# **CREATING NATIONAL WEALTH THROUGH THE JAMAICA LOGISTICS HUB:**

## LOOKING BEYOND PORTS AND PARKS TO PEOPLE AND PROCESSES





## INTRODUCTION

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). The development of the Jamaica Logistics Hub (JLH) has been billed as the next major driver of economic growth in the country, expected to have a far greater impact than the bauxite industry had in its heyday (Moss-Solomon 2013).<sup>1</sup> The Government of Jamaica has identified it as the major plank of its growth strategy over the next 15 years.

While there are examples in countries such as Singapore and United Arab Emirates (Dubai), of Logistics Hubs providing the catalyst to economic growth envisioned by Jamaican policymakers, analyses of these case studies emphasize the importance of certain preconditions for success. Some of these preconditions include a strategic location, development of the necessary infrastructure, and creation of free zones and business parks, areas now being emphasized by the Government of Jamaica (GOJ). Others, however, emphasize factors such as government stability and continuity of policies, the availability of appropriate human capital, efficiency in administrative processes, and an investment-friendly business environment as important antecedents to the success of a logistics hub (Munoz and Rivera 2010).

The challenges of doing business in Jamaica are well-documented. The country suffers from low productivity and lags behind regional counterparts in several areas critical to business performance.

This impacts the competitiveness of Jamaican firms and is likely to dampen the catalysing impact of the logistics hub. It also directly impacts areas critical to the operations of a logistics hub.

This study has been developed to objectively assess the extent of this problem. Specific questions that will be answered include:

 How do logistics hubs create national wealth?
 Is a logistics hub likely to <u>automatically</u> create national wealth in Jamaica?
 If not, what are the critical preconditions to creating national wealth through logistics hubs? and
 Is the Jamaican economy competitively positioned with respect to these preconditions?

The aim of the analysis is to highlight key areas that the GOJ must urgently address to facilitate the success of the JLH.

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Logistics refer to the organization and coordination of the movement of material inputs, semi-finished goods, components and final goods.<sup>2</sup> It is commonly described as 'having the right thing, at the right place, at the right time.'<sup>3</sup> A logistics hub is a 'regional cross-docking point, where products from multiple supply sources arrive and are sorted in accordance to the needs of the destination points. Products are then delivered to these points without being stored at the hub.'<sup>4</sup>

Logistics hubs are able to increase national income and create wealth in two ways:

• The first is specific to logistics hubs. By reducing the costs associated with the transportation, storage and distribution of goods from producer to consumer, efficient logistics hubs improve the competitiveness of firms, facilitate trade and foster economic growth. Reducing logistics costs significantly impacts competitiveness and growth, as an efficient transportation and logistics system opens up international markets to local producers and consumers (World Bank 2010). Studies conducted by the World Bank in 2007 and 2010 indicate that for countries at the same level of per capita income, those with the best logistics performance experience additional growth of 1 per cent in GDP and 2 per cent in trade. They note that 'better logistics performance is strongly associated with trade expansion, export diversification, ability to attract FDI, and economic growth.<sup>5</sup>

• Logistics hubs also facilitate economic growth and wealth creation by virtue of applying the beneficial principles of clustering. A hub or a cluster is broadly defined as a 'geographic concentration of interconnected businesses, suppliers and associated institutions in a particular field linked by commonalities and complementarities.' By exploiting these complementarities, clusters have the potential to foster economic growth by increasing the productivity of the companies in them, driving innovation in the field and by stimulating new businesses in the field.<sup>6</sup>

### **Components of a Logistics Cluster**

Figure 2.1 highlights the main components of a logistics cluster, and shows how they together foster increased national income. Critical to any logistics cluster is the hub core, which is comprised of the providers of logistics and transportation services, as well as the country's infrastructure operators, such as the port and airport operators. The success of the entire cluster is dependent on the efficient and effective operation of the firms and entities within the hub core.

The core, however, typically represents a relatively small number of specialized firms. The jobs to be created by firms in the hub core are likely to be significantly less than what is widely anticipated. In countries with highly successful logistics hubs, the bulk of employment created is not within the hub core, but rather emanates from the spin-off industries that have been facilitated within the cluster. So in figure 2.1, the supported and related industries are important determinants of the extent to which logistics hubs are able to facilitate job and wealth creation. Supported industries are those which arise to provide support services to the firms and entities within the hub core, while related industries are those that are likely to benefit considerably from the reduced costs and enhanced openness facilitated by the efficient operation of the core.

Experiences in successful hub locations such as Singapore and Dubai, however, also indicate that the efficient operation of the core and creation of spin-off industries require institutional support from the government and certain key NGOs. These critical institutions support the entire cluster by providing the specialized human and informational resources on which logistics operations depend.

