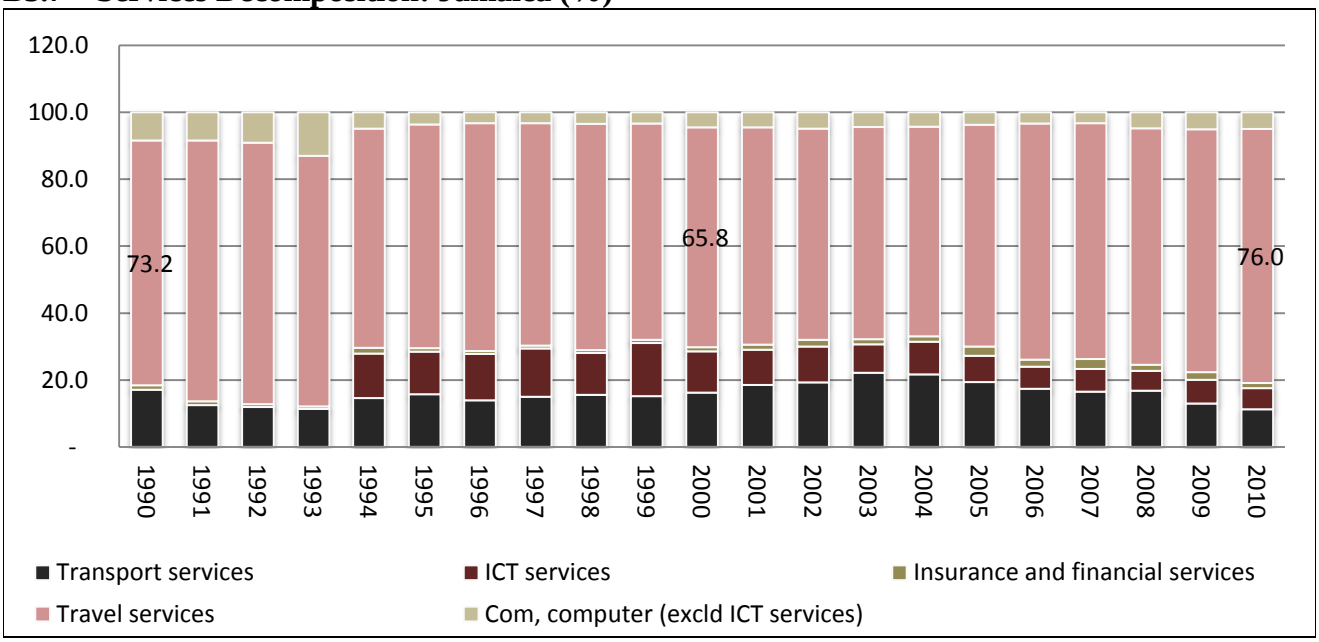
Services

The Jamaican economy is heavily dominated by services sectors. Figure B3.7 indicates that much of the services provided are concentrated in the travel sector and are thus associated with tourism. Figure B3.8 provides more disaggregated data on Jamaica's service sectors. It indicates that the wholesale and retail trade (18.4%), transportation, storage and communication (10.8%), real estate, rent and business activities (9.8%), and finance and insurance (9.7%) service sectors have had the largest shares of GDP among the non-government providers of services over the past decade. These service sectors all had larger shares of GDP than any of the sectors categorized under agriculture and industry.

Also noteworthy is the fact that these figures do not capture the full extent of the service-oriented tourism industry. An estimate of the direct gross value added provided by tourism for a number of other sectors is presented in table B3.1. Although figure B3.8 indicates that hotels and restaurants accounted for an average share of GDP of 4.5% over the past decade, the impact of the tourism sector has been estimated by the Statistical Institute of Jamaica as being larger. This is because of the spin-off business created by the tourism sector for service providers in other areas.

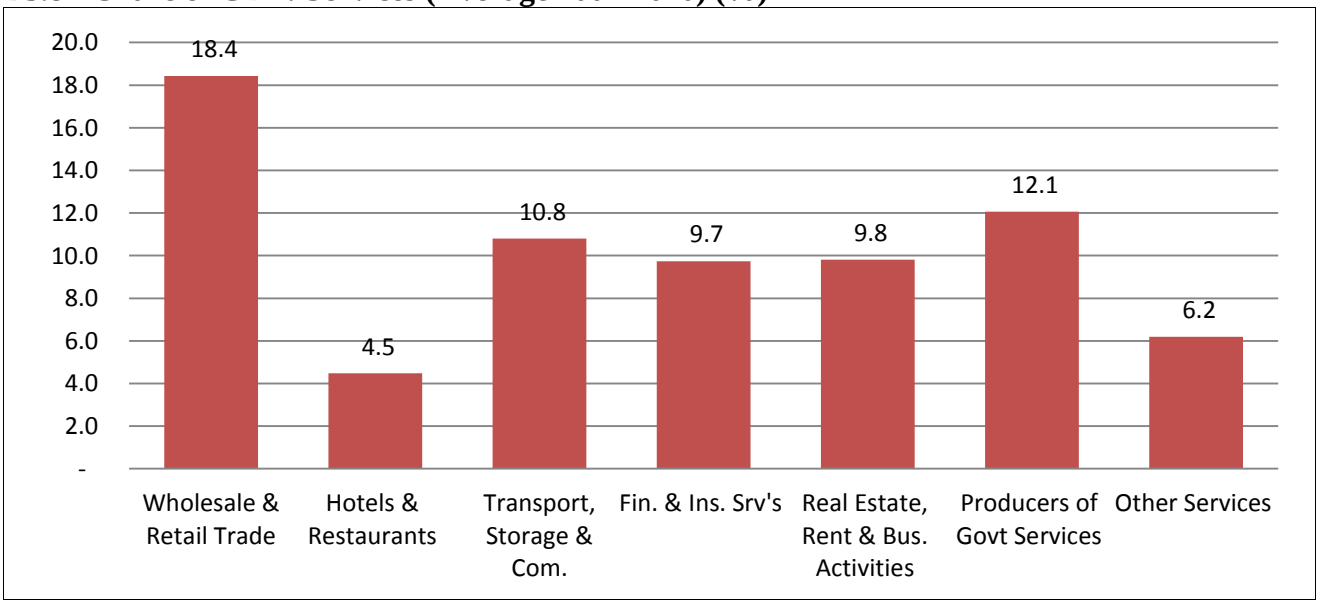
Figure B3.9 further indicates that the hotels and restaurants sub-sector, has grown the fastest over the past decade, with a CAGR of 3.1%. Only the finance and insurance services sector had a comparable rate of growth of 2.1%. This, however, largely represents recovery from the financial sector crisis of the mid-to-late 1990s.

B3.7 – Services Decomposition: Jamaica (%)



Source: World Development Indicators

B3.8 – Share of GDP: Services (Average 2001-2010) (%)



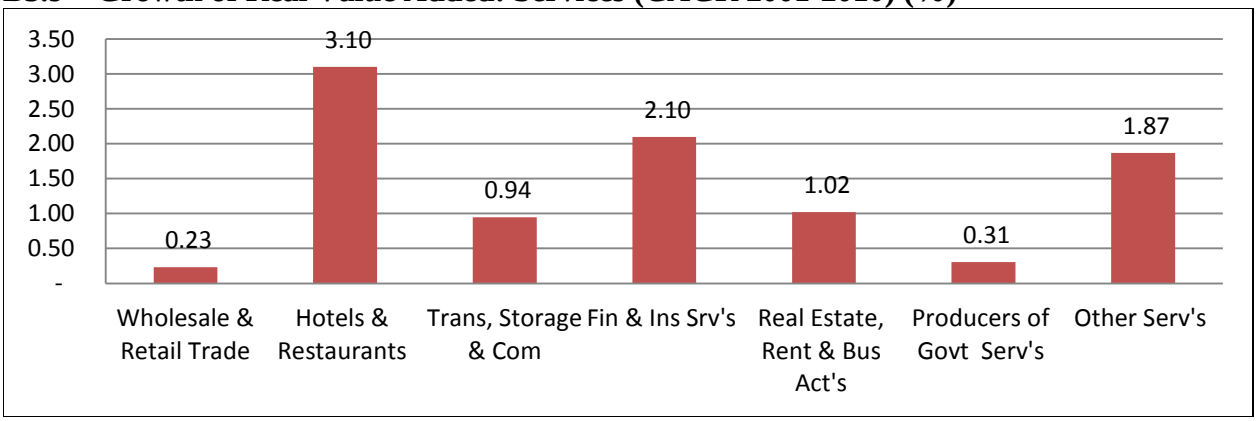
Source: Statistical Institute of Jamaica

B3.1 – Tourism Direct Gross Value Added by Industry at Basic Prices (2010)

Industry	Industry Gross Value Added	Tourism Direct GVA	TDGVA as a Share of Industry GVA
	$Million	$Million	%
Tourism characteristic industries	78,773	53,225	67.6
Accommodation services for visitors	32,183	31,020	96.4
Food and beverage services	12,220	2,515	20.6
Passenger transport services	8,463	6,531	77.2
Transport equipment rental	2,078	1,716	82.6
Travel agencies and other reservation services	673	672	99.8
Recreational, cultural & sporting activities	23,157	10,772	46.5
Other industries	932,048	6,524	0.7
Total Value Added at Basic Prices	1,010,820	59,749	5.9
Net Taxes on Tourism Products	162,647	23,972	14.7
Gross Domestic Product at Market Prices	1,173,467	83,721	7.1

Source: Statistical Institute of Jamaica

B3.9 – Growth of Real Value Added: Services (CAGR 2001-2010) (%)

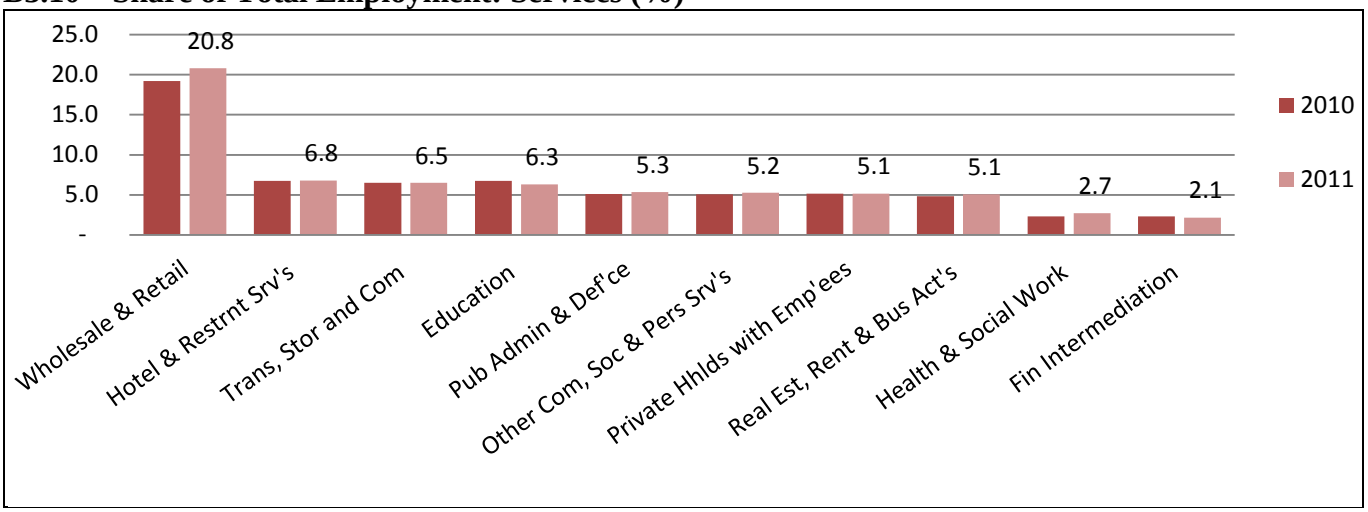


Source: Computed by author from data in Statistical Institute of Jamaica

The services sectors are also important providers of employment in the Jamaican economy. A comparison of figure B3.10 with figure B3.5 indicates that in 2011, the wholesale and retail service sector provided the largest share of total employment of all service and non-service sectors. Only the agriculture sector had a comparable share of employment of 17.5%. Hotel and Restaurant services were the fourth largest providers of jobs (6.8% - a position they shared with the manufacturing industry), and they were closely followed by the transportation, storage and communications sector (6.5%).

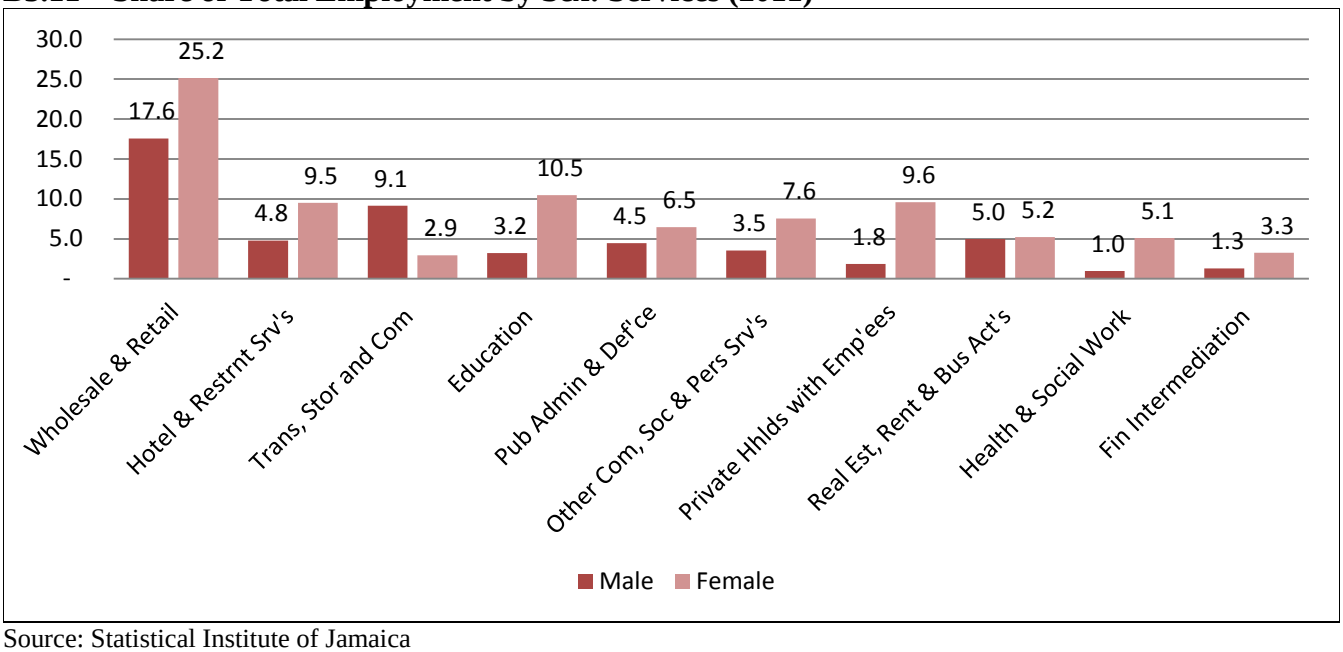
Figure B3.11 provides the 2011 services employment data disaggregated both by sector and sex. The importance of the wholesale and retail sector to the employment of women is clearly highlighted, with a quarter of Jamaican women being employed in that sector. The education sector is also an important provider of employment for women with a 10.5% share of female employment in 2011. Noteworthy is the fact that the sector with the third largest share of female employment is private households with employees, indicating that just under one-tenth of the employed women in Jamaica are household helpers. Hotels and restaurants provided a similar share of female employment at 9.5%.

B3.10 – Share of Total Employment: Services (%)



Source: Statistical Institute of Jamaica

B3.11 – Share of Total Employment by Sex: Services (2011)



Source: Statistical Institute of Jamaica

This section has clearly highlighted the high and increasing importance of the services sectors relative to the sectors categorized under agriculture and industry. Services sectors such as wholesale and retail trade, transportation, storage and communication, real estate, rent and business activities, and finance and insurance, all had larger shares of GDP than the manufacturing, construction, agriculture and mining sectors. The potential of the tourism sector in creating spin-off business for other service providers should also not be overlooked.

In an environment of relatively high unemployment and underemployment, the relative importance of sectors to the provision of employment should also be considered. The wholesale and retail trade sector was the largest provider of total employment over the past decade, and was particularly important to the employment of women. Notwithstanding this, the agriculture, construction and manufacturing sectors maintained their relevance in the context of job provision, particularly for men.

In the overall context of slow economic growth, it is not surprising that very few sectors achieved outstanding rates of growth over the past decade. The shift from agriculture and industry to services is reflected in the fact that three of the five sectors in the former category had declining real value added over the past decade, in comparison to the growth in real value added for all the services sectors. Only the hotel and restaurants sector distinguished itself by virtue of a relatively high rate of growth, while the mining sector had a particularly large rate of decline.

The precipitous fall in mining is almost completely explained by the fallout from the global crisis, as between 2000 and 2007, mining maintained a consistent share of GDP of about 4%. As at 2010, that figure fell to 1.2%. The manufacturing industry has been heavily impacted by the dramatic decline of the apparel industry in the late 1990s. Jamaica's main agricultural exports (as well as textiles) have been significantly adversely affected by the erosion of trade preferences.[18]

The World Bank (2011) further notes that even the fast growth services sectors in Jamaica are beset by challenges that could impede the country's development prospects. The tourism sector is relatively significant, but 'intersectoral linkages from Jamaica's tourism industry are weak and have been exacerbated by the promotion policies aimed at the sector… The dominant model of all-inclusive resorts promoted by generous tax incentives favors large, isolated hotels that lack linkages to the rest of the economy… While Jamaica's tourism sector includes many small and medium enterprises in hotels and restaurants, most of the investment and expansion in accommodations over the past five years has come in the form of larger and all-inclusive hotels… Given the predominance of large, foreign-owned hotels, most tourism earnings do not stay in Jamaica.' Similar problems have been ascribed to the ICT sector, which has been promoted through tax incentives. The World Bank (2011) notes that 'some of these benefits are included in the Export Free Zone Act, an arrangement that could prevent the development of strong links between firms located in these zones and other sectors or enterprises.'

The overall productive structure of Jamaica is a source of concern. The high level of concentration of output and markets is particularly constraining. This is because 'the actual exportable products are few, and producing new products requires knowledge and technologies

[18] World Bank (2011)

that the country cannot easily derive from the production of its existing goods… In Latin America and the Caribbean, only Trinidad and Tobago has a lower potential than Jamaica for producing new goods for export' (World Bank 2011). Even in areas of apparent comparative advantage, such as tourism, Jamaica has lagged international competitors.

4. The Institutions

Strong institutions are necessary for the creation of economic growth and development. Important institutions for private sector development include a stable political system, credible policy framework, effective legal and regulatory system, strong property rights, effective dispute resolution, reliable governance, infrastructure provision, and access to affordable finance.[19] This section gives a broad overview of the institutional structure in Jamaica by first briefly describing the country's political system and government agencies most directly responsible for fostering private sector development, and then by cursorily assessing the effectiveness of the Jamaican institutions.

This section is not intended to provide a comprehensive review of Jamaican institutions, as some of the material that would be included in such a review will be covered in subsequent sections, and because such a review was recently completed by Holden and Howell (2012) through the IDB. The conclusions of that study are summarized in Box 4.1, and readers are encouraged to read the entire report for the full assessment.

The Political System and Government Agencies

The legacy of British colonial rule remains in Jamaica, as the country's political system is based on the British model. The country has a bi-cameral system of government and has enjoyed a relatively stable democracy since independence in 1962. The political system is dominated by two major political parties. The Jamaica Labour Party (JLP) formed the government from 1962 until 1972, late 1980 until early 1989, and, most recently, from late 2007 until late 2011. The People's National Party (PNP) was in government from 1972 to 1980, from 1989 until 2007, and has been in government since late 2011. The World Bank in 2003 noted that Jamaica has relatively strong democratic traditions and institutions, with high a level of political participation, a free media, a high quality civil service, and a highly ranked regulatory framework. They however note that the 'very poor rule of law and crime negate these positive elements in the business environment.'

The Ministry of Industry, Investment and Commerce (MIIC) has direct portfolio responsibility for fostering private sector development. It is led by the Minister G. Anthony Hylton, Minister of State Sharon Fflokes Abrahams, and Permanent Secretary Reginald Budhan. The MIIC seeks to: 'provide the framework for an investment-friendly environment; attract and promote new investments, both local and foreign; facilitate Government's divestment and privatization programmes; spearhead the modernization of industry; facilitate the export of goods and services; promote the development of small and micro enterprises; and promote the technological advancement of the country.'[20]

[19] Holden and Howell (2012)
[20] http://www.miic.gov.jm/statements.php

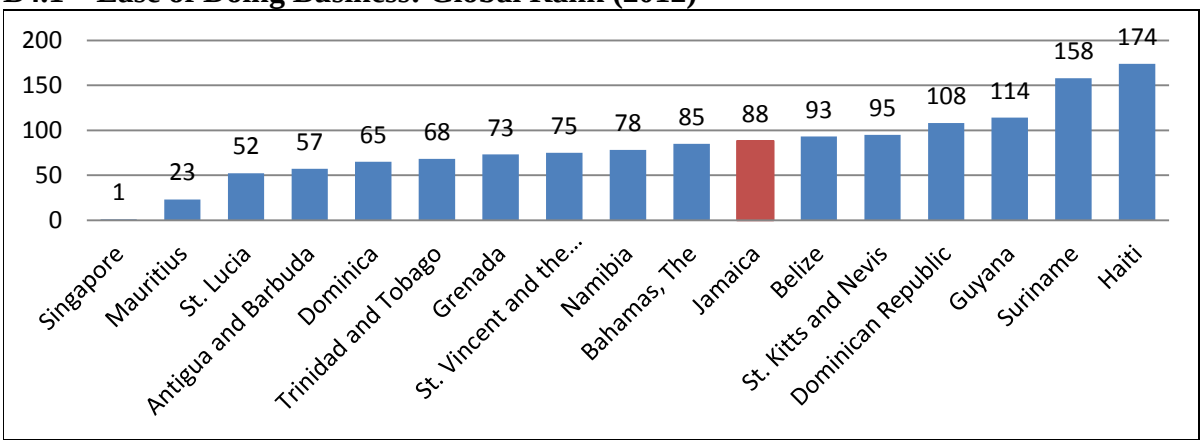
Falling under the auspices of the MIIC are two important public sector agencies that are directly involved in PSD activities. The Jamaica Promotions Corporation – JAMPRO (led by Chairman Milton Samuda and President Sancia Bennett-Templer), is Jamaica's investment and export promotion agency. It seeks to 'stimulate, facilitate, and promote the development of trade and industry, and export and investment activities in all sectors of the island's economy.'[21] The Jamaica Business Development Corporation – JBDC (led by CEO Valerie Veira), is the 'leading player in the provision of business support services for Jamaican businesses.'[22]

Given the importance of women-owned businesses in Jamaica, the role of the Bureau of Women's Affairs (led by Executive Director Faith Webster) should also be mentioned. This agency, operating under the Ministry of Youth, Sport and Culture, has a mandate to act as a catalyst to ensure that Government addresses the problems that confront women. The problems include, *inter alia*, high rates of female unemployment. 'Its objective is to enable women to recognize their full potential as individuals and to create avenues for their full integration in National Development.'[23]

Institutional Effectiveness

The effectiveness of institutions in any country affects the ease with which business is conducted, and thus impacts the ability of the private sector to flourish. The World Bank's Ease of Doing Business rank shows how a country is performing in this respect relative to the rest of the world. Jamaica is ranked 88th out of 183 countries for the aggregate ranking on the ease of doing business. As indicated in figure B4.1, all of the extra-regional comparator countries studied and most of the regional control group countries have outperformed Jamaica in this respect. Between 2011 and 2012, Jamaica's doing business rank worsened, as the country fell by three places. This, however, is in line with a general trend of falling rankings for the comparator countries (see figure B4.2).

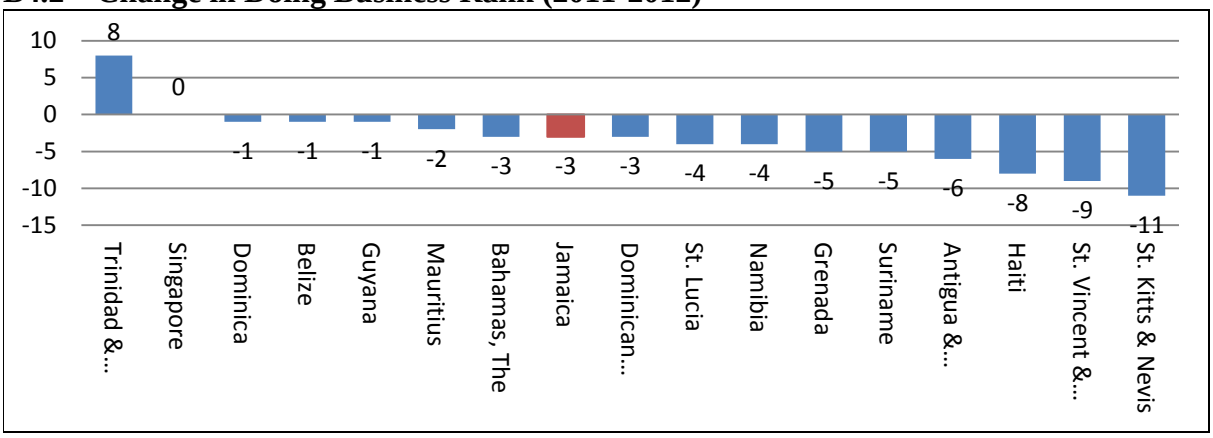
B4.1 – Ease of Doing Business: Global Rank (2012)



Source: The World Bank's Doing Business Report

[21] http://www.jamaicatradeandinvest.org/aboutjti
[22] http://www.jbdc.net/index.php?option=com_content&view=article&id=46&Itemid=94
[23] http://bwa-jamaica.gov.jm/about-us

B4.2 – Change in Doing Business Rank (2011-2012)



Source: Computed by author from data in The World Bank's Doing Business Report

Each of the doing business indicators will be examined in section E. To give a broad overview of current institutional effectiveness in Jamaica, the indicators of institutional strength used in computing the Global Competitiveness Index (2011-2012) are highlighted in Table B4.1. Here it is clear that Jamaica performs quite well in a few areas, achieving above-average rankings and outperforming some of the regional comparator countries. These areas include: strength of auditing and reporting standards; judicial independence; protection of minority shareholders' interests; strength of investor protection; ethical behavior of firms; and property rights. It is noteworthy, however, that in even in the areas where Jamaica's institutions perform best, the institutional strength of Barbados is significantly higher.

There are other areas in which Jamaica performs rather poorly, achieving below-average rankings and being outperformed by both Barbados and Trinidad and Tobago. These areas of institutional weakness include: intellectual property protection; and efficiency of the legal framework in settling disputes and challenging regulations.

Finally, there are two broad areas in which Jamaican institutions are ranked among the worst in the world, these relate to the perceptions of and actions of politicians and government officials, and to the costs of crime. Of specific concern are: wastefulness of government spending; transparency of government policymaking; public trust of politicians; favoritism in decisions of government officials; burden of government regulation; organized crime; and business costs of crime and violence.

B4.1 – Institutional Strength: Global Competitiveness Index (2011-2012)

	Jamaica		Barbados		Guyana		T&T	
	Value	Rank/142	Value	Rank/142	Value	Rank/142	Value	Rank/142
Strength of auditing and reporting standards	5.3	37	5.9	14	4.5	79	4.9	58
Judicial independence	4.4	48	5.9	17	3.3	87	4.4	47
Protection of minority shareholders' interests	4.4	59	4.8	34	3.7	105	3.7	107

	Jamaica		Barbados		Guyana		T&T	
	Value	Rank/142	Value	Rank/142	Value	Rank/142	Value	Rank/142
Strength of investor protection	5.3	60	n/a	n/a	5.3	60	6.7	20
Ethical behavior of firms	3.9	63	5.5	23	3.6	91	3.8	72
Property rights	4.3	67	5.8	17	3.7	100	4	83
Irregular payments and bribes	4	69	5.6	29	3.2	108	3.8	77
Efficacy of corporate boards	4.5	72	4.9	33	4.7	56	4.3	90
Diversion of public funds	3.2	73	5.3	22	3	78	2.9	85
Intellectual property protection	3.4	75	5.1	24	3.2	83	3.5	67
Efficiency of legal framework in settling disputes	3.4	78	4.9	20	3.3	93	3.6	71
Efficiency of legal framework in challenging regs.	3.3	82	4.6	24	3.2	89	3.5	75
Business costs of terrorism	5.3	88	5.8	54	5.3	92	5.3	91
Wastefulness of government spending	2.9	92	4.4	19	3.5	47	3.1	70
Transparency of government policymaking	3.9	98	5.4	12	4.1	82	4	94
Reliability of police services	3.5	101	6	15	3.2	113	3.1	119
Public trust of politicians	2	112	4.7	16	2.8	69	2.2	98
Favoritism in decisions of government officials	2.4	121	3.9	34	2.6	96	2.6	103
Burden of government regulation	2.6	123	4.7	6	3.6	42	3.4	56
Organized crime	3.1	135	6.5	16	4.7	93	4.1	117
Business costs of crime and violence	1.9	140	5	57	3.1	130	2.5	135

Source: http://reports.weforum.org/global-competitiveness-2011-2012/#=

Strong institutions reduce uncertainty, encourage investment and entrepreneurship, and reduce the costs of exchange and production.[24] In a business environment wherein macroeconomic challenges and susceptibility to external shocks already increase uncertainty, strong institutions are needed as a countervailing force.

Whereas the Jamaican government has made some progress in improving some of its institutions, the best performing institutions are still not world-leaders, and, more importantly, the worst performing institutions are particularly poorly rated and impede private sector development. In this respect, the government has much work to do in improving the public perception and trust of politicians and public officials. More fundamentally, greater progress is needed in reducing public sector wastefulness, corruption and burdensome regulation. The burden of crime in Jamaica must also be reduced.

[24] Holden and Howell (2012)

Box 4.1: A Review of Private Sector Oriented Reform in Jamaica – Conclusions
Extracted from Holden and Howell (2012)

Whether as a result of the recommendations in the first Private Sector Assessment, a heightened awareness of the issues raised by the PSA's dissemination, or conclusions that were arrived at independently, significant actions have been taken to address a number of the issues that it raised. In some areas, such as divestiture of State Owned Enterprises and the introduction of PPPs, there has been very substantial progress. Credit bureaus are about to commence operation, which will improve access to finance. There have been significant improvements in administrative aspects of the tax code, in particular in the burdensome payment of labor taxes. These are substantial achievements by any standards and will add to the competitiveness of the Jamaican economy.

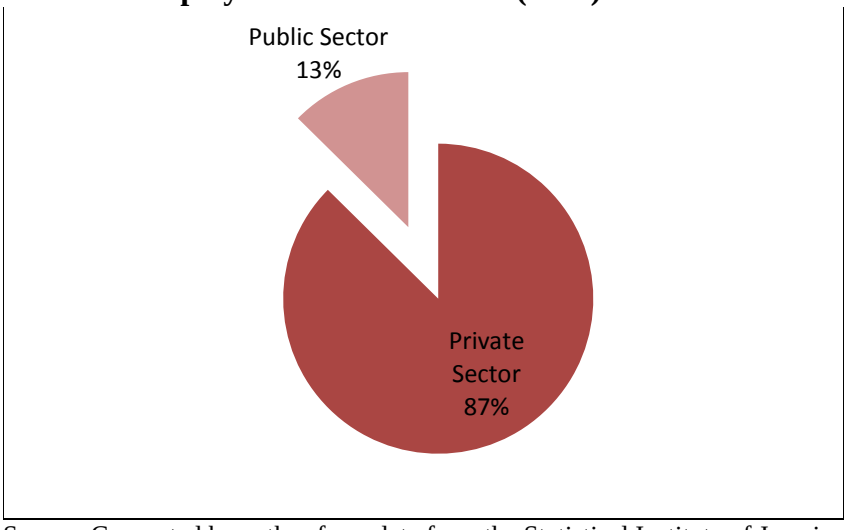
In other areas, there has been some progress. Reform of the secured transactions framework has commenced to the point where Cabinet has approved the preparation of a new Bill to be submitted to Parliament, but in spite of widespread support for the reform, additional progress has been frustratingly slow. A start has been made on the reduction of distortionary tax incentives and waivers but the fundamentals of the system that has led to extensive misallocation of resources remains in place and as yet there is not a clear consensus regarding how a transition to a neutral system should occur.

In some areas there has been little or no progress. The private sector reports that bureaucracy remains stifling, hard to deal with and indifferent to the needs of business. Land titling, a fundamental reform to promote inclusive growth, is making only glacial progress and at the current rate will take several hundred years to complete. Crime has come down somewhat, but remains an enormous tax on the economy. In the legal reform area, processes are very slow.

C. STATE OF THE PRIVATE SECTOR

As indicated in figure C1.1, the private sector in Jamaica is relatively large, employing almost 90% of the country's working labour force. This is not surprising, as the 2011 Global Entrepreneurship Monitor (GEM) Report notes that 81% of the population aged 18 to 64 view entrepreneurship as a good career choice, 82.5% note that successful entrepreneurs receive a high status in society, and 78.6% believe that they have the requisite skills and knowledge to start a business. As a result of such perceptions, the GEM (2011) Report notes that 13.7% of the country's citizens (aged 18-64) are either nascent entrepreneurs or owners-managers of a new business. Total early-stage entrepreneurial activity (TEA) in Jamaica is thus the 15th highest of 54 ranked economies.

C1.1 - % Employed in Private Sector (2010)



Source: Computed by author from data from the Statistical Institute of Jamaica

With such a relatively high level of early-stage entrepreneurial activity, the dominance of micro, small and medium-sized enterprises (MSMEs) in the Jamaican private sector is to be expected. In the Jamaican context, an official definition of MSMEs has not yet been adopted, and in the past, different government agencies utilized varied measures. However, in the most recent draft of the MIIC's *MSME and Entrepreneurship Policy* (May 2012), a uniform set of definitions was outlined. These are presented in table C1.1.

C1.1 – Jamaica's Proposed MSME Definitions

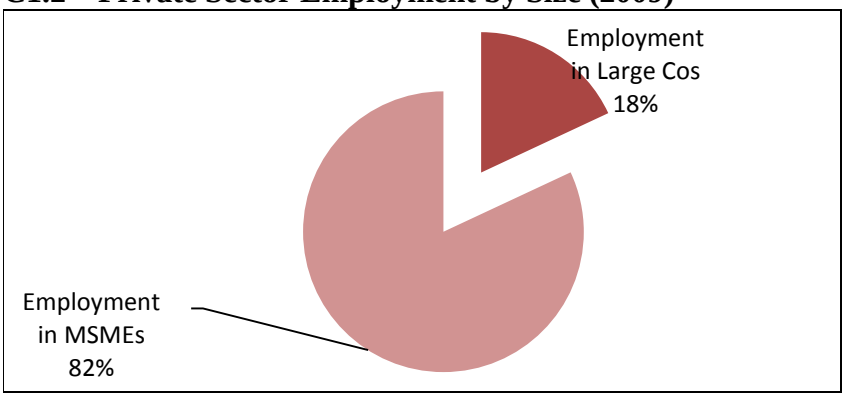
Firm Size	No. of Employees	Total Sales/Turnover
Micro	≤ 5	≤J$10 million
Small	6 – 20	> $10 million ≤ J$50 million
Medium-sized	21 – 50	> J$50 million ≤J$150 million

Source: MIIC's *MSME and Entrepreneurship Policy* (May 2012)

Figure C1.2 indicates that 82% of the working labour force employed by the private sector work in MSMEs, thus highlighting the importance of this sector to the Jamaican economy. Figure C1.3 further disaggregates the data and shows that just about half of the employment in MSMEs is attributed to own account workers. Such persons are defined by the ILO as 'workers who, working on their own account or with one or more partners, hold the type of job defined as a self-employed job, and have not engaged on a continuous basis any employees to work for them…'[25]

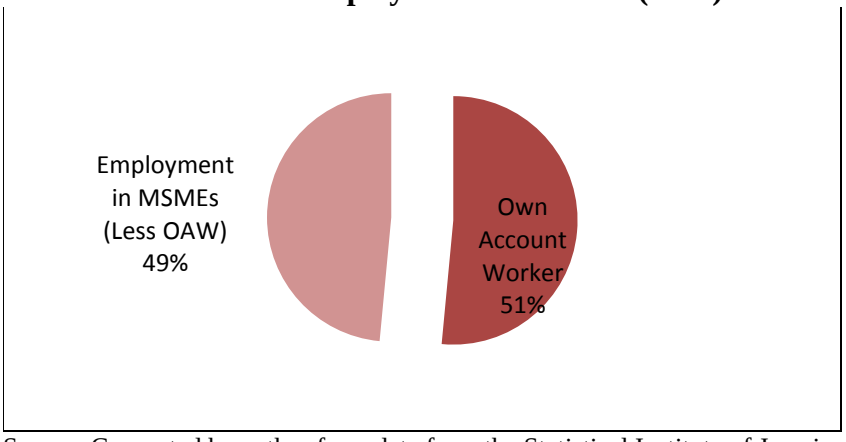
This is an important feature of the private sector in Jamaica that should not be overlooked. A possible explanation for this is the fact that one-third of the persons involved in early-stage entrepreneurial activity in Jamaica are involved in entrepreneurship because they had no other option for work. Only 10 of the 54 countries ranked in the GEM 2011 Report had a higher level of necessity-driven entrepreneurship. By contrast, 40% of persons involved in early-stage entrepreneurial activity claim to be driven by opportunity as opposed to finding no other option for work. This level of opportunity-driven entrepreneurial activity places Jamaica among the lowest 20 countries ranked in the GEM Report.

C1.2 – Private Sector Employment by Size (2009)



Source: Computed by author from data from the Statistical Institute of Jamaica

C1.3 – Breakdown of Employment in MSMEs (2009)



Source: Computed by author from data from the Statistical Institute of Jamaica

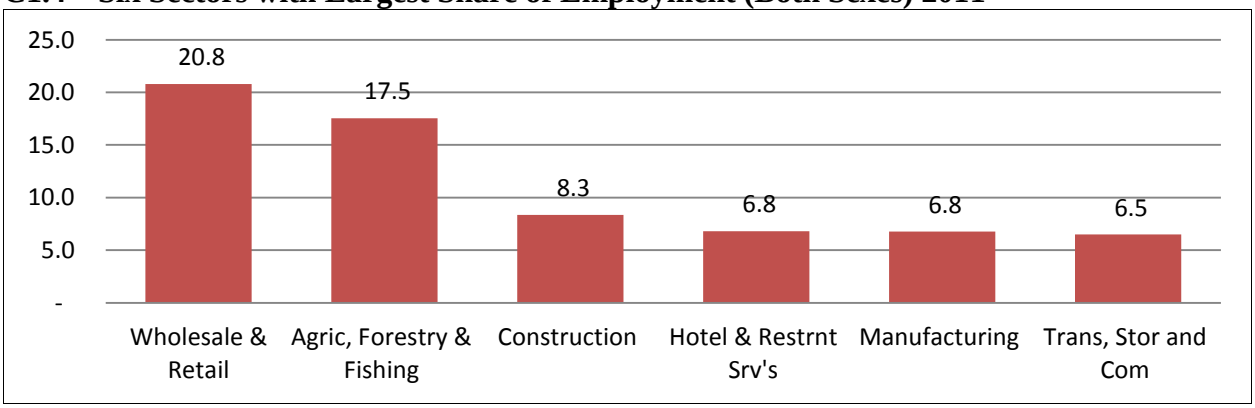
[25] http://stats.oecd.org/glossary/detail.asp?ID=1986

The relatively high prevalence of own-account workers and necessity-driven entrepreneurs helps to explain the sectoral distribution of employment in the Jamaican private sector. Figure C1.4 highlights the six sectors with the largest share of employment for both sexes, and figures C1.5 and C1.6 presents the disaggregation by sex. The dominance of the wholesale and retail trade sector in the employment of both men and women is instructive. Own-account workers involved in this sector are likely to be retailing merchandise, generally without transformation. Many of the smaller operators would tend to be non-store retailers. Almost 18% of working men and just over 25% of working women are employed in this sector.

Agricultural activities are important sources of employment for men, providing employment for a quarter of the working men. For own-account workers, this would tend to involve small-scale farming. Whereas in some countries, such small-scale farming is viewed as a very viable livelihood, particularly if niche markets such as organic farm products are targeted, this does not tend to be the case in Jamaica, where educated youth tend to shy away from farming, and rural poverty is greater than urban poverty.[26]

The other sectors of importance to men are the construction, transportation, storage and communication, manufacturing, and real estate, rent and business activities sectors. Those sectors would tend to have a wider distribution of firm sizes, and would include some medium-sized and large firms. Outside of the wholesale and retail trade, women tend to be involved in education, working as household helpers, hotel and restaurant services, agriculture, and other community, social and personal services. Apart from their involvement in the hotels and restaurant sector and possibly the education sector, many of the employment activities in which women are involved would seem to trend towards being in smaller scale and possibly informal firms.

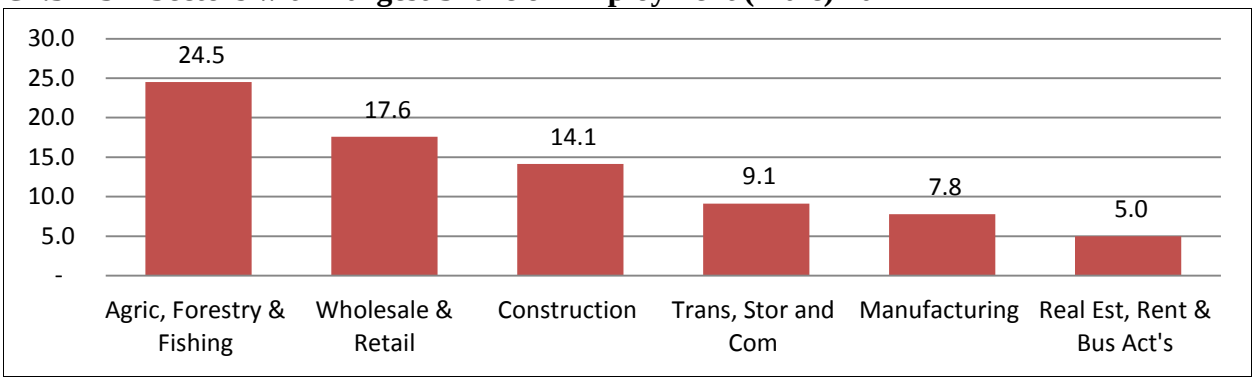
C1.4 – Six Sectors with Largest Share of Employment (Both Sexes) 2011



Source: Statistical Institute of Jamaica

[26]"Farmers are men who could not manage schooling or did not go because they were born too far below the poverty line. Cane cutters come from sprawling families, they beat their wives and smell of white rum and perspiration. Agriculture is tragic, unsophisticated and backward and its participants lack the mental fortitude to do anything else. Farming is a curse that just over 200,000 Jamaicans still have to bear.' These stereotypical views are extreme but still exist in present day Jamaica. The latest data published by the Statistical Institute of Jamaica indicates that Jamaica has over 114,000 hectares of inactive farmland with only 202,000 hectares actually active. The average Jamaican farmer, it is believed, is a man in his fifties." Extracted from http://go-jamaica.com/news/read_article.php?id=31054

C1.5 – Six Sectors with Largest Share of Employment (Male) 2011



Source: Statistical Institute of Jamaica

C1.6 – Six Sectors with Largest Share of Employment (Female) 2011

Source: Statistical Institute of Jamaica

Jamaica is a highly entrepreneurial society, with a relatively large private sector and relatively high level of early-stage entrepreneurial activity. The large number of MSMEs operating in Jamaica, and particularly necessity-driven own-account workers, however, speaks volumes to the types of activities being conducted by significant portions of the private sector. The retailing of merchandise (without much, if any, transformation) and small-scale farming are the types of low-value added activities that many own-account workers and microenterprises are involved in.

Another important feature of the private sector in Jamaica is the high rate of failure of firms. Whereas Jamaica is ranked highly in the GEM 2011 Report for the prevalence of early-stage entrepreneurial activity, it is ascribed a low rank (in the bottom 20 countries) for the established business ownership rate. In Jamaica, only 5.1% of the persons who currently own/manage a business have done so for more than 42 months. This is critical because whereas early-stage entrepreneurs can provide dynamism in an economy, established business owners are needed to provide stability and employment. The level of established business ownership is used to indicate the sustainability of entrepreneurship in a society. In the case of Jamaica, the result confirms conclusions made earlier about the harsh business environment and weak institutions, which increase uncertainty and reduce the planning horizon for firms.

D. LARGE AND FAST-GROWING SECTORS

Based on the analysis from previous sections, the sectors that will be examined below are: the wholesale and retail trade; tourism; ICT; real estate, rent and business activities; and manufacturing sectors. A description of each sector will be given, followed by an analysis of its growth prospects.

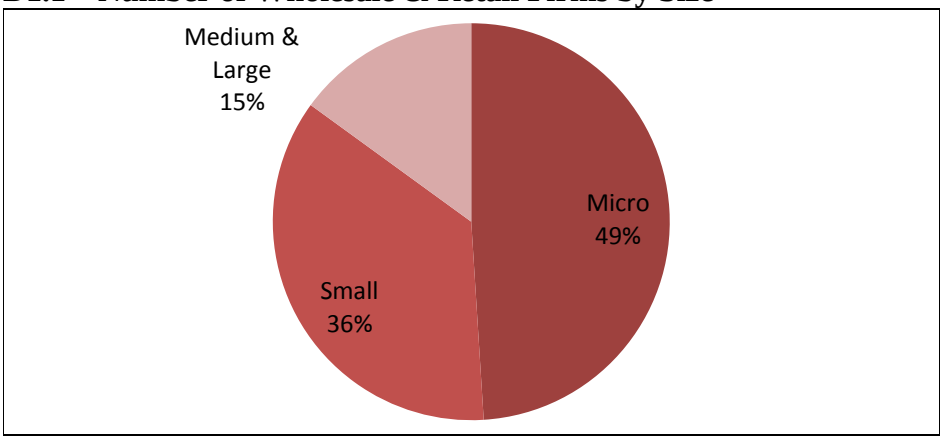
Wholesale and Retail Trade

'Wholesaling is the resale of new and used goods to retailers, to industrial, commercial, institutional or professional users, or to other wholesalers, or involves acting as an agent or broker in buying goods for, or selling goods to, such persons or companies… Retailing is the resale of new and used goods mainly to the general public for personal or household consumption or utilization, by shops, department stores, stalls, mail-order houses, door-to-door sales persons, hawkers and peddlers, consumer cooperatives, auction houses etc... Both wholesaling and retailing involve the resale of goods without transformation of such goods' (United Nations Statistics Division).

The wholesale and retail trade sector has consistently had the largest share of GDP (18.4% on average between 2001 and 2010) throughout the past decade, the largest share of total employment in 2011 (20.8%), and the largest share of employment of women in 2011 (25.2%). In spite of turbulent economic times, its share of GDP has fluctuated only mildly between 2001 and 2010, and the sector has grown marginally over the period with a compound average growth rate of 0.23%. In 2010 the sector employed 211,350 people, with a GDP per worker of J$433,080.

As indicated in figure D1.1, the sector is dominated by a large number of micro firms. Such firms comprise almost half (49%) of all the businesses that file GCT returns in the sector. Because many microenterprises and own-account workers operate informally, the number of such firms operating in the sector is clearly underestimated. Small firms also feature prominently in the wholesale and retail trade sector with 36% of the formal businesses, while medium-sized and large firms comprise only 15% of the sector.

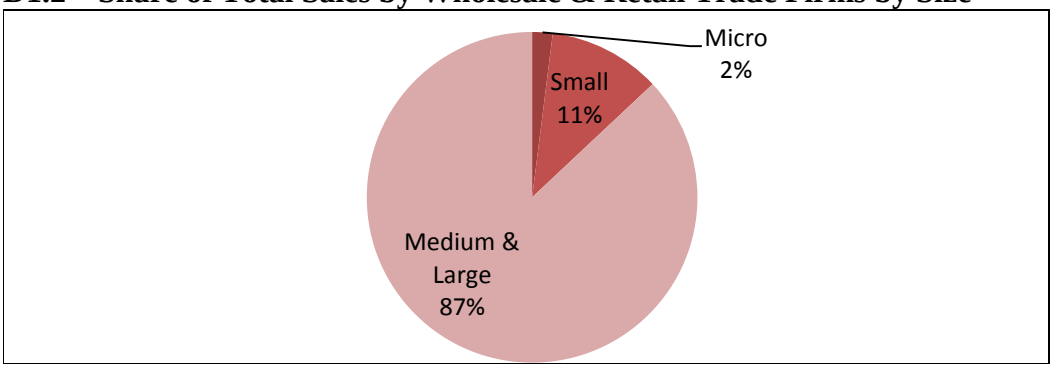
D1.1 – Number of Wholesale & Retail Firms by Size



Source: Statistical Institute of Jamaica

Notwithstanding the large number of micro and small firms in the wholesale and retail trade sector, medium-sized and large firms dominate in terms of sales revenues, with almost 90% of the sector's total sales (see figure D1.2). This is not surprising, as the sector encompasses a wide range of businesses, from the large distributors of petroleum to the businesswoman selling clothes from the back of her car. There have been a number of recent mergers and consolidation among distribution chains, which has led to a growth in the size of the largest firms in the sector, particularly in the categories of general groceries, gasoline distribution and furniture.[27] There, however, continues to be a steady influx of small firms, microenterprises and own-account workers to the sector, as trading is one of the easiest businesses in which to enter at a small scale.

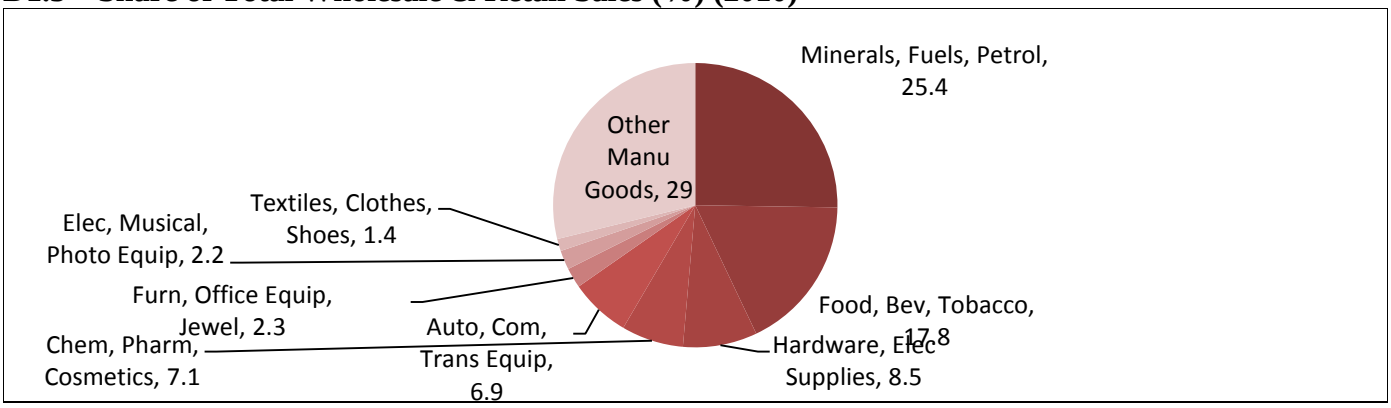
D1.2 – Share of Total Sales by Wholesale & Retail Trade Firms by Size



Source: Statistical Institute of Jamaica

The firms operating in the wholesale and retail trade sector are primarily involved in one of nine sub-sectors. As indicated in figure D1.3, the minerals, fuels, lubricants and petroleum products sub-sector contributed to just over a quarter of the total sales of the sector in 2010. This was followed by the food, beverages and tobacco sub-sector with a 17.8% share of total sales. Other sub-sectors such as hardware, building supplies and electrical goods (8.5%), chemicals, pharmaceuticals and cosmetics (7.1%), and automobiles, commercial and transport equipment (6.9%) had far less significant shares of total sales.

D1.3 – Share of Total Wholesale & Retail Sales (%) (2010)

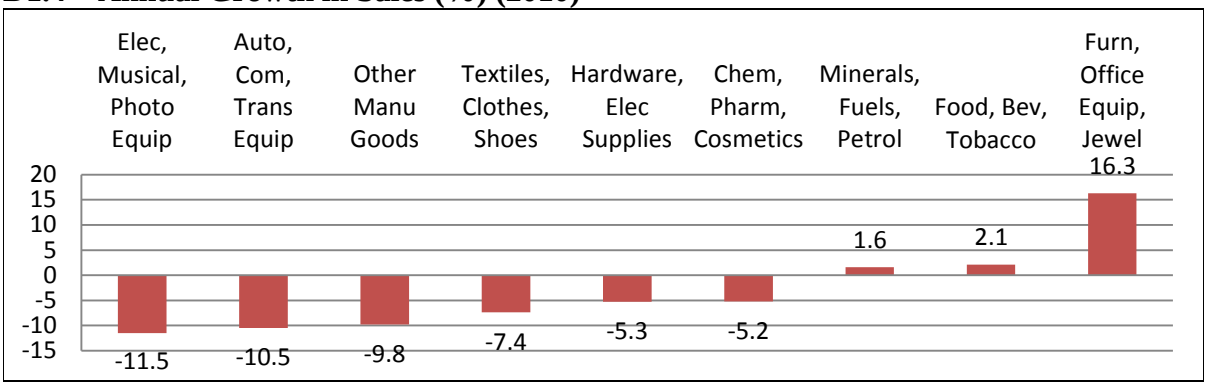


Source: Statistical Institute of Jamaica

[27] Vision 2030 Jamaica, Sector Plan for the Services Sector (June 2010)

In 2010, reflective of the downturn in the economy due to, *inter alia*, the global crisis, six of the nine sub-sectors registered a decline in sales (see figure D1.4). The inelastic demand for fuels and food is likely to have accounted for the small increase in sales for those sub-sectors. For the last category, STATIN (2011) notes that even though there was a decline in the sale of jewelry, a significant increase in the sales of furniture and household equipment accounted for the overall increase experienced in 2010.

D1.4 – Annual Growth in Sales (%) (2010)



Source: Statistical Institute of Jamaica

The wholesale and retail trade sector is important, not only in terms of its share of GDP and job provision, but is also a key component in the efficient operation of the local market for goods, with strong linkages to the tourism, agriculture and construction sectors. It is, however, precisely because of these strong and almost exclusive linkages to the domestic economy that this sector is unlikely to be a driver of economic growth for Jamaica's small economy in the near future.

Between 2001 and 2010 the wholesale and retail trade sector had the lowest growth of real value added of all the services sectors. Although there are opportunities for increased value added and efficiency in distribution through the 'application of technology, economies of scale, improved supply chain and inventory management, and consolidation of delivery services,'[28] the growth potential of the sector will always be limited by the prosperity of the domestic consumers and economy. In fact, with the increase in the number of credit cards issued, the availability of international mailboxes, and the increased amount of overseas online purchasing by Jamaican consumers, greater prosperity by Jamaican consumers may not necessarily mean a proportional expansion of the wholesale and retail trade sector.

Other factors adversely affecting this sector include: the state of the rural road network; limited capacity of roads to accommodate container haulage vehicles; absence of a railway network; crime and high cost of security; cost of energy supply; and depreciation of the Jamaican dollar, which increases the costs of this heavily import-dependent sector. Notwithstanding these threats, the closeness of Jamaica to the US market, the development of the Highway 2000, highly

[28] Vision 2030 Jamaica, Sector Plan for the Services Sector (June 2010)

developed port infrastructure, and preferential market access to other Caribbean countries are areas of strength through which the sector has grown. [29]

It is these areas of strength that have enhanced the potential of the wholesale and retail trade sector to attract overseas investment. With 22 affiliates of foreign companies operational, this sector has the second largest number of affiliates of foreign companies in the country. Many of these affiliates of foreign companies are well-established, with only five new operations being opened since 2000.[30] While the influx of foreign capital is welcomed, it must be noted, however, that such firms are in the country to sell to domestic consumers, and, as such, like the rest of the sector, future profitability is dependent on the growth of the domestic economy.

Tourism

Tourism is one of Jamaica's most important sectors, accounting for about 42% of foreign-exchange earnings from the productive sectors (World Bank 2011). Although hotels and restaurants only accounted for 4.2% of GDP in 2010, the tourism industry was estimated by STATIN to directly contribute 7.1% to the country's GDP. Hotels and restaurants were the fourth largest providers of employment for both sexes in 2011, and were particularly important to female employment, providing jobs for just under 10% of the working women. The hotel and restaurants sector was also the fastest growing sector in the Jamaican economy over the past decade, with a CAGR of 3.1%.

Table D1.1 compares the impact of tourism in Jamaica with that of Barbados and the Dominican Republic. The figures show that whereas the direct impact of tourism in Jamaica is smaller than that of both countries, the broader impact on economic activity is considerably greater than the direct impact, and exceeds that of the Dominican Republic. Similar conclusions can be derived for the impact on employment. It is thus seen that whereas Jamaica is slightly more dependent on tourism than the Dominican Republic, it is significantly less dependent than Barbados.

D1.1 – Impact of Travel and Tourism on Economic Activity and Employment
(2005-2009) Averages, % of GDP and % of Total Employment)

	Jamaica	Barbados	Dom Rep
Travel & Tourism Direct Industry GDP	5.56	8.34	6.12
Travel & Tourism Broader GDP Impact	17.32	27.8	14.72
Travel & Tourism Direct Industry Employment	4.9	7.56	6.28
Travel & Tourism broader Employment	15	24.48	14.38

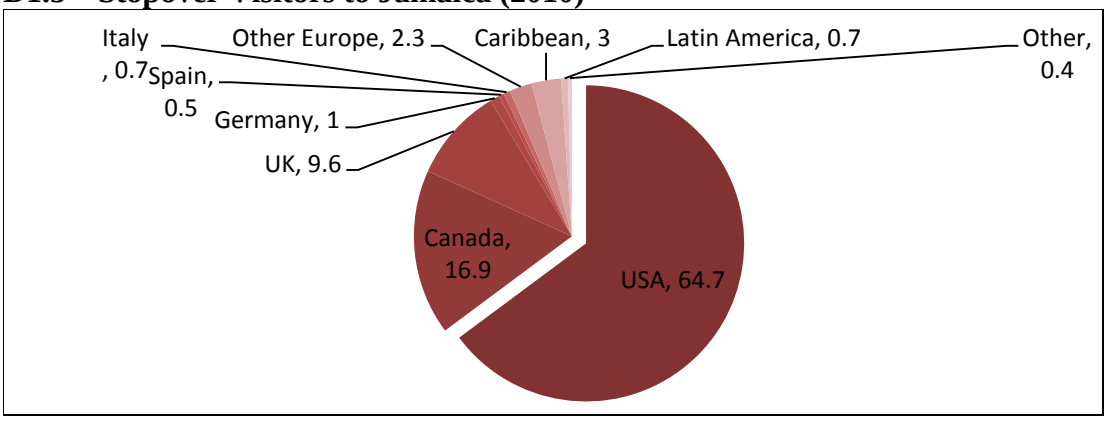
Source: World Bank (2011)

The tourism industry in Jamaica is different from its Caribbean competitors in a number of important areas. First, as indicated in figure D1.5, it is highly dependent on visitors from the USA, with about 65% of total stopover visitors originating in America. Canada had the next

[29] Vision 2030 Jamaica, Sector Plan for the Services Sector (June 2010)
[30] Investment Map website

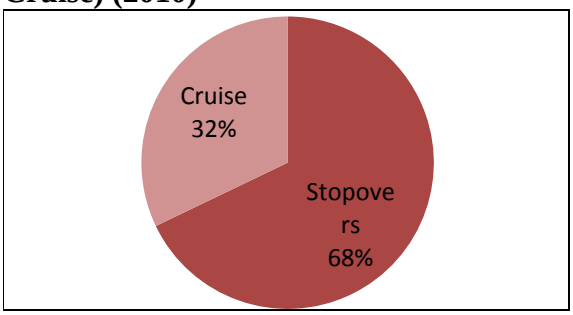
largest share of visitors at 16.9%. By comparison the Dominican Republic and Trinidad and Tobago had only 28% and 43% of visitors from the USA, respectively. As indicated in figure D1.6, Jamaica also has a relatively large share of cruise ship arrivals (32%) when compared to the other Caribbean islands (10% for both the Dominican Republic and Trinidad and Tobago). This larger number of cruise ship arrivals has, however, only led to a 4% share of foreign exchange earnings, relative to the 96% from stopover arrivals (see figure D1.7).

D1.5 – Stopover Visitors to Jamaica (2010)



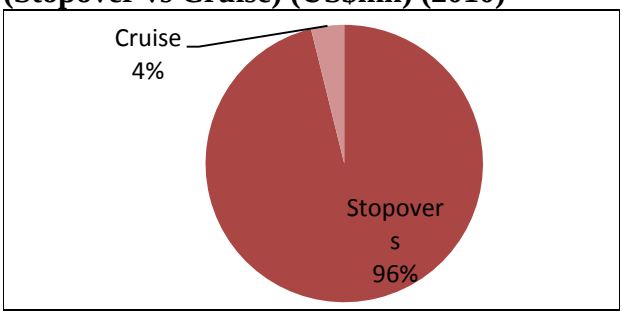
Source: Statistical Institute of Jamaica

D1.6 – Number of Visitors (Stopover vs Cruise) (2010)



Source: Statistical Institute of Jamaica

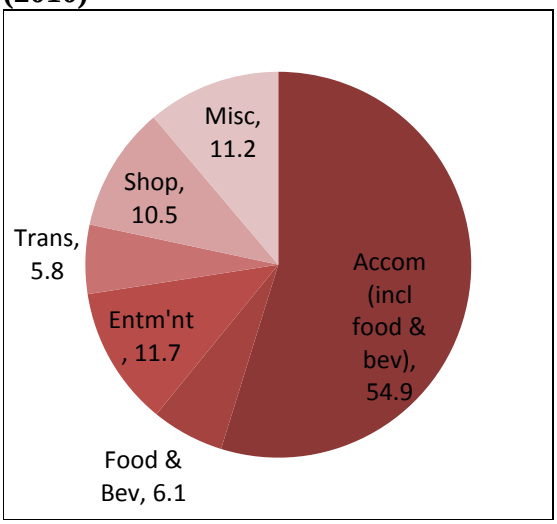
D1.7 – Foreign Exchange Earnings (Stopover vs Cruise) (US$mn) (2010)



Source: Statistical Institute of Jamaica

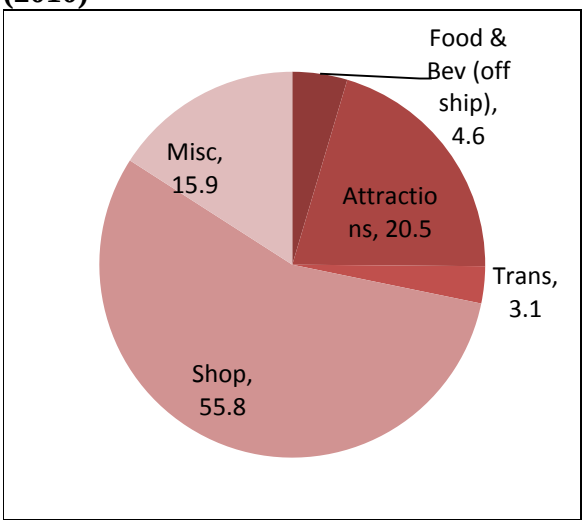
The earnings from the stopover visitors are, however, highly concentrated on expenditures on accommodations, many of which also provide food and beverages as part of an all-inclusive package. As highlighted in figure D1.8, other sub-sectors do not receive significant shares of the expenditure of stopover visitors. By contrast, the spending of cruise passengers is much more evenly distributed (see figure D1.9), with attractions and shops receiving much of the patronage. It should be noted, however, that as at the end of 2010, cruise ship arrivals to Jamaica had declined in four consecutive years, in spite of Ocho Rios being awarded the Caribbean's Leading Cruise Port in 2009 and 2010.