It is thus clear from figure 2.1 that logistics hubs will only generate the job and wealth creation that will lead to increased national income and prosperity if the right types of firms and entities are mobilized to operationalize the hub core, and if new firms arise and/or existing firms expand to exploit the potential for supported and related spin-off industries.

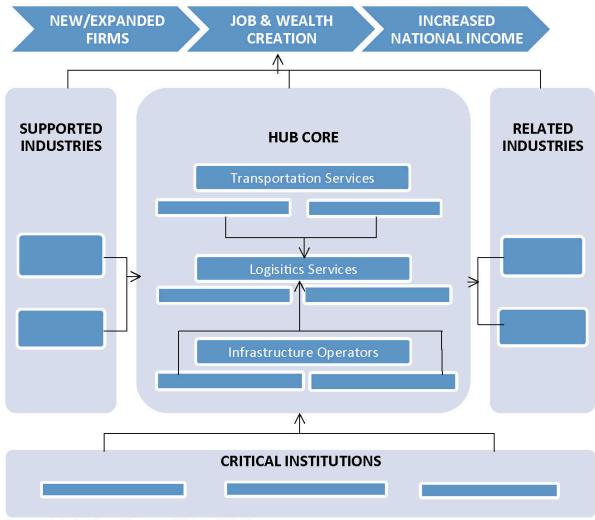


Figure 2.1 – Logistics Hubs and Wealth Creation

Source: Adapted from Munoz and Rivera (2010)

#### The Singaporean Case Study

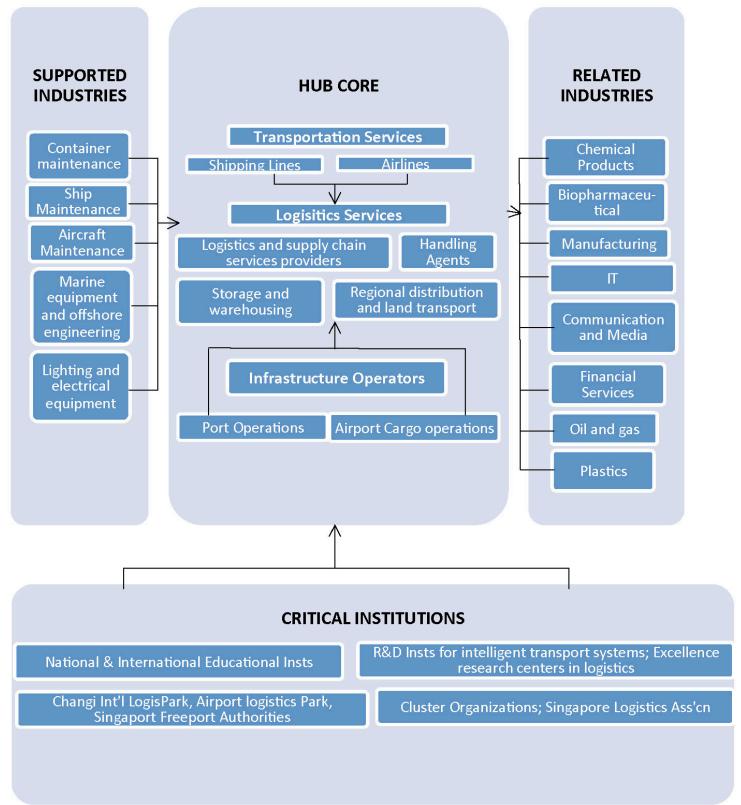
The Singaporean case study is presented in figure 2.2 to demonstrate how the model presented above operates in practice. In Singapore, logistics services within the hub core are supplied by firms that specialize in high-value logistics and supply chain management services, provide storage and warehousing facilities, act as handling agents, and provide land transportation services. It is noted that more than twenty of the top 25 third party logistics companies (including DHL and UPS) provide services in Singapore and most have established regional headquarters there. Shipping lines and airlines provide the international transportation services. Singapore hosts several multinational shipping companies such as Pacific International Lines and Neptune Orient Lines. All of these firms interface with the port and airport cargo operations. The Port of Singapore Authority operates several of the world's busiest terminals, and has received several annual awards for the best global container terminal operator.

As one of the most important logistics hubs globally, it is not surprising that the spin-off industries from the

Singaporean Logistics Hub are extensive. The supported industries include container, ship and aircraft maintenance. Firms also supply marine, lighting and electrical equipment, and offshore engineering is an important service that is provided within the cluster. In most of these supported industries, Singapore is a world-leading player, with local firms capturing large shares of the global market.