D1.8 -Expenditure of Stopover Visitors (2010)



Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

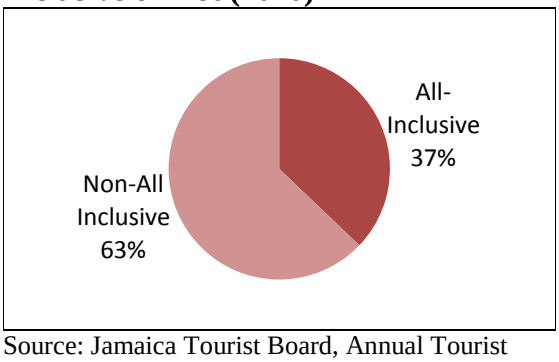
D1.9 -Expenditure of Cruise Passengers (2010)



Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

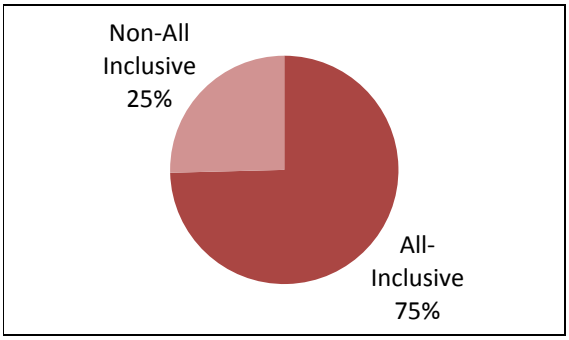
The major players in the Jamaican tourism industry are the all-inclusive hotels. As indicated in figures D1.10 and D1.11, although there are a larger number of non all-inclusive properties, all-inclusive properties offer three times the number of rooms. A comparison of figures D1.12 and D1.13 further show that although there are relatively few large hotels, these hotels dominate the tourism landscape with respect to the availability of rooms. The World Bank (2011) explains by noting that 'while Jamaica's tourism sector is characterized by small and medium enterprises in hotels and restaurants, most investment and expansion in accommodations over the past five years has been concentrated on larger and all-inclusive hotels.' It can be argued that the effect of this emphasis is exhibited in figures D1.14 and D1.15, as the occupancy rates for the smaller and non all-inclusive hotels are significantly lower than those of the larger, all-inclusive properties.

D1.10 – Number of Properties by All-Inclusive or Not (2010)



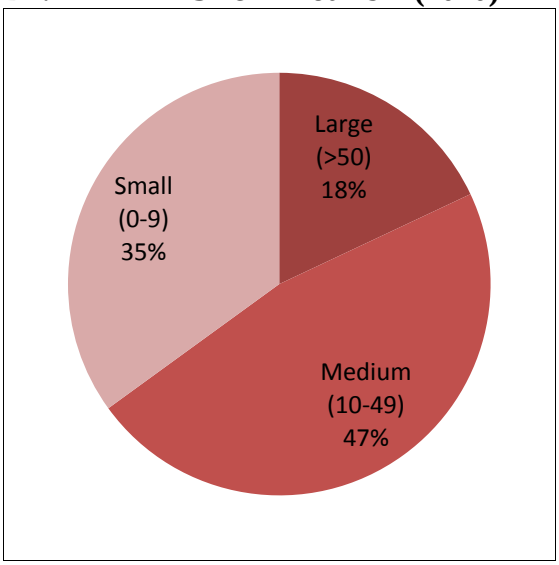
Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

D1.11 – Number of Rooms by All-Inclusive or Not



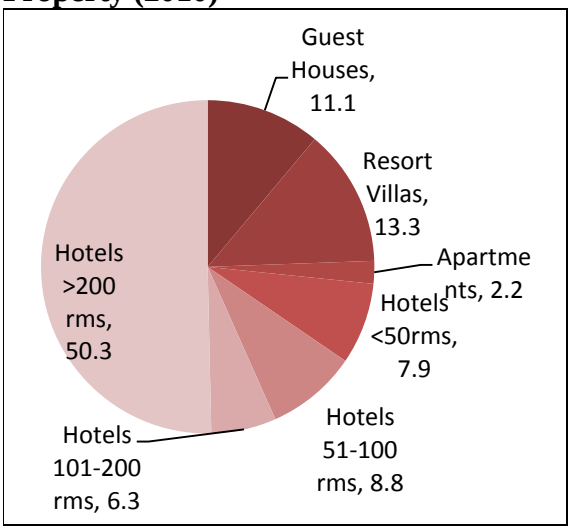
Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

D1.12 – Firm Size in Tourism (2010)



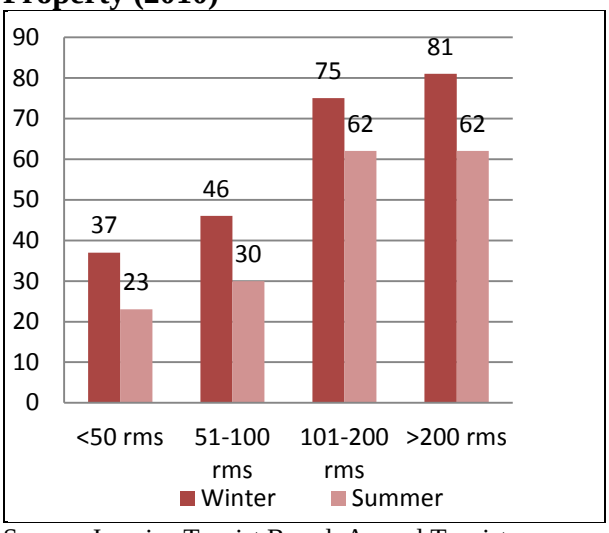
Source: World Bank (2011)

D1.13 – Number of Rooms by Type of Property (2010)



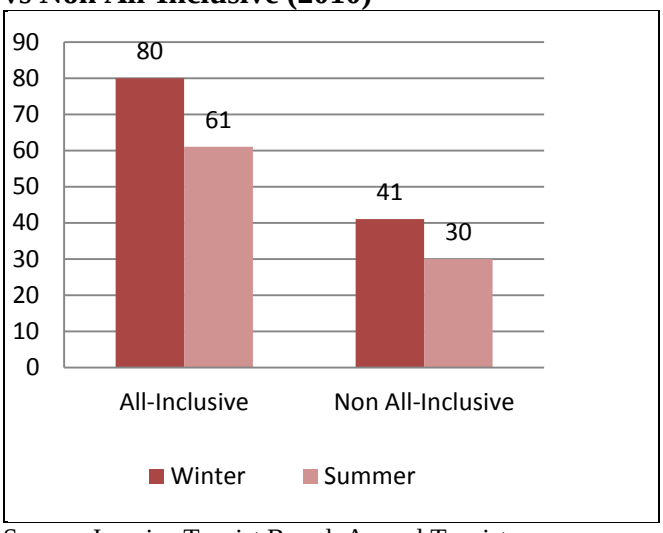
Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

D1.14 – Occupancy Rates by Size of Property (2010)



Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

D1.15 – Occupancy Rates - All-Inclusive vs Non All-Inclusive (2010)



Source: Jamaica Tourist Board, Annual Tourist Statistics (2010)

Although tourism has been growing in Jamaica, the country has lost market share worldwide and regionally, as the growth rate over the past two decades has lagged behind Caribbean competitors. This is because even though the country has 'strong potential to offer a wide variety of tourism experiences… much of it remains unrealized… The expansion of major hotel chains and incentives to attract large-scale hotels indicate that Jamaica has been competing

primarily through mass-scale resort tourism.'[31] Therefore, even though the sector is able to attract significant amounts of foreign investment (US$155.4mn in 2009, the largest amount attracted by all sectors), much of the benefit of this investment does not stay in the country.

Many of the large all-inclusive chains perpetuate the sector's strategy of undifferentiated *sand, sea and sun* tourism, and heighten the vulnerabilities which Jamaican tourism face. These include: (i) high leakage rates, as revenues are repatriated to owners' countries;[32] (ii) limited linkages to the rest of the economy;[33] (iii) questionable fiscal sustainability, as tourism incentives are expensive to maintain and consume scarce public resources; and (iv) environmental degradation[34] (World Bank 2011). As firms in the sector seek to diversify the product offerings, they are likely to face additional challenges including: limited access to finance; insufficient skilled labor;[35] crime;[36] high cost of energy;[37] and burdensome tax procedures.[38]

Notwithstanding these challenges, Jamaica's tourism sector has the potential to grow provided that it seeks to diversify both its product offerings and target market. This is because of both its natural assets and policy-based positioning. The World Bank (2011) highlights as natural advantages the country's warm weather, association with romance, rich culture, fauna and flora, heritage assets, and strategic location. The 2011 Travel and Tourism Competitive Index ranks the country highly in the following areas: prioritization of travel and tourism (4th out 139 countries); affinity for travel and tourism (6th); policy rules and regulations (11th); and ground transportation infrastructure (23rd).

Information Communications Technology (ICT)

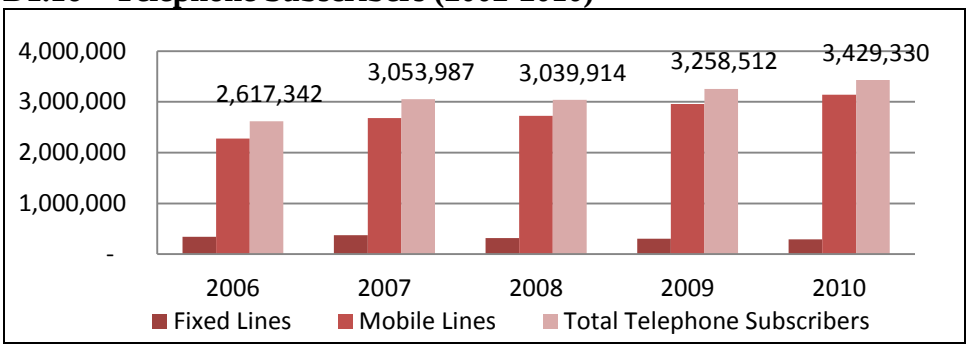
The transport, storage and communications sector has been the second largest non-government contributor to GDP over the past decade (with an average share of GDP of 10.8%), following only wholesale and retail trade. It is also the sixth largest employer of Jamaicans (with a 6.5% share of total employment in 2011), being significantly more important to the employment of men than women (with shares of total male and female employment of 9.1% and 2.9%, respectively). Although this sector has not grown significantly between 2001 and 2010 (with a

[31] The World Bank (2011) notes that 'under the Hotels Incentives Act, tax relief and duty concessions increase with the hotel size… This strategy has encouraged growth of large scale hotel investments at the expense of the development of smaller accommodations.'
[32] The Caribbean has one of the highest leakage rates in the world at 80% (World Bank 2011).
[33] For Jamaica the multiplier for the tourism sector has been most recently estimated at 1.1 (i.e. for every dollar spent by the sector, $1.10 in output is generated from other sectors). This is lower than in Barbados (1.27), Antigua and Barbuda (1.18), Dominica (1.18), the UK (1.96), and Ireland (1.72) (World Bank 2011).
[34] The country is ranked 116th out of 139 countries in the area of environmental sustainability and 110th for natural resources in the 2011 Travel and Tourism Competitiveness Index.
[35] The country is ranked 89th out of 139 countries in the area of human resources in the 2011 Travel and Tourism Competitiveness Index.
[36] The country is ranked 104th out of 139 countries in the area of safety and security in the 2011 Travel and Tourism Competitiveness Index.
[37] This impacts the pricing of the tourism product offerings. The country is ranked 90th out of 139 countries in the area of price competitiveness in the 2011 Travel and Tourism Competitiveness Index.
[38] These challenges were identified by private sector participants (such as hotel owners and tourism association leaders) in a focus group study conducted by the World Bank (2011).

CAGR of 0.94%), the ICT sub-sector is highlighted as being highly dynamic and increasingly competitive.

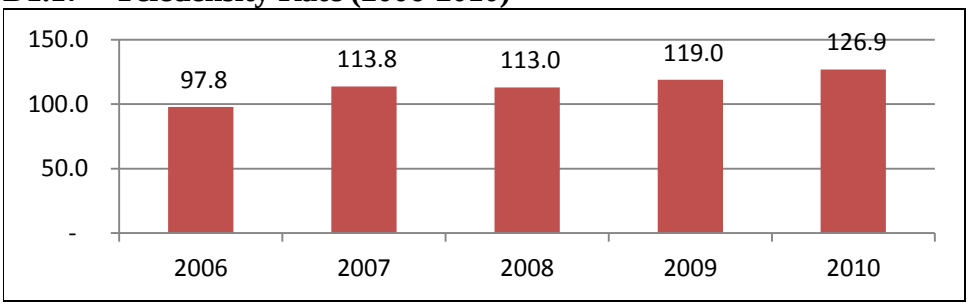
The number of telecommunications licenses that have been granted since the sector was liberalized in 2000 has increased consistently, and in 2010 totaled 461 licenses. As indicated in figure D1.16, the total number of telephone subscribers has increased significantly in the latter part of the decade, with the growth in mobile lines outstripping that of fixed lines. As a result, figure D1.17 shows that the country's teledensity rate has increased considerably. The number of internet subscribers has also consistently increased in recent years, and at 2010 was estimated at 116,685 fixed service subscribers (see figure D1.18). This figure, however, does not include the large number of subscribers to mobile internet services.

D1.16 – Telephone Subscribers (2002-2010)



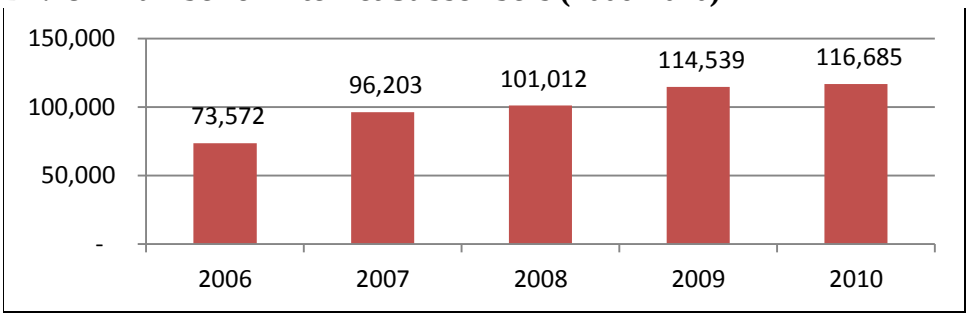
Source: Statistical Institute of Jamaica

D1.17 – Teledensity Rate (2006-2010)



Source: Statistical Institute of Jamaica

D1.18 – Number of Internet Subscribers (2006-2010)



Source: Statistical Institute of Jamaica

Since liberalization, the ICT sector has been able to attract significant amounts of foreign investment. FDI inflows to the sector averaged 11% of total FDI inflows to Jamaica over the period 2001-2005,[39] and as at 2010, the transport, storage and communications sector had the third largest number of foreign affiliates operating in the country. The sector also demonstrated considerable dynamism in this area, with the largest number of new affiliates established since 2000.[40]

A part of the reason for the country's success in attracting foreign investment to this sector is because it has been targeted by the government as a strategic fast-growth sector, which has been promoted through tax incentives. The World Bank (2011), however, notes that some of 'these benefits are included in the Export Free Zone Act, an arrangement that could prevent the development of strong links between firms located in these zones and other sectors or enterprises.'

The major players operating in this sector are foreign (primarily American) companies involved in business process outsourcing (BPO), large overseas telecoms providers, and a few local software development companies. Outside of the tax incentives offered, the advantages open to firms operating in this sector include: proximity to the USA; an English-speaking trainable workforce; competitive costs;[41] and recent improvements in the telecommunications infrastructure.

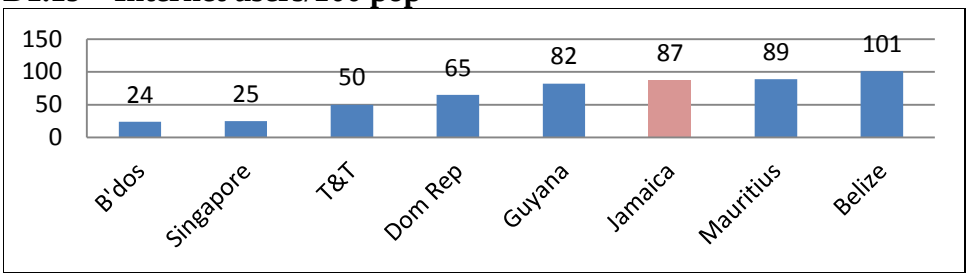
The challenges facing this industry are numerous and include:

- 'gaps in the levels of required skills and capabilities for ICT among the workforce;
- existing focus of local ICT companies on low value-added services for export;
- limited access to capital for new ventures in the ICT industry;
- constraints to the continued development of the outsourcing industry, including inadequate office space, poor English standards of students leaving the various levels of the education system, and the low take-up by local investors of the opportunities presented by outsourcing;
- limited existing capacity in the manufacturing of hardware components and the creation of software that has domestic and international market potential;
- relatively limited application of e-commerce which is still primarily concentrated in product and service delivery to consumers, with limited attention paid to business-to-business operations, brokerage/intermediary services, online shopping malls, virtual communities, and content and service provision; and
- limited presence of electronic document management systems, knowledge management technologies and processes, groupware, business intelligence through data warehousing and data mining, content management systems, or environmental scanning for emerging ICT technologies.'[42]

[39] Vision 2030, National Development Plan
[40] Investment Map Website
[4141] In 2006 Jamaica was ranked 7th in competitive cost for call centers (Vision 2030, National Development Plan). JAMPRO (2010) noted that average call center and BPO salaries are 40-60% lower than the corresponding salaries in the USA.
[42] Vision 2030, National Development Plan

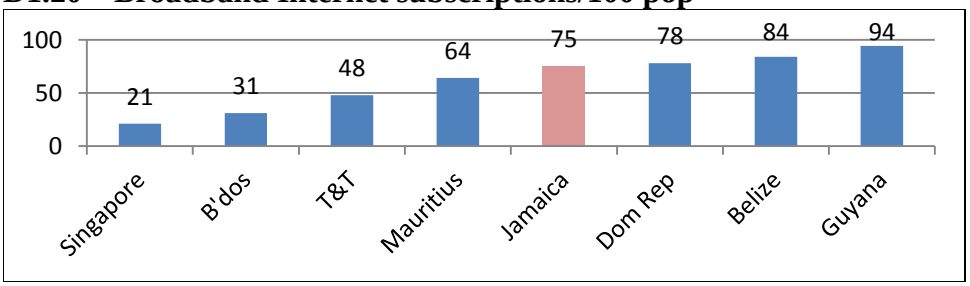
Additionally, even though there have been recent improvements in the telecommunications infrastructure, as figures D1.19-D1.21 illustrate, these improvements have not been sufficient to give Jamaica a competitive edge over countries such as Barbados and Trinidad and Tobago. Although potential exists for future growth in this sector, further work must be done if the many challenges are to be overcome and if this potential is to be realized.

D1.19 – Internet users/100 pop



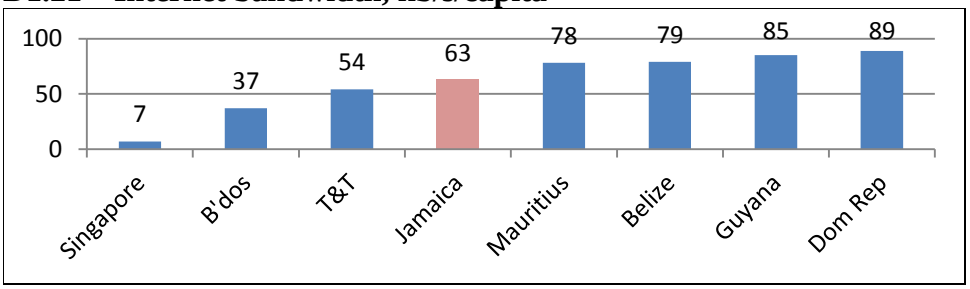
Source: Global Competitiveness Index (2011-2012)

D1.20 – Broadband Internet subscriptions/100 pop



Source: Global Competitiveness Index (2011-2012)

D1.21 – Internet bandwidth, kb/s/capita

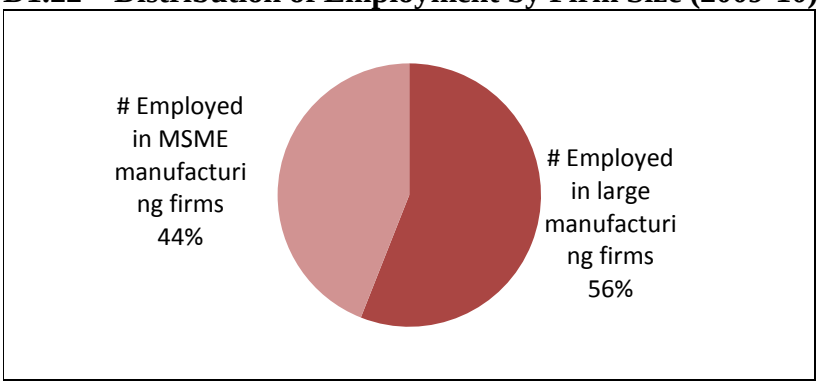


Source: Global Competitiveness Index (2011-2012)

Manufacturing

Of the non-government sectors, manufacturing had the fifth largest share of GDP over the past decade (with an average share of GDP of 8.8%). It also contributed the fourth largest share of total employment in 2011 (6.8%), being considerably more important to the employment of men than women (with shares of male and female employment of 7.8% and 5.4%, respectively). As indicated in figure D1.22, the employment in the sector was shared fairly evenly between larger and smaller firms, with large firms providing 56% of the employment in the manufacturing sector, and MSMEs providing 44%.

D1.22 – Distribution of Employment by Firm Size (2009-10)



Source: Computed by author from data provided by Statistical Institute of Jamaica

Between 2001 and 2010 this sector has consistently declined, with a compound average growth of real value added of -1.35%. This made it the second fastest declining sector over the decade, behind only the mining and quarrying industry. This continued a trend that began in the previous decade, as the steady decline in the share of manufacturing activity and corresponding increase in the importance of services has become one of the characteristic features of the Jamaican economy.

The manufacturing sector is comprised of a number of key sub-sectors:

- Food processing is a major producer of manufactured commodities, with animal feeds, flour, sugar and poultry meats being among the largest outputs. There are currently 129 firms listed in the Jamaica Manufacturer's Association (JMA) membership directory as operational in this sub-sector. This sub-sector contributed on average about a third of the manufacturing sector's total output.

- The beverages and tobacco sub-sector is dominated by the production of beer and, to a significantly less extent, alcohol (primarily rum). All tobacco manufacturing operations in Jamaica ceased in December 2005. Since then, this sub-sector produced on average just over 17% of the manufacturing sector's total output.

- The sector also produces chemicals and chemical products, with the major outputs being fertilizer and salt. There are 56 firms listed in the JMA membership directory in this sub-sector. Production from this sub-sector accounted for approximately 10% of total manufacturing output.

- Non-metallic mineral products, of which cement production is a mainstay, contributed on average about 8% to manufacturing output. There is one major producer of cement in the country.

- Petroleum products are another major output of the sector, with fuel oil, automotive diesel oil, gasoline, and turbo fuel being the main outputs. Refined petroleum products contributed about 7% of manufacturing output.

- The metals, fabricated metal products, machinery and equipment sub-sector produced an average share of just under 7% of manufacturing output. There are 31 firms listed in the JMA membership directory in this sub-sector.

- Paper and paper products, printing and publishing contributed an average share of approximately 6% of manufacturing output.

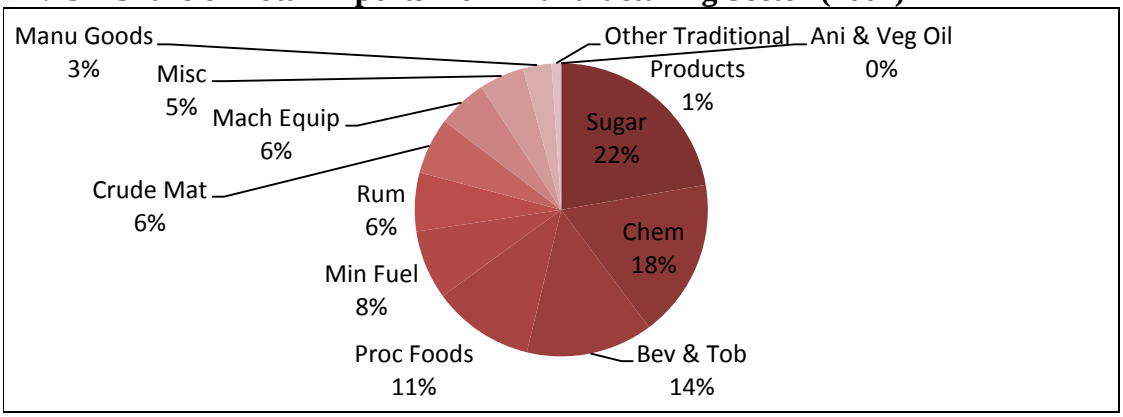
- Furniture and products of wood, cork and straw, produced on average just under 4% of manufacturing output. There are 27 firms listed in the JMA membership directory in this sub-sector.

Notably absent from this list of dominant manufacturing sub-sectors is the apparel industry, which dramatically declined in the second half of the 1990s, due to more competitive labor costs in other Caribbean and Central American countries. This sector grew exponentially after Jamaica gained preferential access to US textile markets under the Caribbean Basin Initiative of 1984, but declined rapidly when Mexico received even better access under the NAFTA.

Also noteworthy from the above list, is the concentration in low value-added manufacturing outputs. The World Bank (2011) explains that 'due to a lack of significant investments and marketing efforts, Jamaican firms were, for the most part, unable to move up the value chain to higher quality products.' This is one of the factors that has accounted for the poor export performance of the manufacturing sector. Another factor noted by the World Bank (2011) is the fact that Jamaica's export composition is not benefitting from overall world growth, in that it is exporting products for which global demand has not been increasing.

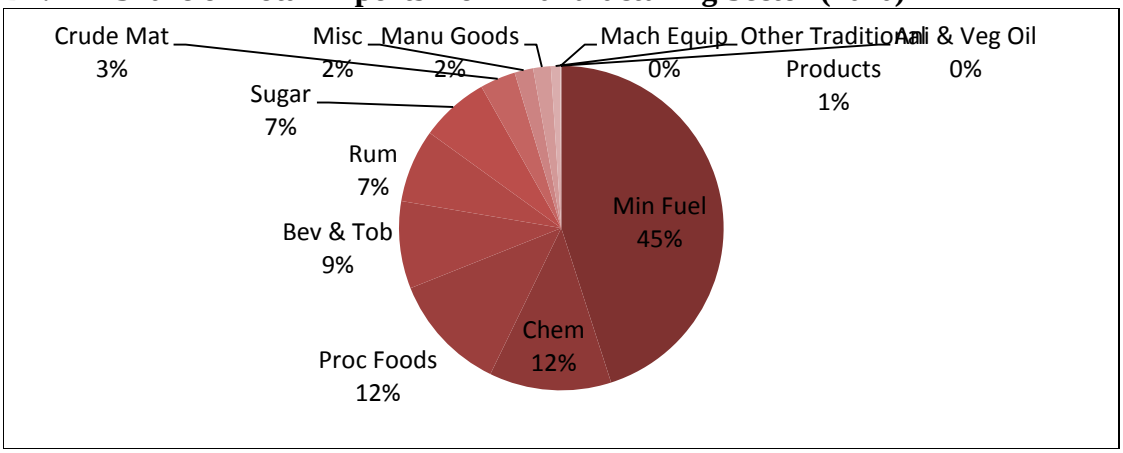
Figures D1.23 and D1.24 show that the relative share of goods exported from the manufacturing sector has changed over the past decade, with sugar and beverages and tobacco losing their place of dominance, to be replaced primarily by mineral fuels. Only chemicals and processed foods have had a fairly stable and relatively large share of manufactured exports over the decade. The latest allocation of manufactured exports, however, does not augur well for the growth of the sector, as the goods primarily exported are not those with strong international demand.

D1.23 – Share of Total Exports from Manufacturing Sector (2004)



Source: Statistical Institute of Jamaica

D1.24 – Share of Total Exports from Manufacturing Sector (2010)



Source: Statistical Institute of Jamaica

The World Bank (2011), however, highlights food processing, and specifically the sauces and spices sub-sector as an area of potential growth. It notes that:

> 'Jamaica's food-processing sector as a whole, while growing, has been facing increasing pressures to maintain its competitiveness and world market share. The sector shows a high degree of concentration in both the products it exports and the markets it reaches. The analysis presented for the sauces and spices sub-sector confirms a similar trend: the industry, while growing, has been limited in its ability to diversify markets. This means not only new countries but also new markets within existing export destinations, such as more mainstream markets or niche products (e.g. organic) in North America and Europe. However, the industry has potential for extensive and intensive export growth – that is, growth in new, more dynamic market destinations and growth within already established markets. It can do this by taking advantage of the growth in such niche markets as the organic and ethnic foods, or by expanding into mainstream ones.'

Such growth they argue, is, however, predicated on strengthening a number of links in the food processing value chain. Reliable supplies of raw materials are needed, and so efforts to strengthen linkages between agricultural producers and the food processing industry should be intensified. The importance of packaging was also emphasized, as was the availability of current and accurate information on market trends and entry requirements. Also highlighted as a challenge to the sub-sector are the high certification costs associated with exporting. The World Bank (2011) notes that '*for the Jamaican sauces and spices sub-sector, efforts at improving access to certification would include prioritization of quality standards according to market-access requirements, improving inter-agency coordination between certification bodies and export promotion organizations and creating forums for public-private cooperation*.'

As noted in Jamaica's Vision 2030 National Development Plan, other challenges that adversely affect the manufacturing sector include:

- *'Constraints in the macroeconomic and business environment affecting competitiveness in which Jamaican manufacturers operate, including complex regulatory processes.*

- *Limited economies of scale resulting from relatively small plants geared for the domestic market.*
- *High costs associated with crime and security issues.*
- *Limited access and the high cost of credit to the manufacturing sector.*
- *High costs of some productive inputs, including energy.*
- *Low levels of investment in modern technology and business practices.*
- *Constraints in transport and other infrastructure.*
- *Trade-related issues including: implications of regional and global trade liberalization; monitoring of rules of origin requirements and re-export of extra-regional goods to Jamaica; and enforcement of anti-dumping provisions to ensure compliance with international agreements.'*

These challenges must be addressed if the manufacturing sector, or any sub-sector thereof is to be a future source of growth for the economy.

Business Services and Cultural/Creative and Sports Industries

'Business services include real estate, consulting and professional services... Cultural/Creative industries involve the creation, production and commercialization of contents which are intangible and cultural in nature, which are typically protected by copyright, and which may take the form of goods or services' (Vision 2030 Jamaica National Development Plan).

The real estate, rent and business services sector has been the third largest non-government contributor to GDP over the past decade (with an average share of GDP of 9.8%). The sector includes a large number of enterprises ranging from accounting and business consulting firms, real estate brokers and managers, lawyers, architects, engineers, to information technology consultants and service providers.[43] It, however, has one of the smallest shares of total employment (5.1% in 2011), with the jobs distributed almost equally between men and women (5% and 5.2%, respectively). The sector has also not grown significantly in the past ten years, with a CAGR of 1.02%. This is because it largely depends on the provision of business-related services to productive enterprises located in Jamaica, and so its growth is constrained by the overall growth of the economy, and, in particular, urban centers.

If the provision of business services is to be a driver of growth in the Jamaican economy, such services will have to be exported to a much greater extent. The liberalization of global and regional markets has led to the globalization of the business services sector, and this, along with improved international telecommunications and travel infrastructure, has opened up opportunities for the export of business services. These opportunities have, however, only been exploited to a limited extent, as Jamaican business services providers typically deliver services abroad only through the use of telecommunications systems, and when foreign clients travel to Jamaica. The modes of trading services that require the providers to leave the country are much less utilized. These involve establishing branches or subsidiaries overseas and temporary entry into another country to provide services.

[43] Vision 2030 Jamaica Services Sector Plan (2009-2030)

The Vision 2030 Jamaica Services Sector Plan (2009-2030) has identified the main challenges for the export of services as including 'relatively low levels of awareness of export modes and opportunities among local service providers, unavailability of affordable financing options, inefficiencies in bureaucratic processes, and competitive advantages to foreigners who do not have to pay GCT and other local taxes on services sold in Jamaica.'

The Cultural/Creative and Sports industries have been included in this section, because even though they are not independently measured in the national accounts, there is sufficient reason to believe that they have the potential to be of economic importance if properly harnessed. The range of cultural/creative industries include 'printing, publishing and multimedia, audio-visual, phonographic and cinematographic productions, crafts and design, and may be extended to include architecture, visual and performing arts, sports, manufacturing of musical instruments, advertising and cultural tourism.'[44] There is very little data on these industries, but in a study conducted in 2007, it was found that the copyright industries contribute about 4.8% to the country's GDP and account for 3% of employment.[45]

The potential, however, exists for the contribution to be greater, as:

i. 'Cultural and creative industries are among the fastest growing aspects of the global economy – they represent up to 7% of the world's GDP, with growth forecast at 10% per annum, driven in part by the convergence of media and the digital economy;' and

ii. Jamaica has garnered worldwide acclaim for its culture (particularly music) and sporting prowess (particularly in athletics), suggesting that there may be competitive advantages to be reaped.

The Vision 2030 Jamaica National Development Plan, however, identifies numerous challenges that must be overcome if these industries are to fulfill their potential:

- 'Weaknesses in the legal and institutional framework for protection of intellectual property, and high levels of piracy;
- Limited presence of ownership in the marketing and distribution channels for creative industries;
- High numbers of micro and small enterprises and individual entrepreneurs, many of whom function in the informal economy;
- Limited capacity in modern levels of business methods and inconsistent standards of quality and delivery;
- Relatively limited access to capital for the creative industries;
- Lack of adequate statistics and information on creative industries;
- Inadequate levels of business skills and technology application in creative industries;
- Inadequate opportunities for education and training in creative skills to meet the standards of domestic and international markets;

[44] Vision 2030 Jamaica Services Sector Plan (2009-2030)
[45] James (2007) as quoted in Vision 2030 Jamaica Services Sector Plan (2009-2030)

- Inadequate coordination among government institutions related to the creative industries and between government and the private sector; and
- Inadequate numbers of properly equipped indoor and outdoor venues to support music festivals, shows and other creative performances.'

E. ISSUES FOR PRIVATE SECTOR DEVELOPMENT

This section assesses a number of issues that are critical to the development of the private sector in Jamaica. It begins by assessing the institutional support structure that is available to private firms, both from private sector organizations (PSOs) and donor agencies. It then analyzes a number of challenges that have traditionally affected the private sector to ascertain whether progress has been made in alleviating them, and whether the challenges now affect the competitiveness of Jamaican firms. Finally, broader environmental and gender concerns are addressed.

1. Business Supportive Institutions Structure

In Jamaica there are a number of umbrella organizations that represent the interests of the private sector generally, some that represent firms in specific sectors and of particular sizes, and others that represent the interests of female business owners. The major PSOs that are currently operational are described below.

The Private Sector Organization of Jamaica (PSOJ)

The PSOJ is a national organization of private sector associations, companies and individuals that seek to promote a competitive and productive private sector. It is a long-standing organization, having been in operation for 36 years. Its current vision is to be the unifying voice of the private sector working in partnership with the public sector and civil society to achieve the 2030 Vision for Jamaica. In this respect their stated mission is to effectively advocate for the implementation of public policy that enables strong sustainable private sector led economic growth and development.

The PSOJ's areas of emphasis for the period 2009 to 2012 are:

- To promote cooperation between private sector organizations;
- To formulate and promote a macroeconomic policy framework which will achieve high rates of sustained economic growth;
- To formulate and promote policies for the achievement of a lawful and just society;
- To promote and influence greater transparency, efficiency and accountability in the operations of the public sector; and
- To promote the practice of good corporate governance in the private sector.

The PSOJ is governed by its Council, which is elected by the general membership at the Annual General Meeting to serve for a two year period. The Council elects each year from its members, an Executive Committee, which includes the President and Officers of the PSOJ. The organization seeks to influence national policy issues of a political, social, or economic nature. The Executive Committee, under guidance from the Council, leads this process by promoting discussions with the country's government, political directorate and the opposition. The Organization is also in close and constant contact with the major multi-lateral and bi-lateral agencies.

The PSOJ is comprised of a number of working committees that focus on areas critical to the development of the Jamaican private sector. These include corporate governance, education and corporate social responsibility, economic policy, justice reform, national security, and trade policy. The committees meet regularly and seek to ensure that the voice of the private sector is constantly heard through advocacy, workshops, articles and training.

The PSOJ has a high level of political influence, as it comprises the most powerful private sector stakeholders in the country. This influence is bolstered by key partnerships with other PSOs as they seek to represent the interests of the business community in the public-private sector Partnership for Transformation (PFT). The other PSOs included in these discussions include: the Jamaica Exporters' Association, Jamaica Manufacturer's Association, the Jamaica Chamber of Commerce, and the MSME Alliance.

The Jamaica Exporters' Association (JEA)

The JEA is an association of exporting firms that was established to promote the growth and development of Jamaica's export sector. Its mission is to enhance the competitiveness and sustain the growth of Jamaica's non-traditional exports.[46] Its vision involves improving Jamaica's international image, increasing the competitiveness of Jamaican firms, enhancing collaboration with stakeholders - members, donors, and other associations, identifying export opportunities - focusing on high value customer and product segments, and building Brand Jamaica.

The Association has been in operation for 46 years. It has 225 member companies which represent a range of sub-sectors including Agri-business, Apparel, Building products, Beverages, Chemicals, Cosmetics & Pharmaceuticals, Electronics, Furniture and Crafts, and the Service industries. The JEA's major areas of focus are advocacy, training, financing, project management, technology, promotions, publications and market information. Through funding from the Private Sector Development Programme (PSDP), the JEA has also established a network of Export Centers and Business Information Points (EC/BIPs) across the island to provide standardized exporting and business information.

The JEA seems to have a fairly high level of political influence, particularly through its partnerships with other PSOs and with government agencies such as JAMPRO. As an example, the JEA and JAMPRO partnered to develop a National Export Strategy for Jamaica. The Association provides advocacy support to players in the export industry with special emphasis on assisting its members. Lobbying is the main form of advocacy used and takes the direct approach of engaging government officials through regular meetings at the Ministerial level.

The Association monitors international and local trade policies and remains vocal through media campaigns, public addresses, and through commissioning and publishing research or polls.

[46] The Association has worked with Jamaican businesses to seize export opportunities in non-traditional areas such as fresh produce, pharmaceuticals, herbs and herbal products, condiments, craft and giftware and in the area of services. Through its efforts, the processed foods and fresh produce sector has been growing in key markets such as the USA, Canada, the U.K. and other areas in the European Community.

Regular meetings are also held with international donor agencies and local and international trade support organizations. The special EXIM Bank Financing Facility which is now available to members of the JEA and the Jamaica Manufacturers Association (JMA) was created through an advocacy initiative of the JEA.[47]

Competitiveness Company

In 2005, the Jamaica Exporters' Association (JEA) established The Competitiveness Company (CC), to provide an in-house centre of expertise in competitiveness. The goal of the Competitiveness Company is to increase and enhance the competitiveness of firms; ensure that their products and services can command a premium in the market place; and move exports up the value chain. Their mission is to enhance prosperity by improving the competitiveness of MSMEs by providing innovative solutions and data based analytics, delivered by a multi-disciplinary, high-performance team, with a network of highly competent associates. The CC has a vision to be the first choice in the Caribbean for consulting services for international competitiveness, strategy and cluster development for industries and firms.

The CC implements projects to create, develop or enhance sustainable enterprise and entrepreneurial success for MSMEs, the youth and unemployed. These projects range from developing entire value chains to enhancing business practices or facilitating the provision of critical services and market linkages. The services offered include building the competitiveness of MSMEs, opportunity scoping, training, intellectual property management and strategic planning.

The Jamaica Employers' Federation (JEF)

The JEF represents the views of employers, locally and internationally. It is a registered Trade Union. JEF's mission is to contribute to the development of Employer/Employee relations within Jamaica. It seeks to, *inter alia*: safeguard and promote the interests of employers in all matters affecting relations between employers and employees; make available to members, information on policies, conditions of employment, rates of pay, general and specific HR practices and Industrial Relations matters; and consider and make recommendations with regard to any legislation affecting, or likely to affect, relations of employers and employees, whether indirectly or directly.

The principal body of the Federation is its Council, which is comprised of over 320 corporate and individual members. An executive committee is elected annually that sets policy and supervises the work of the JEF Secretariat. Six sub-committees are appointed by the Executive to make recommendations in their field of operation and to assist the Secretariat. These sub-committees are: Education & Training; Labour Market & Research; International Relations; Safety, Health & Social Security and Business Development.

[47] Exporters can borrow up to J$2 million, and manufacturers up to J$1.5 million. No collateral is required; however applicants must be able to demonstrate their credit-worthiness and their ability to service the loan.

The Small Business Association of Jamaica (SBAJ)

The SBAJ is a private non-profit business organization established to foster the growth and development of businesses and professional groups and to represent the entire small and micro business sector. The SBAJ represents businesses employing one to fifty employees and have an income turnover not exceeding five million US dollars per annum. The business should not be a part of a conglomerate.

The SBAJ's mission is to support the economic and social advancement of their membership through: the provision of technical advice, training, consultancy and trade services, and the promotion of the principles of private enterprise and initiative. The association also seeks to represent the views of the membership to the wider public, encourage the spirit of collaboration and cooperation and build positive examples of enthusiasm, dedication, consultancy and leadership.

The SBAJ is a well-established entity, being in operation for 38 years, and representing over 8000 MSEs. It is assessed as having a medium to high level of political influence, by virtue of serving as a corporate voice for numerous small and micro businesses, which account for much of the country's employment. The strength of its advocacy is bolstered by its partnerships with the other major PSOs on important matters.

The MSME Alliance

The MSME Alliance is a network of 34 business organizations from a wide range of sectors. Although it is a relatively young institution, by virtue of its wide-spanning network, it claims to represent more than 300,000 MSMEs. The Alliance aims to create strategic alliances and meaningful partnerships that can empower MSMEs. They engage in lobbying activities to improve the representation of MSMEs in Jamaica and the Caribbean. The Alliance is assessed as having a medium to high level of political influence primarily because of the very public persona of its president. As with the other PSOs, cross institutional collaboration strengthens its influence.

The Jamaica Manufacturers' Association Limited (JMA)

The JMA is a limited liability company which aims 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. The Association represents manufacturers in all the manufacturing sub-sectors as well as institutions and organizations which provide services to these sectors. Their mission is to serve their members through the efficient delivery of quality service that will impact positively on the development of the manufacturing sector, their employees and their associates, whilst contributing to the socio-economic welfare of the country.

The JMA seeks to promote the development of industry in Jamaica by:

- Encouraging and assisting members in the use of efficient and modern production methods and the maintenance of excellent product quality and proper standards of safety.
- Promoting the use, in Jamaica and overseas, of products manufactured in Jamaica.
- Assisting members in securing markets through participation in trade shows, conventions and trade missions both locally and overseas.
- Promoting free discussions on opportunities and challenges in the manufacturing sector.
- Fostering, encouraging and promoting fair business practices and public interest in manufacturing.
- Providing members with up-to-date information on the global business environment.
- Making representation to Government on legislations and regulations affecting the manufacturing sector.
- Speaking out on matters affecting the welfare of manufacturers and collaborating with private and public sector organizations to ensure that manufacturers' interests are served.
- Assisting members to secure concessionary rates of duties on certain categories of imported raw materials.
- Representing members on trade negotiation bodies.
- Acting as the liaison between the membership and the Government Ministries and Agencies.
- Representing on numerous task forces, boards and committees for the purpose of consultation and participative dialogue.[48]

The JMA is governed by a Board of Directors. Directors are assigned to Standing Committees and report to the Board on matters relating to Government Affairs, Trade and Export Development, Membership Development, and Finance and Administration. By virtue of its vocal and strident representation on particularly the first two issues, a membership of over 300 firms, a long history of 65 years of representation, membership on numerous boards and committees of national importance, and willingness to partner with other PSOs, the JMA is assessed as having a high level of political influence.

The Jamaica Banker's Association (JBA)

The JBA represents commercial and merchant banks in Jamaica. Trust Companies, Finance Houses and other Banking Institutions are also included as associate members. Their mission is to ensure the strength and continuing success of their member organizations by promoting a safe, vibrant and competitive banking sector through an effective programme of advocacy and education. Their mission also extends to enhancing the economic wellbeing of consumers within the banking community.

The JBA works closely with government representatives/policy makers to influence the regulations and laws which affect the banking industry, and keep their members informed about

[48] These include: the National Planning Council; Private Sector Development Programme Steering Committee; Quality Jamaica Project Committee; Manufacturing Sector Task Force for Jamaica 2030 Development Plan; National Export Strategy; Jamaica Trade and Adjustment Team (JTAT); Council for Trade and Economic Development (COTED); National Planning Summit Board; National Commission on Science and Technology; Jamaica Customs Board; Bureau of Standards Jamaica Board; National Export and Import Bank Board; Jamaica Business Development Center Board; and National Council on Education Committee.

how developments may affect their businesses. They also provide information that will position consumers to make better financial decisions, through public education campaigns about the nature and benefits of the products and services offered by the industry. Additionally, the JBA offers training to its members through the Jamaica Institute of Financial Services (JIFS).

The JBA has been in operation for 39 years, and maintains close relationships with the other PSOs. As a testimony to the close working relationships, the JBA's secretariat and training institute have been recently joined with those of the PSOJ. It has a high level of political influence, particularly as it relates to the regulatory process for the banking sector.

The Jamaica Agricultural Society (JAS)

The JAS is an umbrella organization consisting of numerous affiliated organizations, including: the Jamaica Citrus Growers Association, Pimento Growers Association, Cocoa Industry Board, All Island Cane Farmers Association, Coconut Industry Board, All Island Banana Growers Association, Coffee Industry Board, Jamaica Livestock Association, Ministry of Agriculture Export Division and Sugar Industry Board. Although the JAS was previously incorporated as a private voluntary organization, it is now an agency of the Ministry of Agriculture and Fisheries.

The mission of the JAS is to represent the interests of farmers by offering services which will enhance their levels of productivity and facilitate the overall development of the agricultural sector. Its current vision includes: developing and expanding local and international alliances; improving its vibrancy and relevance; improving the communication within the JAS and with the public; widening the membership base; improving the quality of agricultural extension services offered; establishing relevant training programs; and strengthening the JAS' lobbying efforts.

Although the JAS has a very long history of over 100 years, its current effectiveness has been called into question. It also does not have very strong linkages with the other PSOs. Its level of political influence is thus ranked as low to medium.

Jamaica Hotel & Tourist Association (JHTA)

The JHTA represents Jamaican hotels, other visitor accommodations, and suppliers of goods and services to the tourism industry. Its mission is to promote the development of Jamaica's hospitality industry and to represent the interests of its members in all local, regional and international forums.

The JHTA is governed by its Council, which is elected annually and comprises Active and Allied members from the six area chapters of the Association, namely: Negril, Montego Bay, Ocho Rios/Runaway Bay, Port Antonio, Kingston and the South Coast. A President and four Vice Presidents (who are also elected annually) head the Council.

The JHTA has been in operation for over 50 years, and maintains very close linkages with the other PSOs, particularly the PSOJ of which it is a member. It is also represented on the Boards of Directors of the Jamaica Tourist Board (JTB) and the Tourism Product Development Company (TPDCo), and so is well placed to lobby for its membership in the development and

marketing of Jamaica's tourism product. It is assessed as having a high level of political influence.

Women Business Owners Jamaica Limited (WBO)

The WBO is an association of Jamaican female business owners. Its mission is to provide leadership in the development of women business owners through education, research, mentorship and networking. It aims to: provide a forum for women who are owners or principals of their own businesses; facilitate the growth of female owned businesses throughout Jamaica; take part in the decision-making processes of the country and be a voice in economic and social policy; foster and engage in the study and research of issues relating to aspects of ownership of business by women; improve market access and competitiveness for women business owners in the global market place; develop linkages and affiliations with international bodies aimed at enhancing the growth and influence of the organization; and enhance the visibility of female entrepreneurs who contribute to the growth and development of the economy, through job creation and education

Although it is a relatively new association, being in operation for nine years, it has been able to garner funds to undertake key studies on women and family owned businesses in Jamaica, conduct training and sensitization workshops to improve the capacity of existing and potential women business owners, and to provide mentoring and assistance in the growth of women-owned business in Jamaica. Although it has potential to be highly influential, its low visibility suggests that such potential has not yet been realized.

The Jamaica Network of Rural Women Producers (JNRWP)

The JNRWP comprises over 250 rural women members across the island. These women are involved in a variety of entrepreneurial activities, including farming, craft and household items, agro-processing, services and retail. Its mission is to work along with key partners to foster the economic and social development of rural women in Jamaica.[49] The network's vision is to empower and motivate rural women so that they may improve the quality of their lives and the overall welfare of their communities, thereby contributing to national development.

The JNRWP provides an opportunity for rural women to network amongst each other and also offers exposure for their products and services through various expositions and media fora. The network has also been able to organize training in several disciplines to improve the knowledge, skills-base and operating standards of its members.

[49] The following agencies are listed as key partners: Rural Agricultural Development Authority (RADA); The Bureau of Women's Affairs (BWA); The Organization of American States (OAS); The Centre for Gender and Development Studies, UWI; The United Nations Development Fund for Women (UNIFEM); Inter-American Institute for Cooperation on Agriculture (IICA); The United States Agency for International Development (USAID); Texaco Caribbean Incorporated; Canadian International Development Agency; The Ministry of Labour and Social Security; and Jamaica Trade and Invest.

Although the JNRWP has been in existence for 13 years, and has created useful partnerships, both locally and internationally, it is not highly visible, and so is not perceived as having a high level of political influence.

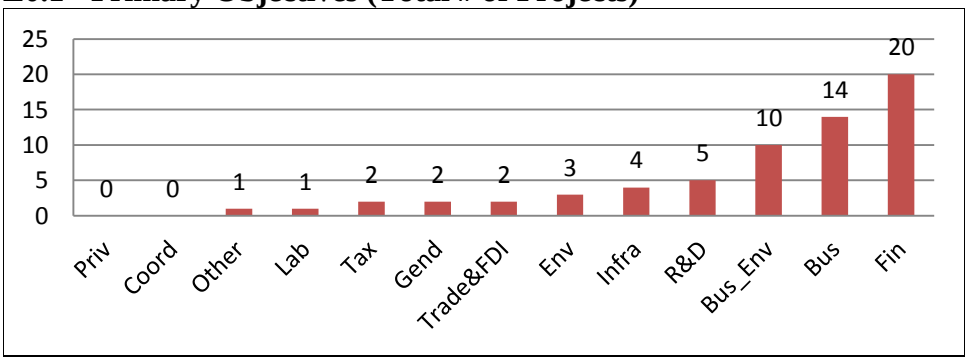
2. Donors and Other International Entities[50]

Jamaica has numerous international development partners (IDPs), including many bilateral and multilateral institutions. Only a subset of these institutions is, however, actively providing support to the country's PSD activities. There are four bilateral donors, four multilateral donors, and two subsidiaries of the multilaterals currently offering PSD support in Jamaica. Between them approximately 60 donor-supported PSD projects and/or programs are being implemented in Jamaica.

The areas supported in these programmes are widely varied. This is clearly illustrated in the figures below which highlight the areas that are being paid the least to the most attention in the donor-supported PSD projects and programs being implemented in Jamaica. Figures E0.1 and E0.2 classify and rank the total number of projects by their stated primary and secondary objectives, respectively. Figure E0.3 indicates the proportion of total budgeted funds that is allocated to each area.

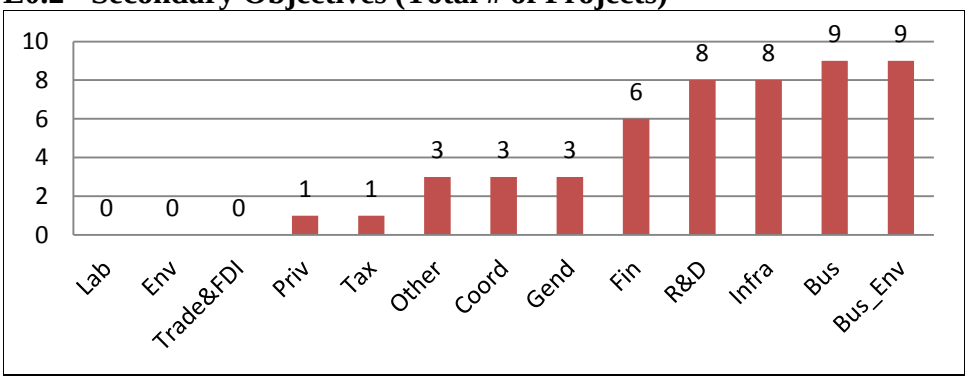
From all three figures it is clear that the critical areas of access to finance and the business environment are being paid significant attention in the donor initiatives, both in terms of the number of projects/programmes and the amounts of funds budgeted for these areas. A relatively large number of the PSD projects also seek to improve the business supportive institutional infrastructure. Improvements in the capacity of private sector organizations (PSOs) that represent businesses are expected to increase the efficacy with which these groups lobby the government for meaningful improvements to the business environment. It also allows the donor agencies to channel support to businesses through these PSOs, which is arguably more efficient and direct than going through one of the many government agencies with responsibility for PSD.

E0.1 - Primary Objectives (Total # of Projects)

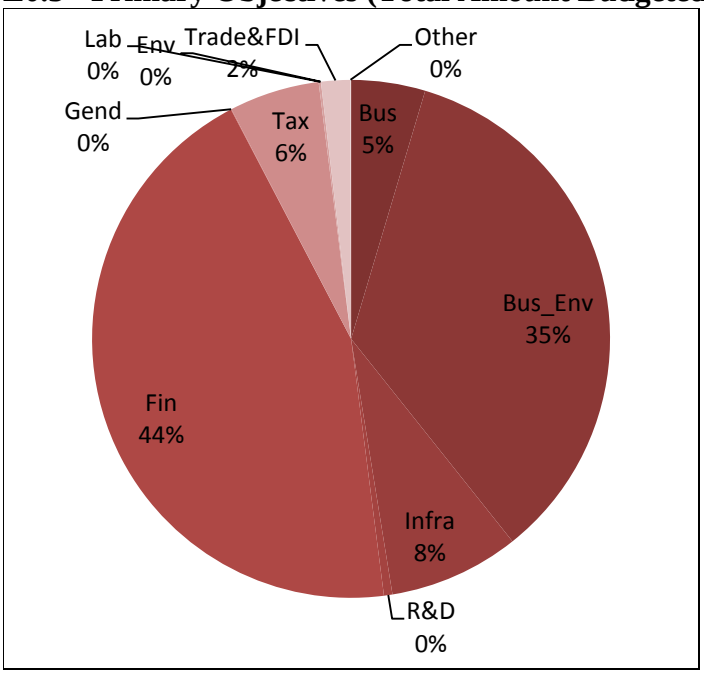


[50] More detailed descriptions and analysis of the donor-supported private sector development initiatives are provided in the Donor Matrix (DMX) Report for Jamaica (2012), included as an annex to this report.

E0.2 - Secondary Objectives (Total # of Projects)



E0.3 - Primary Objectives (Total Amount Budgeted)



The DMX has, however, also shown that whereas these projects and programmes have undoubtedly created significant benefits for the targeted beneficiaries, difficulties exist which challenge the sustainability and proliferation of such benefits. The recommendations listed below seek to address the difficulties. They are presented in summary form as they have been discussed in the donor matrix report presented in an annex to this document.

Recommendations to Improve Prioritization, Coordination and Evaluation

1. The seemingly ad-hoc manner in which donors cooperate with each other on particular projects needs to be replaced with more systematic coordination efforts.

2. Such efforts should begin with the definition of priorities for PSD in Jamaica, which should incorporate the views of the local private and public sector stakeholders. This is an area in which donor collaboration and coordination can be very useful, but is also an issue that the GOJ needs to take a vested interest in.

3. The PIOJ (or some other government agency) should be tasked with holistically examining all of the donor-supported projects and programmes to assess the potential benefits versus the expected costs.

4. Greater emphasis needs to be placed on post-implementation evaluation of PSD projects and programmes. Specifically:

    - The results of donor evaluations of their projects need to be widely disseminated amongst and discussed within the donor community and local stakeholders to ensure that the implications are appreciated and lessons shared;

    - The method of evaluation should include an attempt to measure the extent to which nationally prioritized objectives have been met (rather than solely focusing on narrowly-defined project objectives); and

    - A holistic evaluation of the impact of all PSD initiatives implemented in the country should at some point be undertaken, and should examine issues relating to the number of people, enterprises and/or institutions affected, the extent to which target groups were reached, and the changes in competitiveness that were derived.

<u>Areas Recommended for Increased Donor Support</u>

1. Projects having as their primary focus means of improving the prioritization of objectives and coordination among donors, between government agencies, and including private sector stakeholders.

2. Projects focusing on improving the supply and lowering the cost of energy for Jamaican businesses.

3. Projects seeking to address the difficulties associated with international trade that adversely affects the competitiveness of Jamaican businesses. Particular attention should be placed on the lack of diversification of the country's exports, the high dependence on imports, and inefficient institutions that hamper the smooth flow of goods and services.

4. Projects that aim to improve the productivity of the Jamaican worker and reduce labour market inefficiency.

5. Projects that seek to address the challenges to the widespread adoption of innovative and technology-driven business practices in Jamaican firms.

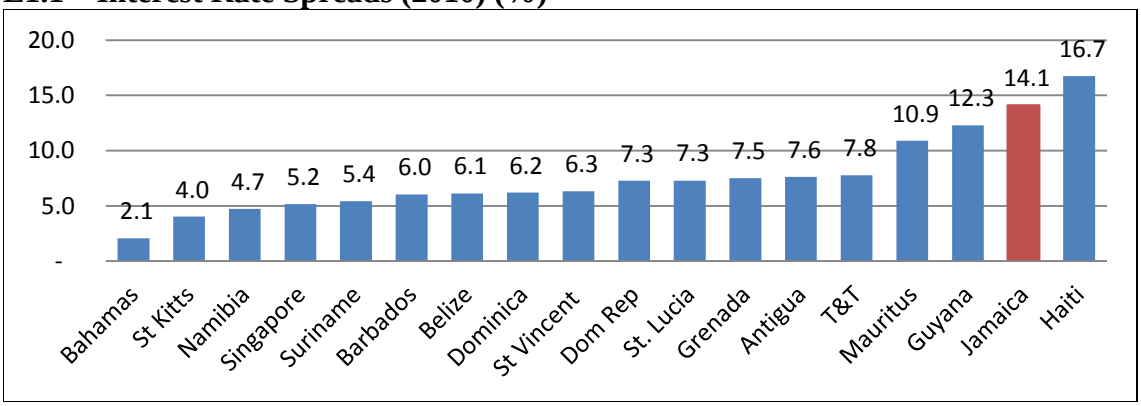
3. Access to Finance

'Access to suitable sources of finance has been highlighted as a constraint to Jamaican businesses, particularly small enterprises, for numerous years. Credible reports on the Jamaican business climate, which highlight access to finance as a constraint include: the ERI (2005) Private Sector Assessment; The World Bank's (2006) Investment Climate Survey Results; The GEM (2005 and 2009) Jamaica Reports; The TGCC's (2008) Landscape Assessment of Jamaican MSMEs; Tennant's (2008) Policy Report for the Jamaican MSME Sector, and the IDB's (2011) Dialogue and Actions on Private Sector Development' (Tennant for Compete Caribbean 2011).

This section presents a brief analysis of the issues affecting businesses' access to credit in Jamaica. It examines the efficiency of the credit market, the supply of domestic credit, the international supply of credit, and institutional factors that affect the supply of credit. This section is not intended to provide a comprehensive analysis of the factors affecting the demand and supply of business credit, as such an analysis was recently conducted for Compete Caribbean by Tennant (2011).

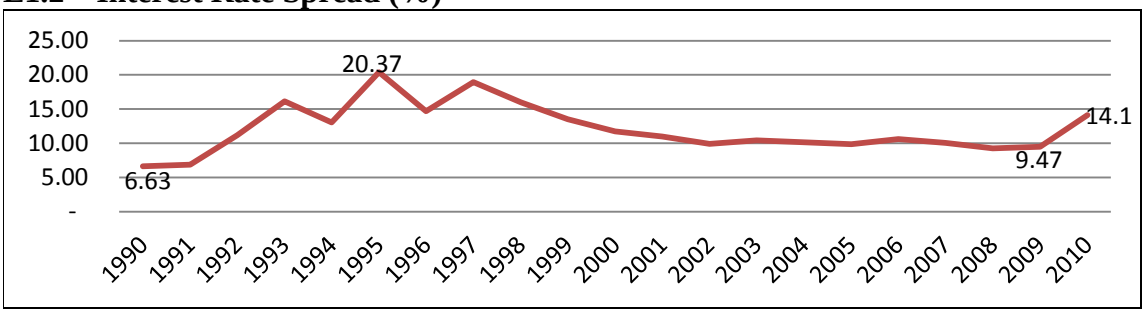
Figure E1.1 indicates that the interest rate spread of Jamaican banks in 2010 was the second highest amongst all the comparator countries, being exceeded only by Haiti. Figure E1.2 shows that since peaking during the crisis and immediate post-crisis periods, spreads have been trending downwards, reaching 9.27% in 2008. Notwithstanding this substantial decline, Jamaican commercial bank spreads were still almost double those of banks in Barbados and Trinidad in 2008, and since 2009 Jamaican interest rate spreads have increased significantly. This suggests that the credit market in Jamaica is relatively inefficient, characterized by high transactions costs and oligopolistic behavior of banks.

E1.1 – Interest Rate Spreads (2010) (%)



Source: World Development Indicators

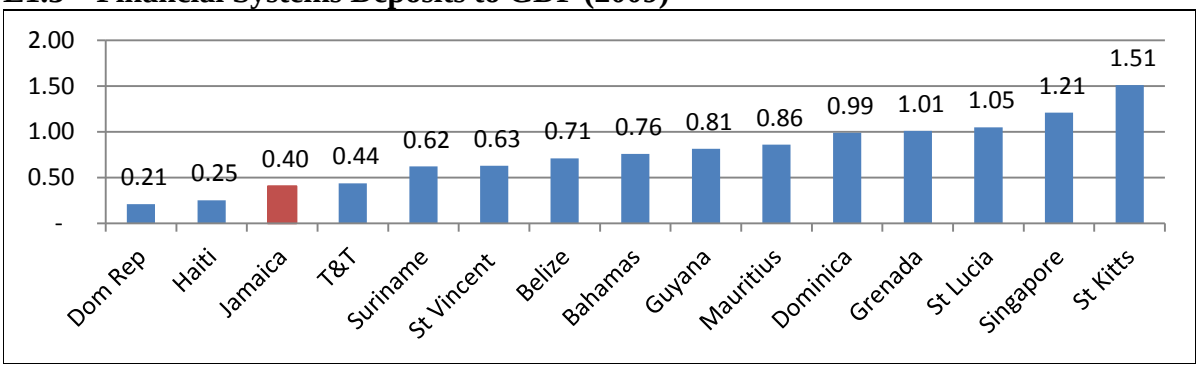
E1.2 – Interest Rate Spread (%)



Source: World Development Indicators

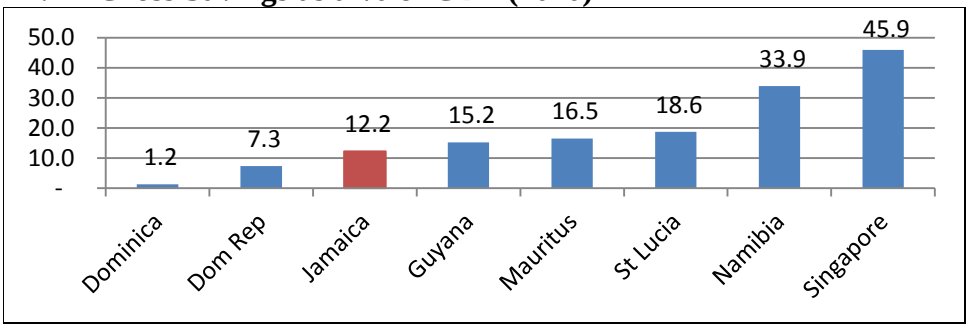
The availability of credit is highly dependent on the savings mobilized by the domestic financial system, and the extent to which such credit is intermediated in the form of loans. Figures E1.3 and E1.4 both indicate that the Jamaican financial system performs relatively poorly in mobilizing savings as a proportion of economic activity. The country's financial system deposits to GDP ratio was the third lowest in 2009, with only the Dominican Republic and Haiti having lower ratios. The alternate measure, the gross savings to GDP ratio, provides similar results. Whereas these figures indicate that less domestic funds are available for lending in Jamaica than in countries of a similar size, figure E1.5 shows that Jamaican banks lend a larger proportion of the available funds than a significant number of the comparator countries. The performance of the Jamaican banks in this respect is about average.

E1.3 – Financial Systems Deposits to GDP (2009)



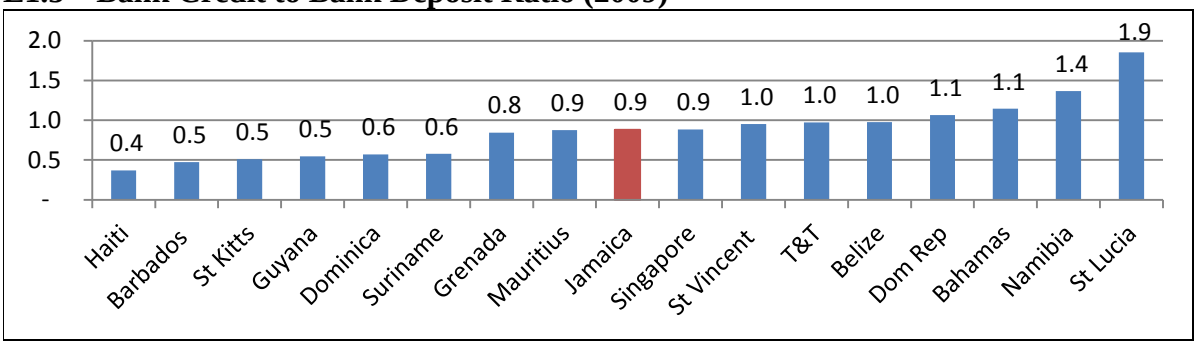
Source: Financial Structure Dataset (2010)

E1.4 – Gross Savings as a % of GDP (2010)



Source: World Development Indicators

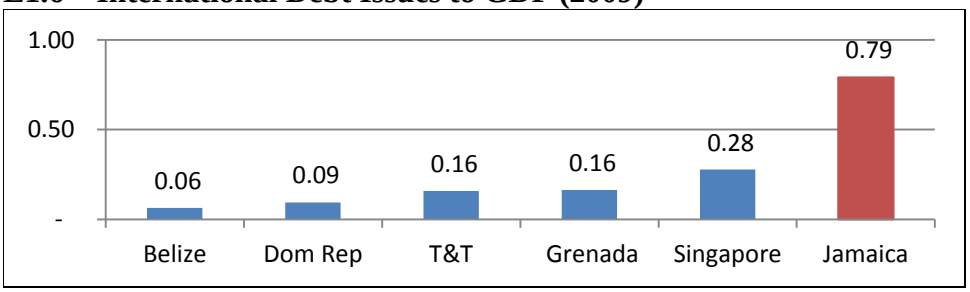
E1.5 – Bank Credit to Bank Deposit Ratio (2009)



Source: Financial Structure Dataset (2010)

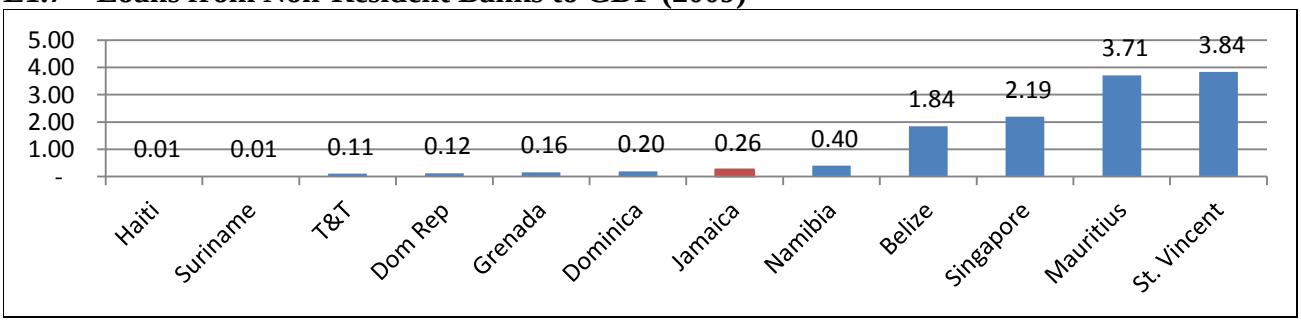
The overall below-average performance of Jamaican financial institutions in mobilizing and intermediating domestic savings, increases the importance of the availability of international funding. Figure E1.6 shows that Jamaica has the highest ratio of international debt issues to GDP (of comparator countries for which data are available). This suggests that international bond issues are relatively highly relied on as a source of financing in Jamaica. It must be noted, however, that to the extent that such international bonds are issued by private firms, they are almost exclusively used by large corporations. MSMEs do not rely on international bond issues as a source of financing. Such firms are also less likely to receive credit from overseas banks. Figure E1.7 shows that although Jamaica has a ratio of loans from non-resident banks to GDP that is slightly above average, the ratio is significantly smaller than that of regional comparators such as Belize and St. Vincent and the Grenadines, suggesting that this also is not a primary source of funding for many Jamaican businesses.

E1.6 – International Debt Issues to GDP (2009)



Source: Financial Structure Dataset (2010)

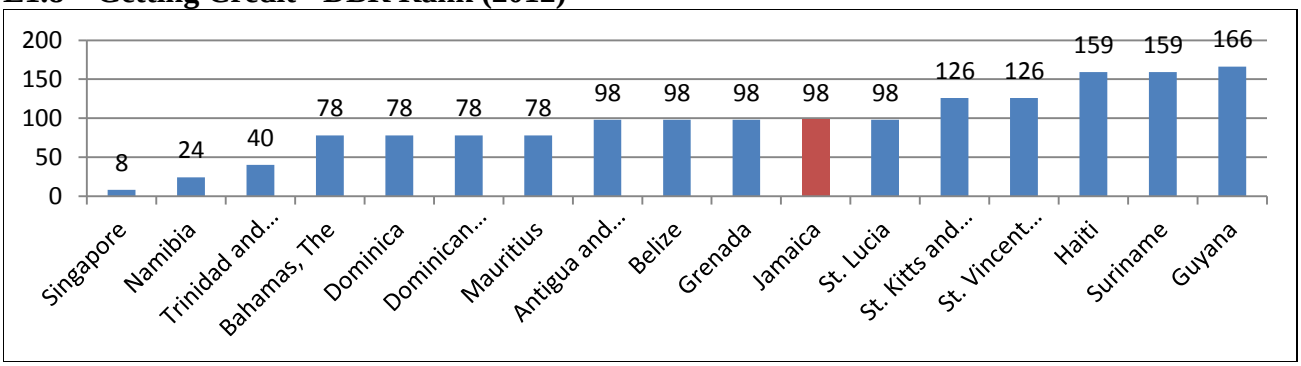
E1.7 – Loans from Non-Resident Banks to GDP (2009)



Source: Financial Structure Dataset (2010)

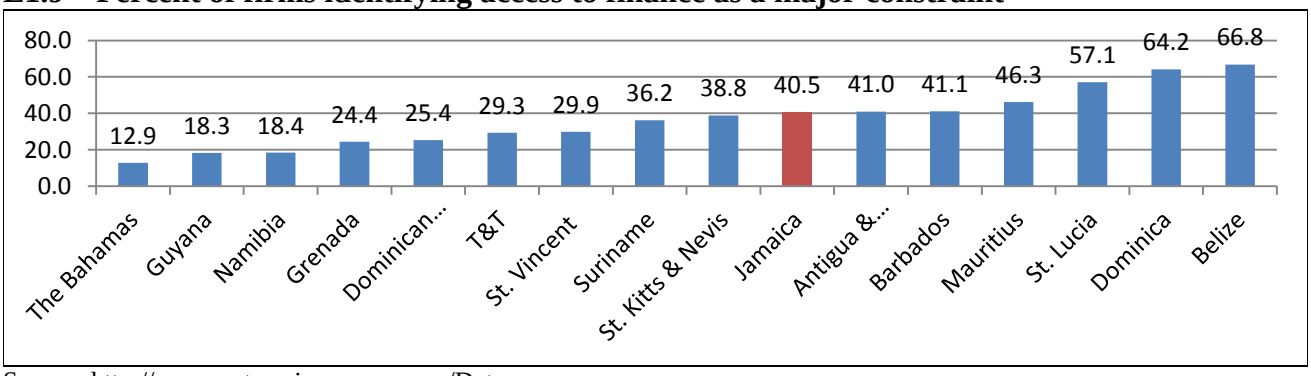
The relative inefficiency of the Jamaican financial system, along with the issues facing the domestic and international supply of credit, are attested to in figures E1.8 and E1.9 by the country's below average Doing Business Report (2012) ranking for getting credit, and by the relatively large proportion of businesses identifying access to finance as a major constraint in the World Bank's Enterprise Surveys (2010). As expected, figure E1.10 highlights the heightened difficulties faced by Jamaican small firms in accessing credit, relative to medium-sized and large firms. The gender breakdown provided in figure E1.11 is, however, somewhat more surprising, as a considerably larger proportion of male managers than female managers (43% and 34%, respectively) identify access to finance as major constraint.

E1.8 – Getting Credit - DBR Rank (2012)



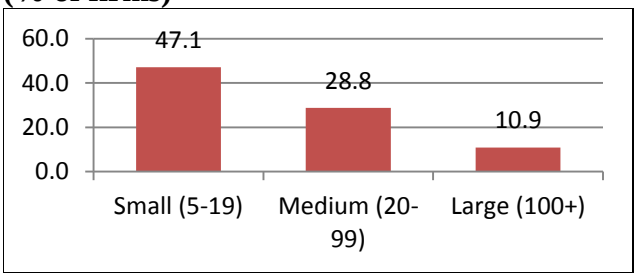
Source: World Bank's Doing Business Report (2012)

E1.9 – Percent of firms identifying access to finance as a major constraint



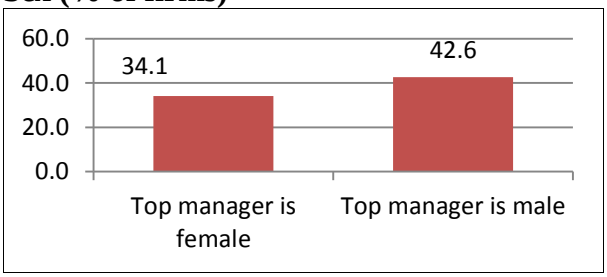
Source: http://www.enterprisesurveys.org/Data

E1.10 – Access to Finance Constraint by Size (% of firms)



Source: http://www.enterprisesurveys.org/Data

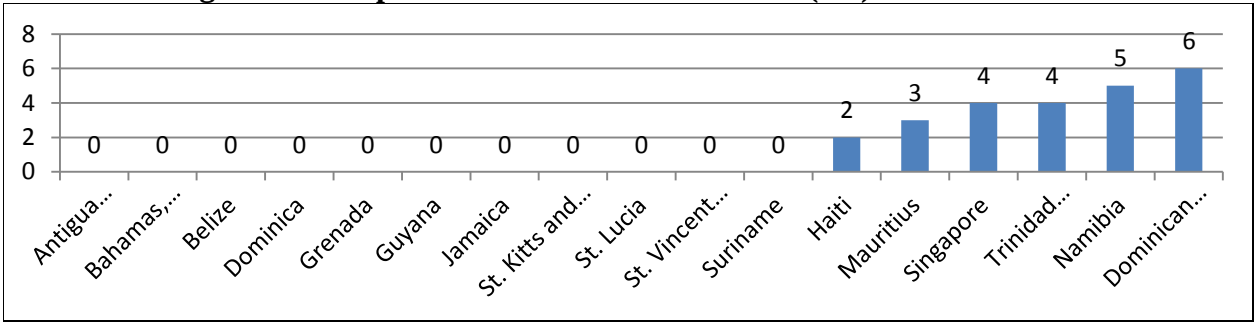
E1.11 – Access to Finance Constraint by Sex (% of firms)



Source: http://www.enterprisesurveys.org/Data

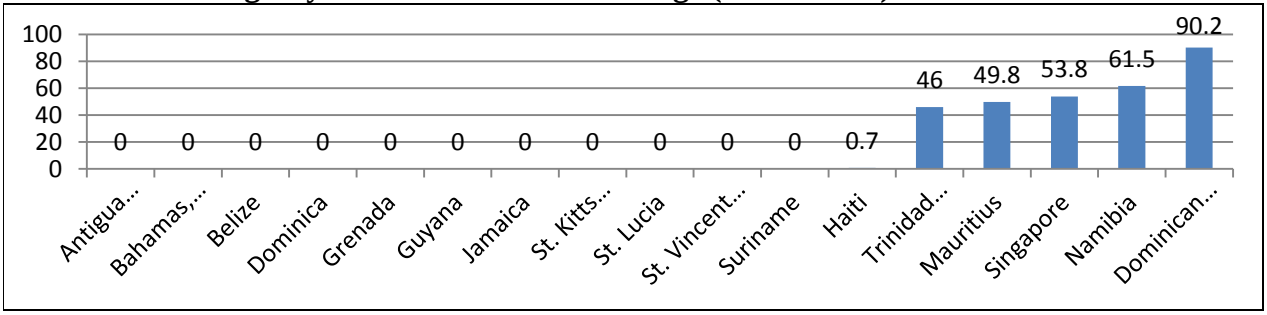
Some of the difficulties that Jamaican firms face in accessing credit can be traced to the non-existence of institutions that serve to reduce information asymmetries. Because no credit bureaus exist in Jamaica, the country (along with most of her Caribbean counterparts) has a depth of credit information index value of 0 and a public registry and private bureau coverage of 0% of adults (see figures E1.12 and E1.13). In Jamaica, the need for credit bureaus has been long-recognized. With assistance provided under the JCEP, the Credit Reporting Act was passed in October 2010, and the Credit Reporting Regulations which operationalize the Act were approved by Parliament in January 2011. To date, the BOJ has licensed two credit bureaus to operate in Jamaica. None are, however, yet operational.

E1.12 – Getting Credit - Depth of credit information index (0-6)



Source: World Bank's Doing Business Report (2012)

E1.13 – Public Registry + Private Bureau Coverage (% of adults)



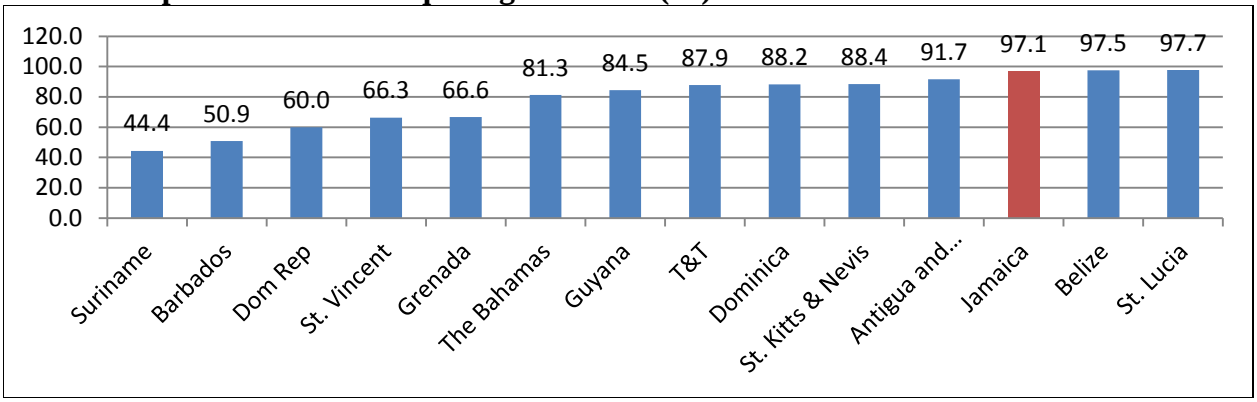
Source: World Bank's Doing Business Report (2012)

In the absence of good credit information, banks and other financial institutions protect themselves through high collateral requirements. Figure E1.14 indicates that in Jamaica, a relatively high proportion of loans require collateral (97%), a figure marginally exceeded only by Belize and St. Lucia. The value of collateral needed for a loan as a percentage of the loan amount is also higher in Jamaica than in most of the comparator countries (see figure E1.15).

Figures E1.16 – E1.19 highlight the collateral requirements by size and sex. Figure E1.16 shows that almost all the loans issued to small Jamaican firms require collateral (99%), while collateral is required for a significantly smaller proportion of loans issued to medium-sized and large firms (95% and 89%, respectively). Medium-sized firms are, however, required to provide the largest amount of collateral as a percentage of loan size (239.9%) (see figure E1.17). Small firms are also required to provide large amounts of collateral relative to large firms (191.1% and 139.9%, respectively).

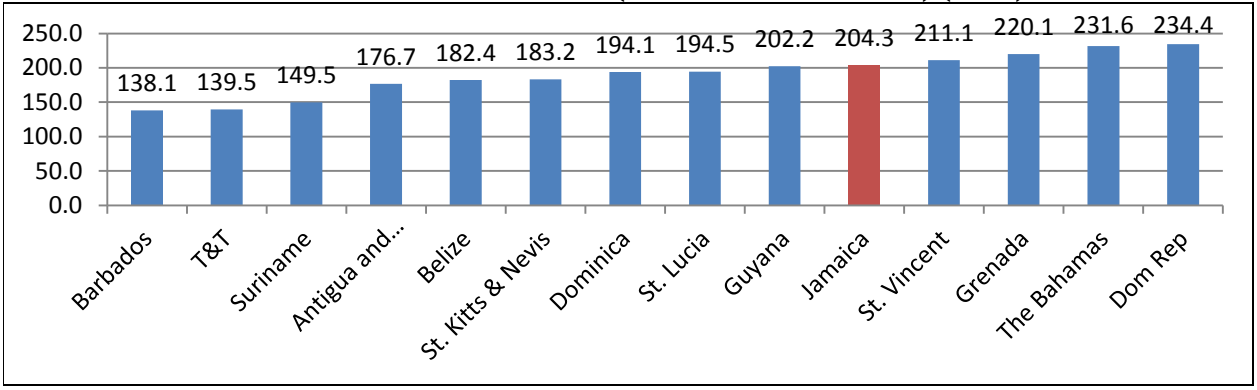
As indicated in figures E1.18 and E1.19, whereas female managers are required to provide collateral for a larger proportion of their loans (99% as opposed to 96% for male managers), they are required to provide significantly less collateral as a percentage of the loan size (180.8%) relative to male managers (216.9%).

E1.14 – Proportion of loans requiring collateral (%)



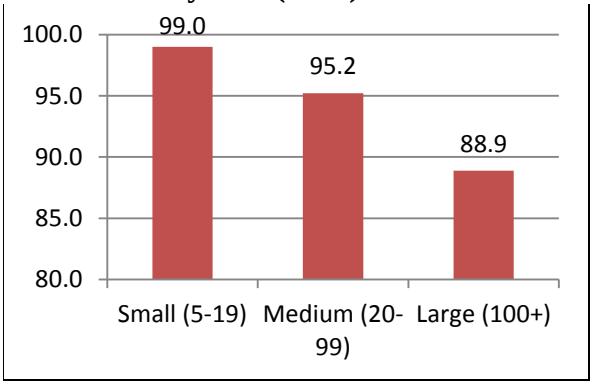
Source: http://www.enterprisesurveys.org/Data

E1.15 – Value of collateral needed for a loan (% of the loan amount) (2010)



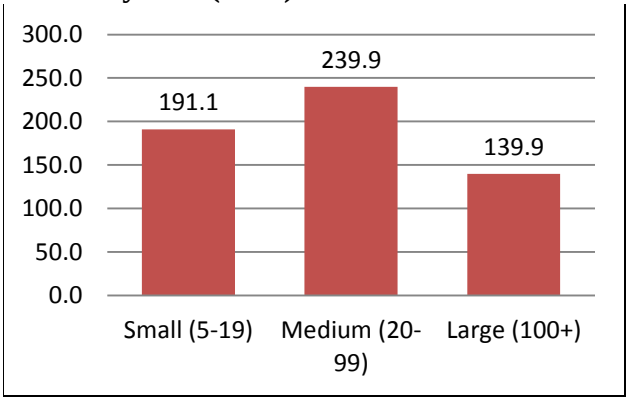
Source: http://www.enterprisesurveys.org/Data

E1.16 – Proportion of loans requiring Collateral - By Size (2010)



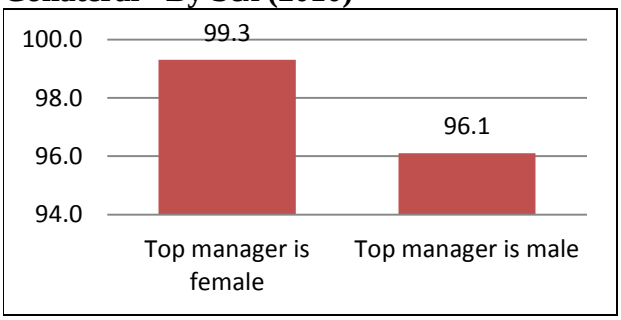
Source: http://www.enterprisesurveys.org/Data

E1.17 – Value of Collateral needed for a Loan - By Size (2010)



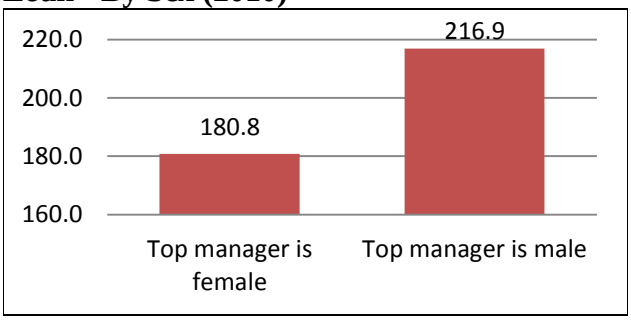
Source: http://www.enterprisesurveys.org/Data

E1.18 – Proportion of loans requiring Collateral - By Sex (2010)



Source: http://www.enterprisesurveys.org/Data

E1.19 – Value of Collateral needed for a Loan - By Sex (2010)

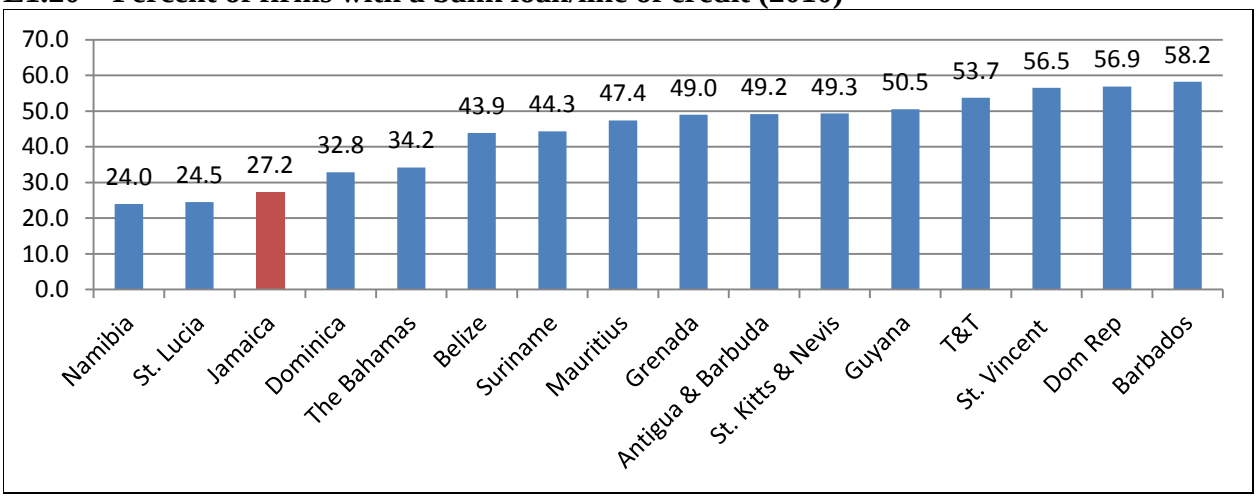


Source: http://www.enterprisesurveys.org/Data

Figure E1.20 provides a good summary of the state of access to credit by firms in Jamaica. It indicates that only 27% of Jamaican firms had a bank loan in 2010. Of the comparator countries, only Namibia and St. Lucia had a smaller proportion of firms accessing credit from banks. If Jamaican firms had easy access to international sources of credit, or other domestic funding sources, this would not be a major constraint. The previous analysis has, however, shown that this is not the case with respect to the international supply of credit, particularly for MSMEs.

Notwithstanding this, Tennant (2011) has shown that since 2007 microenterprises have been able to avail themselves of an increasing supply of microfinancing from retailing agencies. Such agencies do not typically have stringent collateral requirements. Some medium-sized firms have also been able to access financing through the newly established Junior Stock Exchange. Small firms, however, were shown to remain heavily reliant on funding from commercial banks, and thus continue to be constrained by the collateral requirements. With regards to the availability of alternative domestic funding sources, Tennant (2011) has noted that the most glaring gap in the Jamaican financial landscape is the absence of private venture capitalists and business angels.

E1.20 – Percent of firms with a bank loan/line of credit (2010)

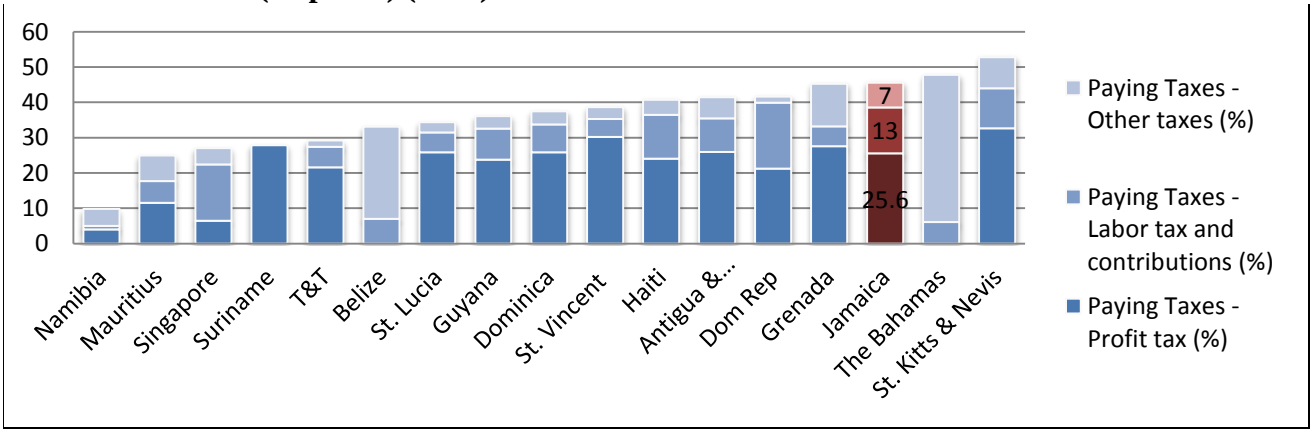


Source: http://www.enterprisesurveys.org/Data

4. Corporate Taxation

High corporate taxes are a cost to doing business in any country and reduce the international competitiveness of firms. Inconsistent and complex tax policies further lower investment productivity. Jamaica performs exceptionally poorly in both the tax rates charged and administration of taxes. Figure E1.21 highlights the fact that of the comparator countries, Jamaica has the third highest total tax rate as a percent of profit. Whereas the country's profit tax of 25.6% was about average for the region, when the labor tax and contributions of 13% was added, along with other taxes of 7%, the total tax rate was pushed beyond all the regional comparators except for The Bahamas and St. Kitts and Nevis.

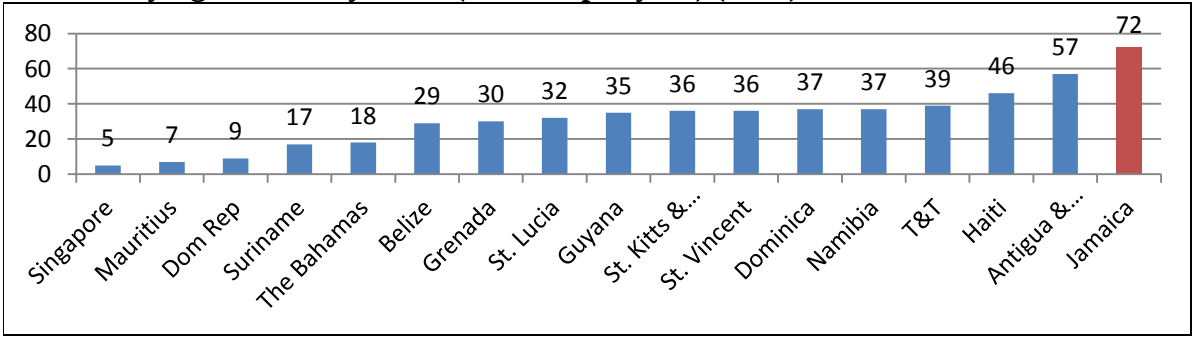
E1.21 – Tax Rates (% profit) (2012)



Source: Doing Business Report (2012)

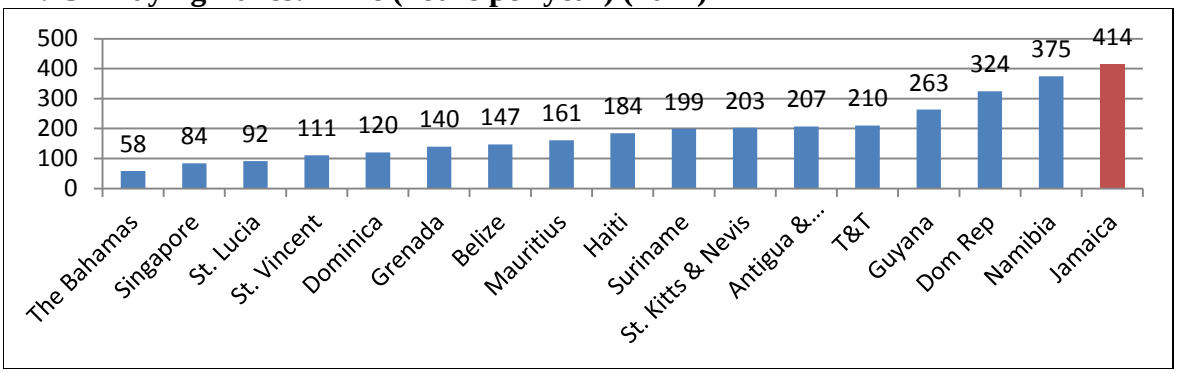
The country's performance in the administration of taxes was even worse, as figures E1.22 and E1.23 indicate that Jamaican firms are required to make the most tax payments per year (72), necessitating firms to spend 414 hours per year transacting with tax agencies. This time spent represents a major opportunity cost to businesses, particularly MSMEs, wherein it is the owner/manager that is typically required to sacrifice this time. Jamaican firms are required to spend 90 hours more paying taxes than their closest Caribbean comparator, the Dominican Republic, 151 hours more than the closest English-speaking Caribbean country (Guyana), and almost twice the time that Trinidadian firms spend making their tax payments.

E1.22 – Paying Taxes: Payments (number per year) (2012)



Source: Doing Business Report (2012)

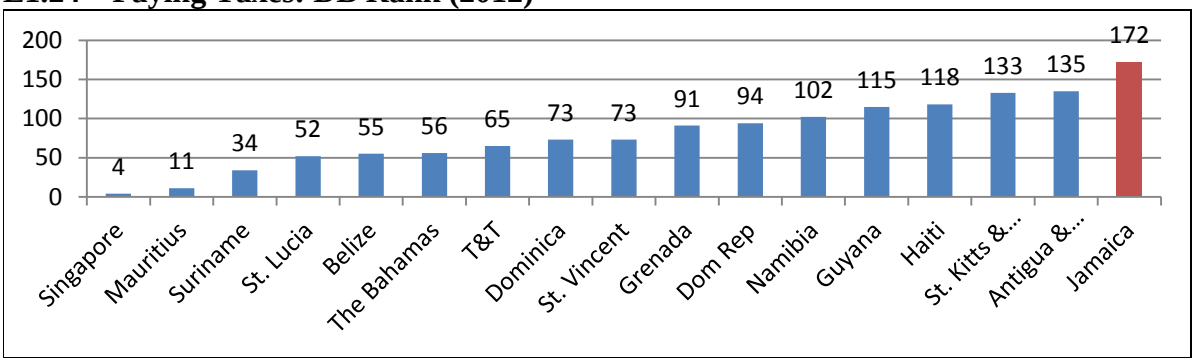
E1.23 – Paying Taxes: Time (hours per year) (2012)



Source: Doing Business Report (2012)

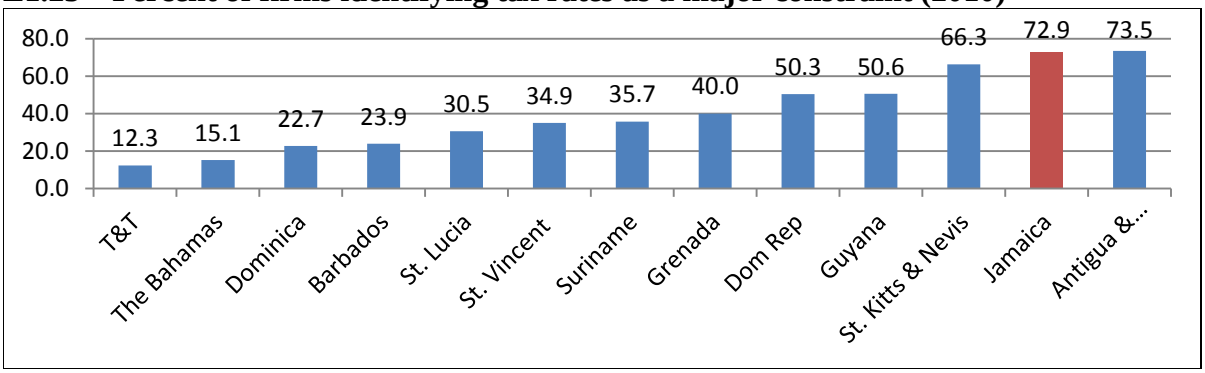
Based on the indicators presented above, it is not surprising that Jamaica has one of the worst rankings for paying taxes in the Doing Business Report (172nd out of 183 countries) (see figure E1.24). Also as expected, it has amongst the largest proportion of firms identifying tax rates and tax administration as major constraints to their operations (72.9% and 43.4%, respectively) (see figures E1.25 and E1.26).

E1.24 – Paying Taxes: DB Rank (2012)



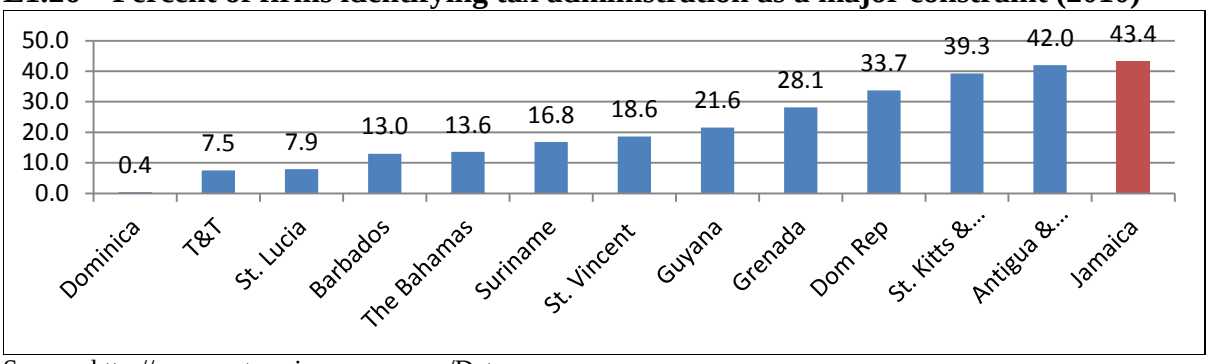
Source: Doing Business Report (2012)

E1.25 – Percent of firms identifying tax rates as a major constraint (2010)



Source: http://www.enterprisesurveys.org/Data

E1.26 – Percent of firms identifying tax administration as a major constraint (2010)



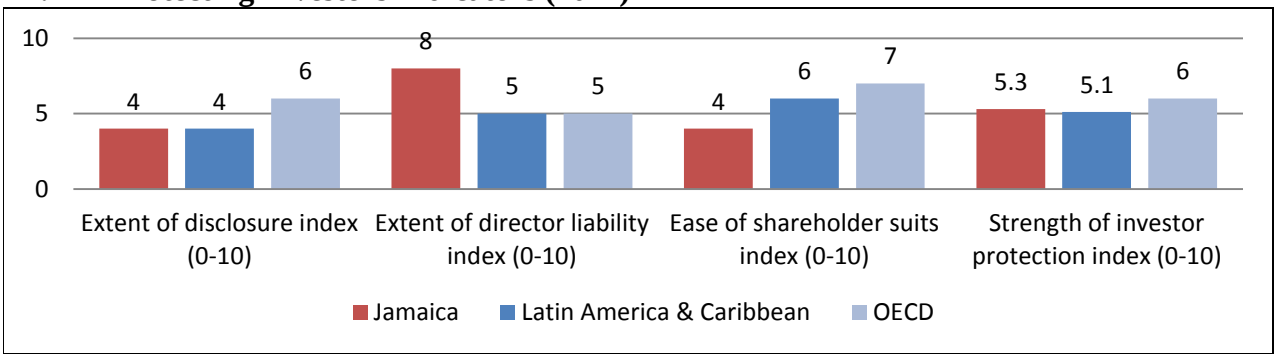
Source: http://www.enterprisesurveys.org/Data

5. The Business Environment

The previous sections have already attested to the difficulties of conducting business in Jamaica because of challenges associated with accessing credit, particularly for small firms, and the high tax rates and onerous nature of complying with tax administrators. This section focuses on other aspects of the business environment that pose challenges for Jamaican businesses. Specifically, the extent to which investors are protected, and the ease with which businesses can start and close operations, access inputs, enforce contracts, and operate in an environment unencumbered by illegality and informality, are examined hereunder.

The country's ability to attract and maintain private investment is dependent on the extent to which the legal and regulatory framework allows for adequate protection of private investors. Figure E1.27 shows that Jamaica performs at or above par for two of the three indicators which comprise the Doing Business Strength of Investor Protection Index. The country performs at the same level as the rest of the Latin American and Caribbean region (LAC) for the extent of disclosure, and performs significantly better than both the LAC and OECD averages for extent of director liability. It, however, performs poorly in the ease of shareholder suits index, falling well below the LAC and OECD averages. As a result, Jamaica has a strength of investor protection index value of 5.3 and protecting investors rank of 79th, placing it below all the Caribbean comparator countries, except for the Bahamas, Belize, Haiti and Suriname. This rank represents a fall of five places for Jamaica since 2011.

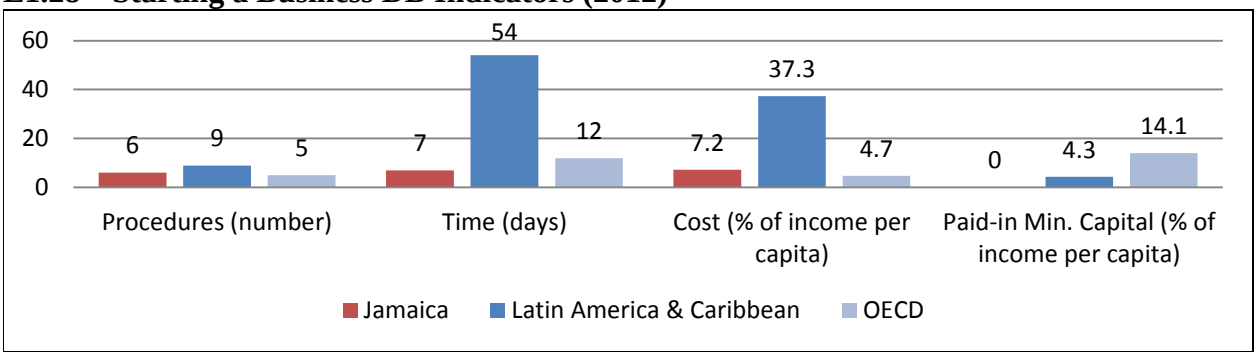
E1.27 – Protecting Investors Indicators (2012)



Source: Doing Business Report (2012)

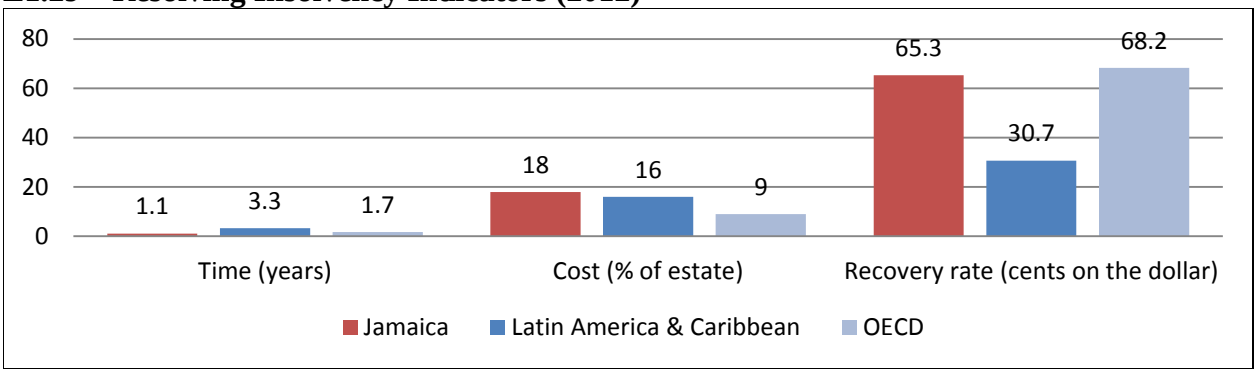
Figure E1.28 shows that it is relatively easy to start a business in Jamaica. The number of procedures, time required, associated costs and capital requirements are low when compared to the LAC, and, in some instances, even lower than those of OECD countries. Figure E1.29 similarly indicates that is fairly easy to close a business in Jamaica. The resolving insolvency indicators show that even though the cost of insolvency proceedings are relatively high, the time taken and recovery rate compare favorably with the LAC region and the world. Because of this, Jamaica is ranked 26th in the world for resolving insolvencies.

E1.28 – Starting a Business DB Indicators (2012)



Source: Doing Business Report (2012)

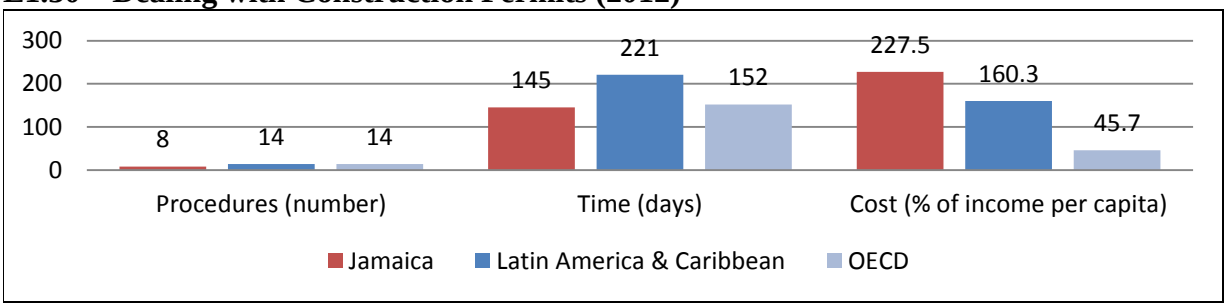
E1.29 – Resolving Insolvency Indicators (2012)



Source: Doing Business Report (2012)

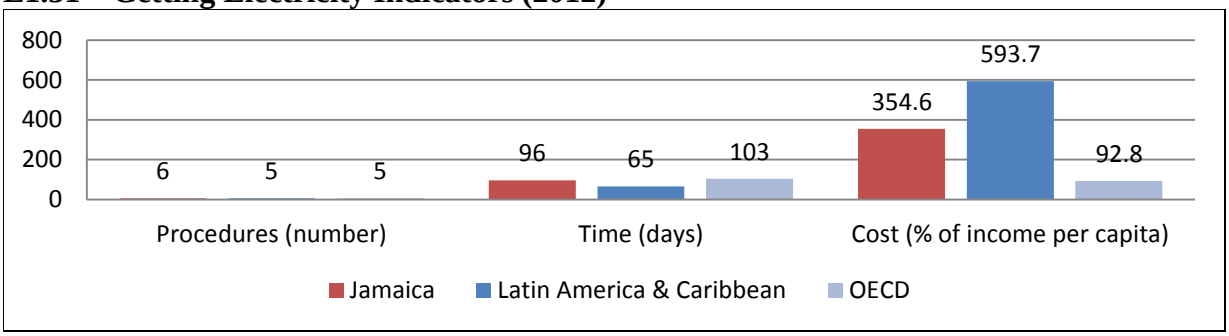
Challenges arise, however, when firms seek to acquire the inputs needed for their operations, and to enforce contracts associated with their business. For example, figure E1.30 indicates that Jamaican firms incur significantly higher costs than the LAC region and OECD countries in getting construction permits. Getting electricity requires one more procedure in Jamaica than in LAC and OECD, requires more time than in the rest of the LAC region, and is significantly more costly than in OECD countries (see figure E1.31). Registering property is more costly in Jamaica than it is on average in LAC and OECD countries (figure E1.32). And enforcing contracts in Jamaica is also more costly than it is in LAC and OECD countries, and requires significantly more time than in OECD countries (figure E1.33). As a result of this, Jamaica has been ascribed fairly low ranks in each of these areas in the 2012 Doing Business Report (49th for dealing with construction permits, 112th for getting electricity, 103rd for registering property, and 126th for enforcing contracts).

E1.30 – Dealing with Construction Permits (2012)



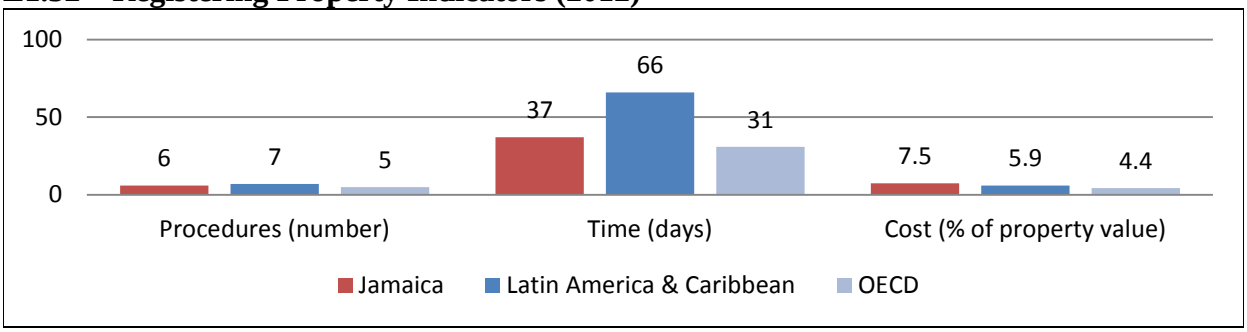
Source: Doing Business Report (2012)

E1.31 – Getting Electricity Indicators (2012)



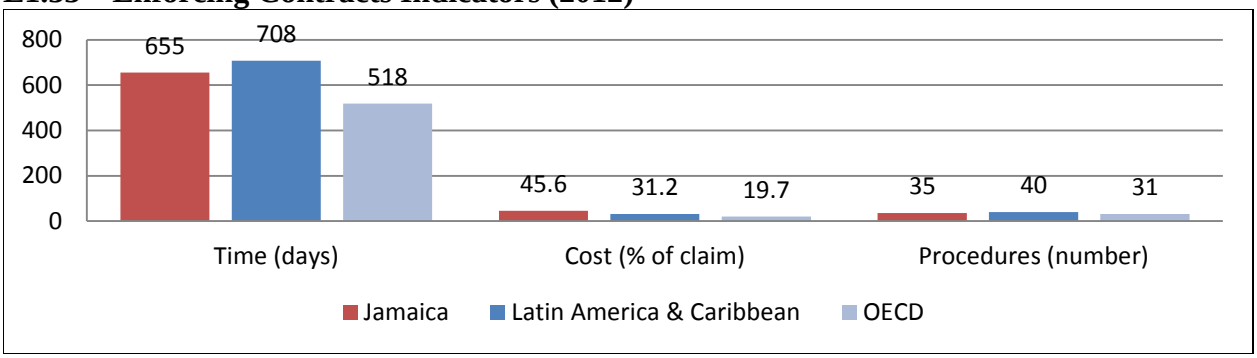
Source: Doing Business Report (2012)

E1.32 – Registering Property Indicators (2012)



Source: Doing Business Report (2012)

E1.33 – Enforcing Contracts Indicators (2012)



Source: Doing Business Report (2012)

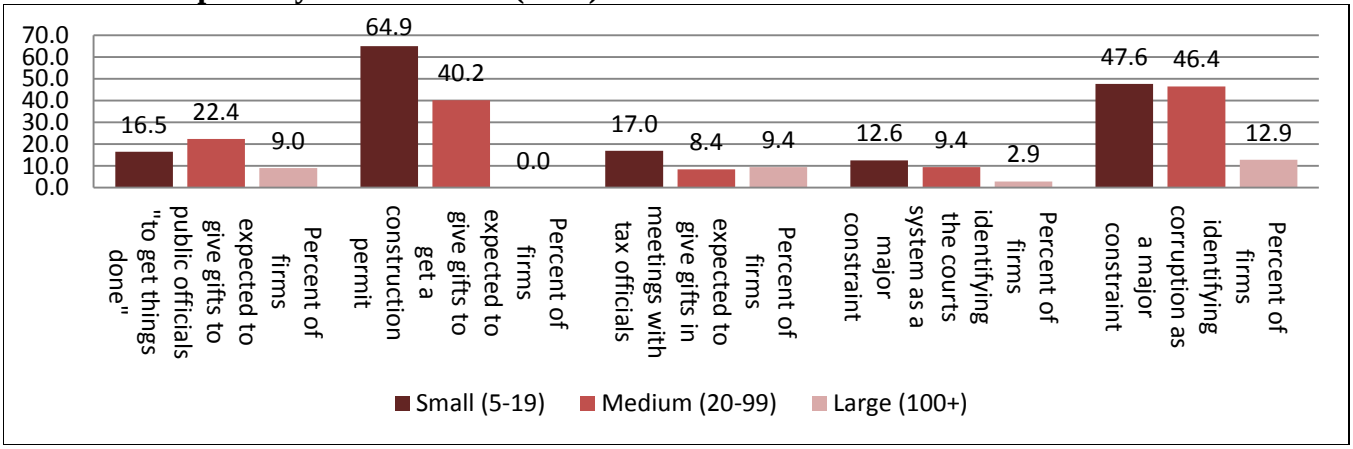
Conducting business in Jamaica is also severely hampered by illegality and informality. Table E1.1 presents data on corruption from the World Bank's Enterprise Surveys, and it is clear that Jamaica performs worse than the rest of the LAC and world averages in most of the indicators. A considerably higher percentage of Jamaican firms than those in LAC and the world are expected to give gifts to get an operating license, import license, construction permit and water connection. It is not surprising then that bribery depth (the percent of public transactions where a gift or informal payment was requested) was greater for Jamaica (17.9%) than the averages for LAC (6.5%) and the world (15%). Also as expected, a significantly larger proportion of Jamaican firms identified corruption as a major constraint to their operations (46%) than did those in LAC (39.9%) and the world (36%). Noteworthy is the fact that for a number of key indicators of corruption, small firms were more harshly affected than medium-sized or large firms (see figure E1.34).

Table E1.1 - Indicators of Corruption (2010)

Indicators	Jamaica	LAC	World
Percent of firms expected to give gifts to public officials "to get things done"	17.9	10.9	25.5
Percent of firms expected to give gifts in meetings with tax officials	14.3	6.1	15.7
Percent of firms expected to give gifts to secure government contract	0.8	9.9	23.7
Value of gift expected to secure a gov't contract (% of contract value)	0	0.9	2.2
Percent of firms expected to give gifts to get an operating license	19	8.4	15
Percent of firms expected to give gifts to get an import license	27.9	5.7	14.1
Percent of firms expected to give gifts to get a construction permit	48.8	12.9	23.1
Percent of firms expected to give gifts to get an electrical connection	12.4	4	15.9
Percent of firms expected to give gifts to get a water connection	61.6	9.7	15.5
Bribery depth (% of public trans. where a gift/informal payment was requested)	17.9	6.5	15
Percent of firms experiencing at least one bribe payment request	19.3	9.6	19.3
Percent of firms identifying corruption as a major constraint	46	39.9	36
Percent of firms identifying the courts system as a major constraint	11.3	25	19

Source: http://www.enterprisesurveys.org/Data

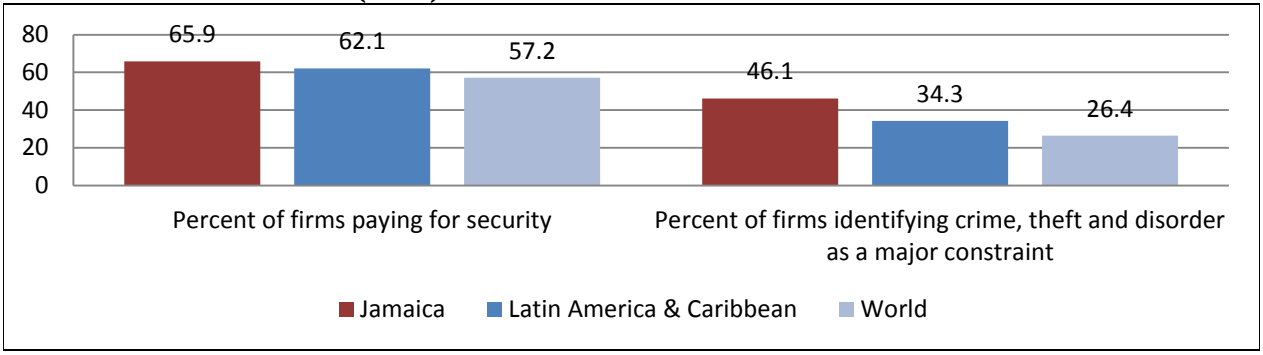
E1.34 – Corruption by Size: Jamaica (2010)



Source: http://www.enterprisesurveys.org/Data

Figure E1.35 shows that crime also affects Jamaican businesses more harshly than competitors in the LAC and rest of the world, with a higher percentage of Jamaican firms being forced to pay for security (65.9%), than the averages for LAC (62.1%) and the world (57.2%). Of particular concern is the greater extent to which exporting firms are impacted by crime, with 96.8% of such firms noting that they pay for security, as compared to 63.8% of non-exporting firms. Crime, theft and disorder is thus identified as major constraint to business operations by a considerably larger proportion of Jamaican businesses (46.1%), than did those in LAC (34.3%) and the world (26.4%).

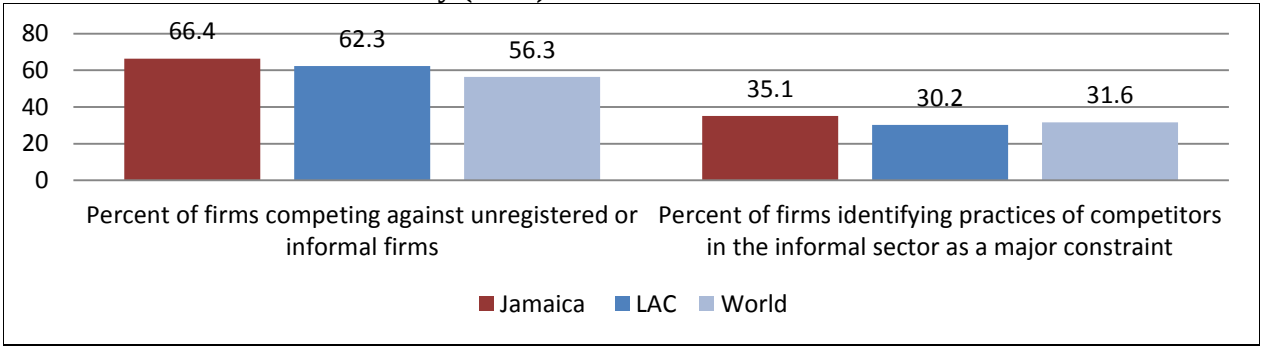
E1.35 – Crime Indicators (2010)



Source: http://www.enterprisesurveys.org/Data

The Jamaican economy also exhibits a high degree of informality, which the World Bank (2011) asserts is in line with its development level. This poses significant challenges for registered firms against whom they compete, as the informal operators are able to avoid the high costs of tax compliance. Figure E1.36 indicates that a larger percent of Jamaican firms note that they compete against informal firms (66.4%), than the averages for LAC (62.3%) and the world (56.3%). Because of this a higher proportion of Jamaican businesses identify the practices of competitors in the informal sector as a major constraint (35.1%), as compared to the averages for LAC (30.2%) and the world (31.6%).

E1.36 – Indicators of Informality (2010)



Source: http://www.enterprisesurveys.org/Data

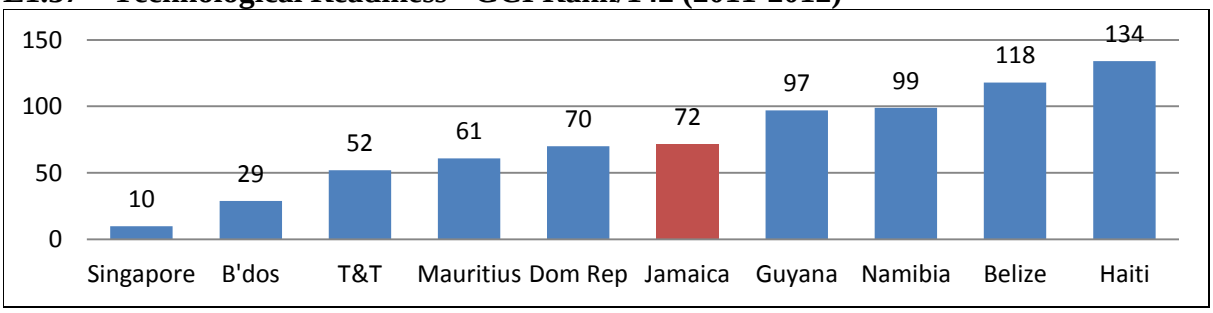
6. Technology and Innovation

Jamaican businesses must strive for higher levels of productivity if they are to be competitive in local, regional and international markets. An important feature of globalization is the increasingly fast pace of change in product and service markets. There are growing competitive pressures for enterprises to respond quickly to the very latest developments affecting their sectors. The usage of current technology and capacity for innovation are thus critical factors for individual firms' success as well as for improved national performance in the global economy.

Figure E1.37 shows that with a rank of 72nd out of 142 countries for technological readiness in the Global Competitiveness Index, Jamaica is significantly outperformed in this area by Barbados and Trinidad, and is performing only marginally better than the Dominican Republic. The reasons for this are highlighted in Table E1.2. The first three rows indicate that Jamaica has fewer Internet users, a smaller number of broadband Internet subscriptions, and less Internet bandwidth than Barbados and Trinidad. Access to and usage of the Internet is thus less in Jamaica than in Barbados and Trinidad.

The fourth and fifth rows show that although Jamaica performs relatively well in terms of the availability of the latest technology (with only Singapore and Barbados receiving higher ranks), usage of this cutting-edge technology is not as widespread in Jamaican firms as it is in many of the comparator countries (with only Belize and Guyana having lower ranks than Jamaica for firm-level technology absorption). And in the fifth row, although Jamaica's rank for FDI and technology transfer is marginally better than that of Trinidad, it is considerably lower than both Barbados and the Dominican Republic.

E1.37 – Technological Readiness - GCI Rank/142 (2011-2012)



Source: http://reports.weforum.org/global-competitiveness-2011-2012/

Table E1.2 - Technological Readiness GCI Rank/142 (2011-2012)

	Jamaica	B'dos	Belize	Dom Rep	Guyana	T&T	Mauritius	Singapore
Internet users/100 pop	87	24	101	65	82	50	89	25
Broadband Internet subscrip/100 pop	75	31	84	78	94	48	64	21
Internet bandwidth, kb/s/capita	63	37	79	89	85	54	78	7
Availability of latest tech	44	27	92	59	85	60	55	17
Firm-level tech absorption	72	38	129	57	96	71	56	10
FDI & Tech trans	70	36	136	61	109	72	63	3

Source: http://reports.weforum.org/global-competitiveness-2011-2012/

Two of the possible reasons for the low level of technology absorption by Jamaican firms relate to their relatively poor degree of value chain breath (with a GCI rank of 95th) and production process sophistication (90th). If many firms specialize in the production of low value-added primary products and/or operate in government-protected enclave-type industries, there will not be much opportunity or incentive for the usage of cutting edge technology.