The list of related industries that benefit from the logistics hub is also long and certainly not exhaustive. The Singaporean economy is well-diversified, and hosts regional headquarters for, inter alia, automotive companies and manufacturing operations that produce high-value components. It is noted that as more of these companies expand, they outsource activities that were formerly done in-house, leading to a rapid growth in related business services such as legal counselling, accounting, management consultancy and advertising. Singapore has also actively promoted high value-added, knowledge-based and internationally exportable services. Service clusters such as IT, communications and media, and healthcare have all shown strong growth potential.





Source: Munoz and Rivera (2010)

## Figure 2.3 – WTO's Logistics Checklist: Logistics Service Activities

Core Logistics	Related Freight Logistics	Non-Core Freight Logistics
Transport management	Road	Computer and related services
Supply-chain consulting	Rail	Retail trade
	Freight Transportation	Courier/Postal services
	Air	Commission agency services
	Maritime	Rental of transport equipment
		Technical testing and analysis services
		Trade finance services
		Other:business services
		Other: telecommunication services
		Marine, aviation and transport insurance services
		Express delivery services
		Maintenance and repair of transport equipment
		Data and message transmission services
		Sale, maintenance and repair of motor vehicles
		Wholesale trade
		Packing services

Source: Adapted from World Bank (2010)

The success of Singapore in creating such a vibrant logistics cluster is in part due to the strong institutional support provided through educational institutions in logistics and supply chain management, research institutes that, inter alia, focus on emerging transportation technologies, special economic zones and business parks, and cluster and logistics organizations.

### **Logistics Service Activities**

The economic activity generated through the Singaporean logistics hub is massive, and clearly the country is a world-leader in this respect. It, however, is not unique. Hubs located in Dubai (in the United Arab Emirates), the Netherlands, Hong Kong, and Korea have similarly benefitted their national economies. Much of the potential of logistics hubs lies in the large number of different types of firms that can be involved in the provision of transport and logistics services. To illustrate, the WTO's Logistics Services Checklist has been reproduced in figure 2.3. This checklist groups providers of transport and logistics services in three categories:

- Core freight logistics services;
- Related freight logistics services; and
- Non-core freight logistics services and other related logistics services.

In total, the checklist highlights 23 different types of logistics service activities that firms can profitably engage in. When this is considered alongside the fact that logistics hubs can spawn related industries outside of these areas (by virtue of the benefits of reduced costs and increased openness), it is clear why several countries are excited by the prospect of developing their own logistics hubs to coincide with the expansion of the Panama Canal.

## IS THE LOGISTICS HUB LIKELY TO AUTOMATICALLY CREATE NATIONAL WEALTH IN JAMAICA?



Logistics hubs clearly have the potential to foster increased national income through job and wealth creation. This section examines whether the development of the JLH will automatically create such prosperity in Jamaica. It involves an assessment of whether the country has the firms/agencies, or is able to easily attract or create the firms/agencies that will efficiently operationalize the hub core and populate the supported and related industries.

In this respect, regional benchmarking is critical, as Jamaica is not the only country in the Latin America and Caribbean (LAC) region that has in recent times expressed an intention to develop a logistics hub. Other LAC countries that are exploring similar plans include the Bahamas, Brazil, Cuba, the Dominican Republic, Martinique, Mexico, Panama, Trinidad and Tobago, and Uruguay. The success and sustainability of the JLH is heavily dependent on Jamaica's competitive positioning relative to these countries. Broader international benchmarking is also undertaken, as it will be very useful to assess how close Jamaica is to world-leading standards. Singapore, the Netherlands, the United Arab Emirates (Dubai), Hong Kong and Korea are thus used as additional comparator countries.

### **Current Areas of Specialization in Service Provision**

A good litmus test of whether a country currently has the firms and agencies that are necessary for a successful logistics hub is whether it already competitively provides the services typically associated with logistics operations. As a proxy for this, figure 3.1 presents the decomposition of service exports for Jamaica and the comparator countries. Immediately evident is the fact that in the Netherlands, Singapore and Korea, there is a strong specialization in the export of transportation and ICT services. Clearly this is a result of their successful logistics hubs. By contrast, with the exception of Brazil and Panama, the service exports of all the LAC countries are heavily concentrated in travel, which is closely linked to the tourism industry. Jamaica has the second highest concentration of service exports to this sector (77%).