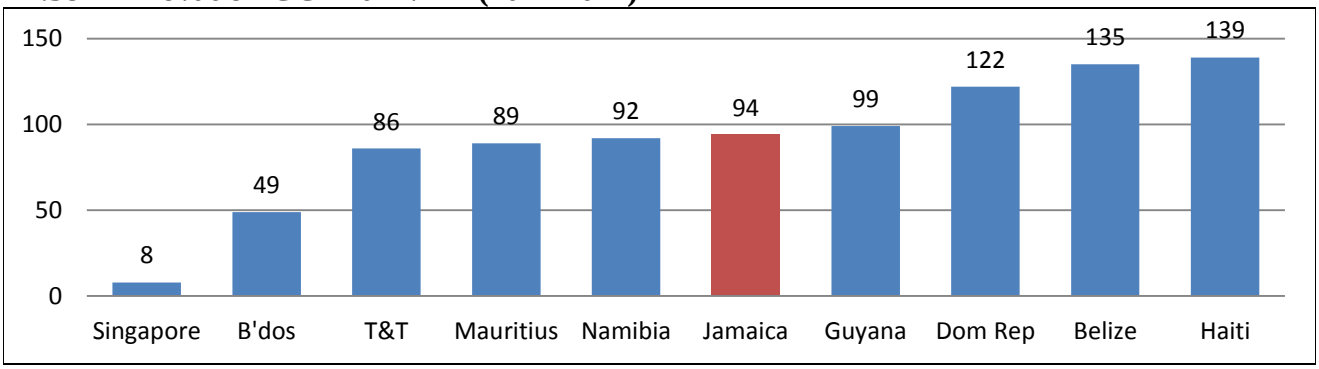
Such conditions also tend to stifle innovation. This is evidenced in figure E1.38, wherein Jamaica is shown to have a below average rank for innovation in the Global Competitiveness Index, being outperformed by the extra-regional comparators, as well as by Barbados and Trinidad.

As indicated in table E1.3, this relatively low level of innovation occurs in Jamaica in spite of the fact that the country has an above-average rank for the quality of scientific research institutes (63rd), which, amongst the comparator countries, is only superseded by Singapore and Barbados. The low level of innovation is more likely to be due to the fact that the country has a poor ranking for the availability of scientists and engineers (121st), and is significantly outperformed by Barbados and Trinidad in the extent to which there is collaboration between universities and industry in research and development.

Relatively little money seems to be spent in Jamaica to encourage innovation. Jamaican companies have a very low rank for the amount of money spent on research and development (101st – with only Belize and the Dominican Republic having lower ranks), and the Jamaican government has an even lower rank for the extent to which it procures advanced technological products (102nd – with only Belize and Trinidad having lower ranks).

In spite of these factors, Jamaica has an above-average rank of 51st for the number of utility patents granted. This, however, is well-behind the ranks for Barbados (37th) and Trinidad (39th). Notwithstanding this, there is hope for improvement, as the country's overall capacity for innovation is ranked at 97th, which is the third highest in the region (after Guyana – 73rd and Barbados – 91st).

E1.38 – Innovation GCI Rank/142 (2011-2012)



Source: http://reports.weforum.org/global-competitiveness-2011-2012/

Table E1.3 – Innovation GCI Rank/142 (2011-2012)

	Jamaica	B'dos	Belize	Dom Rep	Guyana	T&T	Mauritius	Singapore
Quality of scientific research insts	63	47	128	123	100	84	77	12
Availability of scientists & engineers	121	58	140	129	125	61	118	12
University-Industry Collaboration in R&D	76	40	132	90	113	68	98	6
Company spending on R&D	101	100	140	125	59	94	88	10
Govt procurement of advanced tech prods	102	39	125	94	74	108	62	2
Utility patents granted/million pop	51	37	90	77	90	39	90	11
Capacity for Innovation	97	91	131	126	73	120	89	22

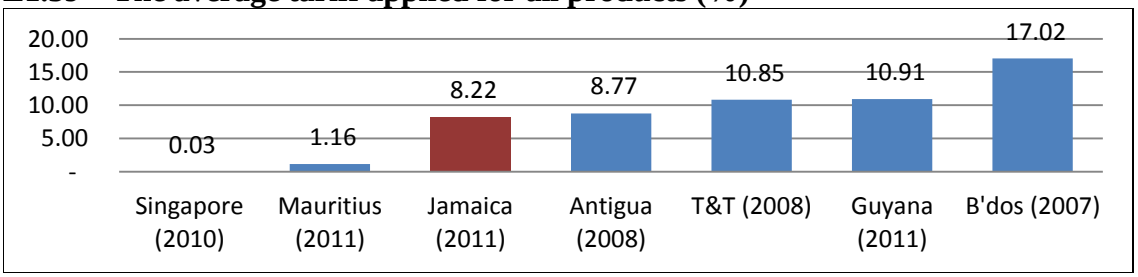
Source: http://reports.weforum.org/global-competitiveness-2011-2012/

7. Trade and FDI Policies

For an open economy that is heavily dependent on imports and foreign investment (especially in certain key sectors), and that wishes to increase foreign exchange earnings through exports, the government's trade and FDI policies are critical. This section examines whether these policies encourage or stymie the growth of firms that engage in international trade. The protection of the goods market is first examined, followed by rules applicable to FDI, and the ease with which businesses can trade across borders.

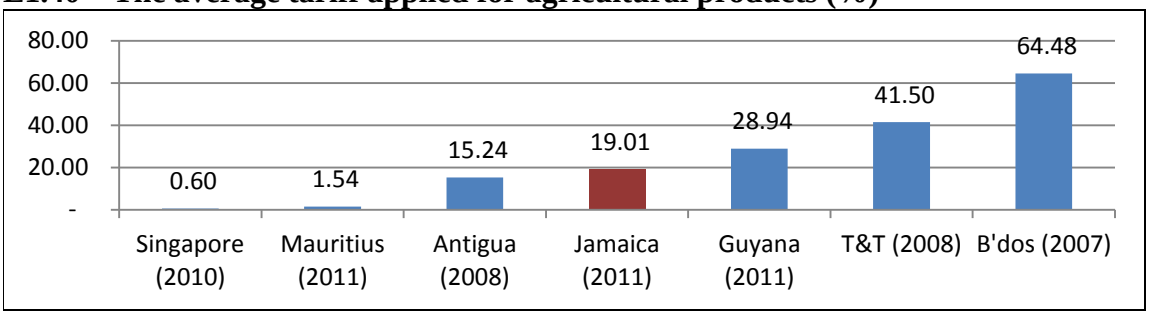
Figures E1.39 to E1.41 indicate that amongst the Caribbean countries studied, Jamaica applies the lowest average tariffs to all products generally and to industrial products, and the second lowest average tariffs to agricultural products. The wide discrepancy between the tariffs applied by the extra-regional comparator countries and those from the Caribbean is, however, noted with interest. This discrepancy accounts for the fact that Jamaica has a below-average rank for trade tariffs in the Global Competitiveness Index (79th), in spite of having the highest rank among the Caribbean comparators (see figure E1.42).

E1.39 – The average tariff applied for all products (%)



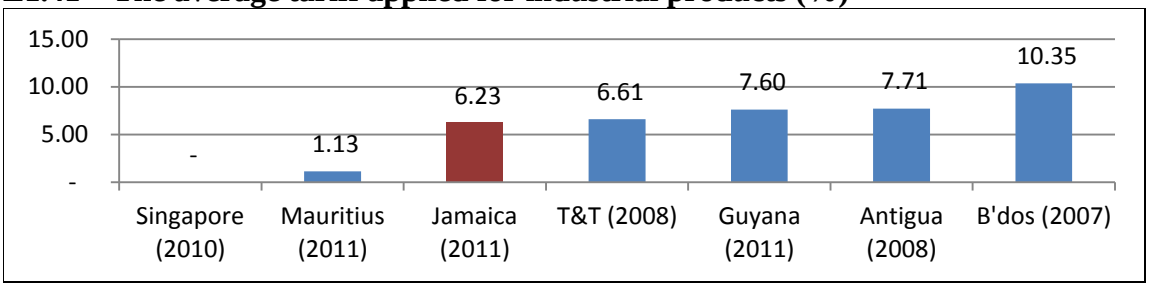
Source: ITC Market Access Map website

E1.40 – The average tariff applied for agricultural products (%)



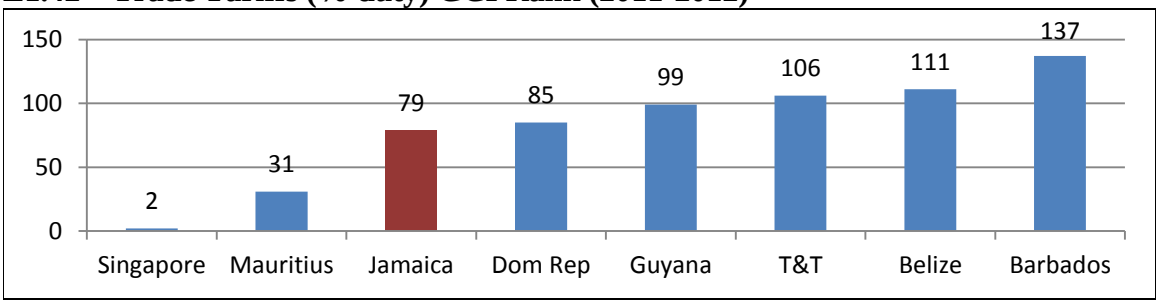
Source: ITC Market Access Map website

E1.41 – The average tariff applied for industrial products (%)



Source: ITC Market Access Map website

E1.42 – Trade Tariffs (% duty) GCI Rank (2011-2012)

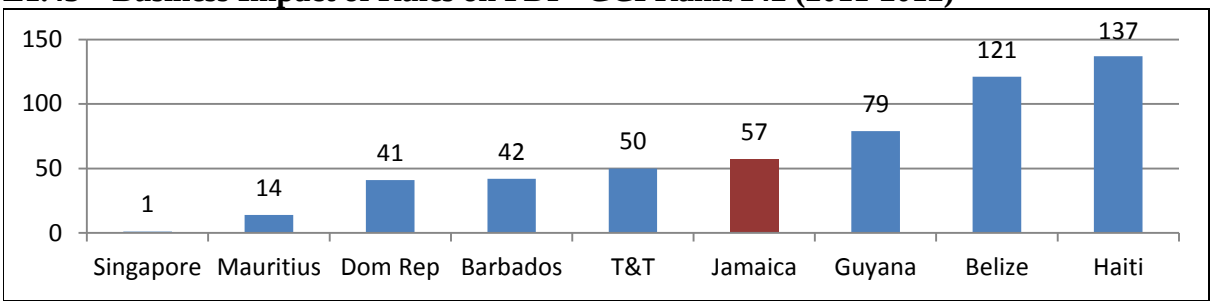


Source: http://reports.weforum.org/global-competitiveness-2011-2012/

The Government of Jamaica's commitment to attracting foreign investment is exemplified by the following statement from JAMPRO: '*Jamaica subscribes to a liberal trade regime, and together with the generous fiscal and market incentives available, has proven attractive to investors. There are no restrictions on the movement of capital, profits and dividends. There are virtually no exchange controls, and no approval is required for repatriation of profits and dividends.*' This commitment possibly accounts for the country's above-average rank of 57th for the business impact of rules on FDI. Figure E1.43, however, indicates that this rank places Jamaica significantly below her primary regional competitors – The Dominican Republic (41st), Barbados (42nd), and Trinidad (50th).

In the post-crisis global environment wherein FDI flows have decreased, the country's rank relative to other Caribbean countries becomes a critical consideration. Also important, however, is the concern raised by the World Bank (2011), that the inducements to attract FDI to Jamaica (particularly through tax incentives and export free zone arrangements) could prevent the development of strong linkages between such firms and other sectors or enterprises. The Government of Jamaica thus has to consider its options very carefully. One non-distortionary reform measure could be to reduce the costs faced by all businesses operating in Jamaica by improving the general business environment.

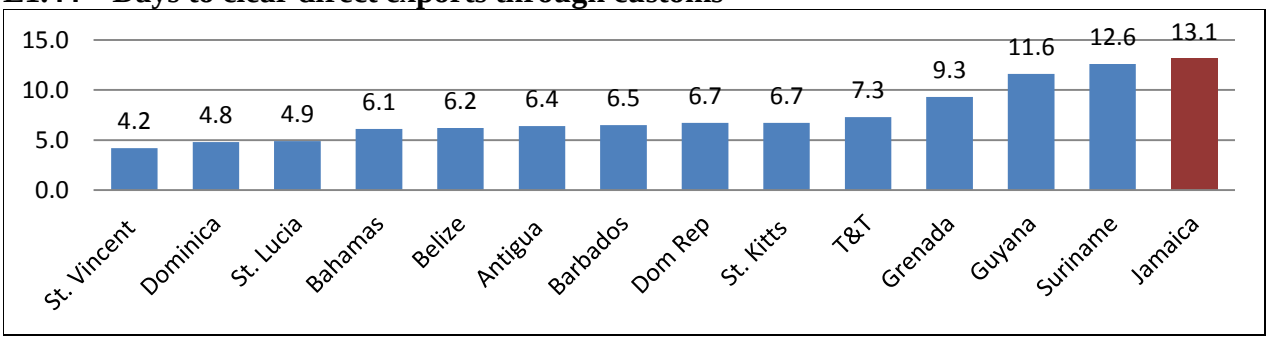
E1.43 – Business Impact of Rules on FDI - GCI Rank/142 (2011-2012)



Source: http://reports.weforum.org/global-competitiveness-2011-2012/

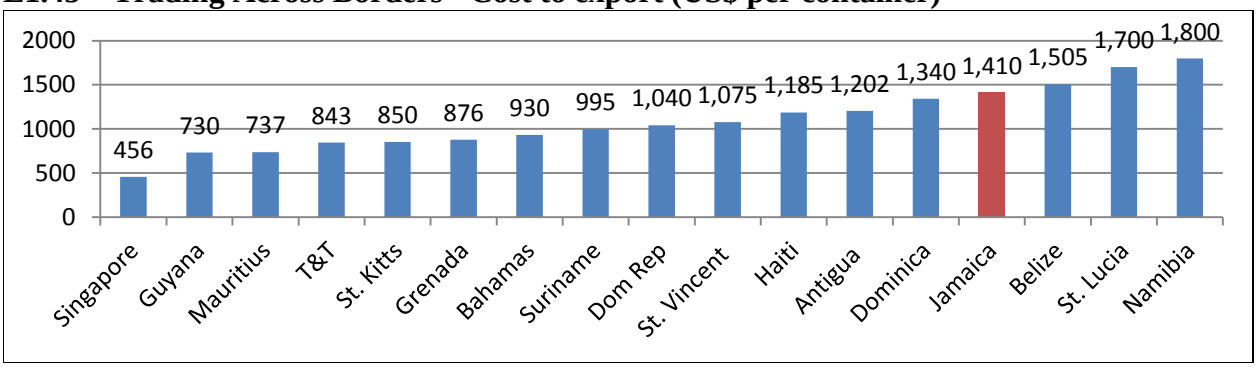
As an example, figures E1.44 and E1.45 illustrate the competitive disadvantage that firms exporting from Jamaica face. Its takes Jamaican firms 13.1 days to clear direct exports through customs, which is longer than all the comparator countries. In fact, firms from most of the other Caribbean countries take less than half the time that Jamaican firms take to process exports. The cost to export goods from Jamaica is also higher than that of most of the comparator countries, with only Belize, St. Lucia and Namibia having a higher cost per container. By contrast, figures E1.46 and E1.47 indicate that it is relatively easy to import goods into Jamaica, with the time taken and costs associated with importing being in about the median range. The tendency of Jamaican firms to specialize in the distributive trades and to neglect the production of goods for export is thus not surprising.

E1.44 – Days to clear direct exports through customs



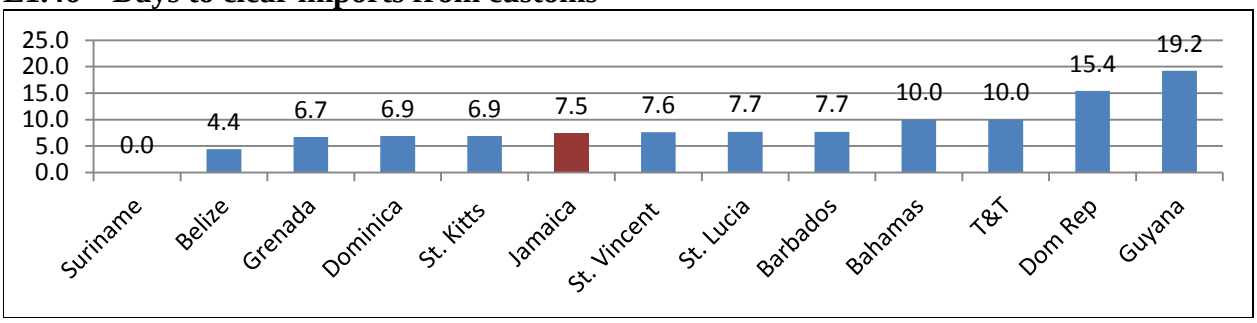
Source: http://www.enterprisesurveys.org/Data

E1.45 – Trading Across Borders - Cost to export (US$ per container)



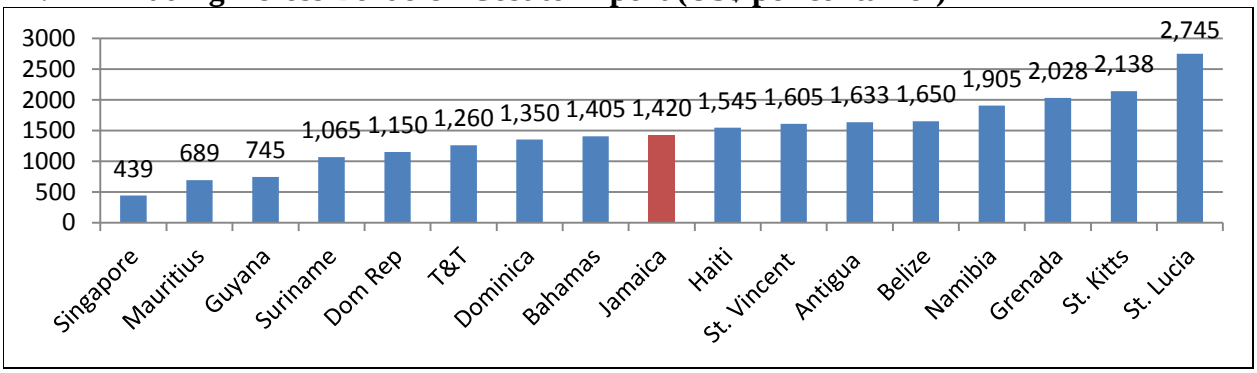
Source: Doing Business Report (2012)

E1.46 – Days to clear imports from customs



Source: http://www.enterprisesurveys.org/Data

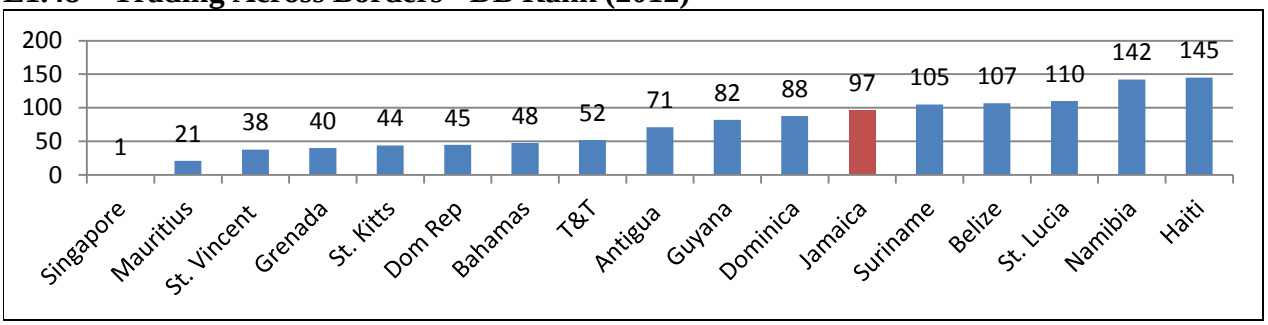
E1.47 – Trading Across Borders - Cost to import (US$ per container)



Source: Doing Business Report (2012)

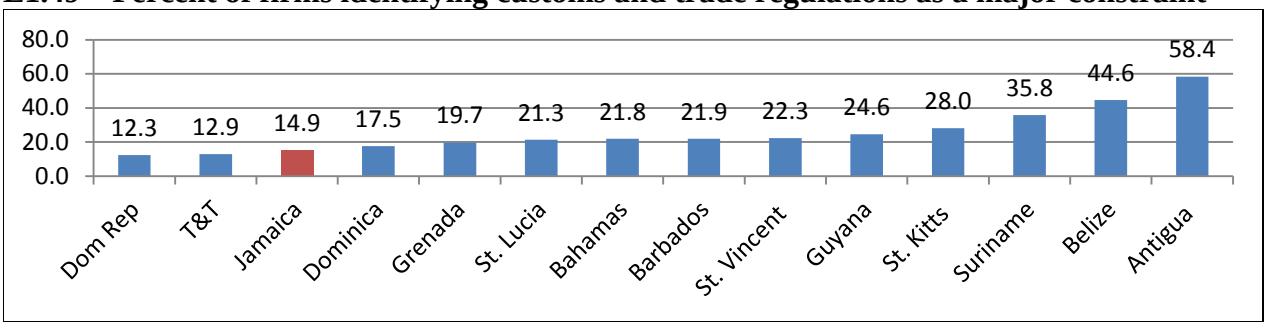
As highlighted in figure E1.48, the Doing Business Report gives Jamaica a low rank of 97th for trading across borders, which is the fifth lowest ranking among Caribbean comparators. Jamaican firms, however, are not overly perturbed by the challenges associated with trading, as only 14.9% of the firms surveyed in the Enterprise Surveys identified customs and trade regulations as a major constraint to their operations (see figure E1.49). This is because the major challenges relate to firms' ability to export goods from Jamaica, and, as indicated in figures E1.50 and E1.51, a relatively small proportion of Jamaican firms export goods, resulting in the country having one of the highest ratios of domestic to exported sales.

E1.48 – Trading Across Borders - DB Rank (2012)



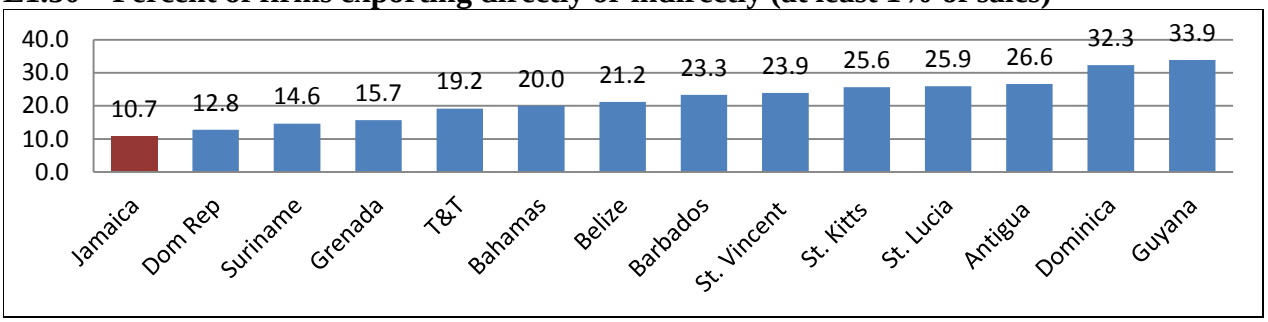
Source: Doing Business Report (2012)

E1.49 – Percent of firms identifying customs and trade regulations as a major constraint



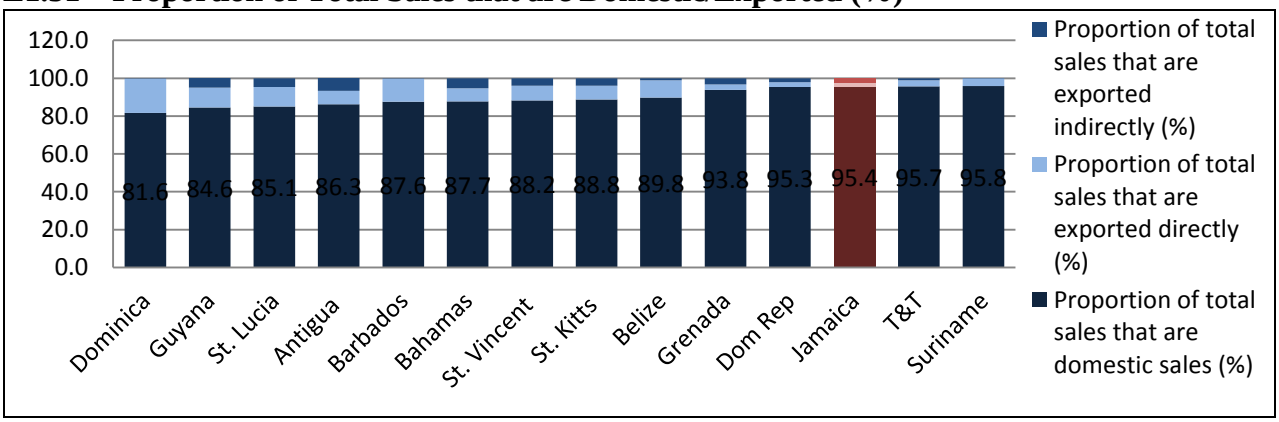
Source: http://www.enterprisesurveys.org/Data

E1.50 – Percent of firms exporting directly or indirectly (at least 1% of sales)



Source: http://www.enterprisesurveys.org/Data

E1.51 – Proportion of Total Sales that are Domestic/Exported (%)



Source: http://www.enterprisesurveys.org/Data

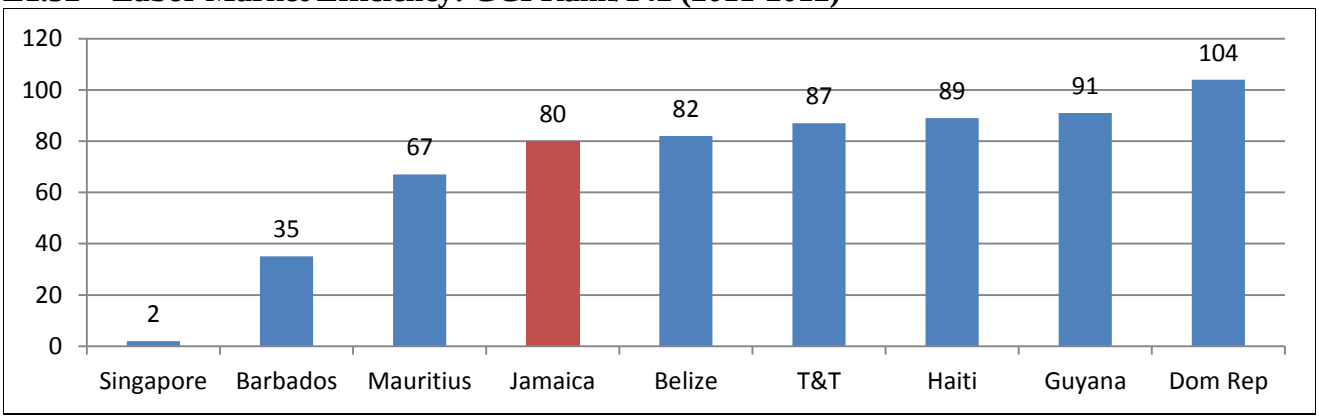
8. Labor Regulation

The efficiency and flexibility of labor markets and productivity of workers are key determinants of a firm's competitiveness. Figure E1.52 indicates that although Jamaica has a below-average rank for labor market efficiency in the Global Competitiveness Index (80th), it has a higher ranking than all the other regional comparator countries, apart from Barbados. Table E1.4 provides details as to the reasons for the rank given. Jamaica performed relatively well in terms of its hiring and firing practices (69th), reliance on professional management (57th), and in the rigidity of employment index (8th). Although receiving a low rank for flexibility of wage determination (84th), Jamaica was notably more highly ranked than both Barbados and Trinidad (101st and 120th, respectively). The country was, however, poorly ranked relative to most of the comparator countries in four key areas: cooperation in labor-employer relations (122nd); redundancy costs (99th); pay and productivity (114th); and brain drain (95th).

Although figure E1.53 indicates that very few firms identified labor regulations as a major constraint to their operations (8.6%), there are a few labor indicators that the Jamaican government should pay attention to, particularly the relative lack of cooperation in labor-employer relations, and low levels of productivity.

Regarding productivity, the World Bank (2011) highlighted studies which indicate that more than 70% of the Jamaican workforce is uncertified or untrained, and that underinvestment has retarded education and training, especially at the post-secondary level. It was thus concluded that the lack of skill is a constraint on realized labor productivity. When measured as real GDP per employee, Jamaican labor productivity was shown to have dramatically decreased in the 1970s, remained stable in the 1990s, and declined in the 2000s. It is noted that Jamaica's productivity lagged in a period when other countries flourished. The low level of labor productivity is identified by the World Bank (2011) as the core reason for the country's disappointing economic performance.

E1.52 – Labor Market Efficiency: GCI Rank/142 (2011-2012)



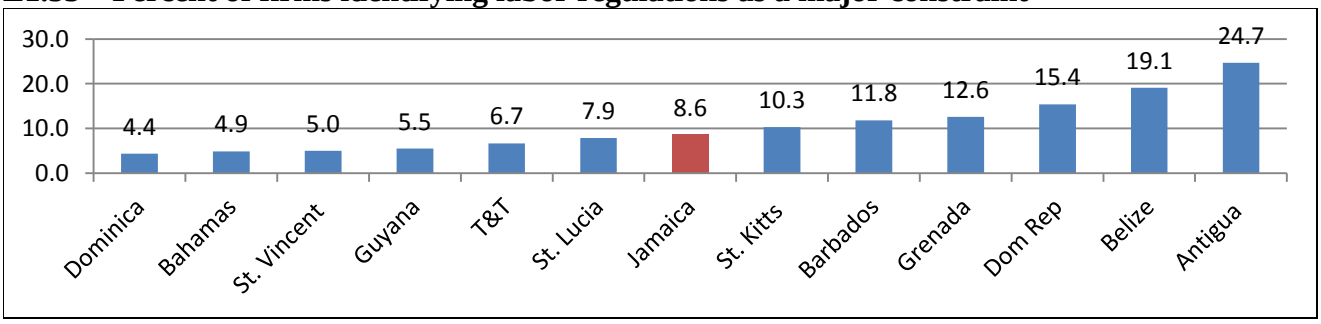
Source: http://reports.weforum.org/global-competitiveness-2011-2012/

Table E1.4 – Labor Market Efficiency Indicators: GCI Rank/142 (2011-2012)

	Cooperation in Labor-employer Relations	Flexibility of Wage Determination	Rigidity of Employment Index	Hiring & Firing Practices	Redundancy Costs	Pay & Productivity	Reliance on Professional Mgmt	Brain Drain
Jamaica	**122**	**84**	**8**	**69**	**99**	**114**	**57**	**95**
Barbados	19	101		70		71	33	26
Belize	84	49	10	23	46	85	117	124
Dom Rep	37	45	52	78	114	111	128	68
Guyana	61	76	48	19	93	80	51	120
Haiti	115	33	19	60	29	93	136	142
T&T	132	120	10	83	101	119	58	59
Mauritius	43	107	44	82	6	74	60	77
Singapore	2	7	1	2	6	1	11	2

Source: http://reports.weforum.org/global-competitiveness-2011-2012/

E1.53 – Percent of firms identifying labor regulations as a major constraint



Source: http://www.enterprisesurveys.org/Data

9. Infrastructure and Energy

A firm's ability to produce competitively is contingent upon the regular availability and affordability of all key inputs. For most firms, electricity, water, transportation and communication technologies are key inputs. The first three are discussed in this section. The fourth, communications technology was discussed previously.

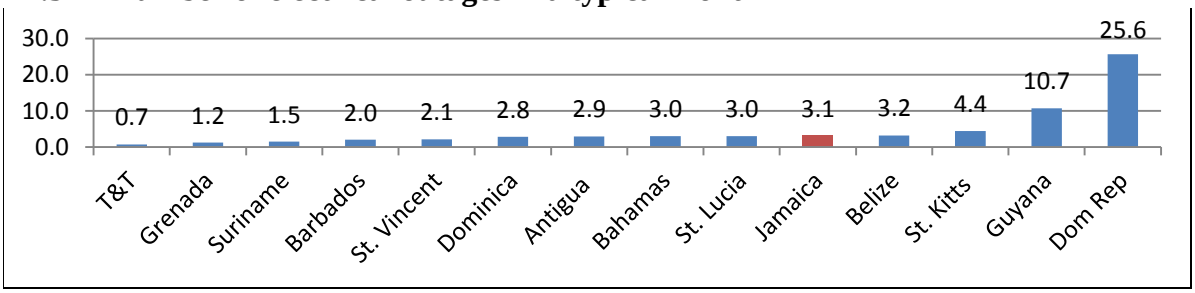
Figures E1.54 and E1.55 indicate that although Jamaica has among the highest number of electrical outages in a typical month, it is not significantly higher than most of the comparator countries, and so does not translate into higher losses as a percent of annual sales. Notwithstanding this, the Global Competitiveness Index gives Jamaica a rank of 81st for quality of electricity supply, placing it significantly below Barbados (26th) and Trinidad (48th) (see table E1.5).

The cost of energy is relatively high in Jamaica. The World Bank (2011) highlights the competitive disadvantage at which high energy costs place Jamaican businesses:

> Electricity prices are much higher in Jamaica than in other Latin American countries, and it may hamper economic growth. The Jamaican government has taken important steps to allow electricity tariffs to reflect all costs, eliminating all subsidies that existed in the past. This policy has increased the price of electricity for residential consumers to United States cents/kWh 17.0 during 2001-2004. The trend for non-residential tariffs is quite similar, even if they were not as affected by the decision to remove subsidies. While there is scope for some efficiency gains, Jamaica's dependence on imported oil renders some of the higher costs inevitable. A high price for electricity in a developing country may significantly hamper economic growth because electricity is a key cost driver both for companies and households…

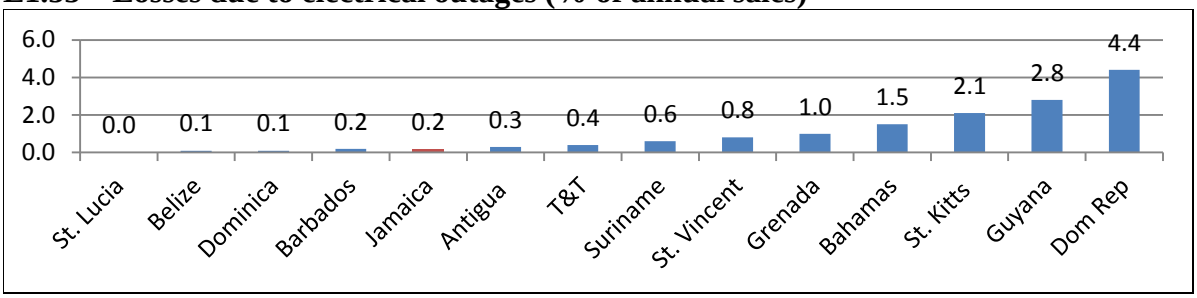
Largely because of the high cost of energy, about a third of the Jamaican firms surveyed in the World Bank's Enterprise Surveys identified electricity as a major constraint. This is a concern that was shared by a large proportion of firms in almost all of the non-oil producing comparator countries (see figure E1.56).

E1.54 – Number of electrical outages in a typical month



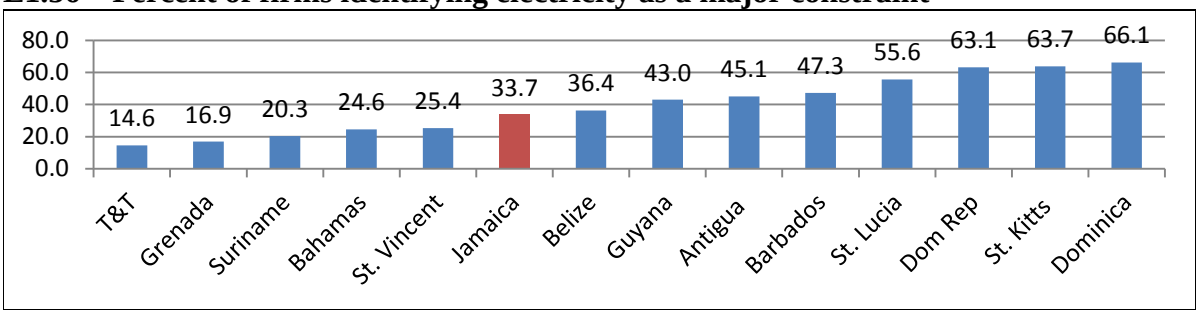
Source: http://www.enterprisesurveys.org/Data

E1.55 – Losses due to electrical outages (% of annual sales)



Source: http://www.enterprisesurveys.org/Data

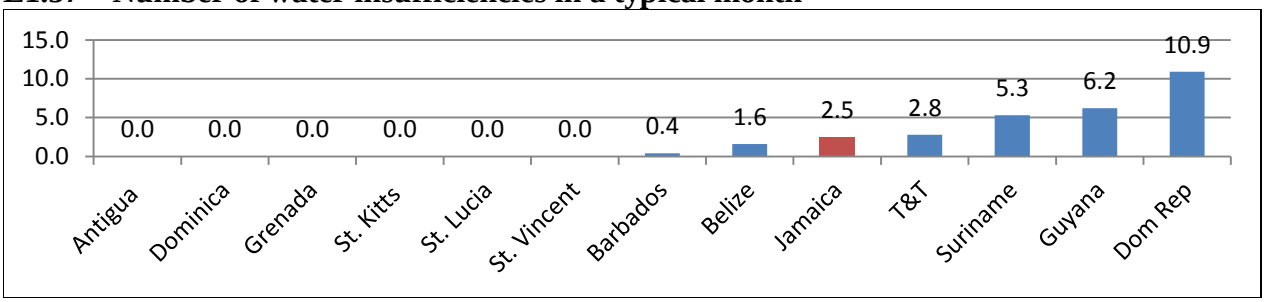
E1.56 – Percent of firms identifying electricity as a major constraint



Source: http://www.enterprisesurveys.org/Data

The regular supply of water is particularly important to firms in the agricultural and hospitality sectors. As shown in figure E1.57, Jamaica has among the largest number of water insufficiencies in a typical month (2.5) in the group of countries studied. This number is, however, not very large, and many firms have put water storage mechanisms in place so as to reduce the effect of water shortages.

E1.57 – Number of water insufficiencies in a typical month



Source: http://www.enterprisesurveys.org/Data

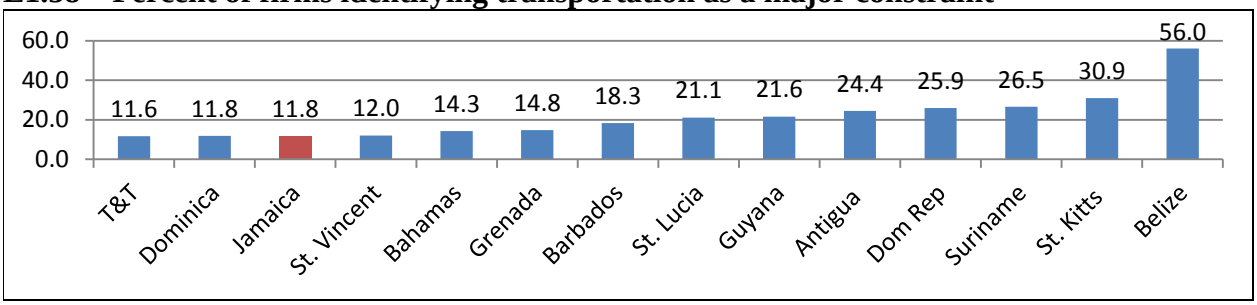
The availability and quality of transportation infrastructure is important to all firms, as it reduces the cost and time that it takes for goods to reach markets and inputs to get to the firm. Rows 2 to 6 of table E1.5 present the Global Competitiveness Index rankings for different types of transportation infrastructure. They indicate that Jamaica has relatively high quality port infrastructure and air transport infrastructure, and has a relatively large number of airline seats available. The country, however, has relatively poor quality roads and railroad infrastructure. The overall quality of infrastructure is thus ranked at 67th, below both Barbados (21st) and Trinidad (63rd). Notwithstanding this, relatively few Jamaican firms identify transportation as a major constraint to their operations (see figure E1.58).

Table E1.5 – Infrastructure Indicators: GCI Rank/142 (2011-2012)

	Jamaica	Barbados	Belize	Dom Rep	Guyana	T&T	Mauritius	Singapore
Quality of Electricity Supply	**81**	26	88	129	115	48	59	4
Quality of Port Infrastructure	**30**	19	115	58	101	84	49	1
Quality of Air Transport Infrastructure	**41**	10	76	53	100	58	55	1
Available Airline Seat kms/week	**74**	84	126	50	135	94	67	17
Quality of Roads	**75**	28	103	70	76	73	62	2
Quality of Railroad Infrastructure	**113**	n/a	n/a	72	84	n/a	n/a	7
Quality of overall Infrastructure	**67**	21	106	110	84	63	59	2

Source: http://reports.weforum.org/global-competitiveness-2011-2012/

E1.58 – Percent of firms identifying transportation as a major constraint



Source: http://www.enterprisesurveys.org/Data

10. The Environment

This section provides an overview of the basic environmental condition of Jamaica. It relies heavily on information presented in the State of the Environment Report produced by the National Environment and Planning Agency (NEPA) in 2010.[51] More current data from the Yale University's Environmental Performance Index (EPI) and the Travel and Tourism Competitiveness report are also used.

The introduction to the State of the Environment Report (2010) provides the context for this discussion:

> 'Jamaica has a remarkable diversity of species and ecosystems, and is an important contributor to the biodiversity of the Caribbean Basin… Jamaica has the highest number of endemic birds and plants of any Caribbean island and is ranked number five in terms of its endemic flora and fauna amongst islands worldwide…
>
> Jamaica's social and economic well-being is dependent on the country's biodiversity. Ecosystems provide many essential services such as the provision of clean water and air, prevention of soil erosion, provision of medicinal plants, nutrient cycling, provision of food and shelter, and the meeting of spiritual, cultural, aesthetic and recreational needs. Large portions of the country's economy are heavily dependent on biodiversity, including tourism, horticulture and agriculture. Intact ecosystems (also)… play an important role in providing cost-effective resilience to the impacts of climate change, including buffering human settlements and activities from the impact of extreme climate events and sea level rise…'

There have, however, been numerous longstanding threats to Jamaica's biodiversity. These include deforestation, wetland destruction, removal of seagrass and coral reef degradation. Population growth, coupled with agricultural, industrial and commercial expansion, has resulted in intense competition for land, leading to encroachment and fragmentation of natural habitats. The country's biodiversity also is impacted by natural processes and events such as erosion and hurricanes, the effects of which are often exacerbated by human activities and practices.[52] The State of the Environment Report (2010) further notes that climate change is likely to increase the negative impacts of these natural events.

[51] http://www.nepa.gov.jm/publications/SOE/2010/State-of-The-Environment-Report-2010-Jamaica.pdf
[52] NEPA (2010)

The Jamaican government has sought to address these challenges through the development of policies and programs to protect the country's biological resources. NEPA (2010) notes that these include 'a permit and licensing system to regulate developments and activities that affect the natural environment, protected area management plans, and species management plans. Furthermore, Jamaica is signatory to the major international environmental agreements that govern various aspects of biodiversity… Appreciation among the general public of the value of biodiversity is increasing, leading to increased action at the community level and heightened demand for action from the country's leaders.'

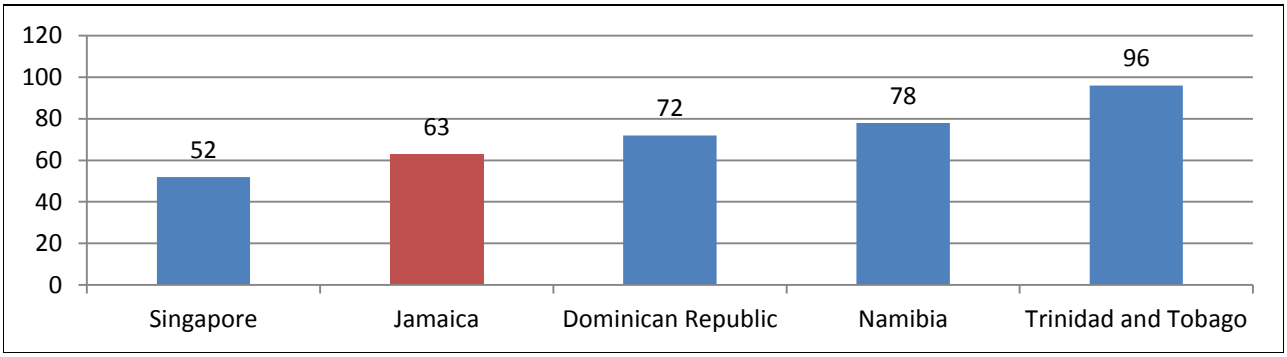
In addition to the state agency responsible for protecting the environment (NEPA), there are a number of very vocal pro-environment NGOs operating in Jamaica. They include the Jamaica Environment Trust (JET) and the Environmental Foundation of Jamaica (EFJ). The JET operates Jamaica's largest environmental education program, the Schools Environment Programme, which has been in continuous operation since 1997. They also deliver a legal programme, providing legal advice to communities affected by environmental issues, and conduct campaigns to protect specific natural resources.[53] The EFJ seeks to provide funding to non-governmental and community based organizations and academic institutions to facilitate the promotion and implementation of activities which will conserve and manage the natural resources and environment of Jamaica and improve and positively impact child development.[54]

Due to the efforts of these and other agencies, there has been an increased focus on improving environmental management in Jamaica. NEPA (2010) notes that between 2008 and 2010 the overall status of Jamaica's ecosystems and natural resources remained fairly constant. 'Key elements of biodiversity remained at the same state in general… The quality of air, coastal and riverine water remained relatively constant, except for an apparent increase in the percentage of river sites meeting nutrient standards… There were reductions in the amount of solid waste generated and hazardous waste exported, which could be attributed to increased focus on waste reduction efforts. And the portion of the energy mix that comes from renewable energy almost doubled, demonstrating a stronger focus on reducing the use of imported petroleum and on developing alternate energy.'

As a result of these efforts, figure E1.59 indicates that Jamaica was ranked 63rd in the 2012 Environmental Performance Index, performing significantly better than the Dominican Republic (72nd) and Trinidad (96th). Figure E1.60 and table E1.6 provides a more detailed breakdown of the environmental indicators, and the rankings show that Jamaica has above-average performance in maintaining ecosystem vitality and biodiversity and habitat, and in its agricultural and fisheries practices. The country also performs well relative to the comparator countries in reducing the environmental burden of disease. Below average performances were recorded in the areas of general environmental health, forestry practices, the effect of climate change, the effect of water on humans and the ecosystem, and the effect of air pollution on humans and the ecosystem. The negative effect of air pollution in Jamaica is further highlighted in figures E1.61 and E1.62, which show the country's relatively low rank for carbon dioxide emissions and particulate matter concentration.

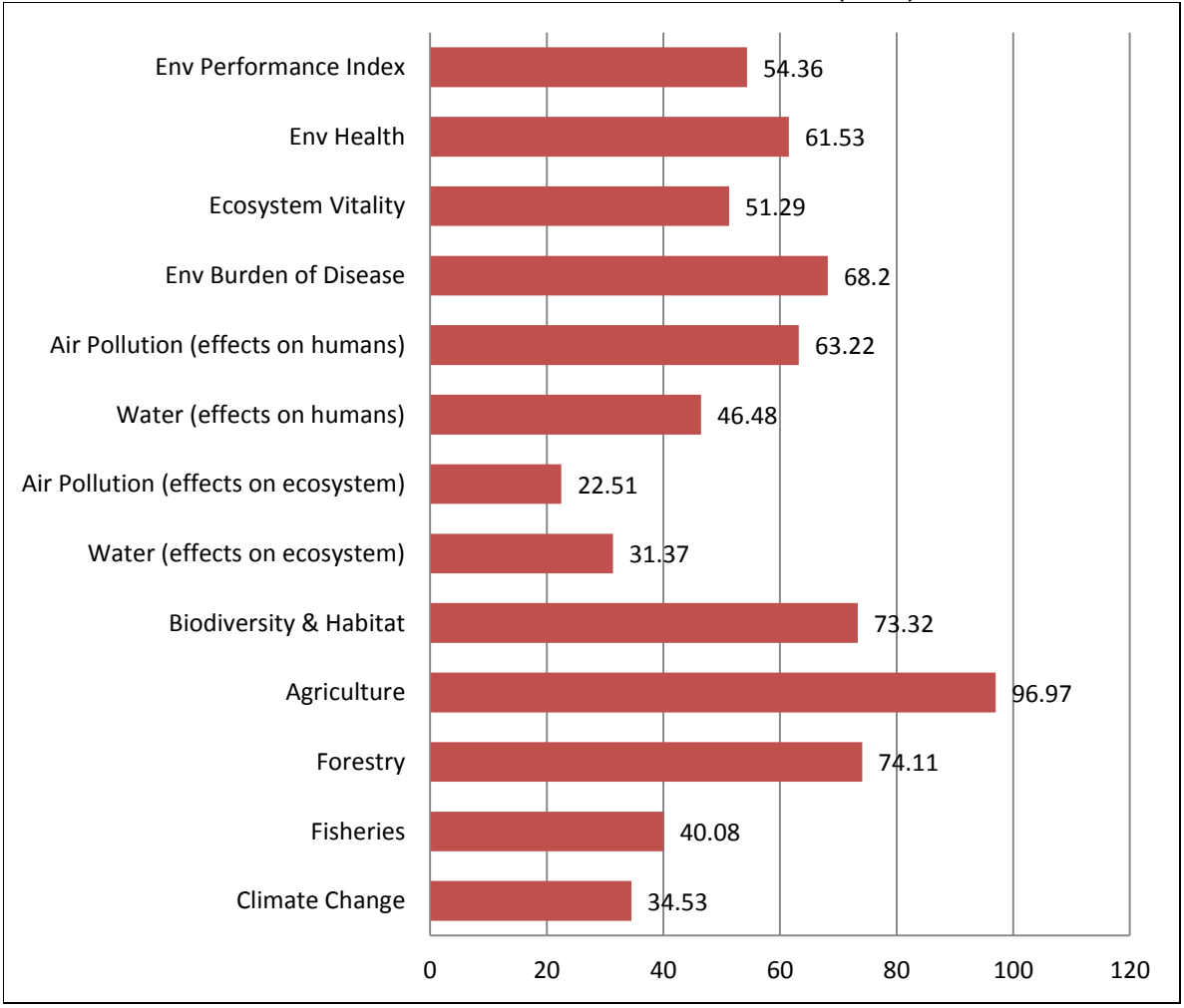
[53] http://www.jamentrust.org/about-us.html
[54] http://www.efj.org.jm/node/373

E1.59 – Environmental Performance Index Rank



Source: http://epi.yale.edu

E1.60 – Environmental Performance Index Scores - Jamaica (2012)



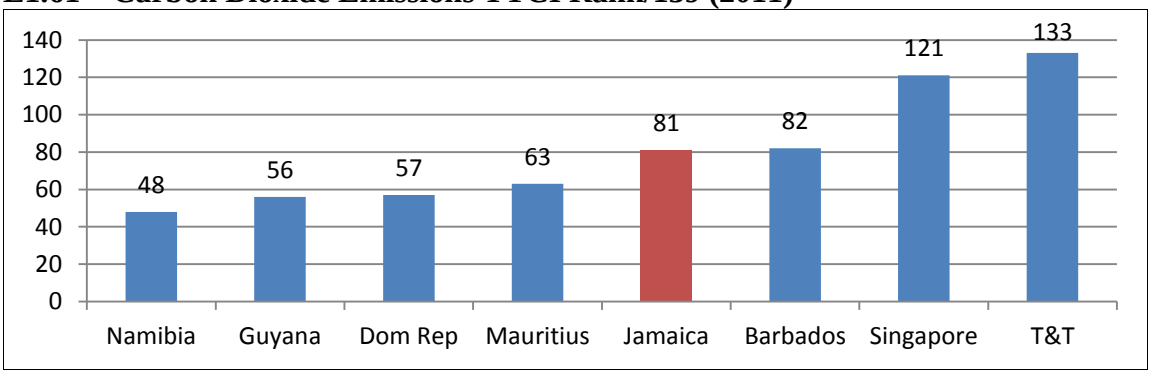
Source: http://epi.yale.edu

Table E1.6 – EPI Indicators - Rank (2012)

	Jamaica	Dom Rep	Namibia	Singapore	T&T
Ecosystem Vitality	58	64	47	109	107
Biodiversity & Habitat	44	84	30	106	50
Agriculture	2	86	26	1	71
Fisheries	13	12	67	87	76
Env Burden of Disease	73	80	102	1	89
Env Health	76	83	102	1	69
Forestry	82	32	110	71	99
Climate Change	85	52	23	99	132
Water (effects on humans)	76	92	96	1	65
Water (effects on ecosystem)	67	87	46	100	63
Air Pollution (effects on humans)	74	66	94	1	1
Air Pollution (effects on ecosystem)	105	66	129	89	54

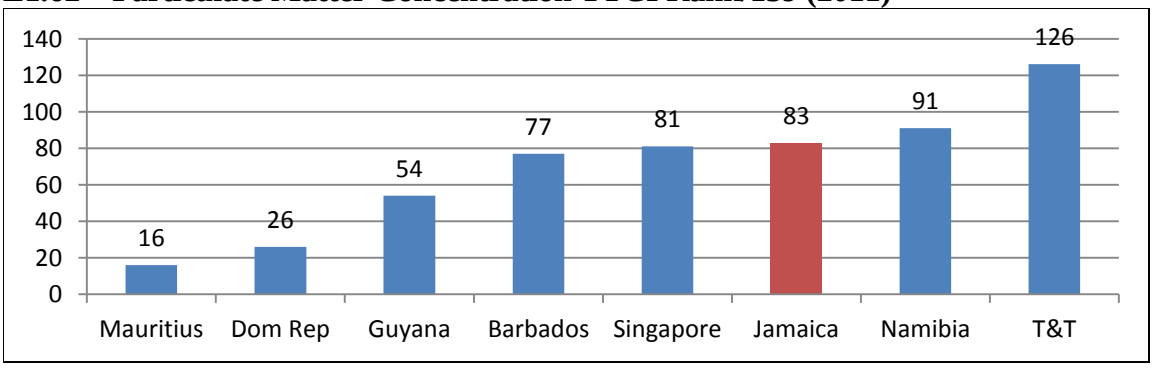
Source: http://epi.yale.edu

E1.61 – Carbon Dioxide Emissions TTCI Rank/139 (2011)



Source: http://www.weforum.org/issues/travel-and-tourism-competitiveness/

E1.62 – Particulate Matter Concentration TTCI Rank/139 (2011)



Source: http://www.weforum.org/issues/travel-and-tourism-competitiveness/

11. Gender

This study has shown thus far that even though private sector development is necessary for addressing a number of social and economic problems, numerous challenges exist in Jamaica. Gendered studies of enterprise development in the Caribbean further note that the environment for the development of women's entrepreneurship is even more constrained than that of men's.[55] This section examines the gender inequalities that exist in the private sector in Jamaica, and the barriers that cause such inequalities. It relies heavily on the situational analysis provided in Jamaica's National Policy for Gender Equality (2010), and on DFID's Scoping Study of Gender and Enterprise Development in the Caribbean (2009). More current data from the Global Gender Gap Index (GGGI) 2011, Gender Inequality Index (2011), the World Bank's Enterprise Surveys (2010), and the Statistical Institute of Jamaica (STATIN 2011) are also provided.

Jamaica's National Policy for Gender Equity (2010) provides the context for this discussion by noting that even though:

> 'Jamaica became the first English speaking country in the Caribbean to achieve universal adult suffrage and to grant women the right to be elected to Parliament… in contemporary Jamaican society, gender remains an indicator of inequality and inequity… Several key national sectors such as education, labor, manufacturing, trade, health and security are distorted because of the disproportionate gender distributions and this hampers the country's development.
>
> The 2009 Economic and Social Survey of Jamaica (ESSJ), states that women make up 50.7% of the population, however, they are woefully under-represented in the public and private decision making spheres of the country. Although Jamaica has made an international commitment by way of the Millennium Development Goals (MDG) to have at least 30% of women in parliament by 2015, the figure currently stands at 14%. Furthermore, a 2008 study found that women only constituted 16% of places on the boards of publicly listed companies and that 42.3% of these women reported being on multiple boards.
>
> The 2009 ESSJ further notes that although the current enrolment rate of women (40.7%) in tertiary institutions is roughly twice that of men (20.3%), females outperform males at all levels of the educational system and the job seeking rate of women (9.0%) is greater than that of men (5.8%) – the female unemployment rate stands at 14.8% compared to the male unemployment rate of 8.6%. Despite a numerical and skill advantage, women are unable to command a fair and equitable position in the labor market.'

'In Jamaica, more women than men live in poverty and far more women are unemployed, despite their educational gains. Gender is a cross-cutting issue in all aspects of social and economic life in Jamaica. Gender roles limit the realization of the full potential of both males and females. Women have made considerable progress in Jamaica, but males have fallen behind in the education and health systems and are more susceptible to violence. Females out-perform males at every level of the educational system. In spite of this, their superior qualifications are not reflected in the labour market, where males have lower unemployment rates, earn higher wages and occupy higher professional and managerial levels.' *UNDP (http://www.jm.undp.org/content/gender-equality)*

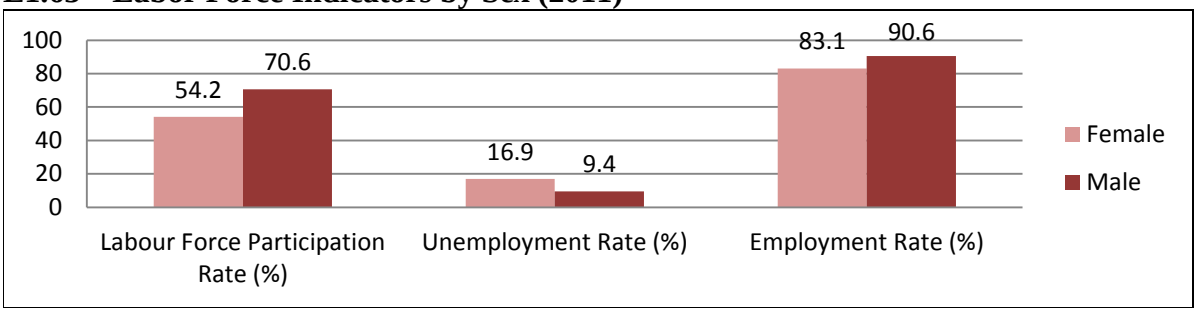
[55] Scoping Study of Gender and Enterprise Development in the Caribbean: Volume 2 Background Papers and Appendices (2009)

The situation in Jamaica is not dissimilar to what occurs in the rest of the Caribbean. DFID's Scoping Study of Gender and Enterprise Development in the Caribbean (2009) notes that:

> 'The situation of gender in the Caribbean is one characterized by low levels of labor market participation by women, and where activity is seen, it is mostly as employees and concentrated in low-growth, low-status, low-paying sectors. The reason proffered for this occurrence is a high level of gender stereotyping across the Caribbean which has led to women being segregated educationally, and consequently occupationally and sectorally, this is despite women dominating tertiary enrolment across the region. Gender stereotyping has assigned women a dominant role in the reproductive sector, and any activity in the productive sector is closely linked to their role in the home and community. As women's work in the home is low in status and power, the same is seen in work outside the home. Such ideologies are pervasive across the Caribbean for both men and women.
>
> Added to this ideological constraint, which has implications for access to resources (especially education and finance), is a low level of social valuation of entrepreneurship for both men and women. However, coupled with gender stereotyping and women's role in the labor force, the environment for the development of women's entrepreneurship is even more constrained to that of men's. The result of these factors has led women's enterprises to be constrained to low growth sectors associated closely with the home and informal in nature. The effect of this concentration, accompanied by gender stereotyping by service providers, is a constraint in access to productive resources (physical and human capital), precluding the exploitation of opportunities for innovation and enhanced competitiveness.

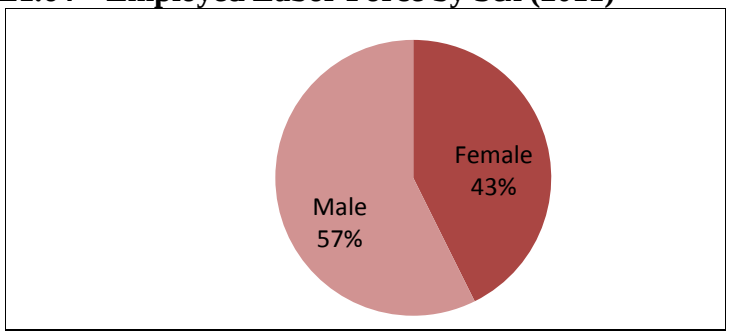
Some of these trends are clearly evident in Jamaica and have been alluded to in previous sections. Figures E1.63 and E1.64, summarize the country's labor force indicators by sex, and show that the labor force participation rate and employment rate are considerably higher for men than for women, while the unemployment rate is higher for women than men. When the state of the private sector was discussed in section C, it was also shown that 25% of working women are employed in the wholesale and retail trade sector and are likely to be employees in wholesale or retail establishments or own-account workers operating as non-store retailers. Outside of the wholesale and retail trade, women tend to be involved in education, working as household helpers, hotel and restaurant services, agriculture, and other community, social and personal services. Apart from their involvement in the hotels and restaurant sector and possibly the education sector, many of the employment activities in which women are involved would seem to trend towards being in smaller scale and possibly informal firms (see figures C1.5 and C1.6).

E1.63 – Labor Force Indicators by Sex (2011)



Source: STATIN website

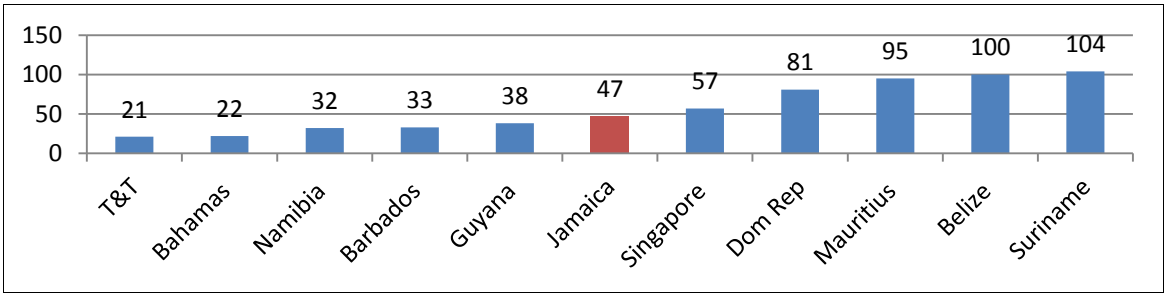
E1.64 – Employed Labor Force by Sex (2011)



Source: STATIN website

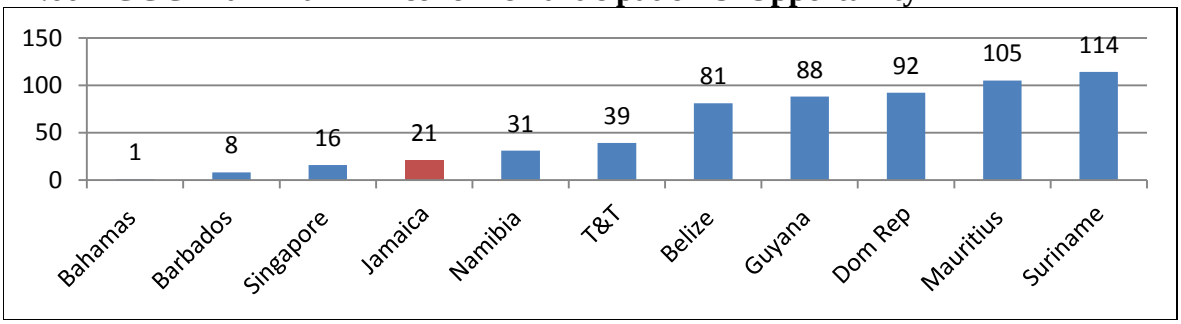
Jamaica's performance relative to the comparator countries in achieving gender equity has been moderate. Figures E1.65 to E1.69 present the rankings based on the Global Gender Gap Index (GGGI) (2011). Jamaica's overall GGGI rank of 47th placed it in about a median position relative to the comparators. It, however, is noteworthy that the country performed worse in this index than Trinidad (21st), the Bahamas (22nd), Barbados (33rd) and Guyana (38th). This is in spite of receiving relatively high ranks for economic participation and opportunity (21st), and health and survival (1st). Low ranks were received for political empowerment (92nd), and educational attainment (83rd).

E1.65 – GGGI 2011 Rank - Overall



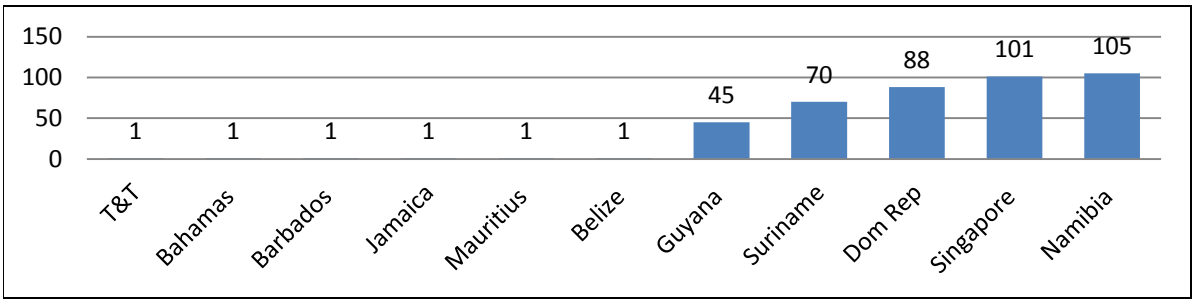
Source: http://reports.weforum.org/global-gender-gap-2011/

E1.66 – GGGI 2011 Rank - Economic Participation & Opportunity



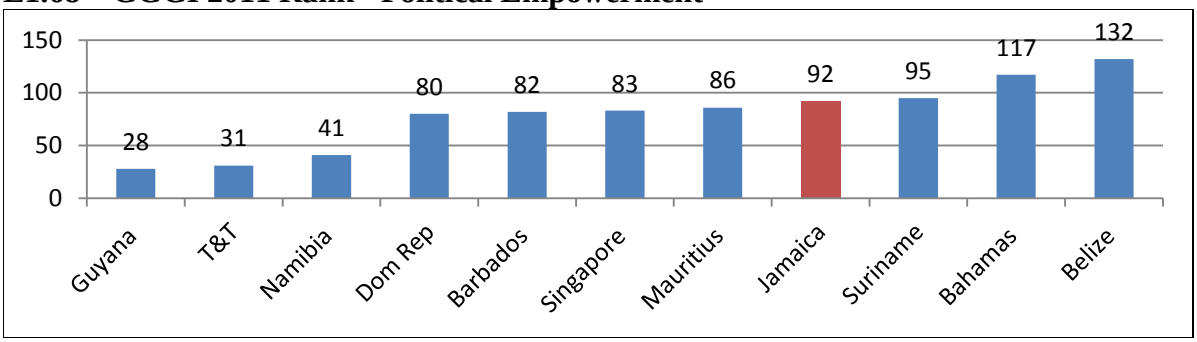
Source: http://reports.weforum.org/global-gender-gap-2011/

E1.67 – GGGI 2011 Rank - Health & Survival



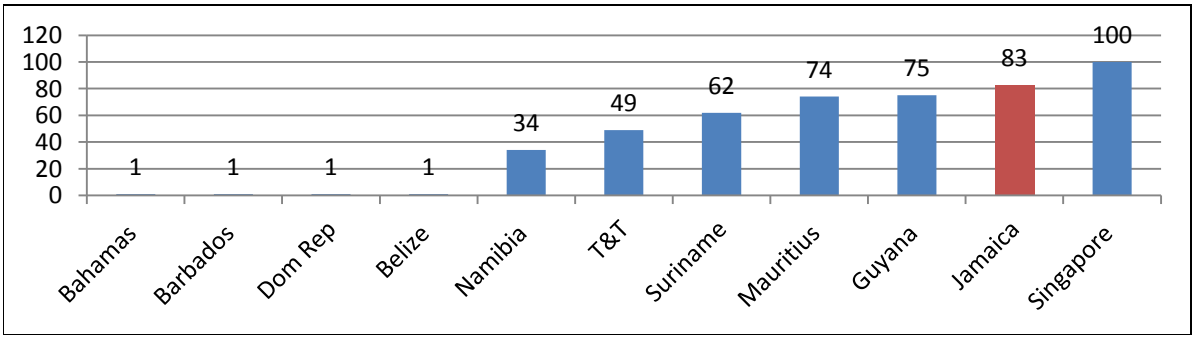
Source: http://reports.weforum.org/global-gender-gap-2011/

E1.68 – GGGI 2011 Rank - Political Empowerment



Source: http://reports.weforum.org/global-gender-gap-2011/

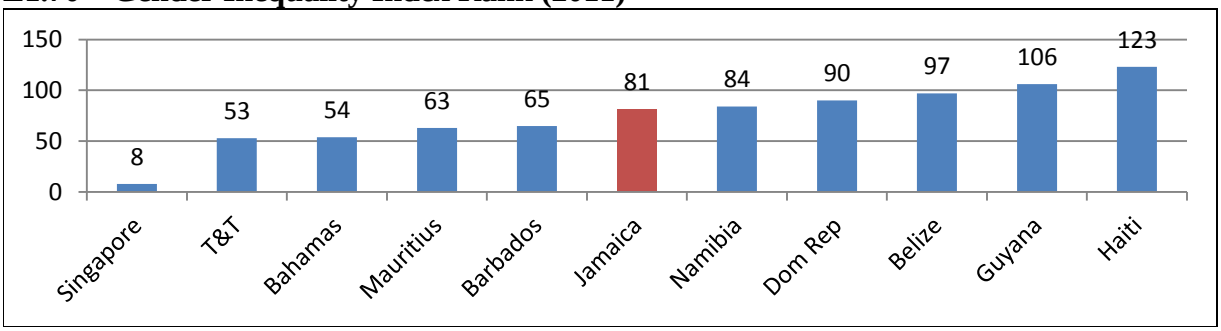
E1.69 – GGGI 2011 Rank - Educational Attainment



Source: http://reports.weforum.org/global-gender-gap-2011/

Similar trends were evident in the Gender Inequality Index Rank and Indicator values (see figure E1.70 and Table E1.7). With a rank of (81st), Jamaica was in the median position among the comparator countries, again being outperformed by Trinidad (53rd), the Bahamas (54th) and Barbados (65th). This rank was based on having a relatively high proportion of females with at least a secondary education, and a female labor force participation rate (relative to that of men) that was higher than all the regional comparator countries, except for Barbados and the Bahamas. Jamaica's maternal mortality ratio, although being lower than that of Belize, the Dominican Republic, Guyana and Haiti, was significantly higher than that of the Bahamas, Barbados and Trinidad. Jamaica also performed relatively poorly with respect to the share of seats held by women in parliament, and the high adolescent fertility rate.

E1.70 – Gender Inequality Index Rank (2011)



Source: http://hdr.undp.org/en/statistics/gii/

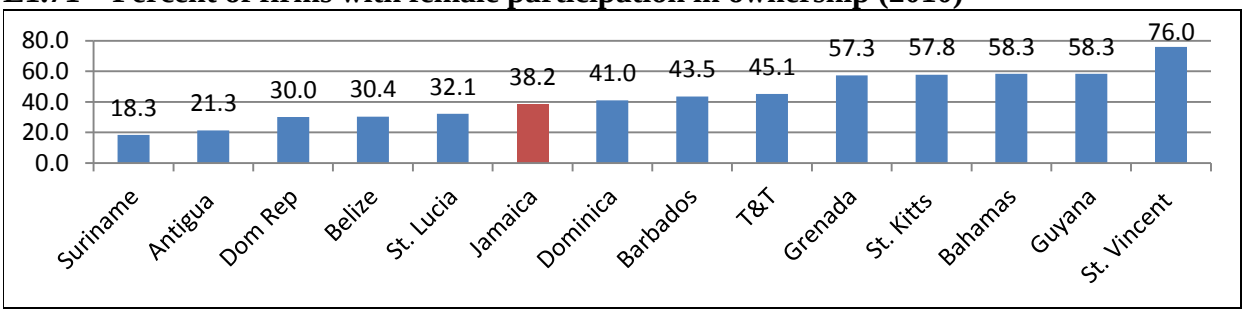
Table E1.7 – Gender Inequality Index Indicators (2011)

	Jam	B'mas	B'dos	Bel.	Dom R.	Guy.	Haiti	Maur.	Nam.	Sing.	T&T
Gender Inequality Index	0.45	0.332	0.364	0.493	0.48	0.511	0.599	0.353	0.466	0.086	0.331
Population with at least secondary education (Ratio of female to male rates)	1.041	1.041	1.022	1.073	1.188	0.975	0.619	0.854	1.075	0.885	1.016
Labour force participation rate (Ratio of female to male shares)	0.757	0.868	0.843	0.588	0.633	0.551	0.694	0.546	0.828	0.711	0.705
Maternal mortality ratio (deaths of women per 100,000 live births)	89	49	64	94	100	270	300	36	180	9	55
Shares in parliament, female-male ratio	0.191	0.217	0.244	0.125	0.236	0.429	0.043	0.232	0.333	0.306	0.377
Adolescent fertility rate (births per 1,000 women aged 15-19)	77.3	31.8	42.6	78.7	108.7	68.3	46.4	35.4	74.4	4.8	34.7

Source: http://hdr.undp.org/en/statistics/gii/

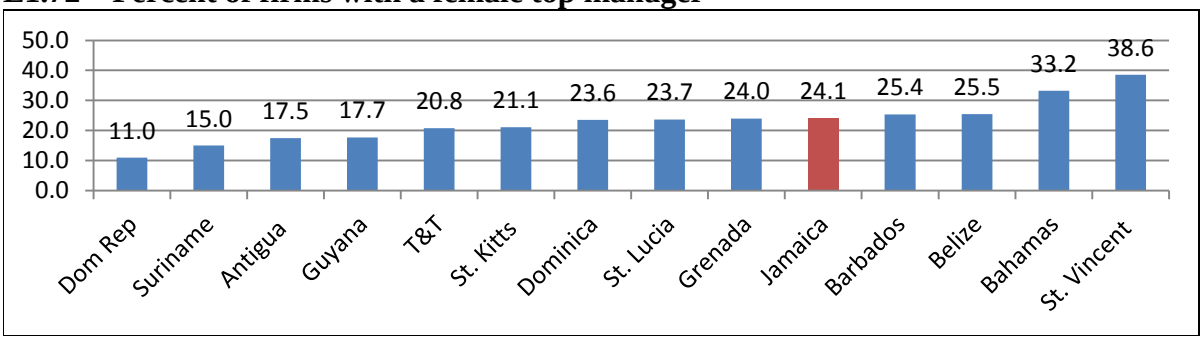
Figure E1.71 indicates that 38.2% of Jamaican firms are owned by women or have female participation in the ownership. This is low relative to most of the comparator countries from the Caribbean, with countries such as Barbados (43.5%), Trinidad (45.1%), the Bahamas (58.3%) and Guyana (58.3%) having significantly larger percentages of firms with female ownership. The ceiling effect is clearly seen when figure E1.71 is compared with figures E1.72 and E1.73, as even though few firms are owned by women, a significant percentage of them (relative to the comparator countries) have women as the top manager (24.1%), and employ a relatively large share of women as permanent full-time workers (44.5%).

E1.71 – Percent of firms with female participation in ownership (2010)



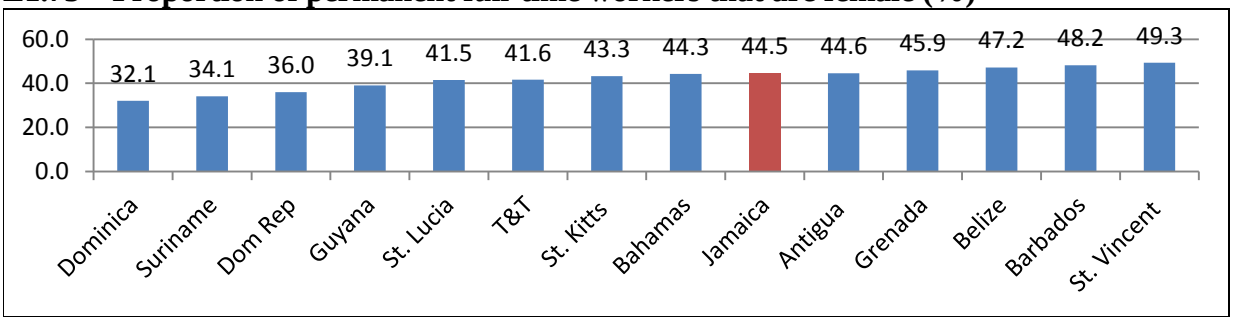
Source: http://www.enterprisesurveys.org/Data

E1.72 – Percent of firms with a female top manager



Source: http://www.enterprisesurveys.org/Data

E1.73 – Proportion of permanent full-time workers that are female (%)



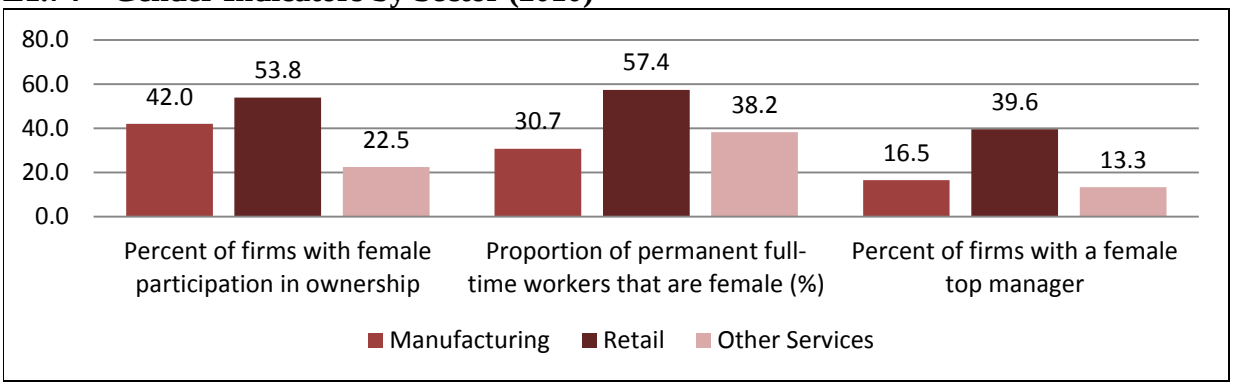
Source: http://www.enterprisesurveys.org/Data

When the above gender indicators are broken-down by sector, size and country of ownership in figures E1.74 to E1.76, clear trends are revealed. Women dominate in the retail sector, with 53.8% of retail firms being owned by women, and 39.6% of firms having a woman as top manager. Firms in the retail sector also employ more female than male full-time employees. The manufacturing and other services sectors, however, tend to be dominated by men.

With respect to size, more than half (56.5%) of the medium-sized firms are owned by women, and a significant percentage of medium-sized firms have women as the top manager (29.5%). Large and small firms have significantly smaller percentages in both of these categories. Notwithstanding this, all sizes of firms employ similar shares of female full-time employees.

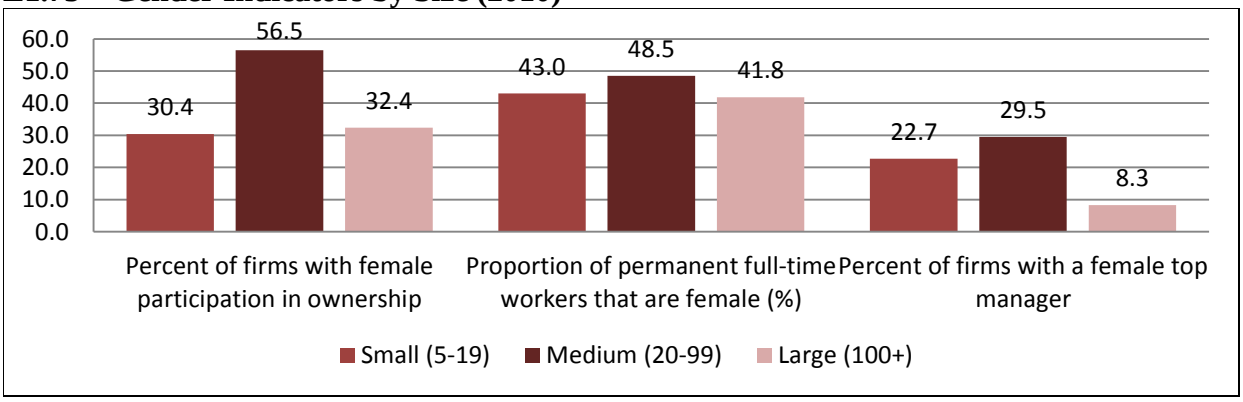
Finally, figure E1.76 suggests that the influx of foreign-owned firms to Jamaica significantly contributes to the full-time employment of women (with more than half of their workers being female). These firms, however, perpetuate the dominance of men in the ownership and management levels, with only 27.1% of foreign-owned firms having female ownership and 7.4% having women as top managers.

E1.74 – Gender Indicators by Sector (2010)



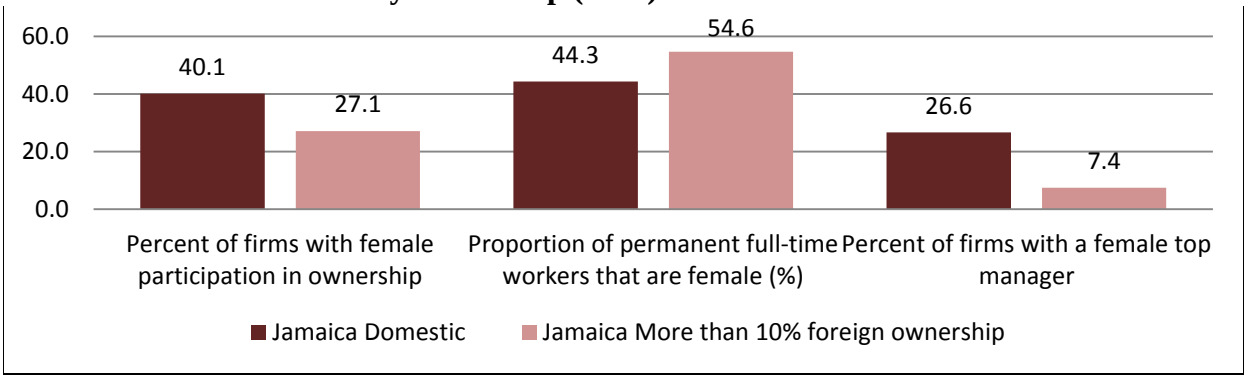
Source: http://www.enterprisesurveys.org/Data

E1.75 – Gender Indicators by Size (2010)



Source: http://www.enterprisesurveys.org/Data

E1.76 – Gender Indicators by Ownership (2010)



Source: http://www.enterprisesurveys.org/Data

This analysis has clearly shown the need for improved gender equity even as the efforts to foster private sector development continue. There are, however, barriers to such equity that need to be addressed. The barriers listed below have been extracted from the DFID's Scoping Study of Gender and Enterprise Development in the Caribbean (2009) and Jamaica's National Policy for Gender Equity (2010):

1. Gender stereotyping affects all areas from education to health to the labor market. Women are underrepresented at the highest levels of business and society due to entrenched gender ideologies and concepts of leadership. While no formal barriers to female participation in education and the labor force are in existence, it appears that the informal barrier of gender stereotyping is leading to women being channeled into certain educational areas and consequently occupational categories and sectors. The process of removing these stereotypes is considered to be a slow and continuous process.

2. There is resistance to considering gender as a national development indicator. Many Jamaicans still believe that gender singularly refers to women and gender empowerment results in the marginalization of men in society. It is this belief that fuels skepticism around a gendered development approach and the failure to recognize that when men remain in key positions of power in every strata of society gender inequality is reproduced even to the detriment of other men.

3. There is a deficit in the sex-disaggregated data that is available nationally to support policy and law making and implementation to achieve gender equality. In order to understand how gender influences the lives of citizens, this information must be regularly collected and analyzed.

4. Access to finance for women is one of the central barriers due to:

    - Lack of required collateral to access credit from commercial banks. In Jamaica, in some cases women have access to the use of collateral, but it is not in the name of the women, but in the name of family or husbands.

    - A lack of business skills among entrepreneurs to enable them to communicate with finance providers, or deal with their bureaucratic conditionalities (hence an overreliance on more informal financing sources).

    - A lack of initiatives for graduation from informal to formal financing institutions perpetuating the small and micro stages of business.

5. Women's businesses being considered as too small scale, and women not being entrepreneurial.

6. A lack of graduation from welfare-orientated support programs to more market-led support.

These challenges must be addressed if gender equality is to be advanced in Jamaica's efforts at private sector development. Many of the next steps are self-evident, and are articulated in the country's National Policy for Gender Equity (2010). Noteworthy initiatives include: continued efforts at reducing gender stereotyping through education; utilizing gender as a national development indicator and continued efforts at changing the negative perceptions associated with a gendered development approach; collection and use of gendered data to assist in public education and policymaking; and enhanced support to associations such as the Women Business Owners Jamaica Limited (WBO) and the Jamaica Network of Rural Women Producers (JNRWP) so that they can provide the training and facilitation needed to enhance access to finance and opportunities for growth.

Importantly, as noted in the DFID's Scoping Study of Gender and Enterprise Development in the Caribbean (2009), future efforts to advance gender equality in the private sector should acknowledge the fact that men and women demonstrate different entrepreneurial characteristics, and practice entrepreneurship differently. Support efforts should thus avoid approaches that solely conform to the masculine conceptualization of entrepreneurship, but should seek to incorporate approaches that take advantage of women's alternate approach to entrepreneurship.

12. Analytical Remarks

The comprehensive analysis conducted in this section clearly indicates that there are several problems with the Jamaican business environment that negatively impact on Jamaican businesses' competitiveness and private sector development. These issues have been broadly categorized below, and listed in the general order of issues highlighted by Jamaican firms to be their biggest obstacles in the World Bank's Enterprise Surveys (2010):

- Tax Rates and Administration
- Cost and Supply of Energy
- Access to Finance
- Practices of Informal Sector
- Crime
- Trading Across Borders (Lack of Diversification, Import Dependence & Inefficient Institutions)
- Corruption
- Labor Market Inefficiency and Productivity
- Construction and Ownership of Property
- Protection of Investors

Any one of these problems can be viewed as a major obstacle to private sector development and needful of serious attention. It is therefore not surprising that Jamaican businesses face significant challenges in being productive. These businesses not only face challenges from the abovementioned business environment, but also from a stagnating economy with an uncertain medium-term outlook, a susceptibility to external shocks, and a domination of international trade patterns in the goods-producing sectors that are likely to adversely affect growth prospects.

In a business environment wherein macroeconomic challenges and susceptibility to external shocks already increase uncertainty, strong institutions are needed as a countervailing force. Whereas the Jamaican government has made some progress in improving some of its institutions, the best performing institutions are still not world-leaders, and, more importantly, the worst performing institutions are particularly poorly rated and impede private sector development. In this respect, the government has much work to do in improving the public perception and trust of politicians and public officials. More fundamentally, greater progress is needed in reducing public sector wastefulness, corruption and burdensome regulation. The burden of crime in Jamaica must also be reduced.

Jamaica is a highly entrepreneurial society, with a relatively large private sector and relatively high level of early-stage entrepreneurial activity. The large number of MSMEs operating in Jamaica, and particularly necessity-driven own-account workers, however, speaks volumes to the types of activities being conducted by significant portions of the private sector. The retailing of merchandise (without much, if any, transformation) and small-scale farming are the types of low-value added activities that many own-account workers and microenterprises are involved in.

In this environment, opportunities for future growth do not abound. The World Bank (2011) notes that even the fast growth services sectors in Jamaica are beset by challenges that could impede the country's development prospects, and that the overall productive structure of Jamaica is a source of concern. In Latin America and the Caribbean, only Trinidad and Tobago has a lower potential than Jamaica for producing new goods for export. Even in areas of apparent comparative advantage, such as tourism, Jamaica has lagged international competitors. There is no avoiding the conclusion that significant business environment reforms, along with sustained efforts at macroeconomic stability and fiscal discipline, are needed in Jamaica if private sector development is to yield the expected returns to growth and development.

CHAPTER 2 – FACTORS AFFECTING INNOVATION AND TECHNOLOGY USAGE IN THE JAMAICAN PRIVATE SECTOR

INTRODUCTION - The Importance of Innovation and Technology to Firms in Caribbean Small Island States

Globalization brings opportunities and pressures for domestic firms to innovate and improve their competitive position.[56] Successful enterprises are required to respond quickly to the latest developments affecting their sectors. Their ability to respond to such developments is contingent upon their capacity for innovation. This capacity is determined by the ability of a firm to combine technology, managerial entrepreneurship, employee skills and business organization to service markets and interact with customers and suppliers.[57]

Innovation is a knowledge-driven process, with the accumulation and assimilation of relevant knowledge being driven by the effective incorporation of science and technology in business contexts.

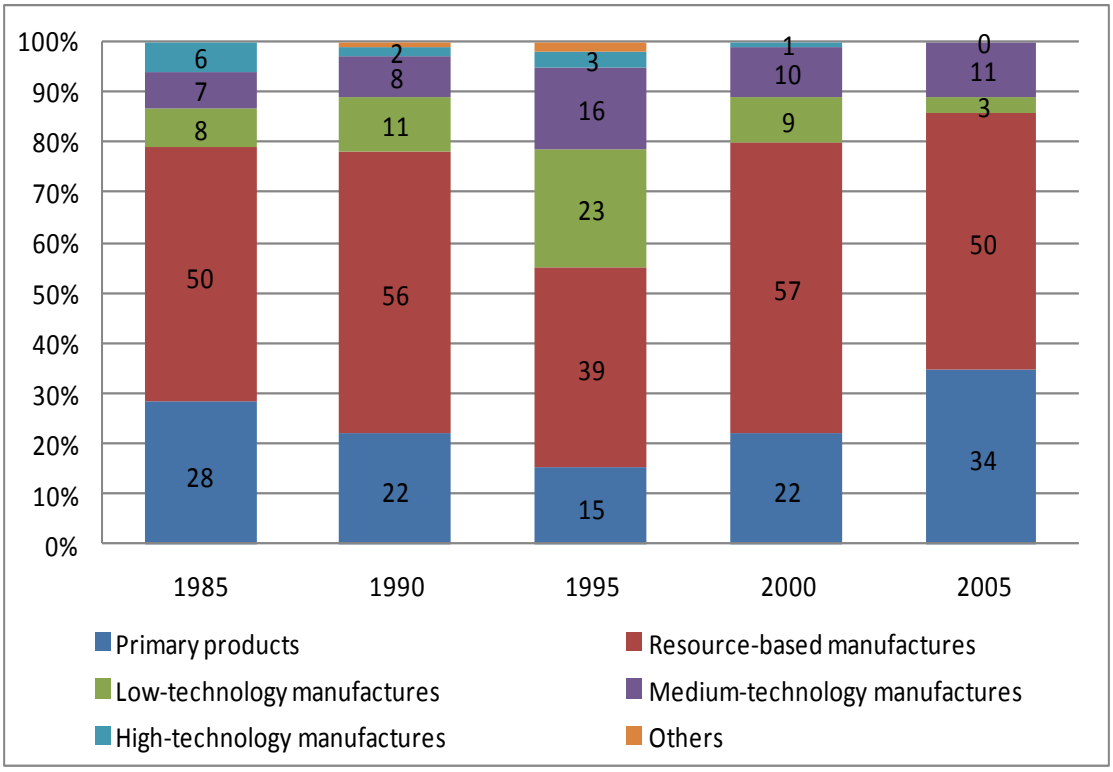
Caribbean firms are in the unenviable position of needing to innovate in order to survive in increasingly competitive markets, but finding it difficult to do so because of numerous challenges faced. The typically small size and high labor costs of Caribbean economies make their firms 'unviable when competing with the scale and low labor costs of giants like India and China - or even high labor but low total cost environments such as the United States and Canada.' Increased productivity through innovation and technology usage are typically the most feasible ways of combating such challenges. But in the Caribbean, other challenges militate against enhanced innovativeness. These include, *inter alia*, high telecommunications and energy costs, and an entrepreneurial class that has grown accustomed to success through lobbying efforts and taking advantage of trade preferences.[58]

As lobbying opportunities and trade preferences disappear, many Caribbean firms are 'inadequately prepared to tackle global competition and serve sophisticated consumers abroad' (World Bank 2006). This is because they are now significantly lagging behind world-leading standards in terms of the production technologies used. This is clearly illustrated in figure 2.1, which highlights the goods exports of the Caribbean region classified by the level of technology used in their production. Even though production of low-technology exports had declined

[56] Gorodnichenko et al (2008)
[57] ECORYS (2005)
[58] World Bank (2006)

significantly between 1985 and 2005, this was not because technology usage was increasing, but was due to increased reliance on primary product exports. Over the review period, the region's production of high-technology manufactured goods was negligible and declining, and the production of medium-technology manufactured goods averaged only 10% of total exports. By contrast, primary products comprised 34% of the region's goods exports in 2005, up from 28% in 1985, and resource-based manufactures comprised half of the region's total goods exports at the beginning and end of the review period.

Figure 2.1 – Technological Classification of Caribbean Goods (% of Total Exports of Goods)



Source: World Economic and Social Survey (2008)

The above table focused on goods exports, but with a few exceptions, the Caribbean region relies very heavily on the export of services, particularly tourism, for its economic survival. Traditionally, however, the service sectors have not been viewed as being highly innovative or even open to innovation. This view is largely based on a lack of data and empirical evidence on innovation in services, with the concomitant emphasis on innovation in manufacturing. The growth in service industries in the developed world has, however, caused a rethinking of the traditional view, with the EU, for example, dedicating considerable effort to exploring the 'transformative power of service innovation'.[59]

[59] Tacsir et al (2011)

'Nowadays, technology and innovation are increasingly recognized as major forces behind the growth of services. Therefore, there is a growing interest in the study of innovation in the services sector and its importance as an engine of economic growth. Recent work for developed countries confirms that services are more innovative than previously thought… and that some sectors are more innovative than the manufacturing sector' (Tacsir et al 2011).

So, how innovative are Caribbean service-providers? That question is difficult to answer because of the aforementioned lack of data and empirical studies on the area. An IDB background paper produced for The Caribbean Policy Dialogue (2011), however, noted that 'the service sector in LAC has not been keeping up with the level of growth in developed economies or rapidly emerging economies in Asia… Underperformance has been cited as dragging overall relative productivity levels downward in Latin America and the Caribbean.' It was thus concluded that 'Latin America and the Caribbean (LAC) faces an urgent need to support firm innovation in the service sector as a means to increasing aggregate productivity levels and economic growth.' [60]

Caribbean firms are thus shown to be lagging behind world-leading standards of innovativeness in both the manufacturing and service industries. This affects their productivity and ability to compete in global markets. Although the solution – increased firm innovation – is clear, it is not necessarily easily achievable. In an important study conducted by Aghion et al (2005), evidence of an inverted-U relationship between product market competition and innovation was found. This indicates that 'competition discourages laggard firms from innovating but encourages neck-and-neck firms to innovate.' This finding has dire implications for the many Caribbean firms that have significantly lagged behind the frontiers of innovation. Equally dire is their prediction that 'the average technological distance between leaders and followers increases with competition.' The implication is that if left alone to survive in competitive markets, Caribbean firms will not only be discouraged from innovating, but will continue to fall further behind more technologically advanced competitors, and will eventually be forced out of the market.

A case can therefore be strongly made for the provision of policy support to foster the increased innovativeness of Caribbean firms. This is particularly so because of the systemic challenges to innovation that such firms face. One such challenge is the misperception that small service-oriented firms do not or cannot engage in technology-driven innovation, as such activities require them to be at the world frontier of science and technology and to implement radical innovations. There is insufficient recognition of the numerous different types of incremental improvements in practice that constitute innovation.[61]

[60] Tacsir et al (2011). Please see box A.1 in the appendix for further information on innovation in the services sector.

[61] Contemporary studies highlight four categories of innovation:

- Product innovation – changes in the things (products/services) which an organization offers;
- Process innovation – changes in the ways in which things (products/services) are created and delivered;
- Position innovation – changes in the context in which the products/services are introduced, i.e. by repositioning the perception of an established product or process in a particular user context; and
- Paradigm innovation – changes in the underlying mental models which frame what the organization does (Bessant and Tidd 2007). Please see box A.2 in the appendix for further information on the types of innovation and competitive advantages that can be derived.

Mann (2007) notes that there are two broad categories of innovation: (i) blue-sky, radical innovations; and (ii) integrative and transformative innovations. 'Blue-sky innovations push out the economy's frontier—its capacity to produce more goods and services with the same existing resources. Integrative and transformative innovations create new products, business strategies, and workplace practices that are needed before the economy actually can reach the new frontier.' Whereas blue-sky innovations tend to be more prevalent in large firms with well-funded R&D programs, integrative and transformative innovations are regularly incorporated by innovative entrepreneurs (of all sizes and in all sectors) seeking to meet market needs.

'Blue-sky, radical innovation may be more basic research-oriented, and therefore may be more driven by government funding, intellectual spirits, and university laboratories. Integrative and transformative innovations, on the other hand, may be driven more by the ability of new and current businesses to create products and processes that meet new interpretations of market needs. The latter is highly a function of the entrepreneurial spirit and of the business and policy environments' (Mann 2007).

Irrespective of the type of innovation being pursued, the entrepreneurial function is to bring together market opportunities with technological opportunities. It requires an ability to combine knowledge from these different sources, to see in them a new profit opportunity, and to carry this opportunity into practice. Without a capability to combine these complementary kinds of knowledge, innovation does not occur.

There are four factors that shape this process of innovation, which must become the targets of innovation policies for Caribbean countries:

- *Opportunities* – depend on the combination of technological and market ideas to identify a new product, process or method of organization;
- *Incentives* – depend on the expectation of profits sufficient to compensate for the risks in relation to the capital invested;
- *Resources* – include not only the elements of formal R & D but also all the complementary assets required to transfer ideas into practice; and
- *Capabilities* – relate to the knowledge skills and organization of firms involved in the management of the innovation process.

In addition to the above four factors, the literature highlights four key players that are integral to the translation of innovation into economic well-being:

- '*Educated customers* (consumers and businesses) to demand and buy the new products;
- A *financial sector* willing to take risks on new ideas;

- A *business climate and managers* desirous of using new methods; and
- *Workers* able to complement the innovations in the workplace.'[62]

It is thus clear that in small Caribbean economies, with predominantly small firms which have relatively miniscule R&D budgets, innovation will not be driven solely by forward-thinking entrepreneurs. Innovation and technological progress will only result from the effective interaction between a complex set of actors producing, distributing and applying various kinds of knowledge. The innovative performance of such countries depends to a large extent on how these actors relate to each other.[63] Because most small firms are unable to conduct R & D internally, their innovative performance is particularly dependent on the effective functioning of the National Innovation System (NIS).

This chapter seeks to identify the factors affecting innovation and technology usage in the Jamaican private sector. The Jamaican case study is, however, not atypical of the broader Caribbean experience that has been described in this section. It is thus in that context, that the next section will describe and assess the national innovation system in Jamaica, with emphasis on government and public sector bodies responsible for fostering innovation. Subsequent sections will then assess the use of technological innovation in Jamaican firms and the adequacy of the IPR framework, and suggest policy initiatives for the improvement of such.

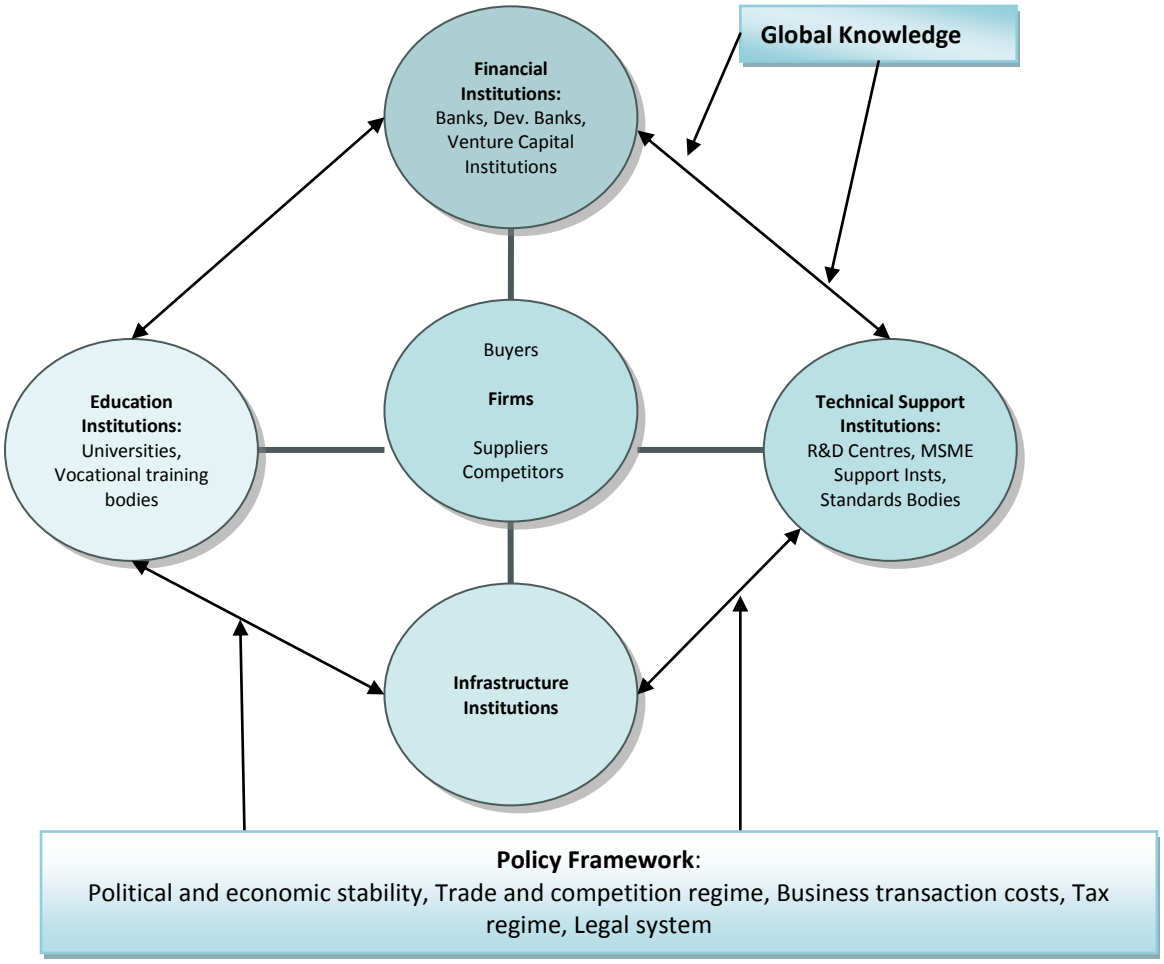
DESCRIPTION OF THE NATIONAL INNOVATION SYSTEM IN JAMAICA

'The concept of national innovation systems rests on the premise that understanding the linkages among the actors involved in innovation is key to improving technology performance' (OECD 1997). As indicated in figure 2.2, these actors include not only the enterprises that incorporate the system's output in their production and distribution processes, but also educational institutions (such as universities and vocational training agencies), institutions that provide technical support (such as centers for research and development, MSME support centers, and standards-setting bodies), and financial institutions. The entire system is also bolstered by an effective policy framework that maintains political, macroeconomic and social stability, minimizes business and transaction costs, enhances competitiveness and international trade, and reduces government bureaucracy.

'Systemic approaches are giving new insight into innovative and economic performance in the OECD countries. Technology-related analysis has traditionally focused on inputs (such as research expenditures) and outputs (such as patents). But the interactions among the actors involved in technology development are as important as investments in research and development. And they are key to translating the inputs into outputs. The study of *national innovation systems* directs attention to the linkages or web of interaction within the overall innovation system' (OECD 1997).

[62] Mann (2007)
[63] OECD (1997)

Figure 2.2: National Innovation Systems (NIS)



Source: Wignaraja (2003)

'The concept of national innovation systems has been increasingly used by international organizations as an analytical framework for the study of technological change. It has also attracted growing interest by policymakers around the globe as a means to derive technology policy measures, aiming to improve the organization of innovation processes on the national level' (Balzat and Hanusch 2003).

'An innovative culture fosters: collaboration between the public sector, private sector and universities; high-quality research and development; protection of intellectual property; and promotion of entrepreneurship… Building the capacity for science, technology and innovation in Jamaica will enable us to… transform our economy into one that is based on the production of more knowledge-intensive, higher value-added goods and services, (and) raise productivity, wealth and standards of living by developing new, competitive economic activities to serve local, regional and global markets' (Vision 2030 Jamaica: National Development Plan).

The broad policy framework in Jamaica, availability of finance, and general competitiveness of firms were discussed at length in chapter 1. This chapter thus focuses on those arms of the NIS that specifically target innovation, science and technology and R&D. Almost all advanced training in science and technology and most of the country's research and development activities take place within government or government-supported institutions. The roles of the major agencies/initiatives are outlined below. They are organized according to whether they fulfil policy and coordination, financial support, research and development support, training and technical support, standards-setting support, and intellectual property protection functions.

Policy and Coordination

The *Ministry of Science, Technology, Energy and Mining* is the central government ministry with portfolio responsibility for science and technology. The ministry's mandate, vision and mission statements, however, indicate a clear emphasis on issues relating to energy and mining, with no mention of science and technology.[64] It is the *Ministry of Industry, Investment and Commerce*, which in its mission statement and objectives speaks to being the driver of innovation, promoting the technological advancement of the country, and spearheading the modernization of industry. Noteworthy, however, is the fact in spite of this mission, none of the focus statements for each of the three major divisions within this ministry makes mention of innovation and technological advancement.

The major responsibility for coordination and policy-based activities in the area of science and technology seems to have been delegated to the *National Commission on Science and Technology (NCST)*. This is a broad-based national advisory body to the Jamaican government on policies and strategies relating to science and technology. The Commission is chaired by the Prime Minister of Jamaica and comprises representatives from public and private sector institutions and academia. It seeks to coordinate the various arms of the national innovation system.

The NCST Act (2007) notes that functions of the Commission include, *inter alia*:

- Providing advice to the government on matters concerning science and technology, and undertaking strategic planning to achieve scientific and technological objectives;

- Developing, reviewing and recommending to the government policies designed to facilitate the use of science and technology to enhance the efficiency, competitiveness and profitability of the productive sector;

[64] Vision statement: 'The sustainable development of the energy and mineral resources of the country geared to support national development, productivity and competitiveness for the nation.' Mission statement: 'To ensure Jamaica's access to and affordability of energy supplies, energy security and the diversification, development and competitiveness of both the energy sector and the minerals sector for sustainable national development.' Mandate statement: 'To drive policy creation and implementation, research and development in the energy and minerals sectors for sustainable national transformation.'

- Recommending the strategic selection and use of key technologies which are relevant to national development objectives;

- Creating the essential linkages between the users and suppliers of science and technology to enhance levels of production and productivity; and

- Monitoring and evaluating the inputs and results of science and technology activities, including the allocation and utilization of public funds, and recommending the appropriate corrective action.

One of the outputs expected of the ministries responsible for science, technology and innovation (STI), and bodies such as the NCST, is a current and widely-disseminated policy document on STI which captures the government's goals and strategies in this respect. The GOJ's last policy document in the area of STI was the *National Science and Technology Policy (2005)*. This policy document noted that the government's strategic areas of focus included:

- Collection and use of vital national science and technology information;
- Development of global social intelligence/information networks;
- More profitable use of natural resources;
- Improved biotechnological competence;
- Enhanced competence in information and communication technology;
- Preservation of the environment;
- Building a competitive manufacturing sector;
- Developing a cadre of highly educated and technically trained individuals, and creating a scientifically literate public;
- Using science and technology as tools for poverty alleviation;
- Building science and technology awareness; and
- Using technology to aid in coping with natural hazards.[65]

The GOJ's current *national development plan – Vision 2030* highlights making Jamaica a technologically-enabled society as one of its critical national outcomes. The national strategies outlined to achieve this outcome include: integrating science and technology into all areas of development; and establishing a dynamic and responsive National Innovation System. It is envisioned that each of the national strategies will be achieved through a number of wide-ranging sector strategies. It is instructive to note that the Vision 2030 Development Plan indicates that a draft National Science and Technology Policy is being finalized to strengthen the framework governing STI. The final policy is, to date, not available to the public.

The GOJ, however, has a current ICT policy. The *Information and Communications Technology Policy (2011)*, was prepared by the Information and Telecommunications Department in the Office of the Prime Minister. The policy mission is to: 'achieve greater social and economic development for the people of Jamaica, through increased application of ICT in all sectors facilitated by affordable ICT services and effective management of all national ICT assets; and to advance Jamaica's vision of regional leadership in ICTs by enabling connectivity over multiple

[65] NCST (2005)

and diverse platforms.' The goals outlined in the policy document include: using ICT to increase overall efficiency and productivity; establishing world-class high capacity ICT infrastructure and services across the island so as to facilitate increased investments in the country; and using ICT as a key enabler to develop all sectors, with a focus on the creation of a knowledge based society. The major areas of focus in the policy document are: the legal, regulatory, institutional and administrative framework for the ICT sector; promoting competition and innovation in the ICT sector for the benefit of consumers, producers and service providers; e-government; consumer protection; ICT support for security and emergency Management; ICT infrastructure; and ICT and the environment.

Government-Funded Financial Support

Financing of the activities and projects of the NCST is partially provided by the *National Foundation for Development of Science and Technology (NFDST),* which also provides funds for Science and Technology Innovation Policy Reviews, and national science and technology competitions and seminars. Funds are acquired from the contributions of the Foundation's members, which include a number of large private sector companies, private financial institutions and a development bank.[66] There are strict criteria for the evaluation of projects to be funded.

The NFDST also administers the GOJ's *Technology Investment Fund (TIF),* which was established to finance investments in commercial activities which contain new or substantial technological improvements and which would not qualify for funding using the existing criteria of commercial and development banks. It also provides funding for research and development activities to enhance competitiveness and/or complement productivity in existing commercial enterprises. Projects seeking funding through the TIF are required to prepare a project proposal and submit an application form to the NFDST. The applications are assessed by technical and financial review committees. Successful applicants are allocated funds through loans, grants, equity, or a combination of the three.[67]

The GOJ has also sought to stimulate activity in research and development through the *R&D Tax Incentive Scheme.* Under this scheme approved R&D projects qualify for an exemption of GCT and customs duties on equipment and materials. The projects to be considered for exemption include, *inter alia*, environment impact assessment, prospecting, feasibility studies, pilot trials and product development work. Commercial production or processes are not considered for exemption.

[66] The fund has a corpus of J$10 million invested in a mix of instruments, the earnings from which are used for funding science and technology activities.
[67] The TIF was established with J$50 million from the Ministry of Commerce, Science and Technology, most of which has already been disbursed.

Research and Development Support

Due to the small amounts of R&D being conducted in the private sector, the role of public research agencies is critical. The *Scientific Research Council (SRC)* is the main agency designed to fill this gap, with its mandate being, *inter alia*, to provide quality scientific and technological solutions through product/process research and development, policy advice and facilitating technology transfer. One of its main activities is the development of new and improved marketable Jamaican value-added products, as well as the commercialization and subsequent sale of products and technologies based on local raw materials.[68] Many of the SRC's recent achievements are centred in the areas of food processing, agricultural biotechnology, waste water treatment systems and nutraceutical supplements.

In addition to its broad R&D functions, the SRC also organizes initiatives geared to improve innovation and competitiveness in MSMEs. Such activities have included: allowing micro and small food processors to utilize their food pilot plant for commercial production of products; and conducting feasibility studies and acquiring permits and licenses for the construction of wastewater treatment systems for numerous MSMEs in the agro-industry and housing development sectors.

The other main centres of research in the country are the leading *tertiary-level academic institutions (UWI, UTECH and NCU).* Research activity in such institutions is traditionally measured by the publication of scientific results in refereed journals. The UWI is the largest producer of refereed publications among Jamaica's tertiary institutions involved in science and technology research activity. With the upgrade to university status of the UTECH and NCU, a shift in research orientation of these institutions has begun, and the publishing of research work is beginning to evolve.

Training and Technical Support

Many of Jamaica's micro, small and medium-sized enterprises (MSMEs) need training and technical support if they are to incorporate even the most basic innovative and technology-driven practices into their operations. Such support is provided through a number of government and government supported agencies.

The *Central Information Technology Office (CITO)* was established by the Government of Jamaica in 2001. Its mandate is to contribute to the promotion and growth of the ICT sector, and enhance the ability of Jamaicans to leverage the opportunities existing in this area. This is to be achieved through the implementation of the National ICT Strategic Plan, which is aimed at facilitating the development of an efficient and integrated public sector and national ICT environment. In addition to implementing the GOJ's e-Government strategy, CITO analyses the extant e-capabilities and skills, and proposes policies, projects and programmes to achieve critical ICT objectives.

[68] Samuda (2008 and 2009)

In addition to its central mandate (the provision of training and extension and support services to MSMEs), *the Jamaica Business Development Corporation (JBDC)* is also involved in increasing MSMEs' access to technical, business, marketing and financial services through the use of information and communication technology (ICT). Its activities in this respect include:

- Workshops focusing on the utilization and impact of ICT to close distances and facilitate the expansion of businesses;

- The establishment of an island-wide network of business information centres (JAMBICs), with the aim of increasing MSMEs' access to critical BDS via ICT. The centres offer e-business services, including e-business information, training, commerce and marketing. Eight BICs are currently in operation; and

- The creation of a JBDC e-commerce website for MSEs to facilitate internet-based activities between businesses and consumers, as well as between businesses and other businesses.

The Technology Innovation Centre (TIC), located at the University of Technology (UTech) aims to offer 'essential business services, training and a flexible working space for young companies, and the transformation of innovations into viable businesses.'[69] The TIC is reported to be the first technology business incubator in the English-speaking Caribbean (ESSJ 2001).

The Jamaica Exporters Association (JEA) Business Technology Services Programme (Biz Tech) is a World Bank funded project that was aimed at allowing the JEA to provide technical support to its members. Its achievements included: providing assistance to small companies in the implementation of improvements to the packaging and labelling of products; and providing IT support to MSMEs in the areas of software training and website development and hosting.

The Competitiveness Company was established by the Jamaica Exporters Association in 2005 as a successor to the Jamaica Cluster Competitiveness Project. Its goals are to increase the competitiveness of Jamaican firms, and move Jamaican exports up the value chain. The Company supports the establishment and development of clusters to foster innovation and productivity. Through cluster advisory and management services it seeks to foster process innovation by allowing participating firms to realise cost efficiencies, identify new and more profitable customer segments, and grow higher margin sales.

Standards-Setting Support

An effective means of incentivizing innovation through technology is by limiting the opportunities open to firms to be profitable by the provision of products and services of a low quality and of questionable standards. The oversight of standards to ensure that internationally-accepted benchmarks are enforced locally will thus better prepare Jamaican firms for international competition and will incentivize innovation even for firms which currently do not have an export orientation.

[69] ESSJ 1999

The primary responsibility for the setting, promotion and enforcement of standards lies with the *Bureau of Standards Jamaica (BSJ)*. Its mission is to 'promote the international competitiveness of Jamaican producers, facilitate trade and protect consumers by providing standardization, metrology and regulatory services... Its main activities include: facilitating the development of standards and other requirements to which particular commodities, services, practices and processes must comply; monitoring for compliance; conducting tests and calibrating instruments; certifying products and management systems; providing industrial training and promoting research and education in standardization.'

The *National Certification Body of Jamaica (NCBJ)* is an independent certification unit falling under the auspices of the BSJ. It is the first certification body in the Caribbean region to be accredited to offer certification of management systems to both manufacturing and service industries, in the private and public sectors. The NCBJ offers a variety of services including, inter alia, certification of management systems to ISO 9001 and ISO 14001. Annually, NCBJ leads the process of recognizing and celebrating World Quality Day and participates in World Standards Day activities which focus on quality and environmental management system (QEMS) standards, their implementation and related certification activities.

Additionally, a number of donor-funded projects have been implemented to foster the increased competitiveness of MSMEs through adherence to international standards. An example is the *CROSQ/IDB Project*, which focused on *Promoting Small and Medium Enterprise Competitiveness in the Caribbean through Technical Standards*. This project was intended to encourage the participation of SMEs in the standardization process in CARICOM and to facilitate the export of their goods and services regionally and internationally. It involved, *inter alia*, the development of 25 technical standards and conformity assessment guidelines, and the establishment of a national and regional information system. The project was executed by the CARICOM Regional Organization for Standards and Quality (CROSQ) with funding from the IDB. The Bureau of Standards is the responsible agency in Jamaica.

The *IDB/GOJ Quality Jamaica Project* similarly sought to develop SMEs' awareness of and implementation capacity in the areas of the ISO 9000 standard for quality management systems, ISO 14000 environmental management systems, and the Hazard Analysis and Critical Control Points (HACCP) food safety system. Improving standards in these areas are viewed as critical to increasing the competitiveness and export volumes of SMEs. The specific objectives of the project included:

- Raising awareness and achieving buy-in among SMEs regarding the respective standards;
- Developing a local supply of consultants, auditors and trainers to facilitate the implementation of ISO management and HACCP systems in SMEs; and
- Facilitating the implementation of these systems in 100 Jamaican SMEs.

The Bureau of Standards, the executing agency for the project, partnered with the Scientific Research Council (SRC), and the following achievements have been highlighted:

- Over 2,000 persons have been made aware of the project through seminars, workshops, media presentations and a Quality Jamaica website (www.qualityjamaica.org.jm);

- 856 persons have been trained in General HACCP Awareness and Internal Auditing, 615 persons have been trained in ISO 9000/14000 Requirements, and 92 persons have completed the 'train-the-trainer' course; and

- 42 companies have joined the programme and are at various stages of implementation (MICT 2006 and 2007).

Intellectual Property Protection

If firms are to be encouraged to increase competitiveness through innovation, the government has to ensure that the products of such innovation are adequately protected. The registration, monitoring and enforcement of IPRs are the primary responsibilities of the Jamaica Intellectual Property Office (JIPO). JIPO's mission is to 'establish and monitor a modern and effective intellectual property system, which will act as a catalyst for international competitiveness, facilitating economic growth and development.' JIPO has a broad mandate encompassing regulatory, advisory, and public education functions. Its primary roles include:

- 'Administering intellectual property laws now in force and to be enforced in the future, in accordance with national policies and Jamaica's bilateral, multilateral and international obligations on Intellectual Property Rights (IPRs) protection as imposed by treaties, conventions, agreements and other legal instruments.

- Heightening public awareness of the importance of IPRs, the implementation of the laws and the workings of the intellectual property system in Jamaica.

- Encouraging and facilitating compliance with IPR laws through voluntary means and/or enforcement measures.

- Ensuring that the intellectual property laws and system contribute to national economic growth/development and realize the potential benefits of rights holders in Jamaica.

- Advising the Government in its development and implementation of intellectual property policies; to ensure that the laws are consistent with the national objectives, and ensure adequate implementation of the country's bilateral, regional and international intellectual property obligations.

- Keeping abreast and participating in the progressive development of intellectual property law in light of new technologies, globalization of trade, intellectual property co-operation and the emergence of new issues impacting the intellectual property system, such as e-commerce, protection of folklore and traditional knowledge, biodiversity and gene patenting.

- Establishing, maintaining and strengthening all relevant regional and international affiliations and cooperation with governments, inter-governmental agencies and other intellectual property offices and organizations.'[70]

Based on the importance of the creative industries to the Jamaican economy, there is significant awareness of and activity with respect to registration and enforcement of copyrights. Although JIPO is also responsible for the implementation of the Copyright Law, there is no statutory registration system in Jamaica and no requirement for registration under the Copyright Act. There is, however, a nationally recognized voluntary copyright registration and deposit facility provided by the *Intellectual Property Service Centre (IPC)* in conjunction with the National Library of Jamaica, that copyright owners use to establish a public record of their claims of copyright.[71] The IPC is a not for profit non-governmental organization with a Board of Directors comprised of representatives of the University of the West Indies, the Government Archives, the Jamaica Intellectual Property Office, the Media Owners Association of Jamaica and the Jamaican Copyright Licensing Agency (JAMCOPY).

The Copyright Act (1993) also makes provisions for the establishment of *Collective Management Organisations (CMOs)*, which act in the interest of the owners of rights in the exercise of copyright and related rights. Five CMOs have been established in Jamaica, only three of which are currently active.

The Jamaica Association of Composers, Authors and Publishers (JACAP) administers the public performing rights of composers, authors and publishers in their musical works, film synchronization rights and recording rights granted to copyright owners under the Act, and licenses those rights to users in exchange for licence fees, which are in turn distributed to its members and affiliates. Incorporated in early 1998, JACAP succeeded the local agency of the PRS (UK) that operated satellite agencies in former British Colonies like Jamaica. JACAP is a member of the international collective management organization called CISAC.

The Jamaican Copyright Licensing Agency (JAMCOPY) administers the reprographic rights of authors and publishers of works in print media, which concerns licensing the right to make multiple copies/photocopies of such works. The Copyright Act generally restricts copying by a reprographic process. Although copyright in literary works is not infringed by virtue of copying for instructional purposes, such copying cannot be done by a reprographic process. Institutions providing tertiary education may make reprographic copies of passages from a published work for instructional purposes without infringing copyright but are limited to five percent (5%) of any work per quarter. This allowance is however rendered inapplicable where a licensing regime exists. JAMCOPY is a member of the International Federation of Reproduction/Reprographic Rights Organizations (IFRRO) and has foreign reciprocal agreements with several equivalent RROs including Argentina, Australia, Belgium, Brazil, Canada, Finland, Greece, Iceland, Mexico, Slovakia, Spain, United Kingdom and Zimbabwe. JAMCOPY is currently in negotiations with several other countries including the United States of America.

[70] MIIC Ministry Paper #44 (2009)
[71] Extracted from: http://www.fogadaley.com/laws.html

The Jamaica Music Society (JAMMS) is the newest indigenous CMO to be formed. Established in July 2006, JAMMS administers the broadcasting and public performance rights in respect of protected sound recordings and represents local and international sound recording copyright holders, including independent record labels/record producers as well as the major international label groups and artist-owned labels. JAMMS took over from the now defunct Jamaica Musical Rights Administration Society (JMRAS).[72]

Under the Copyright Act a *Copyright Tribunal* was also established. This tribunal may hear and make rulings on disputes where users and copyright owners cannot agree on the terms of licenses.[73]

ASSESSMENT OF THE USE OF TECHNOLOGICAL INNOVATION IN JAMAICAN FIRMS

The success of Jamaica's national innovation system is best assessed in terms of whether increased technological innovation by Jamaican firms is being fostered. Results from the 2012-2013 Global Competitiveness and Global Information Technology Reports and the 2008 Jamaican MSME survey are used as the basis of this assessment. Table 2.1 presents a number of indicators of the state of technological innovation in Jamaican firms. Figures for Barbados and Trinidad and Tobago are also highlighted to allow for inter-regional comparisons.

Table 2.1 – Indicators of Technological Innovation in Jamaican Firms

Indicators	Jamaica		B'dos		T&T	
	Rank	Value	Rank	Value	Rank	Value
Availability of latest tech	44	5.5	28	6.0	63	5.1
Capacity for Innovation	85	2.9	91	2.9	124	2.4
Production Process Sophistication	99	3.3	53	4.0	54	3.9
Value Chain Breadth	99	3.3	46	3.9	95	3.3
Knowledge-intensive jobs, % workforce	72	20.1	1	57.6	60	22.8
Firm-level tech. absorption	67	4.8	37	5.4	82	4.6
Extent of business Internet use	66	5.0	39	5.5	72	5.0
Impact of ICT on new services and products	70	4.5	49	4.8	111	3.8
Impact of ICT on new organizational models	71	4.1	64	4.2	85	3.9

Sources: Global Competitiveness Report 2012-13
Global Information Technology Report 2012-13

[72] Extracted from - http://www.fogadaley.com/laws.html
[73] http://www.soundsofjamaica.com/copyright.php

With a rank of 44th out of 144 countries, Jamaica ranks highly in respect to the availability of the latest technology. Although outperformed by Barbados, Jamaican firms clearly stand to benefit from the openness of the economy and closeness to the major international markets which foster the availability of technological advancements. Notwithstanding this availability, the country received a low ranking (85th) for its capacity for innovation. Although having a higher rank than both Barbados and Trinidad, the country's global position in this indicator suggests that even though the latest technology is available to domestic firms, such technology is either not being accessed or utilized to foster relatively high levels of innovation. Because of this low capacity for innovation, the country ranks poorly (globally and regionally) in the sophistication of its production processes (99th) and the breadth of value chains (99th). It is thus not surprising that Jamaica employs a lower percentage of its total workforce in knowledge-intensive jobs than Barbados and Trinidad.

The remaining rows in Table 2.1 give a preliminary indication of some of the reasons for the country's low capacity for innovation. The degree to which Jamaican firms absorb technological advancements into their operations is just above the global average, with a rank of 67th out of 144 countries. The comparison with Barbados (ranked at 37th), however, highlights how much better Jamaican firms need to be doing in this respect to compete with the regional standard-bearers.

Similar conclusions can be drawn with respect to the extent to which Jamaican firms use the Internet in their businesses, and the impact that ICT has on the development of new services, products and operational models. In each of these areas, Jamaican firms have an average global ranking, but are significantly outperformed by their Barbadian counterparts. As Barbados is exhibiting, if firms in non-oil producing small island states are to overcome their scale deficiencies and be internationally competitive, they have to be ahead of the rest of the world in their adoption of technologically-driven innovations. The average performance of Jamaican firms does not place them in an advantageous position.

This point is especially relevant for the country's MSMEs, which are miniscule by international standards, and so need to rely heavily on technology to improve efficiency and competitiveness. The 2008 MSME survey results, however, indicate that more than half of the microenterprises surveyed do not use any form of ICT. Although the numbers increase for small and medium-sized enterprises, the fact that almost 40% and 30% of these firms, respectively, do not use any form of ICT is cause for concern (see table 2.2 below).

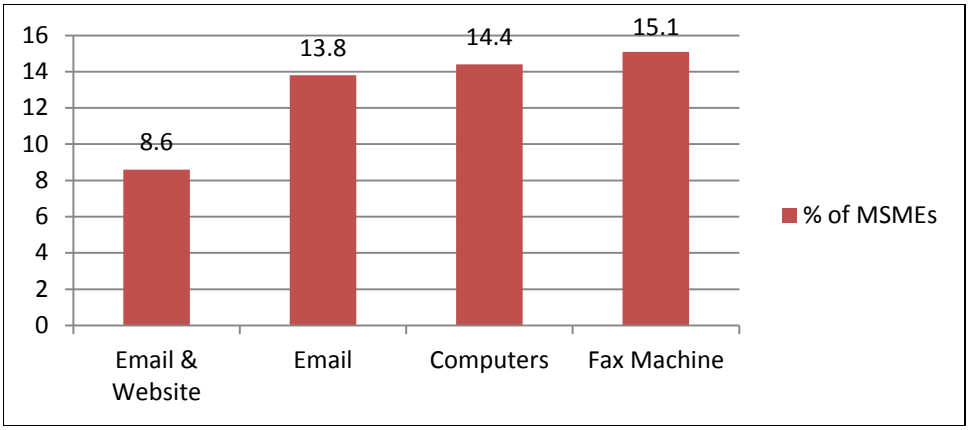
Table 2.2: MSMEs Employing Some Form of ICT

Types of MSMEs	Yes (%)	No (%)
Micro (formal)	47.8	52.2
Micro (informal)	40.5	59.5
Small	60.2	39.8
Medium	72.5	27.5

Source: MSME Survey (2008)

The types of ICT used by MSMEs also suggest a lack of sophistication in this area, which may act as a hindrance to product and process innovation. The chart below indicates that only 14.4% of the MSMEs surveyed in 2008 use a computer in their business, 13.8% use email, and 8.6% have a website. It is therefore not surprising that only 5.4% of the MSMEs surveyed sell their goods and services online.

Figure 2.3: Forms of ICTs being Employed by MSMEs



Source: MSME Survey (2008)

The country's capacity for innovation is, however, not solely dependent on firms, but is also heavily influenced by the degree to which the government inculcates technological innovation into its own practices, and thus encourages firms to do the same through a signalling effect. Table 2.3 presents a number of indicators of technological innovation by the GOJ.

Table 2.3 – Indicators of Technological Innovation by the Jamaican Government

Indicators	Jamaica		B'dos		T&T	
	Rank	Value	Rank	Value	Rank	Value
ICT use & gov't efficiency	64	4.3	52	4.5	100	3.7
E-Participation Index	99	0.1	94	0.1	79	0.1
Government Online Service Index	102	0.2	104	0.2	63	0.3
Government procurement of advanced tech. products	120	3.0	34	4.0	128	2.8

Sources: Global Competitiveness Report 2012-13
Global Information Technology Report 2012-13

The first row indicates that the GOJ has an above global-average rank for the extent to which it uses ICT to enhance its efficiency. With a rank of 64th, the country is, however, again outperformed by Barbados (52nd). The effectiveness of the GOJ's usage of ICT in fostering enhanced business outcomes is further called into question by its poor ranking in the e-participation index. This index is based on an assessment of the quality, relevance, usefulness and willingness of government websites in providing online information and participatory tools

and services to the people. With a rank of 99th, the GOJ performs poorly both by global and regional standards. Similarly poor performances were recorded in the government's online service index, and the extent to which the GOJ procured advanced technological products (102nd and 120th, respectively). The Vision 2030 National Development Plan thus notes that '*the government can play a greater catalytic role through the demonstration effect of its adoption of information technology and the impetus it can provide through promotion of e-government for online access and provision of government services.*'

ASSESSMENT OF THE NATIONAL INNOVATION SYSTEM IN JAMAICA

The above assessment clearly indicates that Jamaican businesses and government are generally not optimising the use of technological innovations to increase the efficiency of their operations and quality of output. This suggests that problems exist within the country's National Innovation System. Although the National Science and Technology Policy (2005) notes that Jamaica essentially has all the main infrastructural science and technology components,[74] these components must be assessed to ascertain whether or not they function effectively as an integrated system. This assessment is conducted below, and relies on data compiled from the 2012-2013 Global Competitiveness and Global Information Technology Reports and various self-assessments garnered from a number of GOJ documents.

'The interactions among the actors involved in technology development are as important as investments in research and development… The smooth operation of innovation systems depends on the fluidity of knowledge flows – among enterprises, universities and research institutions' (OECD 1997).

The policy and coordination function of the National Innovation System (NIS) is critical, and in the Jamaican case must bear some criticism. The Vision 2030 National Development Plan notes that 'linkages between key players in the innovation process are weak or, in some cases, nonexistent when compared to innovation processes in the developed world and rapidly developing economies... Without effective linkages among key stakeholders, diffusion of science, technology and innovation (STI) into our economy will remain a challenge.' One of the reasons for the persistence of this challenge in Jamaica, as highlighted in the Vision 2030 Plan, is the fact that the GOJ has neither outlined a specific agenda for STI development nor specific approaches on how STI can advance a broader national vision.

This is particularly so for MSMEs. Ventura, former senior advisor to the Prime Minister on issues relating to science and technology has noted that 'one of the weakest aspects of Jamaica's innovation system is the ability to transfer advanced technologies to... the small agile firms and entrepreneurial start-up operations.' This may be a reflection of the fact that both the 2005

[74] The policy highlights as exceptions the need for risk and venture capital funds for technology-led projects and pilot plant facilities (NCST 2005).

National Science and Technology Policy and the draft STI Sector Plan in the GOJ's Vision 2030 National Development Plan pay scant regard to the MSME sector.

In the former, MSMEs are only cursorily mentioned in the context of tackling poverty, with no concrete strategies highlighted, except for an expressed desire to enhance ICT skills in small and medium-sized businesses. In the latter, more attention is placed on MSMEs, as the exploitation of endogenous STI outputs by MSMEs is highlighted as an early indicator of success, and the promotion of business incubation, STI MSMEs, and a revolving loan scheme for SMEs are included as sector strategies. More explicit focus on the sector is however needed if technological innovation is to be fostered in the country's small businesses.

Table 2.4 presents a number of critical indicators of the GOJ's performance in its policy and coordination function for STI. These indicators largely confirm the aforementioned adverse self-assessments. Although the government has an above-average ranking (55th) for the priority given to ICT, this prioritization does not seem to have influenced a number of factors that are critical to the success of a growth strategy based on technological innovation. Internet access in Jamaican schools (74th) was ranked significantly lower than that of Barbados (33rd) and Trinidad (55th), as was the overall quality of the educational system (with Jamaica, Barbados and Trinidad ranked at 76th, 7th and 40th, respectively). The quality of mathematics and science education provides a particularly important foundation on which technological innovation must be based. In this area Jamaica received one of the lowest rankings globally (116th), and was completely outperformed by Barbados (7th) and Trinidad (35th). The Vision 2030 National Development plan thus notes that:

> "*There is still inadequate science and technology education at the primary, secondary and tertiary levels. Secondary school examination pass rates are particularly low in subjects that are crucial for technological progress, including mathematics and sciences. We have a low capacity for enquiry-based approaches to learning, and scientific enquiry is not a core component of teacher training. Technology deployment and usage is still curtailed by a combination of human resource factors including high illiteracy rates, loss of ICT skills due to migration, and low skill levels and high technology anxiety among the elderly."*

A country's advancement through technological innovation is not only critically constrained by its human resources, but also by the availability of appropriate financial resources. Entrepreneurs desirous of improving production and management techniques and outputs through technological advancements quickly recognize that they must spend money in order to either save or make money in the future. Their ability to access externally-sourced funds for innovative purposes is severely constrained in Jamaica. This was discussed at length in chapter 1, but the last two rows in table 2.4 provide a useful reminder of the severity of the problem. Jamaica has among the lowest global rankings for ease of access to loans (127th) and venture capital availability (130th). Regional comparators Barbados and Trinidad are ranked at 79th and 77th for ease of access to loans, and 94th and 87th for venture capital availability.

Table 2.4 – Selected Indicators of the GOJ's Performance in Policy & Coordination for STI

Indicators	Jamaica		B'dos		T&T	
	Rank	Value	Rank	Value	Rank	Value
Gov't prioritization of ICT	55	4.9	29	5.4	91	4.3
Internet access in schools	74	4.1	33	5.3	55	4.5
Quality of the educational system	76	3.6	7	5.4	40	4.2
Quality of math & science education	116	3.0	7	5.6	35	4.6
Ease of access to loans	127	2.0	79	2.7	77	2.7
Venture capital availability	130	1.9	94	2.3	87	2.4

Sources: Global Competitiveness Report 2012-13
Global Information Technology Report 2012-13

Jamaican firms are thus severely disadvantaged in their ability to enhance competitiveness through technological innovation, because of human resource deficiencies and the unavailability of appropriate financing. These areas are largely out of the control of individual firms, and represent gaps that government policy needs to seek to fill. Much of the responsibility for directing technology and innovation policy and coordinating the efforts of the various arms of the NIS lies with the NCST. This Commission is, however, too small to effectively coordinate the large number of science and technology institutions. It is further stymied by a perception of not being central to the country's development imperatives.[75] The draft STI Sector Plan in the GOJ's Vision 2030 National Development Plan highlights a number of similar problems that can be attributed to the NCST:

- No clear consensus on the desired STI profile of the country, or the role of STI in the development process;
- Inadequate coordination of the STI system, evidenced by overlapping and unclear roles of STI institutions;
- Inadequate public-private partnerships;
- Disconnect between R&D and productive sectors, resulting in paucity in the development of indigenous technology; and
- An inadequate enabling environment for innovation.

It must be noted, however, that the problems with the country's NIS not only involve coordination and knowledge-flow issues, but are also rooted in a dearth of knowledge creation, particularly in areas that could be useful to local businesses. The country's private sector either does not have the capacity or the inclination to invest substantial sums of money in research and development. The first row in table 2.5 indicates that Jamaica is ranked at 107th out of 144 countries for company spending on R&D. The cash-strapped government is thus required to

[75] Vision 2030 Jamaica – Science, Technology and Innovation Sector Plan (2007) and NCST Secretariat (2005)

propel efforts in this area. Not surprisingly, the draft STI Sector Plan in the GOJ's Vision 2030 National Development Plan notes that:

> '*Jamaica's capacity to effectively and efficiently exploit STI is hampered by numerous factors; chief among which is consistently low levels of investment. This is evidenced by the fact that despite path breaking work in agricultural research, and recent expansion of the science infrastructure, Jamaica spends less than 1% of GDP on scientific research and development... A large proportion of the allocation to this sector is used to defray recurrent expenses leaving very little to support actual research...'*

The lack of focus on and investment in R&D has led to a number of concomitant problems, as evidenced in table 2.5. Although the quality of Jamaica's scientific research institutions has an above-average ranking in the 2012-13 Global Competitiveness Report (52nd), the quality of scientists and engineers in the country has a very low rank (101st), which is lower than both of the regional comparators. The reasons for this low quality include an inability to attract and retain STI professionals, and, more fundamentally, deficiencies in the approach, quality and relevance of STI education at all levels of the education system.[76]

Exacerbating the situation is the fact that Jamaica underperforms relative to both Barbados and Trinidad with respect to collaboration between universities and industry in R&D. In a country where quality scientists and engineers are relatively scarce, such collaborations are critical to effectively utilizing the limited resources that are available. The NCST (2005) however notes that '*although Jamaica has a strong University system and science pedigree, it has been difficult to translate scientific results into technologies, products and services, because of insufficient capital goods, funding, implementation machinery, engineering and entrepreneurship capacities.'* As indicated in the last row of table 2.5, the end result of this is a low level of patentable innovations, with Jamaica again being outperformed by Barbados and Trinidad.

Table 2.5 – Selected Indicators of Factors Affecting R&D in Jamaica

Indicators	Jamaica		B'dos		T&T	
	Rank	Value	Rank	Value	Rank	Value
Company spending on R&D	107	2.7	72	3.1	100	2.8
Quality of scientific research institutions	52	4.0	41	4.2	98	3.2
Quality of scientists & engineers	101	3.6	54	4.3	56	4.3
University-Industry collaboration in R&D	77	3.5	38	4.3	76	3.5
PCT patents, applicants/million pop	70	0.7	32	11.5	54	2.0

Sources: Global Competitiveness Report 2012-13
Global Information Technology Report 2012-13

[76] The draft STI Sector Plan in the GOJ's Vision 2030 National Development Plan

In the description of Jamaica's NIS it was noted that a number of government and donor funded projects and agencies were established to provide MSMEs with the technical support needed to incorporate innovative and technology-driven practices into their operations. The support provided through these agencies/projects forms an important part of the country's NIS, and each of the initiatives have reported significant success in fostering either product or process innovation in their respective clientele.

Most stakeholders however agree that the coverage achieved is uniformly low, and that the government's initiatives have not had the effect of causing a widespread increase in the MSME sector's usage of technology to foster innovation. A possible reason for this is the fact that only a very small proportion of the sector knows about the innovation and technology services provided. Using the most recently available survey data, table 2.6 indicates that only 8.2% of the MSMEs surveyed are aware of such services, and 0.3% use the innovation and technology services offered by the business development service (BDS) providers.

Table 2.6: Types of BDS the Enterprise Knows and Uses (% of Enterprises)

Types	Own Account		Micro (2-4)		Small (5-20)		Total	
	Knows	Uses	Knows	Uses	Knows	Uses	Knows	Uses
Innovation & Tech	**2.8**	**0.0**	**11.2**	**0.4**	**23.0**	**1.5**	**8.2**	**0.3**
Legal Aspects	5.4	0.6	19.6	1.8	35.6	3.7	14	1.4
Accounting/Taxes	6.5	1.1	23.6	9.4	45.9	24.4	17.3	6.9
Management	4.2	0.6	11.9	0.4	23.7	2.2	9.3	0.8
Production	3.1	0.0	9.4	0.0	20.7	0.0	7.4	0.0
Training	5.5	2.1	12.6	0.0	24.4	2.2	10.3	1.3
Distribution	3.7	0.0	11.5	0.2	25.9	0.7	9.1	0.2
Marketing	5.7	1.8	13	0.2	25.2	1.5	10.6	1.2
Finance	5.8	1.1	15.3	0.7	28.1	1.5	11.9	1.0

Source: IADB (2004)

The obscurity of the typical suppliers of research and development, innovation and technology services contributes to the low usage of such services. Table 2.7 indicates that only 1.1% and 0.3% of MSMEs are aware of and use the services provided by private institutes and universities. Public institutes and univeristies are even less popular with awareness and usage of their services being negligible (0.8% and 0%, respectively). Although government institutions are slightly more popular, awareness and usage of their services by 2.3% and 0.3% of MSMEs is clearly an indication of inadequate coverage if meaningful transformation is to occur in the sector.

Table 2.7: Suppliers of BDS the Enterprise Knows & Uses (% of Enterprises)

Supplier	Own Account		Micro (2-4)		Small (5-20)		Total	
	Knows	Uses	Knows	Uses	Knows	Uses	Knows	Uses
Private Institute/University	**0.5**	**0.0**	**1.8**	**0.4**	**1.5**	**0.7**	**1.1**	**0.3**
Public Institute/University	**0.3**	**0.0**	**1.1**	**0.0**	**2.2**	**0.0**	**0.8**	**0.0**
Public Institution/Government	**0.6**	**0.2**	**3.8**	**0.4**	**5.2**	**0.7**	**2.3**	**0.3**
Professional	2.8	0.6	14.2	3.8	26.7	11.9	9.7	3.1
Private Company	4.2	0.5	15.7	5.2	28.1	14.1	11.2	3.8
Business Association	3.1	1.9	2.2	0.2	1.5	0.0	2.6	1.1
Town Council	0.6	0.5	1.3	0.2	0.7	0.0	0.9	0.3
Do not know	1.3	0.2	4.9	0.7	7.4	0.7	3.3	0.4

Source: IADB (2004)

The low awareness and usage of technological and innovation business development services may, however, also be precipitated by lack of demand for such services on the part of MSMEs. The IADB (2004) notes that many firms (47.4%) perceive that they do not need business development services of any type. This may be because, as indicated in the table below, most MSMEs surveyed in 2008 were confident about the strength of their businesses in several key areas related to their ability to innovate and adapt to changes.

Table 2.8: MSMEs' Perception as to the Strength of their Business in Selected Areas

Area	Strong (%)	Moderate (%)	Weak (%)
Technology/Innovation/Creativity	48	36	16
Efficiency	64	32	4
Research & Development	31	40	29
Capital	31	42	27
Capacity/Human Resource Factor	62	30	8
Ability to Adapt to Global Changes	39	44	17
Ability to Adapt to Local Changes	52	37	11

Source: MSME Survey (2008)

Although this confidence is not reflected in the ICT usage of these firms, it confirms the fact that Jamaican MSMEs, particularly microenterprises, exhibit high levels of creativity and innovativeness without the benefit of research results and technological tools. It suggests that if synergies can be created between this natural proclivity towards innovativeness by these entrepreneurs and the opportunities created through the usage of R&D and technological advancement, great strides can be made in increasing the competitiveness of Jamaican MSMEs.

ASSESSMENT OF THE INTELLECTUAL PROPERTY RIGHT (IPR) FRAMEWORK IN JAMAICA

If Jamaican firms are to maximize their innovative potential, IPR protection is vital. This protection will only be forthcoming if all the relevant laws and treaties are in place. However, a Global Competitiveness (2012-13) ranking for IP protection of 79th out of 144 countries seems to suggest some weaknesses in the IPR framework. In 2009, this rank was 67th out of 134 countries, suggesting that Jamaica has not kept pace with a number of other countries.

At the most basic level, the legislation governing a country's IPR system should ensure that innovation in its broadest sense may be protected through a variety of different IPRs. WIPO notes that the main types of IPRs are:

(1) patents and utility models;
(2) trademarks;
(3) industrial designs;
(4) valuable undisclosed information or trade secrets;
(5) lay-out designs of integrated circuits;
(6) copyright and related rights;
(7) new varieties of plants;
(8) geographical indications; and
(9) non-original database rights.

In many countries, the law on unfair competition often also expands the scope of protection of new or original knowledge that may not be adequately protected by the relatively stronger but narrower rights associated with ownership of one or more of the abovementioned IPRs. Additionally, in open economies, for most types of IPRs to be useful, the above laws have to be supplemented by countries being signatories to international IPR treaties which create binding obligations and rights that work to protect innovators in the respective countries.

Firms of varying sizes, industries and levels of technological sophistication may benefit from different aspects of the IPR system according to their specific needs and technological capability. However, for this to occur, the relevant laws and treaties must be in place. The tables below assess Jamaica's performance in this area. Selected Caribbean and OECD countries are used for comparative purposes.[77]

Table 2.9: IPR Legislative Profile of Selected Caribbean and OECD Countries

	Date of Last Amendment/Rules/Regulations					
	Jamaica	**Barbados**	**Guyana**	**T & T**	**UK**	**USA**
Patents	1975 (1)	2001	1937	2000	1998	1998
Trade Marks	2001	2001	1972	1997	2004	1998
Industrial Designs	1983	1981	U/PA (5)	1996	2005 (6)	U/PA
Protection of Undisclosed Info	U/DPB (2)	n/i	n/i	n/i	n/i	n/i

[77] This section was extracted from Tennant (2009)

	Date of Last Amendment/Rules/Regulations					
	Jamaica	**Barbados**	**Guyana**	**T & T**	**UK**	**USA**
Layout Designs	1999	2001	n/i	1996	1997 (6)	1998 (6)
Copyright	1999	1998	1966	2000	2006 (6)	1998
Plant Variety Protection	n/i (3)	2001	n/i	1997	1997	1994
Geographic Indications	2009(4)	2001	n/i	1996	n/i	n/i

Source: Collated by authors from WIPO's *Guide to IP Worldwide*

(1) New Bill Prepared in 2001 - Under Consideration
(2) Under Draft Patents Bill
(3) Not included in the Country Profile from WIPO's *Guide to IP Worldwide*
(4) Act was passed in 2004, Regulations were promulgated in 2009
(5) Under Patents Act
(6) More than one Act - Year of Latest is listed

Table 2.10: IPR Treaties/ Conventions that Selected Caribbean & OECD Countries are Signatories to

Treaties/Conventions	**Date on which Country became a Signatory**					
	Jamaica	**Barbados**	**Guyana**	**T & T**	**UK**	**USA**
WIPO Convention	1978	1979	1994	1988	1970	1970
Paris Convention –Protection: Industrial Prop.	2000	1985	1994	1964	1884	1887
Berne Convention –Protection: Literary & Artistic Works	1994	1983	1994	1988	1887	1989
Nice Agreement (Int'l Class. of Goods & Services)	2006	1985		1996	1963	1972
Rome Convention –Protection: Producers, Performers & Broadcasting Organizations	1994	1983			1964	
Geneva Convention –Protection: Producers of Phonograms Against Unauthorized Duplication of Their Phonograms	1994	1983		1988	1973	1974
Vienna Agreement (Int'l Class. of the Figurative Elements of Marks)	2006			1996		
The Brussels Convention -Programme Carrying Satellite Signals	2000			1996		1985
Nairobi Treaty –Protection: Olympic Symbol	1984	1986				
WIPO Copyright Treaty	2002				1997	2002
WIPO Performances & Phonograms Treaty	2002				1997	2002
PCT (Patents)		1985		1994	1978	1978
Locarno Agreement (Int'l Class. for Industrial Designs)				1996	2003	
Strasbourg Agreement (Int'l Patent Class.)				1996	1975	1975
Budapest Treaty (Deposit of Micro-organisms)				1994	1980	1980
TLT (Trademarks)				1998	1996	2000
PLT (Patent Law Treaty)					2006	2000
Madrid Protocol (Int'l Registration of Marks)					1995	2003
Singapore Treaty (Law of Trademarks)						2009

Treaties/Conventions	Date on which Country became a Signatory					
	Jamaica	Barbados	Guyana	T & T	UK	USA
WTO - Member & Signatory to TRIPS Agreement	1995	1995	1995	1995	1995	1995
UCC		1983		1988	1957	1955
UPOV				1998	1968	1981

Source: Collated by authors from WIPO's *Guide to IP Worldwide*

The first table indicates that Jamaica has legislation governing the main pillars of the formal IPR system; while the second highlights the fact that the country is a signatory to at least 12 major IPR treaties. However, a few weaknesses in key areas are revealed:

- The draft Patents and Design Bill has been under consideration since 2001, and has not yet been passed. This Bill is intended to repeal the existing Patent Legislation, and is well-overdue, as it is expected to incorporate provisions for compliance with the TRIPS Agreement, and to provide for the implementation of the Patent Corporation Treaty.[78]

- The recent promulgation of the regulations for the Geographical Indications Act of 2004 allows for the protection of geographical indications for all products against false and misleading uses, but in accordance with the TRIPS, places special emphasis on wines and spirits.[79] Although a step in the right direction, it is noted that this Act stills leaves important local geographical indications with only minimal protection.[80] A JIPO representative, however, indicated that there are plans to amend the Act so as to provide additional protection for goods of local significance, such as coffee, jerk and yam. Such amendments must also be accompanied by international lobbying efforts to have such protection ratified in other countries.

- Plant variety protection is not legislated in Jamaica. This is an area of growing importance, with the country being behind most Caribbean and OECD countries in this regard. It must be noted though that some progress has been made in this area, as in 2009 Cabinet approval was received for promulgation of the law on the Protection of the Rights of Breeders of New Varieties of Plants, and JIPO and the Ministry of Agriculture participated in a working meeting of the International Convention for the Protection of New Plant Varieties (UPOV) to facilitate preparatory work on the drafting instructions.[81]

- Jamaica is not a signatory to the Madrid System for the International Registration of Marks. This treaty is important as it *provides applicants with the possibility of having their mark protected in several countries by simply filing one application with a single office, in one language, with one set of fees in one currency. The Madrid System also greatly simplifies the*

[78] http://www.fogadaley.com/laws.html
[79] Geographical indications for wines and spirits are also protected against uses on a wine or a spirit not originating in the place denoted by the geographical indication even where the use is not misleading.
[80] http://www.fogadaley.com/laws.html
[81] MIIC (2009)

subsequent management of the mark, since it is possible to record changes or to renew the registration through a single procedural step with the International Bureau of WIPO.[82]

It was, however, noted that these benefits have to be weighed against the possible cost of giving MSMEs' foreign competitors greater benefits than that which would accrue to local MSMEs. This could occur as very few local MSMEs currently seek to register their marks overseas resulting in the potential benefit being low, while foreign firms would now find it much easier to register their marks in Jamaica, thus increasing their ability to compete in the local market and possibly force local MSMEs out of business. A JIPO representative, however, asserted that the potential benefit to Jamaican small firms is not low, and noted that many of the small businesses that registered marks in Jamaica were also concerned about acquiring protection of those marks in other countries.[83] In light of this, it was indicated that efforts are currently being made to have this treaty signed.

POLICY SUGGESTIONS

The policy framework for technology and innovation in Jamaica must seek to both capitalize on the innate creativity of the Jamaican entrepreneur, while addressing weaknesses in the National Innovation System. The ultimate objective should be to enhance the competitiveness of Jamaican businesses by enabling them to improve their efficiency and the quality of their output through the use of technological advancements. Any policies that are implemented must thus seek to address the varying innovation and technological needs of different types of firms,[84] and to improve the creation and flow of practicable knowledge throughout the NIS.

'For policy-makers, an understanding of the national innovation system can help identify leverage points for enhancing innovative performance and overall competitiveness. It can assist in pinpointing mismatches within the system, both among institutions and in relation to government policies, which can thwart technology development and innovation. Policies which seek to improve networking among the actors and institutions in the system and which aim at enhancing the innovative capacity of firms, particularly their ability to identify and absorb technologies, are most valuable in this context' (OECD 1997).

[82] WIPO

[83] Additionally, questions have been raised about the ability of JIPO to adhere to the Madrid System's stringent timeframes for lodging objections to marks. If JIPO is unable to complete its review process within the stipulated timeframe, the mark will be automatically lodged. The JIPO representative, however, assured that this will not be a problem, as much of their review process is automated and can be quickly completed.

[84] The OECD (2001) classifies MSMEs into three groups:

- *Technology developers*, which are usually high-tech, potentially high-growth firms and research oriented consultancies (representing 1-3% of the total European SME population);
- *Leading technology users* (representing 10-15% of European SMEs); and
- *Technology followers* (representing 80-85% of the European SME population).

Policy initiatives should seek to address the specific needs of three categories of key stakeholders:

1. Businesses that fall into the category of technology followers, that is, firms which may not see a need to innovate or may not realize the potential in R&D and technological advancement for product and process innovation;

2. Businesses that are technology developers or leading technology users, and may be aware of or are searching for applicable technologies to aid innovation, but which need support in acquiring and adapting such technologies; and

3. Research institutes, universities and agencies which offer STI and ICT support to businesses.

Tennant (2009) developed a comprehensive and detailed set of policy suggestions for the GOJ aimed specifically at enhancing technological innovation through each of these three sets of stakeholders. These suggestions were derived through an investigation of the characteristics and perspectives of Jamaican MSMEs, an assessment of local initiatives in the area of technology and innovation, a review of international best practices, and consultations with stakeholders. A summary of the most critical policy suggestions provided in that document are extracted below.[85]

Policies for Technology Followers – Efforts to Increase Firms' Awareness of and Demand for Innovative and Technologically-Driven Business Practices (ITBPs)

The proposed policy initiatives seek to address technology-followers' deficiency of demand for ITBPs by: educating entrepreneurs as to the need for ITBPs; and enticing them by highlighting the value of such practices. Specific suggestions which have been made in this area are outlined below:

1. Developing a Public Education Campaign to highlight the need for and value of ITBPs and the Available Support Service Providers

The OECD (2001) notes that among the principal elements of a country's innovation framework are policies to build an innovation culture and to strengthen the capacity to respond to globalization. In his Policy Manual on Competitiveness Strategy in Developing Countries, Wignaraja (2003) more specifically advocates for an awareness campaign for industry about technology gaps and available services.

As the aim is to change the extant practice of underuse of ITBPs, it is important in designing such a public education campaign to understand why and how people change what they do. A large body of behavioural research shows that people:

[85] Readers are encouraged to peruse Tennant (2009) for the full slate of policy suggestions.

'react in a particular way to accepting and adopting new behaviour. As a rule, we do not suddenly begin to do something we have never done before: we learn and weigh the benefits of doing it or not doing it; we look around to see if anyone else is doing it... If it seems socially acceptable, valuable and practical, we learn the skills to undertake the new behaviour and we may apply to our own lives. We then evaluate whether it is worthwhile to continue. From our experience we may reject the new behaviour, or we may encourage others to follow our example.'[86]

Application of these principles of changing behaviour to an ITBP strategy entails:

- Providing the information, assurance and encouragement that are needed to promote the usage of innovative and technologically-driven business practices in firms. *This should include a focus on the many different ways in which innovation can be achieved, so as to mitigate against the commonly-held narrow view of technological innovation as being out of the reach of most MSMEs (see box A.2 in the appendix)*;

- Identifying and promoting model firms that have excelled and succeeded through a commitment to innovation and technological advancement*;*

- Teaching the skills that are required by entrepreneurs to:

    - Recognize areas in which innovation and technological advancement is needed;
    - Identify all the possible sources through which the need can be met;
    - Evaluate the sources so as to select the most suitable ways of meeting those needs; and
    - Ensure that the newly-acquired technologies and capacities are best utilized in the enterprise.

- Providing firms with ongoing encouragement to continue implementing innovative and technologically-driven business practices; and

- Encouraging entrepreneurs to share the information and new skills with others.

Due to the misconceptions surrounding the relevance of technology to particularly small and micro firms, and the mistrust within the business community of information emanating from unfamiliar sources, this public education campaign should be very carefully designed. The experience of the European countries in this respect is instructive, as the primary sources of information considered as very important for innovation are: sources within the firm; clients or customers; and other firms within a grouping of firms.[87] The primary spokespersons to be used in this public education campaign should thus include:

- Firms that have successfully implemented technological solutions in their businesses;

[86] United Nations IMAS
[87] OECD (2001)

- NGOs, social workers, and other people/agencies in direct contact with and who have gained the trust particularly of MSEs; and

- Financiers that already have an established relationship with business clients.

In addition to the traditional channels of information dissemination, the use of two further channels is suggested:

- Town hall meetings, so as to ensure that a personal touch is achieved. This is important, as there is a growing consensus among communication experts about the power of the personal touch in relating an experience. While facts and figures are often quickly forgotten, an illustration from real business experiences can motivate action; and

- Text messages, as the increasing use of cellular mobile technology in MSMEs is recognized. Almost half (45%) of the MSMEs surveyed in 2008 used cellular phones in their businesses, while only 31% used fixed line telephone technology. It is also important to note that the category of MSMEs most unlikely to be reached through traditional channels of communication – the informal microenterprises – were the largest users of cellular phones.

A genuinely collaborative approach for the design and launching of this public education campaign is a critical factor on which its success hinges. The GOJ (through the NCST, MSTEM and/or the MIIC) should thus work with the private sector organizations (PSOs) and providers of R&D, technical and training support to develop and launch this campaign. International donor agencies could contribute to the process by providing much needed technical and financial assistance.

2. Highlighting to Firms the Value of ITBPs

Sustained changed behaviour will only result when firms see the value to be added (ultimately in terms of profitability) by the adoption of ITBPs. This is best achieved using a multifaceted approach, including:

- Disseminating to firms the results of market research which identify profit-making opportunities, highlight technological/research requirements, and identify appropriate support service providers

If firms are to see the value in technological innovation, they must have the ability to keep abreast of the latest developments affecting their sector. Access to timely information about local and international opportunities and shifting trends in products and processes can be crucial to the success of businesses, and is thus often the best inducement for involvement in innovation.

One of the most important impediments to innovation highlighted by firms (particularly MSMEs) surveyed in OECD countries is inadequate knowledge about new technologies and know-how in their business area. Business representatives in these countries therefore suggested co-operative information sharing arrangements at the local, regional and international levels,

which would give firms the opportunity to benefit from a broader pool of information resources.[88]

Such support is provided by the Peruvian government, for example, through a centralized agency which, *inter alia*: identifies business opportunities available to MSME networks; details the measures required to meet quality standards; and assists with sourcing and financing the training and technical assistance services needed to allow firms to meet the requisite standards. [89] In Pakistan, a similar agency compiles and disseminates data on local markets using manufacturers', distributors' and retailers' data, and thus identifies investment opportunities offered by backward and forward linkages of successful services/products.

A few state and quasi-state agencies in Jamaica similarly provide marketing assistance to MSMEs. It is, however, suggested that such assistance be explicitly linked with the provision of information on technological/research requirements and technological/research support service providers. The economies of scale and development of expertise through specialization also suggests that the centralization of such services could be beneficial.

It is suggested that the international donor agencies provide the funding and technical assistance needed to conduct a study to ascertain:

- Whether the provision of market research which identifies profit-making opportunities, highlights technological/research requirements, and identifies appropriate support service providers, will be demanded and effectively utilized by Jamaican firms; and, if so,

- The most feasible and sustainable modalities for the provision of the results of such market research to the largest numbers of Jamaican firms, particularly those classified as MSMEs. An important issue to be addressed here is whether one of the existing agencies (such as the JBDC or NCST) should be mandated and equipped to perform such a function, or whether a new entity should be created to fulfil this purpose. The study should also consider whether such market research services could eventually be provided through the market. This will involve assessing the adequacy of demand, and the market development initiatives needed.

- <u>Encouraging the formation of networks and clusters through which knowledge of innovation opportunities can be diffused</u>

Participation in global value chains[90] provides an impetus for the necessary upgrading of firms through the signals coming from the international marketplace. Such networks require intense buyer-producer interactions and create the need for transfer of knowledge on the implications of

[88] OECD (2001)
[89] Angelelli et al (2006)
[90] Defined as international networks of production of strongly interdependent firms (including specialist suppliers) linked to each other in a value adding production chain. In some cases such clusters of firms may include strategic alliances with universities, research institutes, knowledge-intensive business services, bridging institutions (e.g. brokers and consultants) and customers (ECORYS 2006).

changing markets for production. Through the opportunities offered by participation in global value chains, strategically-placed firms are forced to continuously innovate and upgrade.

This is made easier by more efficient access to suppliers, skilled workers, inputs, machinery and information. Furthermore, with globalization, 'dynamic clusters are becoming key factors in a country's capacity to attract the international investment that often generates new technological expertise, to interest investors in innovation (through venture capital, etc.), and to benefit from the international mobility of skilled personnel' (ECORYS 2006).

Network and cluster formation is thus an important dimension of innovation policy. Ventura however notes that in the Jamaican environment, where hiding information from local colleagues is commonplace, 'relationships to boost innovation through the formation of production clusters never materialize, and trust, which is critical to these types of interactions, is never given a chance to develop.'

These challenges were experienced in the two major projects undertaken to facilitate cluster development in Jamaica. The Private Sector Development Programme's (PSDP) Cluster Sector Initiative, was funded by the EU and GOJ, and jointly managed by Jamaica Trade and Invest (JTI) and Jamaica Business Development Corporation (JBDC). The aim was to enhance the performance of MSMEs through clustering and networking, by adopting a holistic approach to the development of MSMEs, and to facilitate the provision of a broad range of services.[91] Specific objectives included: the creation and facilitation of an enabling environment for the development and sustainability of clusters; the management of clusters; the establishment and institutionalization of a national linkages programme; and the identification of linkage opportunities and implementation of initiatives to facilitate them.

The Jamaica Cluster Competitiveness Project (now incorporated as the Competitiveness Company), is managed by the Jamaica Exporters Association (JEA), and was initially funded by the GOJ, USAID, DFID, JEA and other participating firms. The Competitiveness Company is the second phase of the Jamaica Competitiveness Cluster Project (JCCP). The three sector clusters targeted by JCCP and subsequently the Competitiveness Company are Agribusiness, Tourism and Entertainment. The project has sought to: increase sales and profits at the firm level by way of new products, new sales channels, and targeting more attractive customer segments; and improve the enabling environment by eliminating regulatory constraints to growth and competitiveness and strengthening the capacity of the private sector to engage in Public-Private Dialogue around issues of competitiveness.[92]

Bearing in mind the importance of network and cluster formation to innovation, particularly in small firms, it is suggested that technical and financial support from the international agencies be provided to catalyse a study that will critically assess the impact of the CSI and the JCCP on the MSME sector:

- The impact assessment issues to be considered include:

[91] Jamaica Gleaner, June 5, 2007
[92] Public-Private Dialogue (2006)

- Scale: how many people, enterprises and/or institutions were affected?

- Outreach: to what extent did the effects of the projects spread to specific target groups?

- Economic gains or losses among participating MSMEs: e.g. changes in output, productivity, product range and quality, income, employment – ultimately changes in competitiveness.

- Capacities and strengths of enterprise networks: including horizontal and vertical linkages achieved during the life of the project.

- The development of BDS and financial markets: in what way has demand for and supply of BDS and financial services been affected by the project?

- Strengthening of support institutions: in what ways (if any) have the various support institutions, including producer associations and government agencies, been strengthened by the project?[93]

- The above assessments, along with the lessons learned from international experience, should form the basis of best practice guidelines in the formation, operation and support of effective clusters. Best practice guidelines should be specifically designed for all key stakeholders including MSMEs, large companies in MSME networks, policymakers, government and donor support agencies, PSOs, BDS providers, financiers, etc.

- An assessment of the GOJ's websites that were established to foster the creation of online linkages and networks should also be conducted. The JTI's JBOS website, for example, needs to be evaluated to determine the extent to which it can fully facilitate meaningful linkages between stakeholders. Whereas the site provides matchmaking services, as businesses can post contact information, there are no mechanisms in place to facilitate online exchange between parties so as to reduce the transaction costs between parties. The site also does not record the number of linkages made and so automatic monitoring of its usefulness is stymied. Most importantly, levels of usage must also be assessed, and if low, studies conducted to determine the reasons for such low usage.

- The results of the above assessments should be used to both inform future donor and government initiatives, and, importantly, as the basis of a well-designed public education campaign to increase firms' awareness of opportunities and approaches for effective networking and clustering. The message to be delivered in the public education campaign mentioned previously should thus be expanded to include practical messages about the benefits of sustained efforts at networking and clustering, the challenges associated with such efforts, and the assistance available to overcome such challenges. These messages would be informed by specific Jamaican case study experiences, and

[93] UNIDO (2006)

would thus be able to target issues of greatest concern to stakeholders, while highlighting Jamaican success stories.[94]

More Effective Support to Firms that are Technology Developers and Leading Technology Users

Firms falling into this category need support in accessing, acquiring and adapting research results and technological innovations for their businesses. The policy initiatives include:

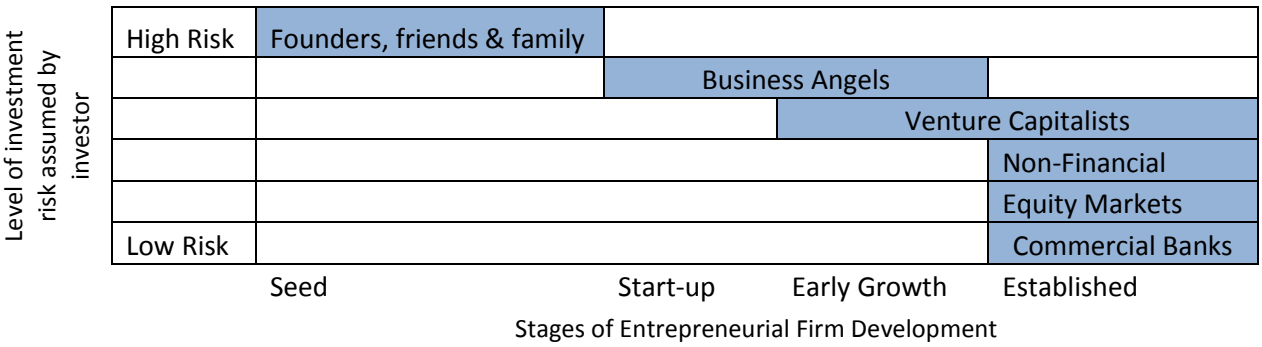
1. Filling Missing Markets in the Private Financial Sector

High-tech firms have particular problems needing tailored financial solutions. Their particular needs are seen to arise from the relatively high cost of R&D and its associated risks, which makes them unattractive to conservative or risk-averse lending institutions. High-tech businesses can also have the potential for fast growth, which means that the need for finance will be even greater. Such problems are often compounded by:

- 'the funder's lack of understanding of the potential of the products and processes, which is due very often to their specialist nature;
- the need for significant 'up-front' investment before there will be any clear evidence of the ability of such businesses to trade; and
- their owners' frequent failure to pay enough attention to communicating meaningfully in a non-technical way' (Bridge et al 1995).

The figure below highlights the funding sources typically used by firms at various stages of their growth, and it vividly illustrates two vital types of institutions which are missing in the Jamaican context – business angels and venture capital funds. If high risk innovative small firms are to receive adequate funding, these segments of the market must be filled.

Figure 2.4: Providers of External Finance through the Stages of Entrepreneurial Firm Development



Source: Cooper (2003)

[94] Please see Tennant (2009) for numerous additional policy proposals on networking and clustering that were presented to the TGCC through the PSDP.

Tennant (2011) studied these sources of financing in the Jamaican context and found that the venture capital market, while understood by most stakeholders, remains highly underdeveloped.[95] According to the 2010 Jamaica GEM Report, 83% of business respondents in 2009 were of the view that there is insufficient venture capitalist funding available for new and growing firms. By contrast, in developed countries venture capital is often an important source of funds used in the formation and expansion of small high-technology, cutting edge firms, which are often leaders and innovators in key industries.[96]

It must be noted though, that only a relatively small proportion of the money invested by venture capital funds ends up as seed money to support research or early product development. In the USA, seed-stage financing has never accounted for more than 8% of all venture capital disbursements over the past 23 years and most often has represented 1% - 5% of the annual totals.[97] This suggests that even if venture capital funds are established, enterprises that need early-stage financing are still likely to be underfinanced. In a number of countries individual investors, or "angels", and loosely organized groups of angel investors help to fill this gap.[98] They serve as primary sources of start-up and early-stage capital, once the internal resources of the entrepreneur are exhausted. Angels accommodate early-stage companies' smaller financing needs, which are generally incompatible with the investment priorities of institutional venture capitalists.[99] Business angels also frequently become active advisors to small businesses, and thus often provide valuable management advice and important contacts to MSMEs.

Angel investors are not popular in Jamaica, with many businesses not even being familiar with the term. Almost all business respondents (97%) opined that such investors were non-existent in

[95] Venture capitalists typically invest in enterprises that may not have access to credit or the stock market due to their size, age and/or risk profile. Such investments can be high risk and, in many countries, often includes hands-on involvement in the firm by the venture capitalist. Venture capital firms can afford to take substantial risks because of the large returns gained from a few of their investments. Conventional interest payments on loans do not provide this level of returns. Small and medium-sized businesses benefit from such investments because the funds and management expertise venture capitalists provide can aid their growth and development, and foster the creation of new products and use of new technologies.

[96] Sources of funds for venture capital firms include: foundations; government funds (either provided as a loan to capitalize the VC or as funds for direct investing in firms); individual investors; banks; and institutional investors (e.g. pension funds) (Heard and Sibert 2000). 'In the USA, the pool of money managed by venture capital firms grew dramatically over the past 20 years as pension funds became active investors... In fact, pension funds became the single largest supplier of new funds. During the entire 1990-2002 period, pension funds supplied about 44% of all new capital. Endowments and foundations were the second-largest source, supplying 17% of committed capital, followed closely by financial and insurance companies at 16%.'

[97] Science and Engineering Indicators (2006)

[98] Angel investors are individuals who invest in businesses looking for a higher return than they would see from more traditional investments. They usually invest their own funds, unlike venture capitalists, who manage the pooled money of others in a professionally-managed fund. A typical angel is a high net-worth individual with an interest and knowledge in a particular business sector. Due to that interest and expertise, the angel investors may also utilize their investments as a means of keeping current with developments in a particular business arena, mentoring another generation of entrepreneurs, and making use of their experience and networks on a less-than-full-time basis.

[99] Heard and Sibert (2000) note that 'these incompatibilities arise because of the limited size of a particular round of financing, limited, future anticipated needs, or the higher risk profile in start-up rounds.' In some cases, the company seeking financing is in an industry sector that is not in favour with the larger venture capital partnerships.

Jamaica, and about three-quarters of the businesses interviewed (77%) noted that funding for new and growing firms from private individuals other than the founders was insufficient (GEM 2010). There is thus a gap in funding for such firms.

Tennant (2011) made a number of suggestions to the international donor agencies as to how they could support the GOJ in their attempt to fill these gaps in funding. These suggestions are extracted below:

- Assessing the suitability of the legal and regulatory environment

  This is so as to ascertain whether there are any legal, regulatory or institutional factors that discourage venture capitalists from operating in Jamaica. Particularly relevant is the fact that venture capitalists need transparency in governance and accounting, and legal systems to which there is quick and effective recourse.

- Expanding public knowledge of venture and angel investing, and promoting the visibility of entrepreneurs to investors and of investors to entrepreneurs

  This strategy is critical to building a culture of entrepreneurship and risk capital investing in the country. Whereas numerous people are familiar with the relevant terminology and some are aware of the potential benefits that such investing may yield, venture capital funds and angel investments are relatively unpopular in Jamaica. Donor agencies could support the GOJ in encouraging the development of this industry, which begins with public education, information dissemination, and discussions with strategically selected stakeholders, targeted in the first phase at prospective investors.

  Education of entrepreneurs is also important, as knowledge of how angel and venture investing works and how investors think and make decisions gives entrepreneurs and prospective entrepreneurs a much better chance to assemble a plan that will attract money. Making the two camps visible to each other, through venture forums and networking events, makes it possible for relationships to form and trust to develop. These relationships are the key to facilitating investment.

  More specifically, donor agencies could work with the GOJ to:

  - Facilitate the formation of 'angel networks', which are groupings of angel investors that meet regularly to share experiences. These angel network meetings are also used as a forum at which to invite a number of entrepreneurs to make presentations outlining prospective investments. In the USA such networks have been successfully used in numerous states to raise funds for small enterprises. Donor agencies could dedicate funds to support workshops to help aggregate, educate and mobilize angel networks;

  - Jumpstart the development of this industry by providing matchmaking services through a suitably-designed brokering programme. In the USA such programmes match start-up companies with suitable investors by setting up computer databases. Both potential investors and companies seeking financing are charged a fee; when a suitable match is

found, the parties are introduced. In the Jamaican context, the government may consider initially offering this service (if a suitable private sector provider is not available) and waiving this fee as it tries to increase the popularity of this type of financing; and

- Encourage business incubators to offer formal or informal access to angels.

- Creating investment capital to build an angel and venture capital industry

  This strategy is based on the belief that the best way to serve aspiring, young companies is to help ensure that they have access to a robust, professional angel and venture capital industry. Donor agencies can support the GOJ in facilitating this industry by:

  - Providing technical assistance to aid in the design of a system of tax credits to individual angel investors and venture capital firms meeting certain qualifying conditions. In the USA the typical credit is 20% to 30% of the amount invested; and

  - Providing financing to facilitate direct investments in selected venture capital firms. In a number of states in the USA, investments are made in several private partnerships, along with other investors. The strategy is to select partnerships that are expected to produce excellent market returns while contributing to the growth of a healthy, local venture capital industry. '*The model is a good way to... focus a variety of experienced investors on the legitimate capital needs of local business*.'

    N.B. In Jamaica's current fiscal climate, the benefits of any additional tax credits would have to be carefully weighed against the cost of further complications to the tax system. Also to be considered is the fact that international experience strongly suggests that with very few exceptions, state-run venture capital firms are not very successful.

2. Providing Government Financial Support for Potential Innovators

The financing gap that confronts small firms in the early stages of innovation will not be completely filled by the private sector. As extracted from Tennant (2009), specific initiatives which can be undertaken by the government include:

- Improving MSMEs' access to the GOJ's Technology Investment Fund (TIF)

This fund has been established to *finance investments in commercial activities which contain new or substantial technological improvements and which would not qualify for funding using the existing criteria of commercial and development banks. It also provides funding for R&D activities to enhance competitiveness in existing commercial enterprises.* Funds are provided either through loans, grants, equity or a combination of the three.

The objectives of this fund are clearly in line with the needs to be met in the Jamaican context, and with objectives of similar funds established in other countries. The degree to which firms, particularly MSMEs, utilize this fund is, however, questionable. Whereas technology developers

and leading technology users are expected to be able to access information on the fund through the NCST's website, and the application fee is not particularly high (J$1,000), there are three critical problems which may limit MSMEs' access:

- *The website is not user friendly*. There are only two pages on the NCST's website on the TIF – one with guidelines for applications, and the other with the online application form (which cannot be saved and submitted online, but rather must be printed). Very little background information on the fund is provided, and no information is given on the sums of money that can be accessed, the types of projects/applicants which were previously successful, or contact information for persons to whom queries can be directed. By contrast, the website for the US Small Business Innovation Research Programme (SBIR) includes the following pages, all of which contain useful and relevant information: Purpose; Eligibility; Applicant Information; Previous Awards; Funding Status; Resources; Laws, Regulations and Guidance; FAQs; and Contacts. The TIF's website must be made more user-friendly if firm-usage is to increase.

- *There is no clear focus on or special provisions for MSMEs.* Whereas MSMEs are not explicitly prevented from accessing the fund, the absence of a clear focus on the sector leads to deterrents which need to be overcome if this fund is to catalyse innovation in small businesses. In many other countries similar funds have been established specifically for MSMEs (including the SBIR in the USA and the Research for SMEs and Research for SME Associations Programmes in the EC). Whereas the creation of a new fund for MSMEs is not being suggested, the following issues must be addressed if the extant TIF is to address their needs:

    - The range of institutions involved in the administration of the TIF should be expanded to include MSME representatives. The institutions currently involved are the NFDST, NDB and SRC. Whereas MSMEs could theoretically be included as members of the NFDST, this is not likely to be the case, as the Foundation members are required to make contributions to the fund of J$3,000,000.[100] If the interests and activities of MSMEs are to be considered as central to the TIF, its administration should include representatives that will champion their cause.

    - The application form to be submitted and proposal to be prepared when applying for funding from the TIF seem quite onerous. International best practice indicates that in order to target MSMEs, procedures should be simple since they do not have the organizational slack to devote resources to searching for funding or putting together applications.[101] The development of a simplified application form for MSMEs is therefore suggested, with officers being made available to provide assistance and advice during the application process.

[100] The NCST Steering Committee also has no representatives from the MSME sector.

[101] The OECD (2001) further suggests the promotion of the 'single-point-of-sale' concept. MSMEs should not be tasked with finding which public programme best suits their needs. *It should be possible for them to submit a single application and have a public body or agency be responsible for proposing the appropriate financing mechanism.*

- The TIF only funds up to 60% of any single project. Whereas the principle of risk-sharing being espoused is supported, the stringent financing constraints facing MSMEs may prevent them from accessing the additional 40% required. Special consideration for the sector is thus required, with the limit possibly being increased, or with the TIF providing letters of support (not guarantees) to MSMEs seeking financing from other sources. *Due to the prestige of the US SBIR programme, firms that win SBIR awards automatically receive recognition for this that is helpful in raising follow-on financing.*[102] Because this signalling or certification effect is not yet evident in Jamaica, letters of support or other means of highlighting to financiers that the projects have been thoroughly assessed by technical and financial experts should be provided to TIF awardees.

- *Several studies have shown that public funding in the form of R&D grants plays a decisive role as seed financing for high-tech and potentially high-growth MSMEs.*[103] The provision of external seed financing is an important need of MSMEs that is currently unmet in the Jamaican context. The TIF can help to fill this gap, as it allows for the funding of *green-field projects or S&T components of new projects*. The provision of seed financing for MSMEs to facilitate technology acquisition should thus become one of the TIF's priorities.

- Funds acquired through the TIF may be used for a variety of purposes, including *short-term consultancies, market surveys, intellectual property protection and other efforts related to the commercialization of a technology or a new or improved product or process.* It is not clear from the usage of funds highlighted whether the TIF will provide grants for firms to buy a wide range of consultancy services as long as they are in an effort to raise competitiveness and productivity. This should be clarified because strategic advantages in innovation are not only accrued through product and process innovation, but also by, for example, product repositioning in the market and changes in the underlying mental models which frame what the organization does. The technical review committee of the TIF should be oriented to recognize projects that will foster innovation in non-traditional ways, and should be willing to fund them.

- *If there is an increase in the number of firms accessing the TIF, additional funding will have to be sourced.* The Fund was established with $50 million from the then Ministry of Commerce Science and Technology, most of which has already been disbursed.[104] A public-private partnership approach to financing the TIF is highlighted as best practice,

[102] Cooper (2003)

[103] 'According to Mustar (1997), about 70% of the French new technology-based firms have benefitted from public R&D grants distributed by ANVAR. Clarysse and Degroof (2000) found that 50% of the Belgian spin-offs had received at least one R&D grant since inception. R&D grants are often considered by these start-up companies as cheap sources of seed capital and the sums received can total several million Euros in their start-up stage' (OECD 2001). In the Philippines, the Department of Science and Technology provides one-time seed funding to MSMEs to facilitate technology acquisition, with the hope that this will enable them to access formal credit sources for future technology needs and to expand their production activities.

[104] NCST (2005)

particularly when there are constraints on public spending. The National Science and Technology Policy (2005) highlighted numerous planned actions for increased funding of R&D, including:

- *Rationalization of the various incomes, taxes and revenues earned by Science and Technology (S&T)institutions to form one major S&T fund for development;*

- *Allocation of a percentage of funds from the National Lottery (CHASE Fund) to S&T; and*

- *The NFDST to increase fundraising activities for the advancement of S&T, focus will be placed on seeking a substantial increase in financial resources from: the private sector, particularly financial institutions; expatriate Jamaicans; and global benevolent institutions.*

The NCST should conduct an assessment of the feasibility of each of these and other mechanisms for fostering increased and sustained funding of the TIF, and develop a plan of action for urgent implementation. International donor agencies could provide much needed technical assistance in these areas.

- Improving MSMEs' access to R&D Tax Incentives

R&D tax breaks are used in many countries as a means to guide more resources into innovation by reducing the marginal cost of R&D activity.[105] Through the R&D Tax Incentive Scheme, the GOJ has allowed approved R&D projects to qualify for an exemption of GCT and Customs duties on equipment and materials. Most of the issues highlighted above for the TIF also constrain firms', particularly MSMEs', effective usage of the R&D Tax Incentive Scheme. Particularly important is the fact that *there is no clear focus on or special provisions for MSMEs.* Measures similar to the ones suggested above can be implemented to improve MSMEs' access to this scheme.

3. Ensuring Enhanced Access to Intellectual Property Right Protection

One of the best ways of promoting continued innovation is to ensure that MSMEs benefit from the results of their efforts. Effective rules and procedures for the protection of intellectual property are essential. Based on the assessment previously conducted, the following suggestions are made for the enhancement of Jamaica's IPR framework:

- The GOJ should seek to have the Patents and Design Bill (which has been under consideration from 2001) expeditiously passed. This will facilitate, *inter alia,* the country's signing of the Patent Corporation Treaty (PCT), which will significantly reduce the burdens faced by MSMEs in applying for IPR protection in several countries. *By filing one international application under the PCT, businesses can simultaneously seek patent protection for an invention in all countries that are contracting parties to the PCT.*[106] Due

[105] Metcalfe (2003)
[106] WIPO

consideration should, however, be given to balancing TRIPS compliance with ensuring protection under the Convention of Biological Diversity, and continued access to vital medicines that are patented in other countries.

- The previously discussed amendment of the Geographical Indications Act to ensure that maximum protection is afforded to important local geographical indicators should be expedited.

- JIPO should seek to expedite the discussions needed to precede the drafting of legislation to protect plant varieties.

- JIPO should initiate discussions with the legal fraternity and MSME stakeholders to assess the costs and benefits of Jamaica becoming a member of the Madrid System for the International Registration of Marks.

- The extant Jamaican Patents Act and the new Patents and Designs Bill allow for the registration of petty patents, which are considered to be *instruments of protection that are particularly suited to small enterprises with limited R & D capacity, but capable of making incremental changes or adaptations to existing products.* Such patents (also called innovation patents or utility models) *are generally cheaper than patents, faster to obtain and often have lower requirements than patents in terms of the threshold of inventiveness.*[107] In other countries, however, even though the value of such patents is acknowledged, usage tends to be low. Some Jamaican interviewees were unaware of the existence of petty patents in this jurisdiction. JIPO should thus assess the level of awareness of petty patents, and seek to encourage their usage where applicable.

- Because many MSMEs use mechanisms and/or engage in behaviours outside the formal IPR system to protect its IP, JIPO should endeavour to ensure that, wherever possible, legal support for informal IP practices is provided. For example, trade secrets tend to be used by some MSMEs, and as such, assessments of the adequacy of the legal provisions to protect such trade secrets should be conducted.[108]

  Additionally, upon consultation with the legal fraternity, JIPO could design and disseminate standard/form documents and agreements that can be used within firms and their networks and clusters to protect confidential information.

Efforts to Increase the Relevance, Effectiveness and Transfer of Research and Technological Solutions developed in Research Institutes, Universities and MSME-Support Agencies

The success of national innovation systems (NIS) does not depend only on the individual capacity of each component, but rather on the way they interact with and support each other.

[107] WIPO

[108] In this respect, a lawyer noted that while trade secrets are not protected by legislation, they are adequately protected by case law.

Efforts are therefore needed to ensure that these institutions connect with the rest of the economy in a range of collaborative activities. The specific policy initiatives suggested in this area are aimed at r*e-orienting universities and research institutes to the needs of firms, particularly MSMEs* – through:

1. Implementation of a Comprehensive Technology Foresight Programme

Foresight activities have been defined as *a systematic means of assessing those scientific and technological developments which could have a strong impact on industrial competitiveness, wealth creation and the quality of life.* UNIDO (2008) regards technology foresight as:

> *the most upstream element of the technology development process. It provides inputs for the formulation of technology policies and strategies that guide the development of the technological infrastructure. In addition, technology foresight provides support to innovation, and incentives and assistance to enterprises in the domain of technology management and technology transfer, leading to enhanced competitiveness and growth.*[109]

Such programmes have been successfully used in numerous OECD countries, and, through UNIDO initiatives, are currently being implemented on a regional basis in many developing economies in Asia, Central and Eastern Europe and Latin America and the Caribbean. Technology foresight programmes are noted to be useful in identifying risks and opportunities, enabling governments and companies to respond to present challenges, and to prepare themselves for forthcoming challenges.[110]

The success of such programmes lies in the creation of bridges and connectivity within the nation's science and technology base, and between that base and its areas of application. The inclusion of knowledge about demand and market developments in the country's research activities is one of the key achievements of such programmes. A comprehensive technology foresight programme involves extensive consultations with the target stakeholders – government, the R&D community, consultancy firms and businesses from various sectors of the economy.

The principal lasting benefits of such exercises include:

- building the science base into the national innovation system;
- the formation of commercial and academic strategies to promote innovation;
- the creation of lasting networks between industry, government and the S&T community; and
- the emergence of coherent visions within the respective communities on complementary developments in science and technology.[111]

The MSTEM/MIIC/NCST should therefore take the necessary steps to initiate such a programme. Advantage should be taken of the UNIDO Technology Foresight Programme for the Latin American and the Caribbean region launched in 2002. The aim of this programme is to:

[109] http://www.unido.org/index.php?id=o5216
[110] http://www.unido.org/fileadmin/media/documents/pdf/Newsletter2.pdf
[111] Metcalfe (2003)

build capability in the use of foresight as a practical tool in designing policies and strategies that exploit emerging and critical technologies for the benefit of developing countries. Through such UNIDO initiatives, training support is provided to key stakeholders, and foresight studies are conducted in key sectors. The MSTEM/MIIC/NCST, however, has to be careful to ensure that MSME interests are represented in the technology foresight programme to be implemented, as particularly micro and small businesses can be ignored in such activities.

2. Empowering and Mandating the National Commission on Science and Technology to Propel Effective Industry-Science Relations

The need for effective collaboration between universities, research institutes and the business community is well established. This collaboration will, however, not occur automatically, but will require proactive government intervention. A 'bridging institution/agency' between the different contributors to innovation is suggested. Such an institution/agency will act as the focal point in the innovation process in a number of ways:

- By collating, codifying and disseminating knowledge on various sectors' usage of and potential demand for technology, thereby raising awareness;
- By sourcing technological and innovation management services for firms;
- By organizing pre-competitive research projects;
- By organizing collaborative research projects in an industry, bringing together the viewpoints of different firms and sharing the costs of innovation;
- By organizing innovation networks within supply chains and between firms and universities and research institutions;
- By regularly monitoring and evaluating the effectiveness and efficiency with which public sector/government-supported R&D institutions perform their functions, particularly with respect to their creation of knowledge relevant to the needs of industry; and
- By facilitating regular capacity-building exercises in public sector/government-supported R&D institutions, so as to ensure currency of expertise and equipment in critical areas – scholarships for staff, transfer programmes and formal relationships with leading foreign universities and research agencies should be organized.

If it fulfils these functions, the 'bridging institution/agency' will be able to effectively coordinate the division of labour in the innovation process. Although the NCST has been designated by the government as the main coordinating body, it is too small to effectively coordinate the large number of stakeholders. It also does not have the national recognition required to be taken seriously.[112]

Due to the deficiencies in the current infrastructural framework and the resultant low degree of technology transfer, the establishment of a centre for promoting the transfer of technology has been proposed. Whereas such centres have successfully fostered technology transfer in a number of countries; the existence of Jamaican institutions with similar mandates, and the country's fiscal position suggests the need for reticence in establishing a new body. Instead, the NCST

[112]STI sector plan - Jamaica's Vision 2030

should be empowered and mandated to fulfil the primary function for which it was created – the application of science and technology for social and economic development.

The government needs to be clear as to the future role of this agency, as in the STI Sector Plan in Jamaica's Vision 2030 a recasting of the NCST as a STI think-tank is proposed, while the National S&T Policy for Jamaica (2005) notes that the NCST will be strengthened to enable it to coordinate, integrate and support national activities. The latter vision is more in line with current national priorities. The Office of the Prime Minister, the current leadership of the NCST and the MSTEM/MIIC need to initiate discussions around the future functioning of the NCST, with emphasis being given to the coordinating role needed to facilitate technology transfer.

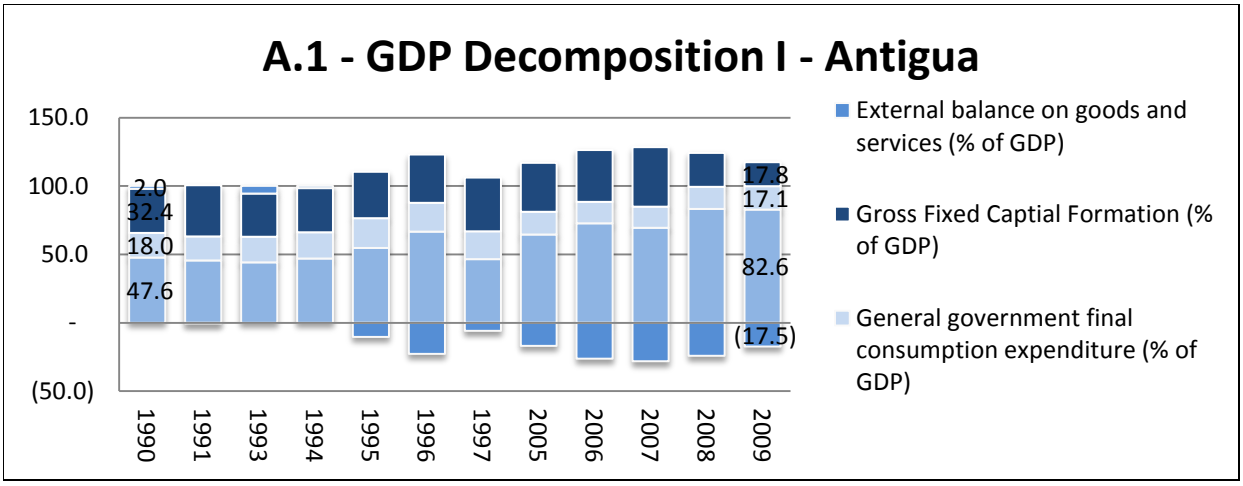
N.B. Further details as to the specific initiatives outlined, justifications provided and international best practices utilized, are presented in chapter 1 of the document entitled 'Policy Report for the Jamaican MSME Sector – Phase II (2009)' authored by David Tennant on behalf of the Target Growth Competitiveness Committee of Jamaica's Private Sector Development Programme.

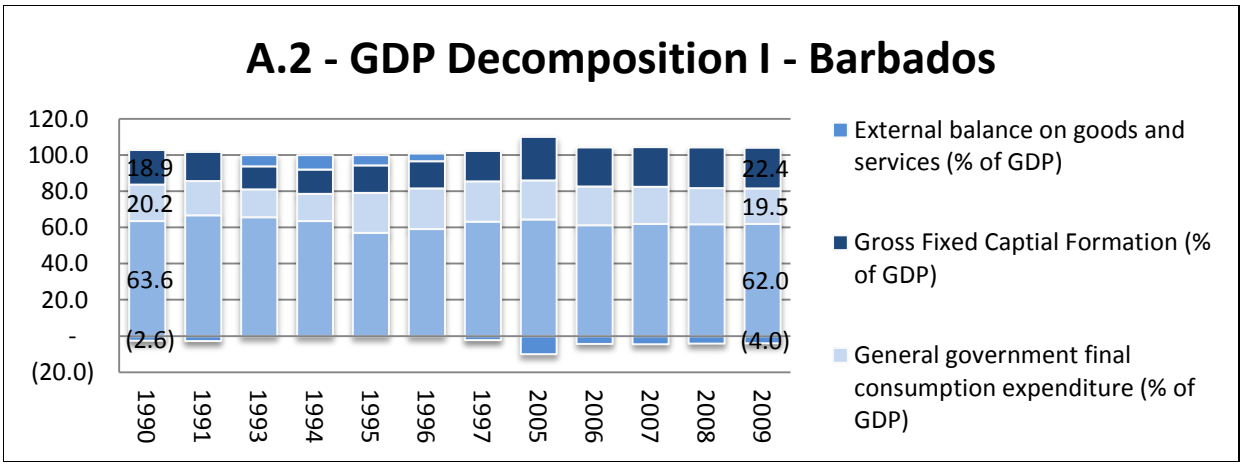
CONCLUDING REMARKS

If the GOJ is going to effectively implement any or all of the policy suggestions highlighted above, it must address the weaknesses identified in its policy and coordination function for innovation and technology. A high-level champion for innovation and technology (preferably at the ministerial level) must arise from either the Ministry of Science, Technology, Energy and Mining or the Ministry of Industry, Investment and Commerce. Importantly, this champion must be given the requisite institutional, financial and legal support to drive far-reaching innovation and technology policy reforms.

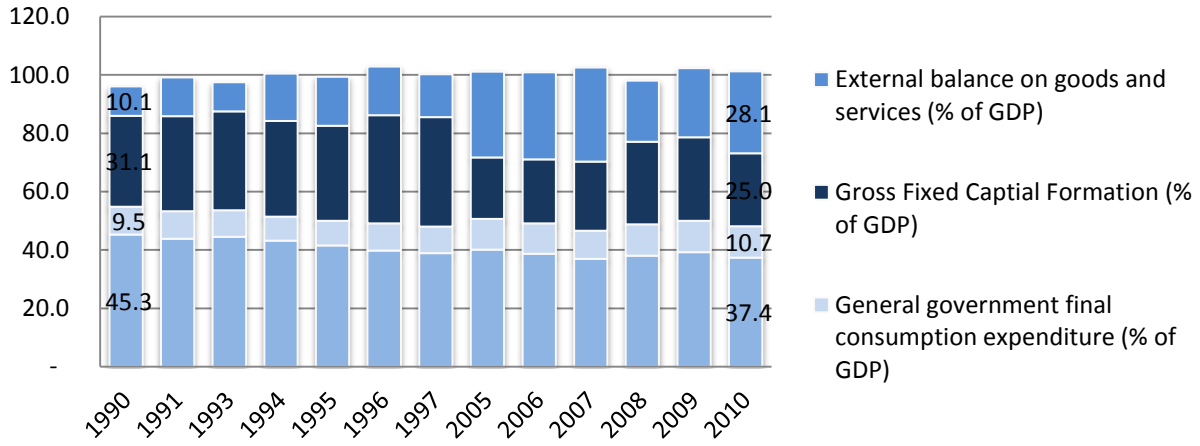
It is not sufficient for the GOJ to continue speaking about the need for innovation and technological advancement. The emphasis placed on this area in the country's Vision 2030 National Development Plan must be quickly acted on. If primary responsibility for coordination and policy-based activities in the area of science, technology and innovation continues to lie with the National Commission on Science and Technology (NCST), this commission must be given the staffing and clout needed to effectively coordinate the large number of science and technology institutions, and to drive policy making efforts in this area. Its mandate should also be extended to empower it to effectively deal with the foundational issues affecting innovation and technology in Jamaica, particularly those relating to the educational sector.

APPENDICES FOR CHAPTER 1

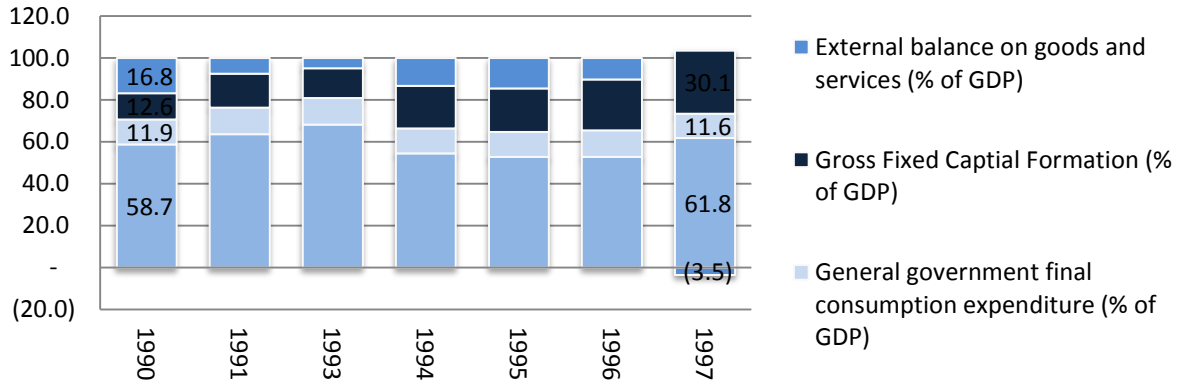




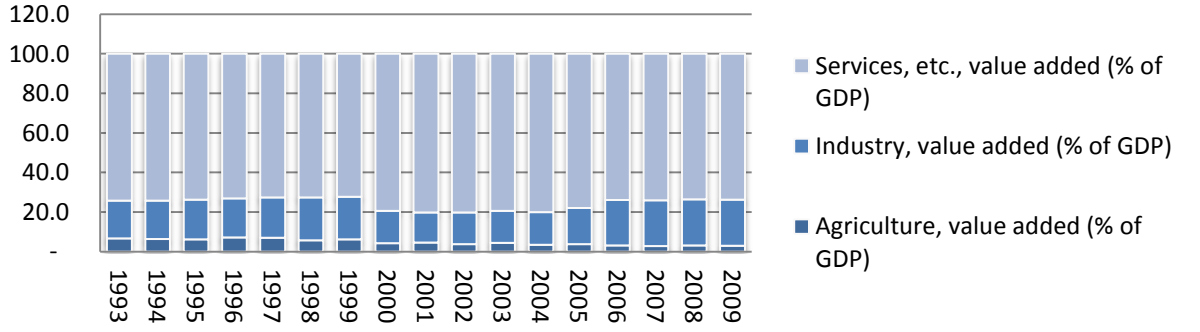
A.3 - GDP Decomposition I - Singapore

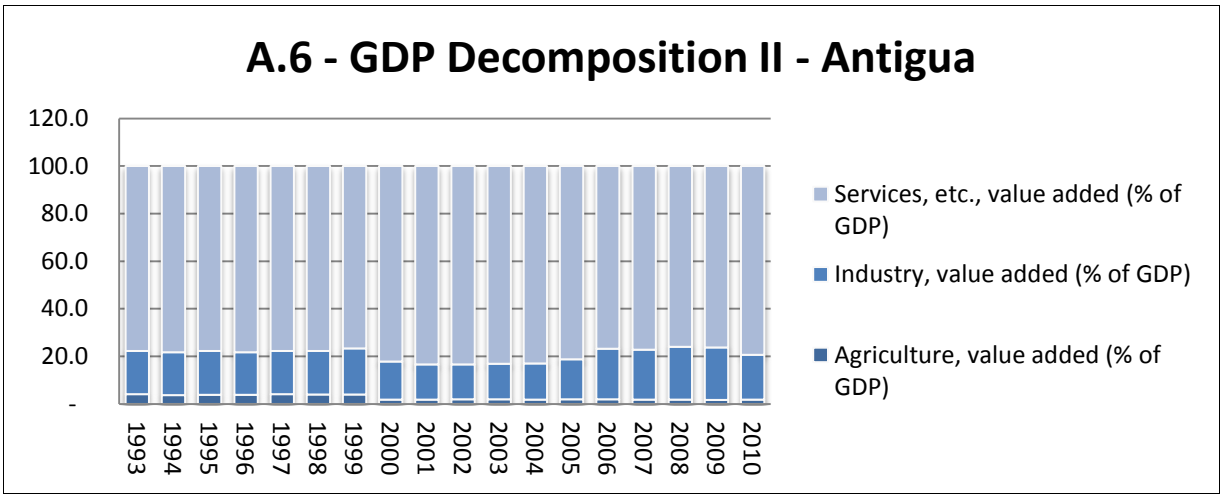


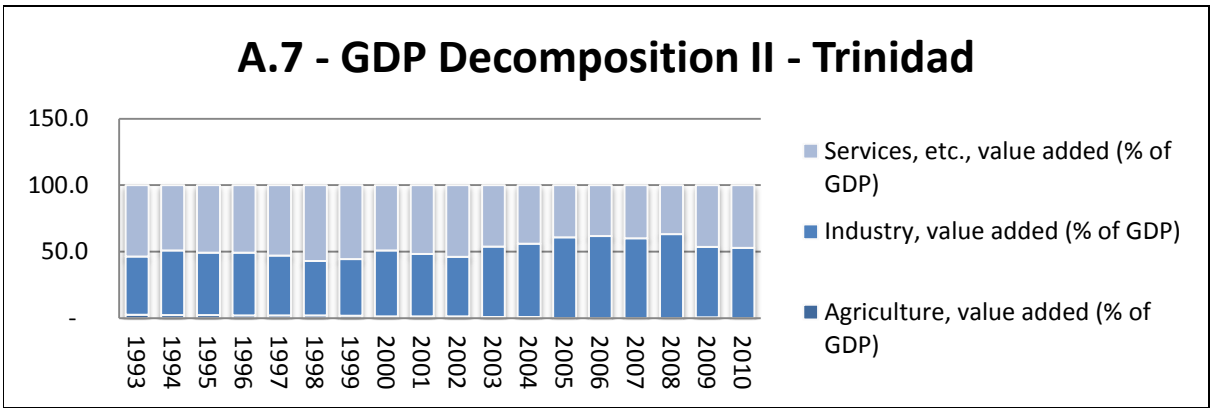
A.4 - GDP Decomposition I - Trinidad

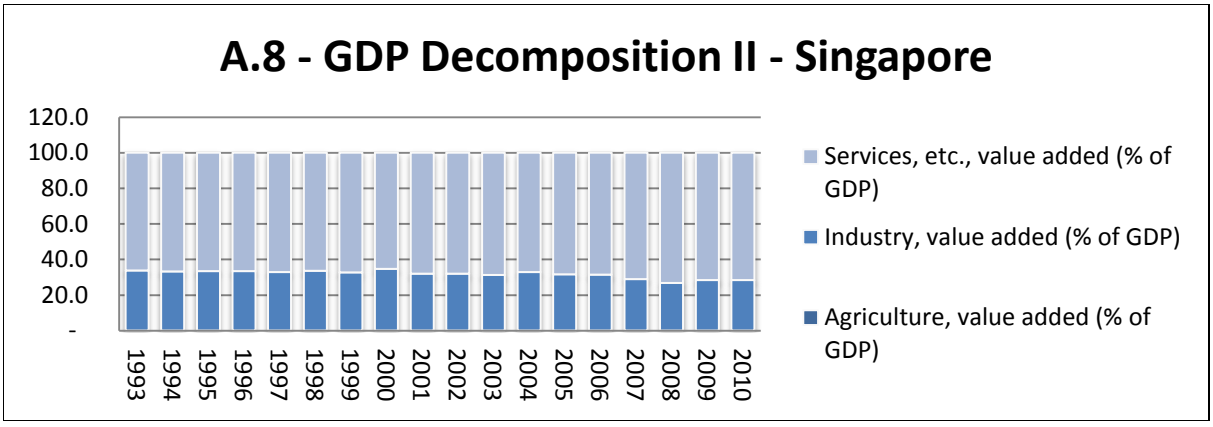


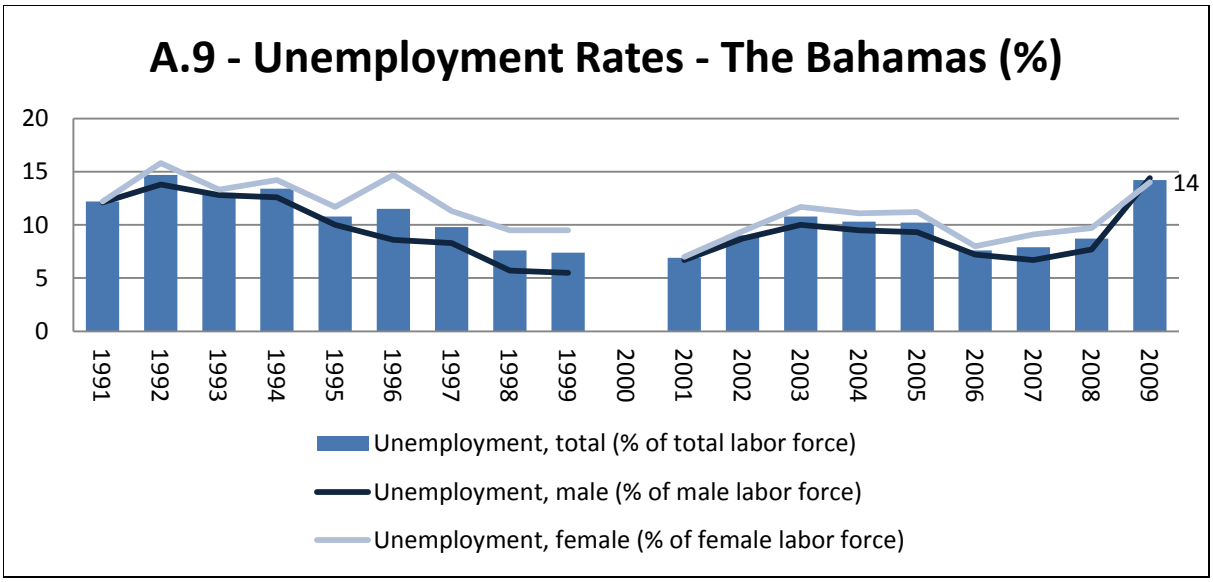
A.5 - GDP Decomposition II - Barbados

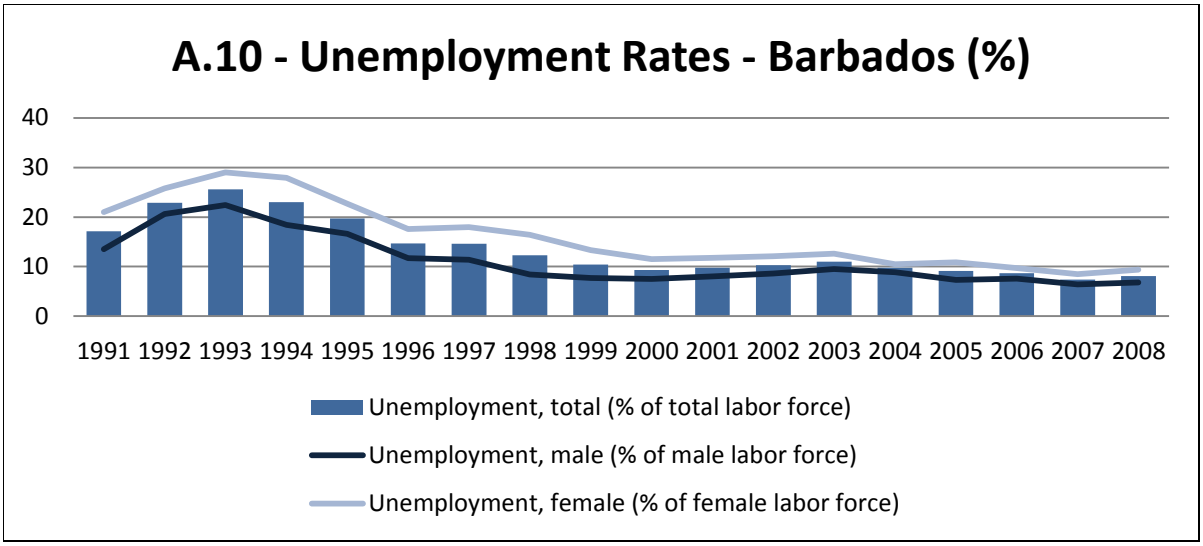


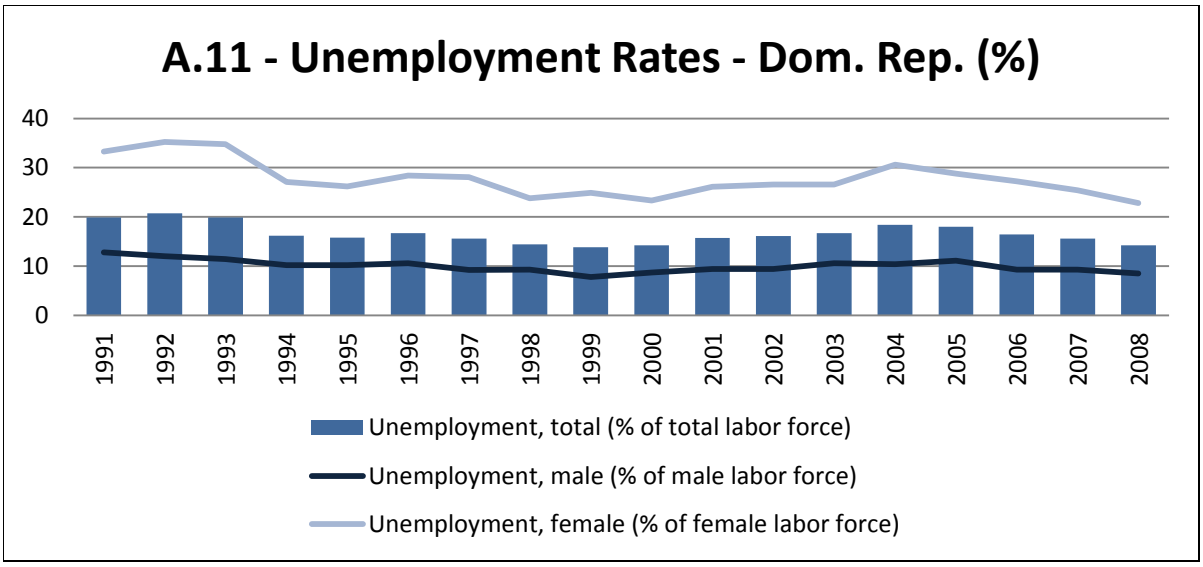

A.6 - GDP Decomposition II - Antigua
120.0
100.0
80.0
60.0
40.0
20.0
-
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
Services, etc., value added (% of GDP)
Industry, value added (% of GDP)
Agriculture, value added (% of GDP)


A.7 - GDP Decomposition II - Trinidad
150.0
100.0
50.0
-
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
Services, etc., value added (% of GDP)
Industry, value added (% of GDP)
Agriculture, value added (% of GDP)


A.8 - GDP Decomposition II - Singapore
120.0
100.0
80.0
60.0
40.0
20.0
-
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
Services, etc., value added (% of GDP)
Industry, value added (% of GDP)
Agriculture, value added (% of GDP)


A.9 - Unemployment Rates - The Bahamas (%)
20
15
10
5
0
14
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Unemployment, total (% of total labor force)
Unemployment, male (% of male labor force)
Unemployment, female (% of female labor force)


A.10 - Unemployment Rates - Barbados (%)
40
30
20
10
0
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008
Unemployment, total (% of total labor force)
Unemployment, male (% of male labor force)
Unemployment, female (% of female labor force)


A.11 - Unemployment Rates - Dom. Rep. (%)
40
30
20
10
0
1991
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1993
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1995
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1997
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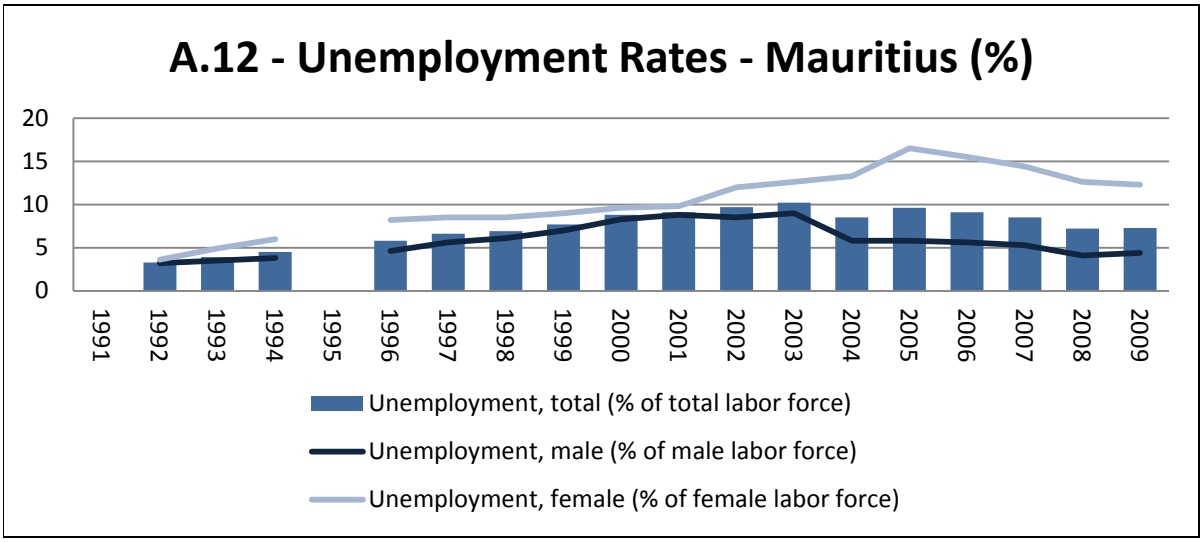
Unemployment, total (% of total labor force)
Unemployment, male (% of male labor force)
Unemployment, female (% of female labor force)


A.12 - Unemployment Rates - Mauritius (%)
20
15
10
5
0
1991
1992
1993
1994
1995
1996
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1998
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2000
2001
2002
2003
2004
2005
2006
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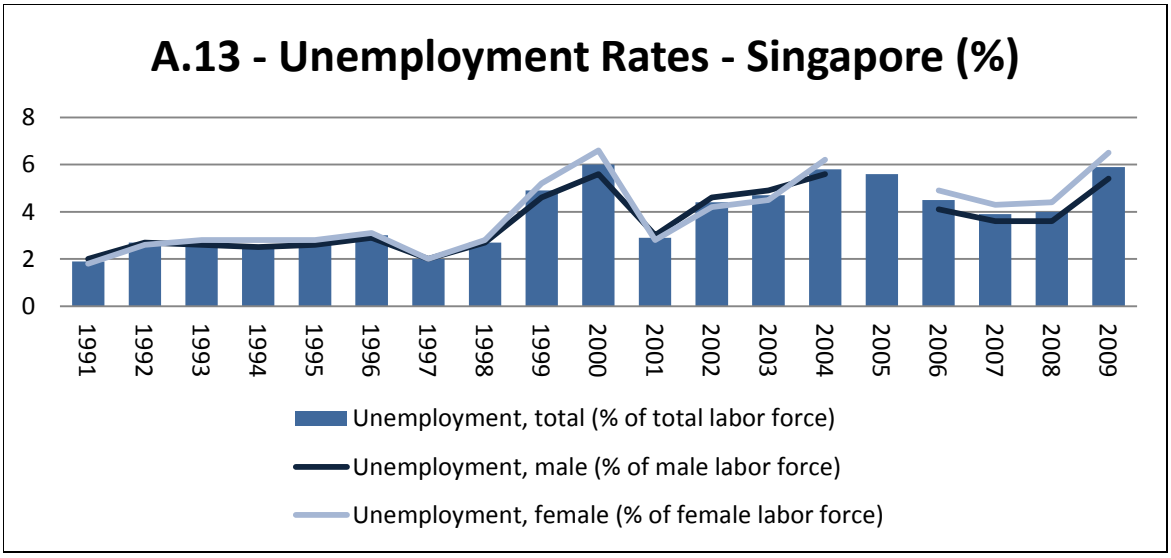
2009
Unemployment, total (% of total labor force)
Unemployment, male (% of male labor force)
Unemployment, female (% of female labor force)


A.13 - Unemployment Rates - Singapore (%)
8
6
4
2
0
1991
1992
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1994
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2003
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2005
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2009
Unemployment, total (% of total labor force)
Unemployment, male (% of male labor force)
Unemployment, female (% of female labor force)

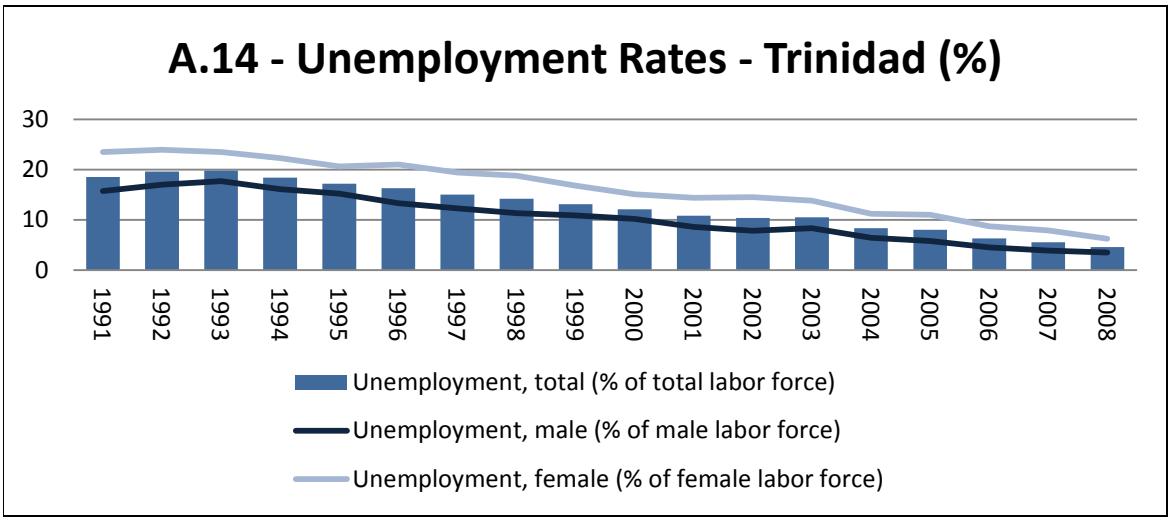
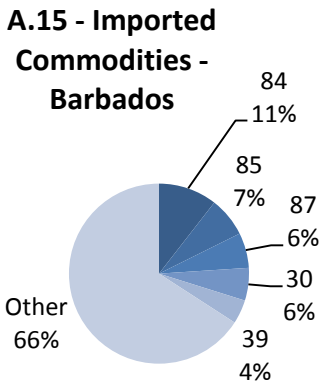


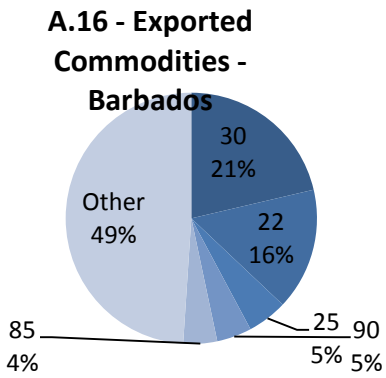
Table A.1 – International Trade Patterns for Jamaica (2010)

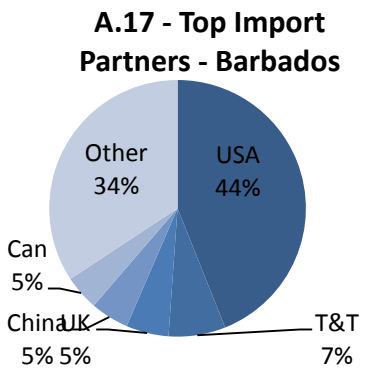
JAMAICA		
Selected classification: HS2007; Selected commodities: All		
Selected partners: All; Selected trade flows: All		
Top Imported Commodities		
Code	Description	Trade Value
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	$1,587,529,494
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	$289,422,564
85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	$277,855,281
22	Beverages, spirits and vinegar	$243,962,324
87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	$222,378,481
Other	Other commodities	$2,604,078,594
Top Exported Commodities		
Code	Description	Trade Value
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, of radioactive elements or of isotopes	$406,503,103
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	$282,032,037
22	Beverages, spirits and vinegar	$151,642,826
26	Ores, slag and ash	$128,807,791
17	Sugars and sugar confectionery	$47,545,605
Other	Other commodities	$311,070,564

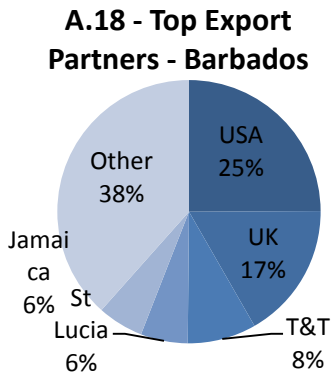
Top Import Partners	
Partner Title	Trade Value
USA	$1,875,094,825
Venezuela	$732,815,679
Trinidad and Tobago	$721,031,406
China	$242,896,231
Brazil	$203,171,910
Other partners	$1,450,216,687
Top Export Partners	
Partner Title	Trade Value
USA	$659,125,075
Canada	$163,437,174
United Kingdom	$83,903,450
Norway	$68,530,843
Netherlands	$68,269,156
Other partners	$284,336,228

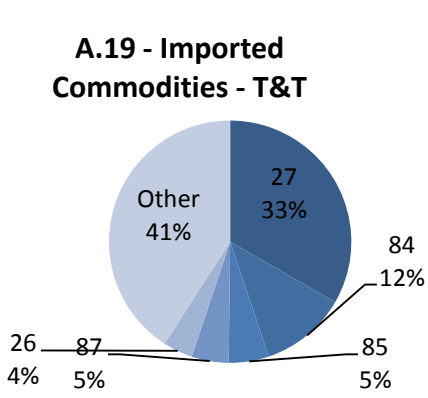
Source: UN COMTRADE Website

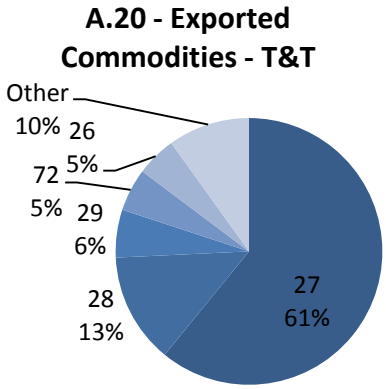


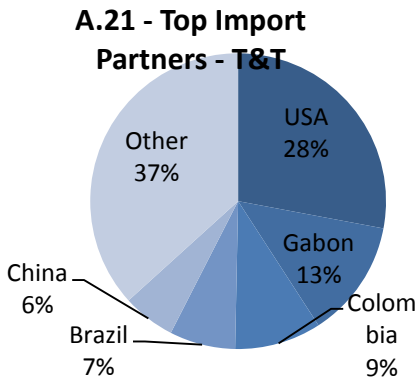


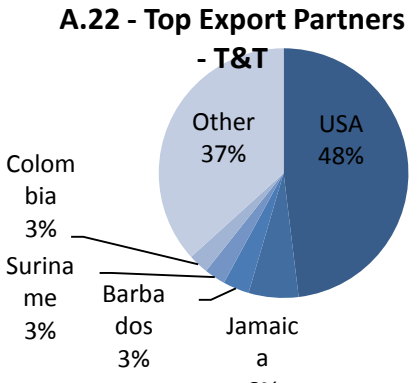




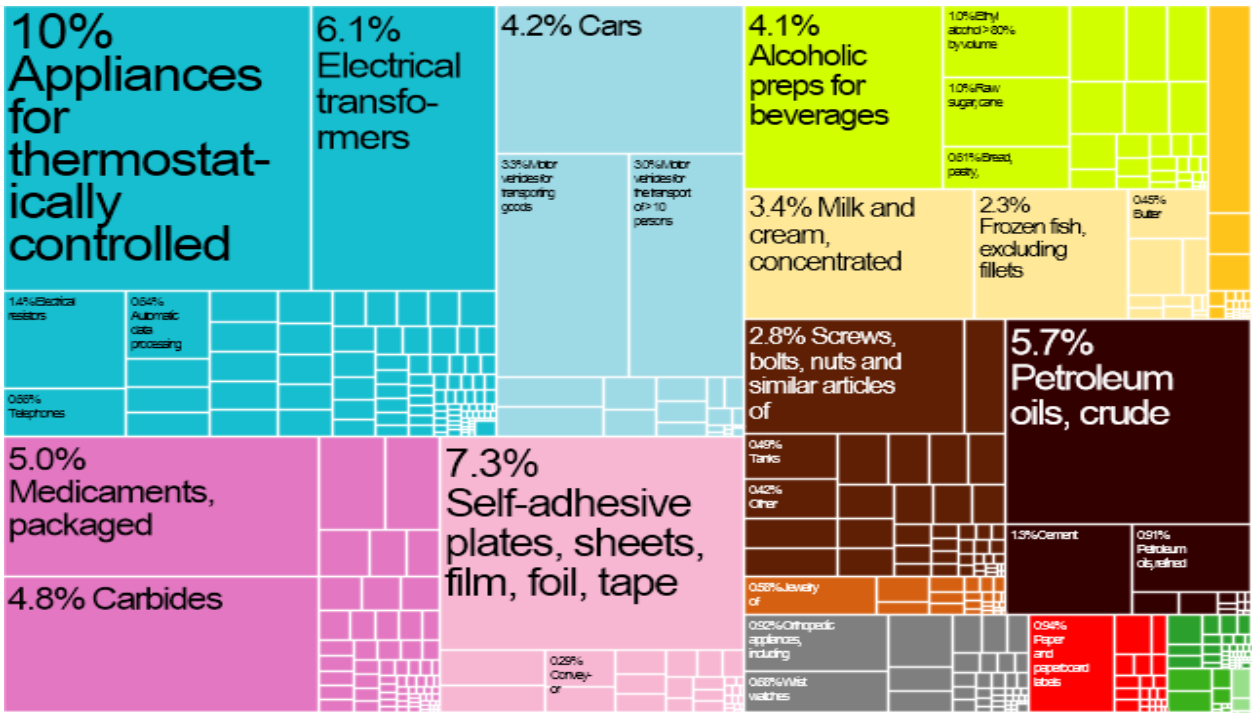




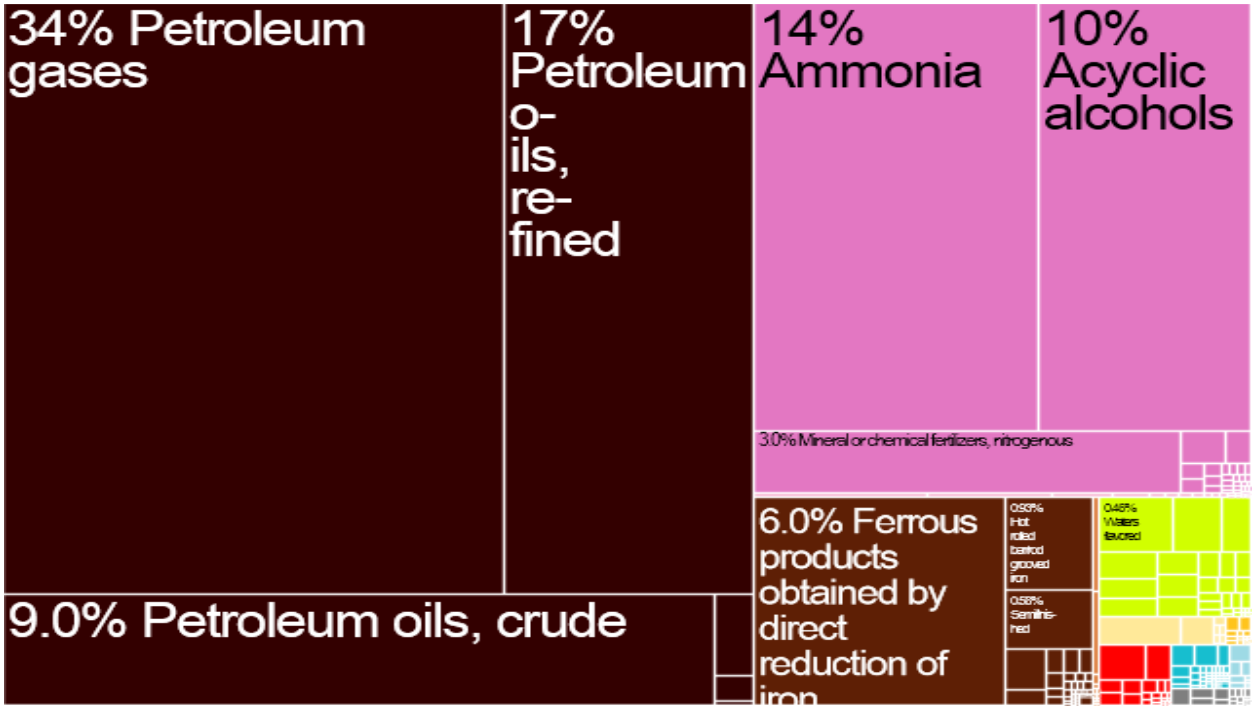


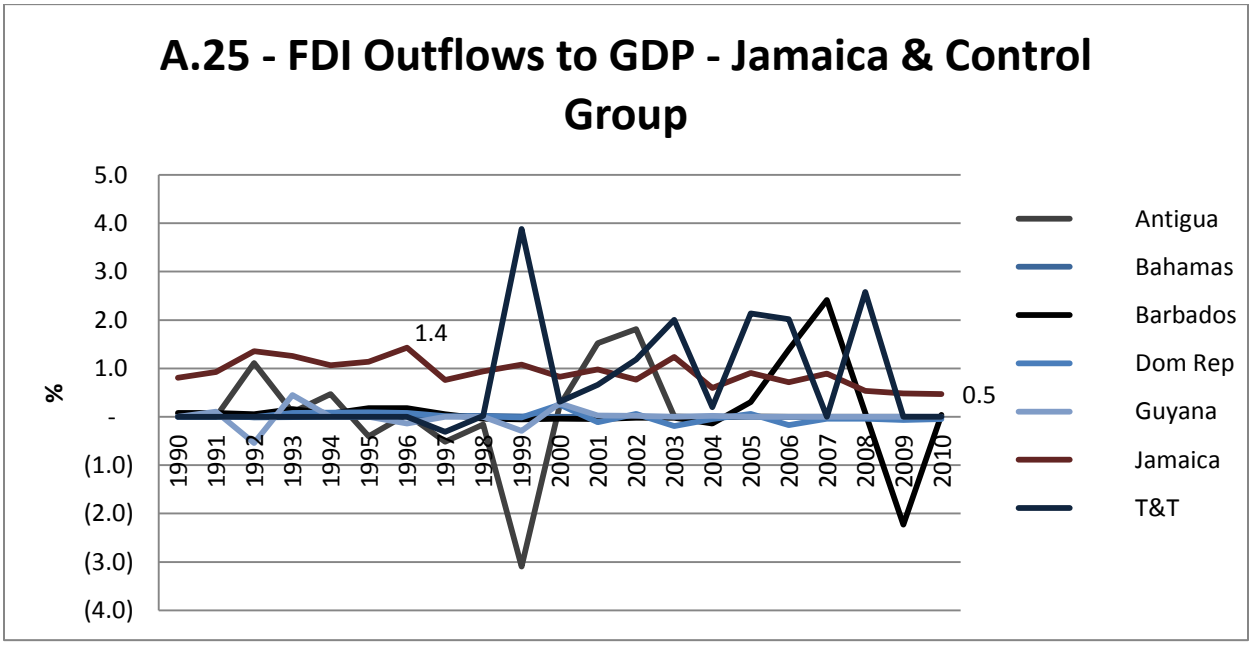


A.23 - Treemap of products exported from Barbados to World in 2010



A.24 - Treemap of products exported from Trinidad and Tobago to World in 2010





Source: http://unctadstat.unctad.org

Table A.2 - Sectors with Potential to Attract Investment - Barbados					
Industry	# Affiliates in Country	# Parent Companies with Affiliates in Country	# Employees in Affiliates	# Affiliates Established since 2000	Leading Home Country
Total (merchandise and services)	260	166	13,812	58	USA
Business activities	150	104	782	37	USA
Wholesale and retail trade	49	36	6,586	10	T&T
Finance	33	20	4,017	5	Canada
Transport, storage and communications	11	11	789	5	USA
Other services	9	8	83	3	USA
Electrical and electronic equipment	7	7	356	1	USA
Construction	5	5	134	2	Canada
Machinery and equipment	5	5	161	2	USA
Hotels and restaurants	5	4	700	2	Luxembourg
Metal and metal products	4	4	48	1	USA
Chemicals and chemical products	3	3	35		USA
Precision instruments	3	3	35	1	USA
Motor vehicles and other transport equipment	3	3	52	1	USA
Textiles, clothing and leather	3	3	175		T&T
Wood and wood products	2	2	322		USA
Publishing, printing and reproduction of recorded media	2	2	322		USA
Coke, petroleum products and nuclear fuel	2	2	13		USA
Rubber and plastic products	2	2	50		UK
Food, beverages and tobacco	2	2	12		USA
Mining and quarrying	1	1		1	Canada
Non-metallic mineral products	1	1	250		T&T
Electricity, gas and water	1	1	16		USA
Community, social and personal service activities	1	1	3		Canada
Other manufacturing	1	1			Bermuda
Public administration and defence	1	1			USA

APPENDICES FOR CHAPTER 2

Box A.1 - Innovation in the Service Sectors

Innovation in the service sectors is a continuous, pervasive and collaborative activity, where firms constantly change products and processes, while developing new ways of working not necessarily based on R&D activities or expenditures. Most of the time, services tend to rely on non-technological forms of innovation as productivity enhancers. In this sense, marketing and organizational innovations, implementation of new designs and a continuous training are quite characteristic of the innovation in the service sector.

In a more accelerated pace than in other sectors, investment in intangible assets as their personnel and branding is becoming more important every day in service sectors. At the same time, the usual characterizations of firms as technological (product, process) and/or non-technological (marketing, organizational) innovators are becoming extremely blurry. In attempts to accurately assess these activities and their respective effects, mixed modes of innovation (OECD, 2010) are of growing importance. As such, becoming a successful product innovator in the service sector requires combining the actual novel product with new marketing methods, organizational changes and training. Innovation, thus, is a much broader notion than R&D.

Additionally, many times the innovation in the service sectors consist of the implementation of a series (and many times continuous) of smaller incremental changes. And therefore, these innovations do not always result in a new introduction into the world (or even into the market). In this sense, describing the linkages and the interaction between firms is fundamental to addressing policy concerns.

Extracted from: Tacsir et al (2011)

Box A.2

Types of Innovation:

- *Product innovation* – changes in the things (products/services) which an organization offers;
- *Process innovation* – changes in the ways in which things (products/services) are created and delivered;
- *Position innovation* – changes in the context in which the products/services are introduced, i.e. by repositioning the perception of an established product or process in a particular user context; and
- *Paradigm innovation* – changes in the underlying mental models which frame what the organization does.

Strategic Advantages through Innovation:

- *Novelty in product or service offering* – offering something no one else can
- *Novelty in process* – offering it in ways others cannot match, i.e. faster, lower cost, more customized
- *Complexity* – offering something which others find it difficult to master
- *Legal protection of intellectual property* – offering something which others cannot do unless they pay a licence or other fee
- *Add to/extend range of competitive factors* – move basis of competition, e.g. from price of product to price and quality, or price, quality and choice
- *Timing* – first-mover advantage, i.e. being the first can be worth significant market share in new product fields; or fast-follower advantage, i.e. sometimes being first means you encounter many unexpected teething problems, and it makes better sense to watch someone else make the mistakes and move fast into a follow-up product
- *Robust/platform design* – offering something which provides the platform on which other variations and generations can be built
- *Rewriting the rules* – offering something which represents a completely new product or process concept, i.e. a different way of doing things that makes the old ones redundant
- *Reconfiguring the parts of the process* – rethinking the way in which bits of the system work together, e.g. building more effective networks, outsourcing and coordination of a virtual company
- *Transferring across different application contexts* – recombining established elements for different markets
- *Others* – innovation is all about finding new ways to do things and to obtain strategic advantage, so there will always be room for new ways of gaining and retaining advantage

Source: Extracted from OECD (1995) and Bessant and Tidd (2007)

ANNEX 1- DONOR MATRIX (DMX) FOR JAMAICA

INTRODUCTION

The World Bank (2011) indicated that in the 2000s, Jamaica's average rate of real GDP growth ranked 180th out of 196 countries, and that its unemployment rate has remained over 10%. It has identified widespread low productivity as the fundamental reason for Jamaica's disappointing economic performance. Such low productivity impacts and is impacted by the extent to which the private sector in the country and its supporting institutions function effectively.

The competitiveness and profitability of Jamaican businesses are dependent both on the internal capacities of such entities, and on the existence of an enabling environment that allows private firms to operate efficiently. An enabling business environment and stable macroeconomic climate and are among the most critical pre-requisites of business success. These are, however, also areas in which the Jamaican economy has consistently struggled in its recent past.

It is in this context that the 2012 Donor Matrix (DMX) and Private Sector Assessment Report (PSAR) for Jamaica have been prepared. The preparation of these reports represents an initial step in the development of comprehensive and cohesive private sector development (PSD) policies for the country around which donors, government agencies and private sector stakeholders can unite.

The DMX seeks to capture PSD programs and projects in a country, and includes business climate reforms, macroeconomic support to government, and direct support to the private sector. It is a tool that is to be used by government, stakeholders and the donor community to improve coordination of PSD programs and projects. More specifically, the DMX aims to: (i) provide a complete inventory of programs and projects finished in 2009-2011, projects in execution, and projects in preparation; (ii) facilitate access to stakeholders and representatives of the donor community to the inventory of programs and projects; (iii) classify programs and projects according to the *Private Sector Development Assessment Guide*; (iv) identify duplication and overlapping initiatives to improve efficient private sector support by the donor community; and (v) identify omissions and gaps in donor supported programs that need to be filled to accelerate private sector development.

As suggested in the guidelines for the preparation of DMX, the Jamaican DMX has been prepared at the same time as the PSAR, and has been incorporated into the PSAR as an annex. The 2012 DMX and PSAR for Jamaica have been prepared as part of a larger program for all CARIFORUM countries under the Compete Caribbean program, which is co-financed by the Inter-American Development Bank (IDB), the UK's Department for International Development (DFID), the Canadian International Development Agency (CIDA) and the Caribbean Development Bank (CDB).

This DMX report for Jamaica has been prepared and presented largely in line with the *Compete Caribbean Donor Matrix Guidelines*. Deviations in approach are outlined and justified in the final section of this report that highlights the recommendations and limitations of the study. The recommendations made are based on an analysis of the information presented in the remaining sections of the report. This includes a description of the donor community, local stakeholders, and information available for PSD analysis, and an analysis of gaps and areas of duplication in donor support to PSD in Jamaica.

DESCRIPTION OF THE DONOR COMMUNITY

Jamaica has numerous international development partners (IDPs), including many bilateral and multilateral institutions. Only a subset of these institutions is, however, actively providing support to the country's PSD activities. This section focuses on this subset of IDPs, with a view to summarizing and classifying their PSD activities and the extent of cooperation exhibited in the execution of such activities. An inventory of the PSD projects and programmes undertaken by these IDPs is presented in an appendix to this report.

Canadian International Development Agency (CIDA)

Although CIDA does not maintain a country-to-country development assistance program in Jamaica, it has a bilateral program with the Caribbean region. The region was selected by CIDA in 2009 as an area of focus. Through CIDA, Canada supports the development agenda established by CARICOM to achieve regional integration. CIDA's long-term goal in the Caribbean region is to help build a more prosperous and integrated Caribbean community, one that is able to generate sustainable economic growth, and eventually provide opportunity and security to its citizens.

CIDA's support has been directed at creating an enabling and predictable environment for economic growth through the increased capacity and accountability of public institutions and by fostering a more competitive private sector. CIDA has also continued to advance rule of law and strengthen legal institutions to counter rising crime and to maintain law, order, and personal security. CIDA's objectives for the Caribbean region include assistance for improving the capacities of the governments to manage and respond to natural disasters and to strengthen regional disaster coordination mechanisms.

In the area of PSD, CIDA's primary objectives include:

- Strengthening the productivity of small- and medium-sized enterprises and increasing participation in regional and global markets;
- Promoting public-private partnerships that generate employment and attract investment for growth; and
- Increasing access to employment skills for youth.

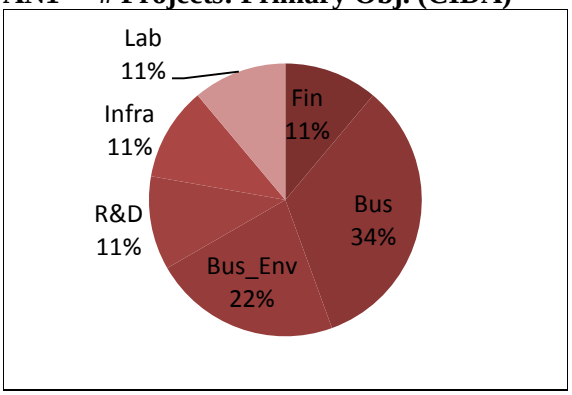
CIDA currently has eight active PSD projects in the region. These projects are all long-term, and all but two have a national focus. The two with a sub-regional focus were, however, allocated the largest budgeted sums, with the project focused on enhanced productivity of Jamaican

farmers through improved agricultural practices and technologies receiving the largest allocation. Financing to facilitate the establishment of a microfinance institution to serve clients in inner-city Kingston and rural communities in Jamaica, was the second largest recipient of CIDA budgetary allocations.

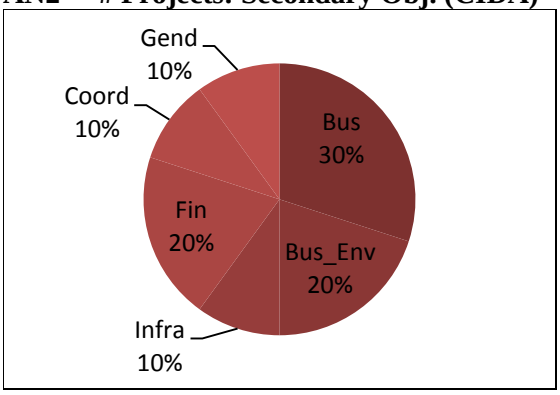
Figures AN1-AN4 highlight CIDA's major areas of focus in Jamaica, by presenting the classifications of projects by their primary and secondary objectives. The proportions of both the total number of projects and total amount budgeted towards projects are presented. In terms of the number of projects, CIDA clearly places significant emphasis on improving the country's business supportive institutional infrastructure (Bus) and enhancing the overall business environment (Bus_env). Figures AN1 and AN2 indicate that over half of the projects are classified as having these goals as their primary and/or secondary objectives. When the allocation of budgeted amounts is examined in figures AN3 and AN4, it is, however, clear that CIDA is prepared to funnel significant funding into areas such as investment in research and innovation (through the improvement in agriculture project), and improving access to finance (through the microfinance service project).

In addition to working with CARICOM in the execution of its projects, CIDA also offers projects jointly with the World Bank and IDB. CIDA has joined with these MFIs in jointly offering three projects.

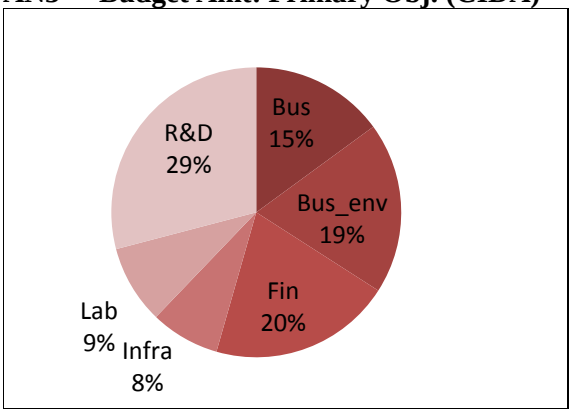
AN1 - # Projects: Primary Obj. (CIDA)



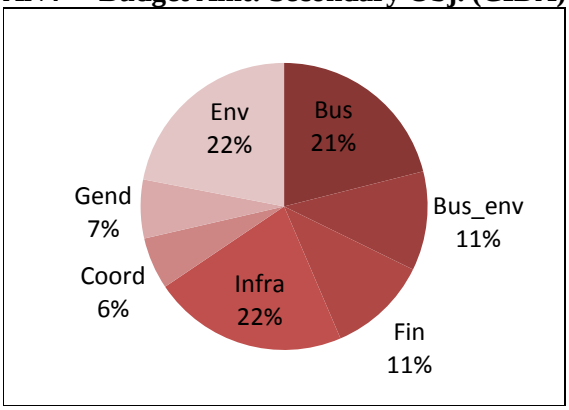
AN2 - # Projects: Secondary Obj. (CIDA)



AN3 - Budget Amt: Primary Obj. (CIDA)



AN4 - Budget Amt: Secondary Obj. (CIDA)



Department for International Development (DFID)

DFID works in Jamaica through its regional programmes for the Caribbean, and direct bi-lateral support to promote economic growth and reduce crime. DFID's current primary areas of focus are its:

i. Citizen Security and Justice Programme (offered in partnership with the IDB), which aims to transform 50 of the country's most violent criminally-controlled communities;

ii. Support to the Jamaica Constabulary Force aimed at changing the culture of the police force and increasing policing efficiency and accountability; and

iii. Programmes to help the country prepare for and reduce the risk from climate change and disasters. Although these flagship programmes are not directly classified as PSD, the implications to business productivity of reduced crime and violence and improved climate resilience cannot be overlooked.

In the area of PSD, DFID is contributing from its regional budget to a couple of major programmes designed to create jobs and increase exports across the Caribbean:

- The Compete Caribbean scheme aims to reduce red tape, streamline regulation, and help local firms break into new markets; and

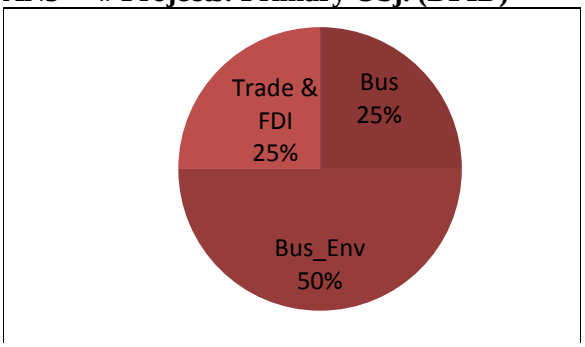
- The CARTFund is a special fund to help Caribbean countries (through the CSME) take advantage of a trade deal with the European Union. CARTFund helps in testing for product standards and provides support to the tourism, specialty foods and accounting sectors.

DFID also continues to provide significant support to Jamaica's fiscal administration modernization programme. Although this programme is aimed at supporting the GOJ's fiscal reform agenda, it is classified as directly contributing to PSD through enhancement of the business environment by seeking to modernize the tax and customs administration.

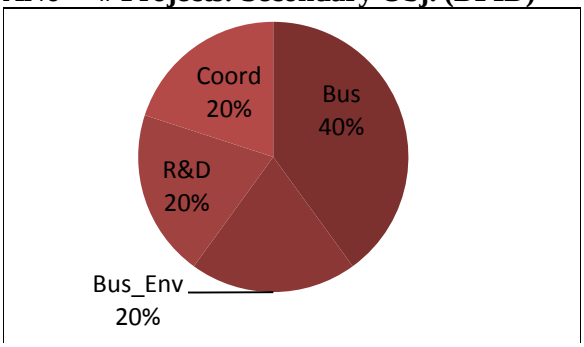
All of DFID's four active PSD projects have a national reach. Two, however, focus specifically on the services sectors and one on the agricultural sector. Figures AN5 through to AN8 all uniformly show that DFID places significant emphasis on enhancing the overall business environment (Bus_env) in the country, and improving the business supportive institutional infrastructure (Bus).

DFID works either with the CARICOM or one or more of the MFIs in the execution of all of its PSD projects.

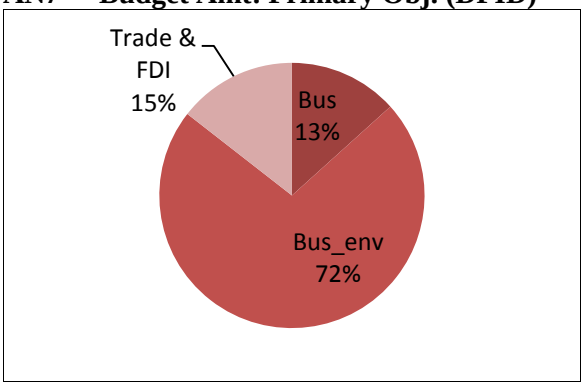
AN5 - # Projects: Primary Obj. (DFID)



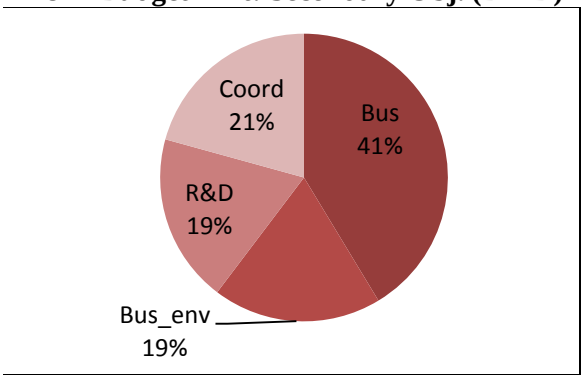
AN6 - # Projects: Secondary Obj. (DFID)



AN7 - Budget Amt: Primary Obj. (DFID)



AN8 - Budget Amt: Secondary Obj. (DFID)



The European Union (EU)

Development cooperation between Jamaica and the EU has a 30-year history, with the EU being Jamaica's largest grant partner. Under the 9th European Development Fund (EDF) (2002-2007), the EU focused on assisting the private sector, including SMEs, to prepare for competition in a more liberalized global market. The modernization of the country's road transport system was also targeted as a way to foster the development of the agriculture, tourism and mining industries.[113] An assessment of this program indicated varying levels of progress, with the private sector development programme suffering from tardy implementation due to the complexity of procedures.

The PSD program under the 10th EDF (2008-2013) is meant to build on the previous programme by empowering private sector organizations and SMEs, strengthening their support organizations, building their capacity for cost-sharing, increasing access to corporate finance, and improving their competitiveness.

[113][113] Support to the transportation infrastructure continues to be provided in the form of a loan facility from the European Investment Bank (EIB) to support the government's Highway 2000 programme. This project is being financed by the EIB together with six other international financial institutions.

The EU also provides assistance to Jamaica that focuses on macroeconomic stability and pro-poor growth. Under the Debt Reduction and Growth Enhancement Programme (DRGEP), the EU seeks to contribute to a marked reversal in existing public debt build-up dynamics. A subsidiary objective in this programme has direct impact on PSD activities, as it seeks to improve the business environment in the country. Jamaica is also a beneficiary of the EU/ACP sugar protocol, which broadly aims to support the GOJ in its implementation of a strategy for the adaptation of the sugar industry, and specifically seeks to improve the competitiveness of the sugar sector.

All EU projects in Jamaica also address cross-cutting issues such as democracy, good governance, human rights, the rights of children and indigenous people, gender, environment and HIV/AIDS.

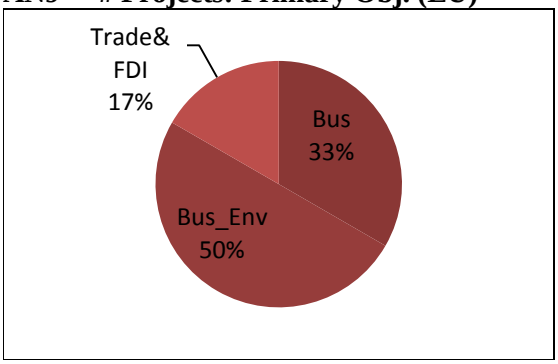
Of the six currently active EU programmes with expected PSD impacts, four have a national reach, while two are sub-regional. Four of these loans are to the agricultural sector, while one is to industry to support the development of an energy service company. Most of the EU's budgeted funds to Jamaica are allocated through the DRGEP and the Accompanying Measures for Sugar programme, both of which are classified as PSD-projects because they focus on improving the business environment.

Figures AN9 and AN10 thus confirm the primacy of the EU's objective to support the business environment through these large programmes. Figure AN9, however, also illustrates the fact that the EU has begun to concentrate more attention on developing the country's business supportive institutional infrastructure through the 10th EDF. Figures AN11 and AN12 highlight the EU's attempts to address numerous cross-cutting issues through the many secondary objectives of its projects and programmes.

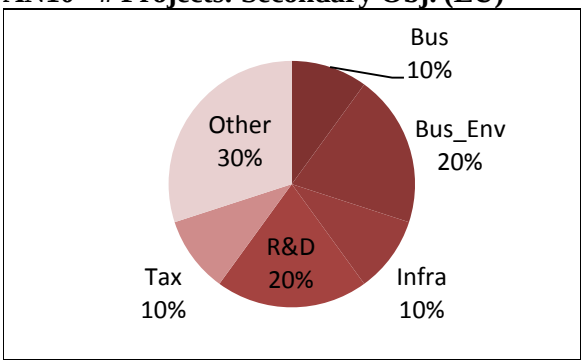
The EU collaborated with a MFI in the execution of one of its PSD projects. It is noteworthy that in its Country Strategy Paper and National Indicative Programme for Jamaica (CSP/NIP 2008-2013) the EU highlights the following important lessons from past experiences in the country:

- 'Clear links need to be established between government priorities and the CSP/NIP;
- Synergies between past and present cooperation should be identified to enhance impact;
- Coordination and complementarities between EU, national and international development partner (IDP) initiatives should be included in each project financing agreement; and
- There should be coordination with other IDPs at the level of design and implementation of interventions.'

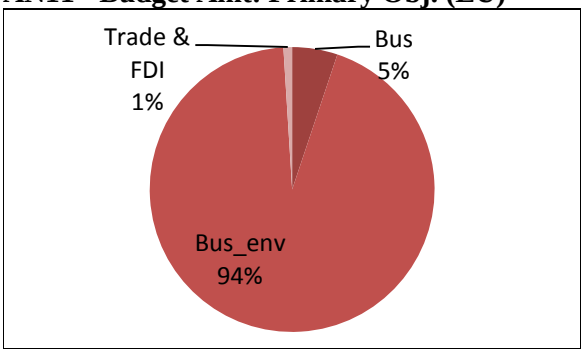
AN9 - # Projects: Primary Obj. (EU)



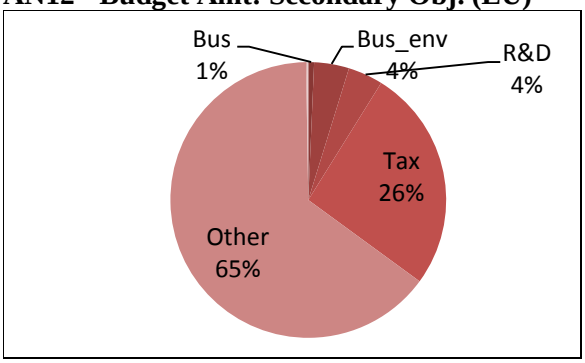
AN10 - # Projects: Secondary Obj. (EU)



AN11 - Budget Amt: Primary Obj. (EU)



AN12 - Budget Amt: Secondary Obj. (EU)



Inter-American Development Bank (IDB)

The IDB is a long-standing and major donor to Jamaica. It currently has by far the largest number of active PSD projects in the country. This is reflective of the fact that the IDB's first priority in a recent country strategy update is promoting and facilitating private sector development. The other two priority areas were getting better value for public expenditures, and reducing vulnerability to natural disasters. More broadly, the IDB seeks to support the GOJ's medium-term socio-economic policy framework through efforts to 'create a stable macroeconomic environment, reduce public debt and spur private sector development by improving competitiveness and consolidate social gains.'

The specific PSD initiatives that the IDB supports focus on improvements in the incentive framework and the business environment, including reforms that build economic opportunities for the majority through reducing the transaction costs for titling and registering land, increasing access to credit for sole proprietors and small businesses, and improving incentives for informal businesses to become formal.

Of the 25 IDB PSD projects/programmes that have been identified, 18 have a national reach, 5 are sub-regional and 2 are municipal. Nine of these projects are focused in the services sectors,

while seven provide support to the agricultural sector. The PSD projects/programmes funded by the IDB are widely ranging, and include:

- A few relatively small projects (US$50,000 and below) providing support to clearly identified interest groups for very specific purposes (e.g. the study tour of Jamaican farmers to the Dominican Republic, and the project to introduce a gendered perspective to the process of building consensus for the reform of the secured transactions legislation);

- Numerous mid-range projects (US$100,000 – US$700,000) providing PSD support in several different areas, sometimes to clearly identified beneficiaries (e.g. through increased beef production in Eastern Jamaica, and improved livelihoods in the Portmore Causeway Fishing village), but often to broader interest groups such as female entrepreneurs, MSMEs and family-owned businesses. Examples of such projects include: the efforts to improve the competitiveness of family-owned businesses through corporate governance; use of intellectual property to improve the competitiveness of MSMEs; efforts to strengthen and promote women's enterprise in Jamaica; the expansion of financial services for small enterprises; the development of sports business value chains; and studies for agricultural sector priorities; and

- Five multi-million US dollar projects and programmes with widely varied objectives and target beneficiaries. Three of these projects have sought to provide direct financing to private sector businesses (the Island Outpost group of hotels, Transjamaican Highway Limited and regulated financial institutions affected by the global crisis) and have thus been classified as supporting PSD. The remaining two are more broad-based programmes focused on improving competitiveness.

  The Competitiveness Enhancement Programme II is the second in a three-part programme seeking to promote sustained long-term economic growth in Jamaica. Policy support is provided in the following areas:

  - Developing a competitiveness implementation framework;
  - Tax expenditure reform including: reduction of distortions in the tax system; simplification of tax administration; and expenditure rationalization;
  - Improving access to finance including: developing a secured transactions framework; implementing a framework for the creation of credit bureaus; and facilitating electronic transactions; and
  - Strengthening of land property rights.

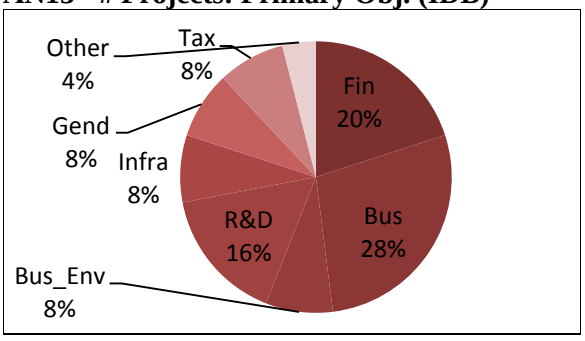
  The Agricultural Competitiveness Programme seeks to increase productivity and competitiveness among small and medium size farmers. Specifically the program supports:

  - Strengthening of producers' organizations along clusters;
  - Development of public and private partnerships in agribusiness value chains; and
  - Strengthening and modernization of the country's agricultural health and food quality management systems.

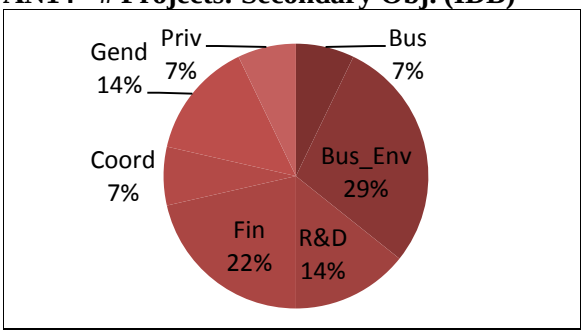
Figure AN13 illustrates very clearly the wide range of PSD projects supported by the IDB. While there are a relatively large number of projects that primarily focus on the business supportive institutional infrastructure, access to finance, and investment in research and innovation, there is also a good representation of projects that primarily seek to address the business environment, supply of infrastructure, the corporate tax framework, and gender concerns. However, as indicated in figure AN15, because of the aforementioned multi-million US dollar projects that provided direct financing to certain businesses, the allocation of the IDB's budgeted amounts was much more skewed towards providing access to finance. Figures AN14 and AN16 indicate that irrespective of a project's primary objective, the IDB was consistent in ensuring that many projects' secondary objectives included support to improving the country's business environment.

The IDB collaborated with other MFIs on a relatively small proportion of its projects and programmes.

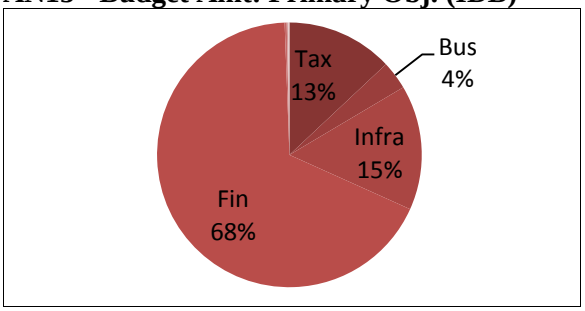
AN13 - # Projects: Primary Obj. (IDB)



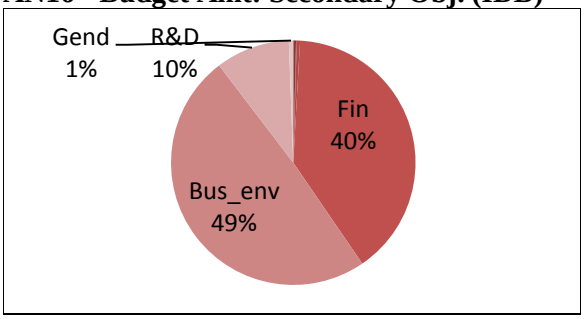
AN14 - # Projects: Secondary Obj. (IDB)



AN15 - Budget Amt: Primary Obj. (IDB)



AN16 - Budget Amt: Secondary Obj. (IDB)



Inter-American Investment Corporation (IIC)

The IIC is a member of the IDB Group. Its mission is to promote the economic development of member countries in the LAC region by encouraging the establishment, expansion, and modernization of private enterprises, particularly SMEs. It does so by providing financing (in the

form of equity investments, loans, guarantees, and other instruments) and advisory services to private enterprises.

IIC-financed projects seek to, *inter alia*, create jobs, broaden capital ownership, facilitate transfers of resources and technology, generate foreign exchange income, promote the economic integration of the region, spur economic growth, and promote environmental stewardship. The IIC is the only regional multilateral institution providing financing for private businesses that specifically focuses on SMEs. It only invests in for-profit projects and charges competitive rates for its products and services. All projects financed by the IIC are subject to a thorough environmental and labor review process, including but not limited to an assessment of their compliance with applicable domestic environmental legislation, waste management practices, and relevant occupational health and safety issues.

The IIC recently launched its newest flagship programme in Jamaica, the FINPYME *ExportPlus programme. Already being implemented in eleven countries across the LAC, this programme* will provide a series of group and individual technical assistance sessions tailored to Jamaican SMEs over the coming 15 months. It aims to boost the export potential of SMEs. The first workshop on financing for innovative export projects will be held in November 2012.

Outside of this initiative, the IIC is currently providing financing to four Jamaican businesses. Two are in the agricultural sector, one is in services and the other is in industry. The financing was provided to the businesses for working capital support, expansion and upgrading efforts, and improving processing capacity.

The World Bank

The World Bank has worked closely with Jamaica since 1962. In the current Country Partnership Strategy (2010-2013) with Jamaica, the World Bank Group has prioritized the following areas:

- Support to economic stability through fiscal and debt sustainability;
- Promotion of inclusive growth by supporting programs that strengthen human capital, prevent crime and violence and promote rural development; and
- Promotion of sustained growth by improving competitiveness.

The World Bank currently has seven ongoing projects in Jamaica:

- The Inner City Basic Services Project seeks to improve the social, economic and physical conditions of inner city communities.
- The Social Protection Project seeks to strengthen the country's social insurance and social assistance system.

- The Jamaica Second HIV/AIDS Project supports services to prevent new HIV infections and provide treatment and care for people infected and affected by HIV/AIDS.

- The Early Childhood Development Project co-finances the implementation of Jamaica's National Strategic Plan for Early Childhood Development .

- The Education Transformation Capacity Building Project supports the implementation of the national Education System Transformation Program.

- The Energy Security and Efficiency Project supports the implementation of the government's energy policy, particularly the goals of enhancing Jamaica's energy security and efficiency by reducing energy costs and reducing the country's high dependence on imported petroleum products.

- The Rural Economic Development Initiative aims to stimulate rural economic growth through the financing of approximately 110 rural subprojects that support revenue generating activities in agriculture and tourism, as well as the provision of critical infrastructure, marketing and management subprojects in these sectors.

The latter two projects are classified as providing PSD support. The Energy Security and Efficiency Project primarily seeks to increase the supply of energy, but also provides direct financing for private investments in energy efficiency and renewable energy. The Rural Economic Development Initiative aims to improve market access for micro and small scale rural agricultural producers and tourism product and service providers. It does so primarily through the financing of rural projects in agriculture and rural tourism. As a secondary objective it seeks to support the provision of critical infrastructure, marketing and management in the agriculture and tourism sectors.

Equal sums of money are budgeted for these projects. The primary objectives of the World Bank's PSD projects thus focus equally on increasing access to finance and the supply of infrastructure, communications and energy. Both of these projects are offered solely by the World Bank group.

<u>International Finance Corporation (IFC)</u>

The IFC is a member of the World Bank Group. It provides investment and advisory services to clients and partners. In the LAC region, the following strategic priorities have been targeted:

- Improving the business environment;
- Supporting projects that reach under-served people at the base of the economic pyramid;
- Increasing the focus on smaller countries, especially in the Caribbean and Central America;
- Promoting investments in clean technology to mitigate climate change;
- Supporting private sector participation in infrastructure; and
- Increasing access to finance, with an emphasis on MSMEs.

In Jamaica, the IFC has supported public-private partnerships in energy, transport and logistics infrastructure, to help address climate change challenges and reach low-income individuals. It has also supported financial market development by helping MSME owners gain better access to finance, and advising banks to help them reach these underserved segments. Other targeted sectors for investment include tourism, manufacturing, and emerging sectors in health, education and information technology.

The IFC is currently providing financing to eight Jamaican businesses. Five of these firms are involved in the supply of infrastructure and energy, two provide financial services to MSMEs, and one is involved in real estate development.

United Nations Development Programme (UNDP)

The UNDP has been one of Jamaica's development partners for over 30 years. It promotes the advancement of inclusive and sustainable development for Jamaicans. The UNDP is particularly committed to helping Jamaica achieve the MDGs by 2015 as well as the goals and recommended actions in the UN Framework Convention on Climate Change. Support is provided in three thematic areas:

- Democratic Governance;
- Environment, Energy and Disaster Risk Reduction; and
- Poverty Reduction.

Although the UNDP has not traditionally been involved in PSD, it has recently supported two projects in Jamaica that had potential PSD impacts. One sought to build the capacity of a sub-regional association of farmers, enabling it to provide business development services for farmers. The other aimed at addressing environmental concerns by supporting the use of environmentally friendly and sustainable production techniques in farming communities. Both of these projects were executed solely by the UNDP.

United States Agency for International Development (USAID)

The USAID has worked in Jamaica for the past 50 years to address social issues that contribute to high levels of violent crime and transnational criminal activity. Priority areas have traditionally included reducing corruption, promoting greater transparency and good governance practices, fostering Jamaican participation in regional security, strengthening basic education, and increasing adaptation to climate change. The USAID's current areas of focus are slightly more narrow and include:

- Citizen Security;
- Climate Change;
- Education; and
- HIV/AIDS.

Although not having a heavy PSD focus, the USAID is involved in three projects that have significant potential private sector impacts. Two are aimed at preserving the country's biodiversity. In so doing, one seeks to introduce farmers to best practices in protected agriculture, and the other sought to encourage natural-resource friendly agriculture and tourism enterprise development. The final project seeks to improve the business environment by identifying, amending or eliminating legislation, regulations and processes which constrain the development approval process and hinder investment in Jamaica. These projects were executed solely by the USAID.

The Caribbean Development Bank (CDB)

Jamaica joined the CDB in 1970. In the CDB's 2010-2014 Strategic Plan, the Bank's focus is on assisting borrowing member countries (BMCs) to reduce poverty through sustainable economic growth and strengthening the resilience of BMCs to external shocks. The reduction of income and gender inequities, and improved environmental sustainability are other strategic areas of focus. CDB funding in Jamaica has been used for financing social and economic infrastructure development such as schools, road and water projects, building more disaster-resistant structures, student loans, and support for small and medium-sized enterprises. The CDB has worked extensively with the World Bank and IDB in providing support to Jamaica.

DESCRIPTION OF LOCAL STAKEHOLDERS

Numerous public and private sector agencies and institutions are involved to varying degrees in PSD activities. Chapter 1 of the PSAR provides a description of the business supportive institutions structure in Jamaica, as well as the government ministries and agencies responsible for fostering private sector development. Chapter 2 provides a description of the agencies and institutions involved specifically in supporting innovation and technological adoption in the Jamaican private sector. This section summarizes in a tabular format the information previously provided. Tables AN1 and AN2 provide the summaries for the public and private sectors, respectively.

Table AN1 – Public Sector Stakeholders

Stakeholder	Description	Classification
Ministry of Industry, Investment and Commerce (MIIC)	Has direct portfolio responsibility for fostering private sector development. The MIIC seeks to: provide the framework for an investment-friendly environment; attract and promote new investments, both local and foreign; facilitate Government's divestment and privatization programmes; spearhead the modernization of industry; facilitate the export of goods and services; promote the development of small and micro enterprises; and promote the technological advancement of the country.	PSD Policy

Stakeholder	Description	Classification
Jamaica Promotions Corporation (JAMPRO)	As Jamaica's investment and export promotion agency, it seeks to stimulate, facilitate, and promote the development of trade and industry, and export and investment activities.	Investment and export promotion agency
Jamaica Business Development Corporation (JBDC)	Provider of business support services (BSS) for Jamaican businesses, particularly MSMEs.	Government-sponsored BSS Provider
Ministry of Science, Technology, Energy and Mining	Central government ministry with portfolio responsibility for science and technology.	Science and technology policy
National Commission on Science and Technology (NCST)	National advisory body to the GOJ on policies and strategies relating to science and technology. It comprises representatives from public and private sector institutions and academia. The NCST seeks to coordinate the various arms of the national innovation system.	Science and technology policy advice and coordination
National Foundation for Development of Science and Technology (NFDST)	Provides funds for Science and Technology Innovation Policy Reviews, and national science and technology competitions and seminars. Funds are acquired from the contributions of the Foundation's members, which include a number of large private sector companies, private financial institutions and a development bank.	Financier of science and technology
Scientific Research Council (SRC)	Provider of scientific and technological solutions through product/process research and development, policy advice and facilitating technology transfer. It is involved in the development of new and improved marketable Jamaican value-added products, as well as the commercialization and subsequent sale of products and technologies based on local raw materials.	Research and Development Support Provider
Bureau of Standards Jamaica (BSJ)	Has primary responsibility for the setting, promotion and enforcement of standards. Its mission is to **'promote the international competitiveness of Jamaican producers, facilitate trade and protect consumers by providing standardization, metrology and regulatory services.**	Standards and Metrology Regulation
National Certification Body of Jamaica (NCBJ)	Is an independent certification unit falling under the auspices of the BSJ. It offers certification of management systems to both manufacturing and service industries, in the private and public sectors.	Certification Services

Stakeholder	Description	Classification
Jamaica Intellectual Property Office (JIPO)	Responsible for the registration, monitoring and enforcement of IPRs.	IP protection and enforcement
Copyright Tribunal	Hears and makes rulings on disputes where users and copyright owners cannot agree on the terms of licenses.	IP protection and enforcement
Ministry of Finance and Planning	Central government ministry with overall responsibility for the Government's fiscal and economic policy framework; collection and allocation of public revenues; and financial sector regulation.	Macroeconomic stability, Economic policy, Financial regulation
Planning Institute of Jamaica (PIOJ)	Is the planning agency for the GOJ. It supports the process of policy formulation on economic and social issues. In so doing, it, *inter alia:* provides technical and research support to the Cabinet; collects, analyses and monitors social status and economic performance data; manages external cooperation agreements and programmes; and collaborates with external funding agencies in the identification and implementation of development projects.	Policy support and IDP coordination
Bank of Jamaica (BOJ)	Central bank responsible for formulation and implementation of monetary and regulatory policies, with the aim of safeguarding the value of the domestic currency and ensuring the soundness and development of the financial system.	Monetary policy formulation and Financial regulator
Financial Services Commission (FSC)	Supervisor and regulator of the securities, insurance and private pensions industries.	Financial regulator
Development Bank of Jamaica Limited (DBJ)	Government-owned financier that aims to facilitate the growth and development of all viable enterprises in the productive sectors of the Jamaican economy. It provides medium and long-term financing solutions (through alliances with private financiers) particularly for SMEs, direct lending for large projects in strategic areas, and aids in the management and privatization of national assets and investments.	Government-sponsored Financier
Ministry of Tourism and Entertainment	Policy development for the tourism industry	Tourism policy
Jamaica Tourist Board (JTB)	National tourism agency responsible for worldwide tourism marketing and promotion for the island of Jamaica.	Tourism marketing provider

Stakeholder	Description	Classification
Tourism Product Development Company (TPDCo)	The central agency mandated by the Government of Jamaica to facilitate the maintenance, development and enhancement of the tourism product. TPDCo is designed to support government and quasi-government agencies in the development of the tourism industry, particularly by coordinating and facilitating prompt action between public and private sector interests.	Tourism product development
Ministry of Agriculture and Fisheries	Central government ministry responsible for the development of an internationally competitive agricultural sector and the sustainable management of the country's fishery resources.	Agriculture policy
Rural Agricultural Development Authority (RADA)	Is the country's chief agricultural extension and rural development agency. RADA, inter alia, provides technical advice to farmers, and assists in the implementation of rural development projects	Agricultural support service provider
Jamaica Agricultural Society (JAS)	An umbrella organization consisting of numerous affiliated organizations, including: the Jamaica Citrus Growers Association, Pimento Growers Association, Cocoa Industry Board, All Island Cane Farmers Association, Coconut Industry Board, All Island Banana Growers Association, Coffee Industry Board, Jamaica Livestock Association, Ministry of Agriculture Export Division and Sugar Industry Board. Although the JAS was previously incorporated as a private voluntary organization, it is now an agency of the Ministry of Agriculture and Fisheries.	Agriculture Support Organization

Table AN2 – Private Sector Stakeholders

Stakeholder	Description	Classification
Private Sector Organization of Jamaica (PSOJ)	A national organization of private sector associations, companies and individuals that seeks to promote a competitive and productive private sector. It advocates for the implementation of public policy that enables strong sustainable private sector led economic growth and development.	Business Support Organization - General
Jamaica Exporters' Association (JEA)	An association of exporting firms that was established to promote the growth and development of Jamaica's export sector. Its mission is to enhance the competitiveness and sustain the growth of Jamaica's non-traditional exports.	Business Support Organization - Exporters

Stakeholder	Description	Classification
Competitiveness Company (CC)	A subsidiary of the JEA created to provide an in-house centre of expertise in competitiveness. They primarily serve MSMEs.	Business Support Organization - MSMEs
Jamaica Employers' Federation (JEF)	A registered Trade Union that represents the views of employers, locally and internationally.	Employers' Union
Small Business Association of Jamaica (SBAJ)	A private non-profit business organization established to foster the growth and development of businesses and professional groups and to represent the small and micro business sector.	Business Support Organization - MSMEs
MSME Alliance	A network of 34 business organizations from a wide range of sectors. By virtue of its wide-spanning network, it claims to represent more than 300,000 MSMEs. The Alliance aims to create strategic alliances and meaningful partnerships that can empower MSMEs.	Business Support Organization - MSMEs
Jamaica Manufacturers' Association Limited (JMA)	A limited liability company which aims to promote the development of the manufacturing sector. The JMA represents manufacturers in all the manufacturing sub-sectors as well as institutions and organizations which provide services to these sectors.	Business Support Organization - Manufacturing
Jamaica Banker's Association (JBA)	Represents commercial and merchant banks in Jamaica. Trust Companies, Finance Houses and other Banking Institutions are also included as associate members. Their mission is to ensure the strength and continuing success of their member organizations by promoting a safe, vibrant and competitive banking sector through an effective programme of advocacy and education.	Business Support Organization - Finance
Jamaica Hotel & Tourist Association (JHTA)	Represents Jamaican hotels, other visitor accommodations, and suppliers of goods and services to the tourism industry. Its mission is to promote the development of Jamaica's hospitality industry and to represent the interests of its members in all local, regional and international forums.	Business Support Organization - Tourism
Women Business Owners Jamaica Limited (WBO)	An association of Jamaican female business owners. Its mission is to provide leadership in the development of women business owners through education, research, mentorship and networking.	Business Support Organization - Women

Stakeholder	Description	Classification
Jamaica Network of Rural Women Producers (JNRWP)	Comprises over 250 rural women members across the island. Its mission is to work along with key partners to foster the economic and social development of rural women in Jamaica.	Business Support Organization - Women
Technology Innovation Centre (TIC)	Located at the University of Technology (UTech), it aims to offer essential business services, training and a flexible working space for young companies, and the transformation of innovations into viable businesses.	Business Incubator
Mona School of Business and Management (MSBM)	Accredited business school operating out of the University of the West Indies (a regional university). Focus is on undergraduate and post-graduate education and research in all areas related to business, management and entrepreneurship. Professional support services are also provided.	Academia
College of Business and Management (COBAM)	The College, operating out of the University of Technology (UTech), comprises the Schools of Business Administration, Hospitality and Tourism Management, Entrepreneurship, Baking and Patisserie and UTech/JIM School of Advanced Management.	Academia
College of Business and Hospitality Management	Operating out of the Northern Caribbean University, it offers degrees in Business Administration and Management Studies, and Hospitality & Tourism Management.	Academia

With 22 public sector stakeholders and 15 private sector stakeholders with active and varied concern for PSD, there are numerous voices representing PSD interests in Jamaica. Also important is that the specializations within this grouping of stakeholders create the opportunity for adequate representation of businesses from the major sectors, of varied sizes, and those with female ownership. The key elements of the institutional structure for PSD in Jamaica are in place. Lacking, however, is the coordination between these stakeholders, and a unified drive to promote the most critical elements needed to foster PSD in the country.

Within the public sector, implementation of policy initiatives for PSD is challenging due to the large number of agencies that must be involved in a truly collaborative process. The existing approach is fragmented, with numerous government agencies involved in different areas critical to the development of the private sector. As an example, Tennant (2008) investigated MSMEs' interactions with government agencies and noted that such businesses identified several problems with government agencies, including 'poor communication and collaboration, the multiplicity of such agencies and departments with partial responsibility for MSME matters and often overlapping functions, and the associated high levels of bureaucracy.' The MSME sector is a subset of the private sector, and so the problems are scaled-up when broader PSD issues are

at stake. Such problems all have the potential of stymieing the effectiveness of any policy measures introduced in support of the private sector.

Although representing different interest groups, the private sector stakeholders have often aligned their interests to heighten the efficacy of their lobbying efforts. Some of the major private sector organizations have formed by key partnerships among themselves and have sought to involve critical government stakeholders through the public-private sector Partnership for Transformation (PFT). The PSOs included in these discussions include: the Private Sector Organization of Jamaica, Jamaica Exporters' Association, Jamaica Manufacturer's Association, the Jamaica Chamber of Commerce, and the MSME Alliance. For these organizations, cross institutional collaboration strengthens their political influence.

The PSOs' PSD efforts are, however, not limited to lobbying the government. Many have implemented initiatives, at times with donor support, to deliver direct and tangible benefits to their members. The impact of these initiatives, along with most government-led initiatives in Jamaica, has, however, not been adequately measured. There is a dearth of formal evaluations of PSD projects and programmes in Jamaica. This stymies the learning of critical lessons and the development of best practices. It also heightens the likelihood of past mistakes being repeated.

As an example, Jamaica benefited from the implementation of a major Private Sector Development Program (PSDP) in 2004. The PSDP was a five-year technical assistance programme funded jointly by the European Union and the Government of Jamaica. It ended in 2009, and had a total budget of €28.67 million for the development of MSMEs. There is no evidence of any formal evaluation of the PSDP being conducted immediately after programme-completion. It was only in 2011 that the EU announced that it intended to undertake an evaluation of the PSDP in Jamaica, to 'determine what has been left of the programme and what is sustainable.'[114] The results of that evaluation have not yet been made public.

There is also the important issue of policy continuity, as changes in political administrations in Jamaica often signal changes to or the end of initiatives that were previously being implemented. As an example, under the previous administration, the Target Growth Competitiveness Committee (TGCC) was established as a support component to the PSDP, and was intended to continue operating as a statutory body after completion of the programme. The TGCC was comprised of representatives from government, the private sector, trade unions, and academia, and was chaired by the Minister of Industry Investment and Commerce. The Committee focused on: conducting 'research into competitiveness related issues; policy lobbying initiatives that seek to positively impact the business environment; and public awareness of competitiveness related issues.'[115] It is not clear whether the current administration intends to continue with the TGCC. Committee meetings, however, have evidently ceased, and the public record of the research reports commissioned by the committee has been removed from the Internet.

[114] http://www.jamaicaobserver.com/NEWS/EU-to-appraise-Private-Sector-Development-Programme-in-Jamaica_8671288#ixzz1xEPWNbaf

[115] TGCC Annual Report (2009)

DECSRIPTION OF AVAILABLE PSD INFORMATION

Information on the state of development of the Jamaican private sector and PSD activities are not housed in one location. There are numerous cross-country databases that allow access to data on the state of the business environment and economic climate in Jamaica, competitiveness rankings, types and levels of goods exports and imports, financial structure, and performance in environmental protection and gender balance.

There tends to be an increasing amount of time series data points for Jamaica in many of these datasets, thus allowing for better tracking of performance over time. There is, however, significant variation in the frequency with which these datasets are updated, and for some of them the data provided may be quite old. A list of the most popular of these cross-country datasets is provided below, along with an indication of the currency of the Jamaican data provided:

- World Bank's World Development Indicators – Some data series are not available for 2010. For others, even 2009 data are not available.
- The Financial Structure Dataset – Data only go up to 2009.
- The Product Space Website – Data are available up to 2009.
- Yale University's Environmental Performance Index – 2012 data are available.
- World Bank's Enterprise Surveys – Data are available for 2010.
- The UN Comtrade Dataset – 2010 data are available.
- The World Economic Forum's Global Competitiveness Report – Data are available for 2011-2012.
- The World Economic Forum's Travel and Tourism Competitiveness Report – 2011 data are available.
- World Bank's Doing Business Datasets – 2012 data are available.

A drawback of many of the cross-country datasets is that they often do not provide data that are disaggregated by the sizes of firms, sectors, gender of owner, etc. They also do not provide information on things such as the number of private sector businesses, areas of specialization, number of employees, gender of employees, etc. Some of this type of disaggregated data is provided by the Statistical Institute of Jamaica (STATIN), on their website http://statinja.gov.jm. The data provided include labor force, employment and earnings data disaggregated by sex, size of the firm, major industry groupings, age, major occupational groupings, etc.

The Planning Institute of Jamaica (PIOJ) also publishes an annual statistical digest and economic report (Economic and Social Survey Jamaica – ESSJ) using data provided by, *inter alia*, STATIN, the BOJ, and the Ministry of Finance and Planning. This publication provides an

overview of domestic and international economic conditions, and official development assistance that has been received. It also provides detailed information on macroeconomic performance and sectoral performance, with a chapter being dedicated to each of the major sectors of the economy. The chapters on each of the sectors provide information that is not readily available elsewhere, for example, the performance of the sector and key sub-sectors, policies and programmes implemented in the past year, incentives given, etc. There is also a chapter on the MSME sector which gives similar types of information, along with data on available financing.

The ESSJ is clearly a valuable source of information on the state of the Jamaica private sector and policies and programmes which impact it. There is, however, a challenge for researchers that hope to use this publication as a means of compiling time series data for analysis, as the publication does not always provide a consistent data series. Missing data and indicators that have been changed from year to year are not uncommon.

The Bank of Jamaica's Statistical Digest is much more reliable in that respect. The bulk of this annual publication is dedicated to providing annual and sometimes quarterly data on the financial sector, particularly the institutions regulated by the BOJ. There are, however, chapters that provide data on the external sector, price levels, interest rates, production, public finance, and debt. This is a very useful source of time series financial and economic data.

PSD initiatives, however, are often best informed by detailed survey data that capture the characteristics of the business sector. This is particularly important for the MSME sector that is impacted by a high level of informality, and so is not adequately reflected in the official statistics. Because of financial constraints, such surveys are not conducted with regularity in Jamaica, but when they are done, the results are quite valuable. The last set of survey and intensive sector studies were conducted under the PSDP through the TGCC. A very useful set of studies on the various aspects of the Jamaican private sector was compiled, and the reports were posted on the Internet. As previously noted, they have since been removed. A list of the studies that were completed under this program has been included below, with the hope that with adequate and well-placed pressure they can all be retrieved:

- *Competitiveness Assessment,* September 2006 ECORYS Study. This was the TGCC's first Annual Competitiveness Report.

- *Competitiveness in Agro-Processing,* September 2006 ECORYS Study.

- *Competitiveness in Services,* September 2006 ECORYS Study.

- *Legal & Regulatory Issues in Competitiveness,* September 2006 ECORYS Study.

- *Charting the Business Approvals Process in Jamaica,* October 2007. This provides a graphical illustration of the various business approvals processes in Jamaica, complete with timelines, number of procedures and the associated costs. It also highlights the areas of bureaucracy and inefficiencies and posits solutions.

- *Best Practice Countries in the Business Approvals Process: The Case of Australia, New Zealand and Mexico,* October 2007. This highlights key international best practices.

- *A Landscape Assessment of Jamaican MSMEs*, February 2008. This is a report on the findings of an island wide survey of approximately 2,000 micro, small and medium-sized enterprises.

- *Policy Report for the Jamaican MSME Sector: Financing and Human Resources Development and Training (Phase 1)*, March 2008. This study used the results of the above survey, desk research and elite interviews with key stakeholders to formulate policy suggestions on financing and human resource development and training.

- *Intellectual Property Valuation Entity (IPVE)*, April 2009. It is a pre-feasibility study regarding the establishment of an Intellectual Property Valuation Entity (IPVE) in Jamaica that would facilitate greater ease of access by MSMEs. While it discouraged the establishment of a nationally backed IPVE, it proffered strategies to develop and earn revenues from existing low valued intellectual property (IP).

- *Credit Reporting Bureau*, April 2009. The objective is three-part. To provide:

    - A detailed review and analysis of the Doing Business Report for Jamaica 2009, with the aim of promoting a more accurate reflection of Jamaica's performance.

    - An examination of the establishment of a Credit Registry as occurred in Mauritius and Belgium.

    - 23 innovative ways to encourage the development of local MSMEs, in a difficult economic climate.

- *Formalization of the Informal Sector in Jamaica*, June 2009. The study investigates and identifies key policy prescriptions that were successfully employed in formalizing the informal economies around the world. The report also indicates the measures of success as it related to the impact on the respective countries.

- *Survey for the Development Bank of Jamaica*, July 2009. The objective was to execute and report the findings of a survey regarding the issues faced by Approved Financial Institutions (AFIs) in lending to the MSME sector. It reports on key issues such as: training needs; challenges posed by MSMEs; internal challenges; challenges with the DBJ facility; conflict of interest in promoting the funds of a competitor inter alia.

- *Benchmarking Database*, August 2009. A database was developed to allow for the tracking of benchmarking indicators for Jamaica over time.

- *TGCC Exit Strategy*, September 2009. The study presents a strategy to ensure that this 'voice of competitiveness' continues after the Programme comes to a close in December 2009. This includes the review of existing forms of competitiveness councils (private, public and mixed) and their impact and, also an assessment of the performance of countries without councils. Additionally, it considers the competitiveness needs of Jamaica and devises an appropriate entity that would best suit same, in view of existing agencies with similar focus.

- *Comprehensive Creative Industries Database*. This study looks at the demographics of the Jamaican Diaspora towards gaining marketing opportunities for Jamaican entrepreneurs.

- *Policy Report for the Jamaican MSME Sector: (Phase 2).* This study uses the results of the MSME survey, desk research and elite interviews with key stakeholders to formulate policy suggestions in 6 areas. Namely: science, technology, research and development, network and clustering, extension and support services, marketing and legal, administrative and regulatory factors.

IDENTIFICATION OF OPPORTUNITIES TO INCREASE EFFICIENT DESIGN AND EXECUTION OF PROGRAMS

There are four bilateral donors, four multilateral donors, and two subsidiaries of the multilaterals currently offering PSD support in Jamaica. Between them approximately 60 donor-supported PSD projects and/or programs are being implemented in Jamaica. There are also 22 public sector stakeholders and 15 private sector stakeholders with varied degrees of involvement in PSD activities. In this context, the potential for duplication of efforts is clear, as is the opportunity to increase efficiency of design and execution of programs and projects through better coordination.

Amongst the donor community, although some programs are jointly offered (typically by bilateral and multilateral donors and in a few instances by a combination of the multilaterals), this is the exception and not the rule. The vast majority of the projects/programmes are individually offered by the donors, and a large number of them have very similar objectives. This does not necessarily suggest that there is duplication of effort, but rather indicates very strongly that the potential exists and that close attention needs to be placed on the prioritization and coordination of these efforts. The EU's self-assessment of its past experiences in Jamaica is reiterated, as it is particularly instructive:

- 'Clear links need to be established between government priorities and the CSP/NIP;

- Synergies between past and present cooperation should be identified to enhance impact;

- Coordination and complementarities between EU, national and international development partner (IDP) initiatives should be included in each project financing agreement; and

- There should be coordination with other IDPs at the level of design and implementation of interventions.'[116]

The seemingly ad-hoc manner in which donors cooperate with each other on particular projects needs to be replaced with more systematic coordination efforts. Such efforts should begin with the definition of priorities for PSD in Jamaica, which should incorporate the views of the local private and public sector stakeholders. Projects implemented should not only reflect donors'

[116] The EU Country Strategy Paper and National Indicative Programme for Jamaica (CSP/NIP 2008-2013)

strategic areas of focus, but, more importantly, should be targeted at the most critical PSD priorities for the country.

There is no shortage of Jamaican government agencies and private stakeholders involved in PSD which are enthusiastic about receiving donor funds and publicly launching PSD projects. There is also no doubt that many, if not most, of these projects are quite beneficial. However, in a country facing a fiscal and debt crisis, every dollar spent (or committed to be spent in the future) must be carefully considered. Many of these projects involve the usage of loan funds, and even some of the grant projects may require counterpart funding from the government. Even if no monetary expenditure is required, the public sector human resources needed for execution must also be considered. In a fiscally-constrained country, careful prioritization of projects is paramount.

This is an area in which donor collaboration and coordination can be very useful, but is also an issue that the GOJ needs to take a vested interest in. The PIOJ is responsible for managing the external cooperation agreements and programmes. Its stated functions include collaborating with external funding agencies in the identification and implementation of development projects. The PIOJ needs to take greater responsibility for this function, and exhibit more proactive leadership in guiding the donor agencies to priority areas. There is no sense that the PIOJ or any other government agency has holistically looked at all of the donor-supported projects and programmes to assess the potential benefits versus the expected costs. The Ministry of Finance and Planning is required to comment on each project that is being contemplated, but their assessment is for each project individually. A holistic view so as to prioritize projects is needed.

Also needed is greater emphasis on post-implementation evaluation of PSD projects and programmes. Whereas some donors routinely conduct such evaluations, three improvements are needed:

- Their results need to be widely disseminated amongst and discussed within the donor community and local stakeholders to ensure that the implications are appreciated and lessons shared;

- The method of evaluation should include an attempt to measure the extent to which nationally prioritized objectives have been met (rather than solely focusing on narrowly-defined project objectives); and

- A holistic evaluation of the impact of all PSD initiatives implemented in the country should at some point be undertaken. This would address issues such as:

    - Scale: *how many people, enterprises and/or institutions were affected?*
    - Outreach: *to what extent did the effects of the projects spread to specific target groups?*
    - Economic gains or losses among participating firms: *e.g. changes in output, productivity, product range and quality, income, employment – ultimately changes in competitiveness.*

IDENTIFICATION OF OPPORTUNITIES TO ADDRESS OMITTED PRIORITY PROBLEMS

The first chapter of the 2012 PSAR for Jamaica identified several problems with the Jamaican business environment that negatively impact on Jamaican businesses' competitiveness and private sector development. The broad categorization of the issues – listed in the general order of issues highlighted by Jamaican firms to be their biggest obstacles in the World Bank's Enterprise Surveys (2010) – has been reproduced below:

- Tax Rates and Administration
- Cost and Supply of Energy
- Access to Finance
- Practices of Informal Sector
- Crime
- Trading Across Borders (Lack of Diversification, Import Dependence & Inefficient Institutions)
- Corruption
- Labor Market Inefficiency and Productivity
- Construction and Ownership of Property
- Protection of Investors

The second chapter of the PSAR focused more directly on factors affecting innovation and technology usage in the Jamaican private sector. Numerous problems were also identified in this area, including:

- A low capacity for innovation
- Low degree of sophistication of the production processes
- Limited breadth of value chains
- Limited use of ICTs by MSMEs
- Low degree to which the GOJ uses ICT to increase efficiency
- Unavailability of venture capital
- Limited spending on R&D
- Low quality of scientists and engineers
- Low coverage achieved by initiatives and agencies to support increased innovation and technology usage by the private sector.

This section analyses the extent to which these critical issues are being addressed in the donor-supported PSD initiatives being implemented in Jamaica, with a view to identifying gaps that need to be filled. Figures AN17 to AN19 assist in the analysis by highlighting the areas that are being paid the least to the most attention in the donor-supported PSD projects and programs. Figures AN17 and AN18 classify and rank the total number of projects by their stated primary and secondary objectives, respectively. Figure 19 indicates the proportion of total budgeted funds that is allocated to each area.

From all three figures it is clear that the critical areas of access to finance and the business environment are being paid due attention in the donor initiatives, both in terms of the number of projects/programmes and the amounts of funds budgeted for these areas. By contrast, the corporate tax framework (tax) does not initially seem to be given the primacy that it deserves, given the large obstacles to business presented by the Jamaican tax rates and administration. One should, however, be careful about the conclusions drawn here, as many of the initiatives seeking to improve the business environment broadly, include elements that focus specifically on tax administration. It is also expected that if initiatives to improve the business environment and reduce the burden of tax compliance are successful, the disincentives to formalization will be reduced and the adverse effects of the practices of the informal sector will be minimized.

A relatively large number of the PSD projects also seek to improve the business supportive institutional infrastructure. Improvements in the capacity of private sector organizations (PSOs) that represent businesses are expected to increase the efficacy with which these groups lobby the government for meaningful improvements to the business environment. It also allows the donor agencies to channel support to businesses through these PSOs, which is arguably more efficient and direct than going through one of the many government agencies with responsibility for PSD.

This, however, highlights key issues that were raised in the previous section of this DMX. The effectiveness and efficiency of PSD programmes is compromised by the extent to which there is a lack of coordination among the donor agencies and between donor agencies and local executing partners. There is plethora of government agencies with partial responsibility for PSD, and an equally large number of private sector stakeholders. If different donors are directly supporting numerous PSOs and working with varied government agencies, the potential for duplication of effort and overlapping functions is high. The need for prioritization of objectives and coordination among donors, between government agencies, and including private sector stakeholders is clear and urgent. Notwithstanding this need, none of the projects/programmes being implemented have coordination and access to donors as their primary objective, and only three projects highlight it as a secondary objective. This is a gap that needs to be filled.

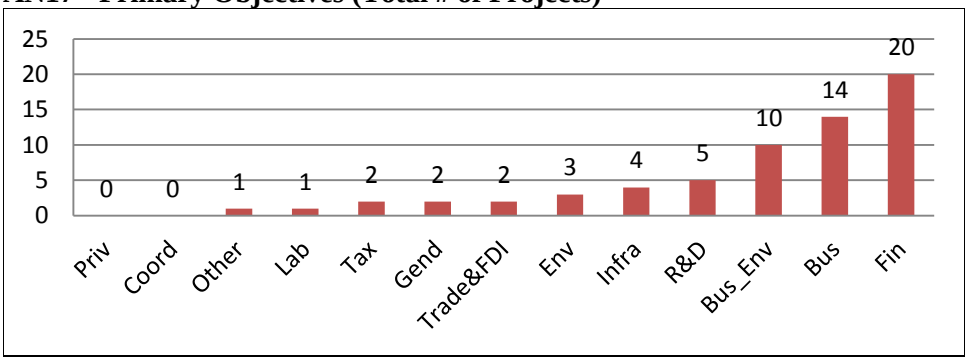
Another gap relates to the problem that is the second most frequently highlighted by Jamaican businesses – the cost and supply of energy. Figure AN17 indicates that relatively few projects (4) have identified the supply of infrastructure, communications and energy (infra) as a primary objective. Figure AN19 shows that 8% of the total amount of budgeted funds towards PSD is channeled to this area. Both figures, however, conceal the fact that a significant number of the projects and share of the funds is allocated to transportation infrastructure in the form of the transnational highway, rather than to improving the supply and lowering the cost of energy. This is an important omission, and represents an opportunity for greater cooperation in the future.

The PSAR also indicated that difficulties associated with international trade stymie the competitiveness of Jamaican businesses. Such difficulties include the lack of diversification of the country's exports, the high dependence on imports, and inefficient institutions that hamper the smooth flow of goods and services. Despite these challenges, there are not many donor-supported initiatives that relate primarily to trade and FDI. Figures AN17 and AN19 indicate that only two of the projects have trade and FDI as a primary objective, but the amount of funding allocated to this area constitutes a negligible share of the total budgeted funds.

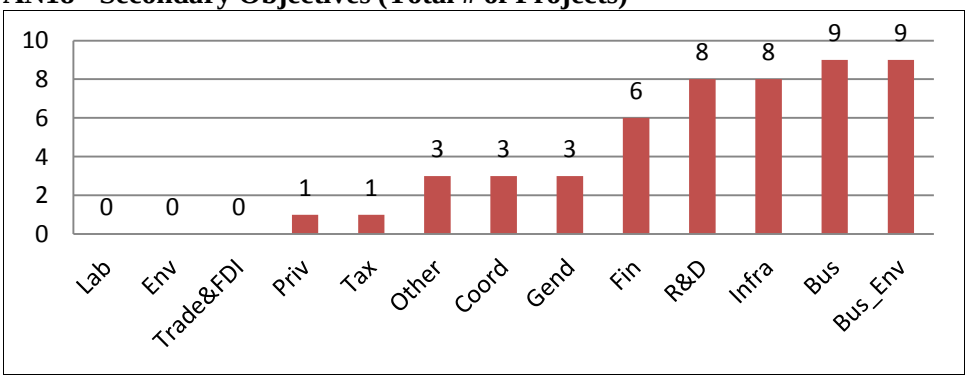
Also attracting a negligible share of funds and being identified as a primary objective for only one project is the issue of labour flexibility. This is so in spite of the fact that labour market inefficiency and productivity was listed as a major factor affecting the competitiveness of Jamaican businesses. There is thus an opportunity for the donor community to focus on this issue, and to broaden the scope of their attention from solely issues relating to labour flexibility, to also including the important goal of improving the productivity of the Jamaican worker.

Improving labour productivity is often highly dependent on the extent to which businesses are willing and able to be innovative and to introduce technological solutions to product and process challenges in their operations. As highlighted in chapter 2 and summarized above, there are numerous challenges to the widespread adoption of innovative and technology-driven business practices in Jamaican firms. At the very foundation of this problem is the limited capacity in the public and private sectors for innovation, and the limited funds spent on research and development. Investment in research and innovation (R&D) is thus a critical area in which the country needs support. Such support from the donor community has, however, been limited. Figure AN17 indicates that only 5 projects have R&D listed as the primary objective. Figure AN19 further shows that the funds allocated to these projects as a share of the total is negligible. Although figure AN18 indicates that 8 projects have R&D as one of their secondary objectives, it is believed that innovation and technology are so important to the competitiveness of Jamaican businesses that more projects should be introduced with this as their primary focus.

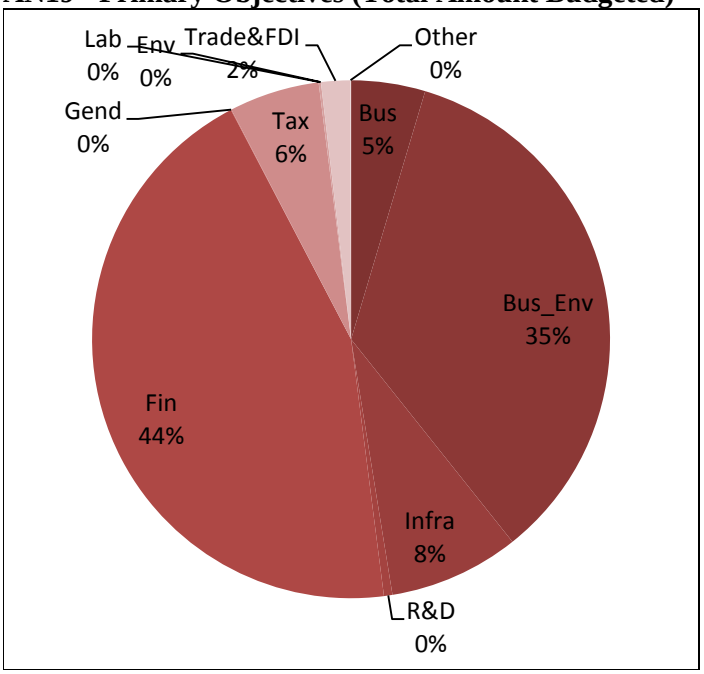
AN17 - Primary Objectives (Total # of Projects)



AN18 - Secondary Objectives (Total # of Projects)



AN19 - Primary Objectives (Total Amount Budgeted)



RECOMMENDATIONS AND LIMITATIONS

A major Private Sector Development Program (PSDP) was implemented in 2004 under a five-year technical assistance programme funded jointly by the European Union and the Government of Jamaica. It aimed to 'promote and impact, on a sustainable basis, Jamaica's overall socio-economic development, by strengthening the country's private sector.' It ended in 2009, but as at 2012 there remain major crippling challenges to PSD in Jamaica. This is in spite of the fact that since 2009 numerous donor agencies have implemented projects that have sought to build on the work done through the PSDP. There are currently approximately 60 donor-supported PSD projects and/or programs are being implemented in Jamaica.

This DMX has shown that whereas these projects and programmes have undoubtedly created significant benefits for the targeted beneficiaries, difficulties exist which challenge the sustainability and proliferation of such benefits. The recommendations listed below seek to address the difficulties. They are presented in summary form as they have been discussed in previous sections.

Recommendations to Improve Prioritization, Coordination and Evaluation

1. The seemingly ad-hoc manner in which donors cooperate with each other on particular projects needs to be replaced with more systematic coordination efforts.

2. Such efforts should begin with the definition of priorities for PSD in Jamaica, which should incorporate the views of the local private and public sector stakeholders. This is an area in which donor collaboration and coordination can be very useful, but is also an issue that the GOJ needs to take a vested interest in.

3. The PIOJ (or some other government agency) should be tasked with holistically examining all of the donor-supported projects and programmes to assess the potential benefits versus the expected costs.

4. Greater emphasis needs to be placed on post-implementation evaluation of PSD projects and programmes. Specifically:

    - The results of donor evaluations of their projects need to be widely disseminated amongst and discussed within the donor community and local stakeholders to ensure that the implications are appreciated and lessons shared;

    - The method of evaluation should include an attempt to measure the extent to which nationally prioritized objectives have been met (rather than solely focusing on narrowly-defined project objectives); and

    - A holistic evaluation of the impact of all PSD initiatives implemented in the country should at some point be undertaken, and should examine issues relating to the number of people, enterprises and/or institutions affected, the extent to which target groups were reached, and the changes in competitiveness that were derived.

Areas Recommended for Increased Donor Support

1. Projects having as their primary focus, means of improving the prioritization of objectives and coordination among donors, between government agencies, and including private sector stakeholders.

2. Projects focusing on improving the supply and lowering the cost of energy for Jamaican businesses.

3. Projects seeking to address the difficulties associated with international trade that adversely affect the competitiveness of Jamaican businesses. Particular attention should be placed on the lack of diversification of the country's exports, the high dependence on imports, and inefficient institutions that hamper the smooth flow of goods and services.

4. Projects that aim to improve the productivity of the Jamaican worker and reduce labour market inefficiency.

5. Projects that seek to address the challenges to the widespread adoption of innovative and technology-driven business practices in Jamaican firms.

The findings and recommendations made in this study are based on an attempt to apply the Compete Caribbean Donor Matrix Guidelines. These guidelines suggested a reliance on secondary and primary data to inform the study. It was, however, not possible to collate the primary data, as interviews with donor agency representatives and local stakeholders could not be conducted. This is because the IDB office in Jamaica did not issue letters of introduction for the consultant to the prospective interviewees and did not make arrangements for the scheduling of the interviews, as they had agreed to. Reliance was thus placed on secondary sources of information. Great effort was however, exerted to review all available documentation, including project evaluations, press releases, and previous studies.

APPENDIX for ANNEX

Table AN.A1 – CIDA (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog. Reach	Sector	Loan/Grant
Caribbean-Canada Emerging Leaders' Dialogue	CIDA	106,260	Bus	Conc	Short-term	Nat'l		Grant
Canadian-Caribbean Cooperation Fund	CIDA	1,229,087	Bus/ Bus_env	Act	Long-term	Nat'l		Grant
Entrepreneurship Program for Innovation in the Caribbean	CIDA/ World Bank	1,265,000	Bus/ Fin	Act	Long-term	Nat'l	Serv	
Caribbean Local Economic Development	CIDA	1,977,448	Bus_env/ Bus	Act	Long-term	Nat'l		
Promoting Private Sector Growth - Compete Caribbean	IDB/CIDA	1,350,008	Bus_env/ Bus/ Coord	Act	Long-term	Nat'l		Grant
MicroFin Serv	CIDA	3,542,000	Fin	Act	Long-term	Sub-reg'l	Serv	
Partnership for CARICOM Private Sector Development	World Bank/ CIDA	1,344,614	Infra/ Fin/ Bus_env	Act	Long-term	Nat'l		Grant
CARICOM Education for Employment	CIDA	1,523,114	Lab/ Gend/ Bus	Act	Long-term	Nat'l	Serv	Grant
Improving Agri in Jamaica	CIDA	5,060,000	R&D/ Infra/ Env	Act	Long-term	Sub-reg'l	Agri	

Table AN.A2 – DFID (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Caribbean Aid for Trade and Regional Integration Trust Fund (CARTFund)	DFID	16,301,400	Trade&FDI/ Bus	Act	Long-term	Nat'l	Serv	Grant
Agricultural Competitiveness Programme	IDB/DFID	15,000,000	Bus/ R&D/ Bus_env	Act		Nat'l	Agri	Loan
Fiscal Administration Modernization Programme	IDB/DFID	65,000,000	Bus_env	Act		Nat'l	Serv	Loan
Compete Caribbean	IDB/UKAID-DFID/CIDA	16,382,100	Bus_env/ Bus/ Coord	Act	Long-term	Nat'l		Grant

Table AN.A3 – EU (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Agricultural Competitiveness Programme	IDB/EU	15,000,000	Bus/ R&D/ Bus_env	Act		Nat'l	Agri	Loan
Debt Reduction & Growth Enhancem't Prog. (DRGEP)	EU	114,874,800	Bus_env/ Tax/ Other	Act	Long-term	Nat'l		Loan
Developing an Energy Serv Company (ESCO) Ind in Jamaica	EU	570,220	Bus/ Infra/ Env	Act	Long-term	Nat'l	Ind	Loan
EPA Capacity Building (10th EDF)	EU	2,970,900	Trade&FDI/ Bus_env/ Bus/ R&D	Act	Med-term	Nat'l	Agri	Loan
European Banana Support Programme	EU	55,456,800	Bus_env/ Other	Act	Long-term	Sub-reg'l	Agri	Loan
Jamaica Accompanying Measures for Sugar	EU	113,554,400	Bus_env/ Other	Act	Long-term	Sub-reg'l	Agri	Loan

Table AN.A4 – IDB (Summary of PSD Projects and Programmes)

Project	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Competitiveness Enhancement Programme II	IDB	60,000,000	Tax/ Bus_env/ Fin	Conc	Long-term	Nat'l		Loan
Agricultural Competitiveness Programme	IDB	15,000,000	Bus/ R&D/ Bus_env	Act		Nat'l	Agri	Loan
Transjamaican Highway Project	IDB	70,000,000	Infra	Act		Nat'l		Loan
Liquidity Program for Growth Sustainability	IDB	300,000,000	Fin	Conc	Short-term	Nat'l	Serv	Loan
Island Outpost Hotel Expansion	IDB	12,000,000	Fin		Med-term	Sub-reg	Serv	Loan
Improving the Competitiveness of Family Bus through Corporate Governance	IDB	526,050	Bus_env	Act		Nat'l		Grant
Using Intellectual Property to Improve the Competitiveness of Jamaican MSMEs	IDB	149,050	R&D/Bus	Act	Long-term	Nat'l		Grant
Strengthening and Promoting Women's Enterprise in Jamaica	IDB	321,306	Gend	Act		Nat'l		Grant
Increased Beef Production in Eastern Jamaica	IDB	149,350	R&D	Act	Long-term	Sub-reg	Agri	Grant
Centralized Information Technology Systems for SMEs	IDB	149,525	R&D	Act		Nat'l	Serv	Grant

Project	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Provision of Remittance and Other Financial Serv for the Rural Poor in Jamaica	IDB	210,000	Fin	Act		Sub-reg	Serv	Grant
JNCB - Expansion of Financial Serv for Small Enterprises	IDB	462,000	Fin	Prep		Nat'l	Serv	Grant
Extending Altn'ive Dispute Resolution Serv to SMEs	IDB	150,000	Bus	Act		Nat'l	Serv	Grant
Microfranchise as a tool for Economic Promotion of at Risk Youth	IDB	150,000	Bus/Bus_env			Nat'l	Serv	Grant
Development of Sports Bus Value Chains in Jamaica	IDB	150,000	R&D	Prep		Nat'l	Serv	Grant
Expanding Access to Financial Serv for Rural Microenterprises in Jamaica	IDB	630,000	Fin/ Gend	Act	Long-term	Sub-reg		Loan
Support to Promote Energy Efficiency, Energy Conserv'n & Sustainable Energy	IDB	593,000	Infra	Act		Nat'l		Grant
Improving Fin to Women Entrepreneurs	IDB	30,000	Gend/ Fin	Conc	Med-term	Nat'l		Grant
Project to Improve Livelihoods in the Portmore Causeway Fishing Village	IDB	150,000	Bus	Act		Mun	Agri	Grant

Project	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Support to Agricultural Competitiveness Program	IDB	350,000	Bus	Conc	Med-term	Nat'l	Agri	Grant
Studies for Agricultural Sector Priorities	IDB	200,000	Tax	Act		Nat'l	Agri	Grant
Study Tour of Jamaican Farmers to Dominican Republic	IDB	10,755	Bus/ R&D	Conc	Short-term	Sub-reg	Agri	Grant
Support for the Privatization of the Norman Manley InterNat'l Airport	IDB	550,000	Other/ Priv	Act		Nat'l	Serv	Grant
Project to Improve Livelihoods in the Portmore Causeway Fishing Village	IDB	265,000	Bus/ Gend/ Bus_env	Prep		Mun	Agri	Grant
Assessment and Implementation of Bus Climate Reforms in Jamaica	IDB	657,231	Bus_env/ Coord/ Fin	Act		Nat'l		Grant

Table AN.A5 – IFC (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification			
			Obj	Geog Reach	Sector	Loan/Grant
First Jamaica	IFC	25,000,000	Fin	Nat'l	Ind	Loan
MBJ Airports Limited	IFC	5,000,000	Fin/ Infra	Nat'l	Serv	Loan
Transjamaican Highway Ltd	IFC	85,000,000	Fin/ Infra	Nat'l	Ind	Loan
First Global Bank	IFC	20,000,000	Fin	Nat'l	Serv	Loan

Name	Primary Donor	Amount (USD)	Classification			
			Obj	Geog Reach	Sector	Loan/Grant
JEP 3: WKPP 66MW	IFC	20,000,000 to 30,000,000	Fin/ Infra	Nat'l	Ind	Loan
JPS Co. II	IFC	30,000,000	Fin/ Infra	Nat'l	Ind	Loan
JN SBLL	IFC	2,500,000	Fin	Nat'l	Serv	Loan
MBJ ROS	IFC	15,000,000	Fin/ Infra	Nat'l	Serv	Loan

Table AN.A5 – IIC (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification			
			Obj	Geog Reach	Sector	Loan/Grant
Jamaica Broilers	IIC	7,000,000	Fin	Sub-reg'l	Agri	Loan
Jamaica Broilers II	IIC	2,000,000	Fin/ Infra	Sub-reg'l	Agri	Loan
Golden Grove Sugar Company	IIC	4,000,000	Fin	Sub-reg'l	Agri	Loan
Precise Technology	IIC	150,000	Fin	Sub-reg'l	Serv	Loan
Jamaica Teas Limited	IIC	500,000	Fin	Sub-reg'l	Ind	Loan

Table AN.A6 – UNDP (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification					
			Obj	Status	Time-frame	Geog Reach	Sector	Loan/Grant
Renaissance of Farming in the Christiana Area through Diversification and use of Technology	UNDP	40,000	Bus/ R&D	Conc	Med-term	Sub-reg'l	Agri	Grant
Reducing Carbon Emissions through the use of Solar Energy in Protected Agri	UNDP	28,000	Env	Conc	Med-term	Sub-reg'l	Agri	Grant

Table AN.A7 – USAID (Summary of PSD Projects and Programmes)

Name	Primary Donor	Classification		
		Obj	Geog Reach	Sector
Jamaica Farmers Access to Regional Markets Project (JA FARMS)	USAID	Env/ Bus/ R&D	Sub-reg'l	Agri
Legs and Regs Development Approvals Process Project	USAID	Bus_env	Nat'l	
Protected Areas and Rural Enterprise Project	USAID	Env/ R&D	Sub-reg'l	Agri/ Serv

Table AN.A8 – World Bank (Summary of PSD Projects and Programmes)

Name	Primary Donor	Amount (USD)	Classification			
			Obj	Geog Reach	Sector	Loan/Grant
Rural Economic Development Initiative	IBRD	15,000,000	Fin/ Bus	Sub-reg'l	Agri & Serv	Loan
Jamaica Energy Security and Efficiency Enhancement Project	IBRD	15,000,000	Infra/ Fin	Nat'l	Ind	Loan

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