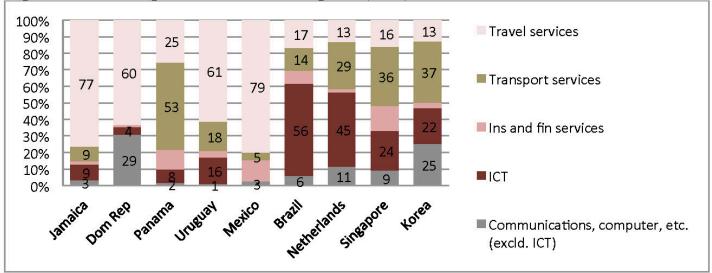


Figure 3.1 - Decomposition of Service Exports (2012)

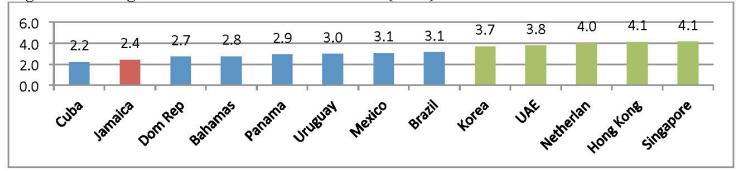
Source: World Development Indicators

#### **Current Logistics Performance**

Even if a country does not at present provide the services typically associated with logistics operations, this can quickly change if the overall logistics environment is positive. The most important aspects of a country's current logistics environment are captured in the World Bank's Logistics Performance Index (LPI). The LPI is comprised of six indicators that are selected by the World Bank on the basis of the latest theoretical and empirical research, and on extensive interviews with professionals involved in international freight logistics.<sup>7</sup> The data are aggregated into a single index score

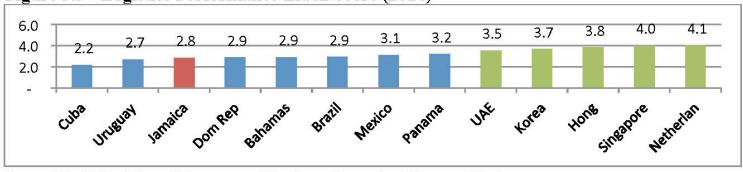
for each country, ranging from 0 to 5, with 5 representing the best performance.

The LPI scores for 2012 and 2014 are presented in figures 3.2 and 3.3 for Jamaica and the comparator countries. In both figures, the consistently high scores received by the worldleading comparators are instructive, as is the gap between these countries and all the LAC hopefuls. Even more noteworthy is the fact that amongst the regional competitors, Jamaica had the second lowest LPI score in 2012, with only Cuba having a marginally lower score.





Source: World Bank, http://lpisurvey.worldbank.org/international/scorecard/radar



## Figure 3.3 - Logistics Performance Index Score (2014)

Source: World Bank, http://lpisurvey.worldbank.org/international/scorecard/radar

The country has, however, improved its logistics performance, and by 2014 improved its LPI score from 2.4 to 2.8. Although this was the largest increase in score among the comparator countries, it only moved Jamaica into the third lowest position, with the Dominican Republic, the Bahamas, Brazil, Mexico and Panama all having higher LPI scores. It is important to note, though, that the rapid improvement in the country's scores has significantly narrowed the gap between Jamaica, the Dominican Republic, the Bahamas and Brazil. Mexico and Panama, have however, outperformed the other regional comparators and are approaching the logistics performance standards of the world-leaders.

Although significant improvements have been realized in a relatively short period of time, Jamaica is not currently amongst the best positioned economies in the region to reap the benefits of a logistics hub. The reasons for this are elucidated in figures 3.4 and 3.5, which present a breakdown of the countries' performance in each of the components of the LPI for 2012 and 2014. The components are defined as follows:

Customs – efficiency of the customs clearance process;

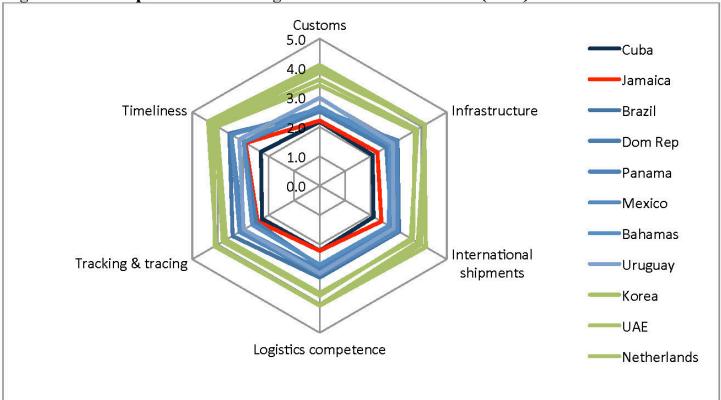
• Infrastructure – quality of trade and transport-related infrastructure;

• International shipments – ease of arranging competitivelypriced shipments; • Logistics competence – competence and quality of logistics services;

• Tracking and tracing – ability to track and trace consignments; and

• Timeliness – frequency with which shipments reach the consignee within the scheduled time.

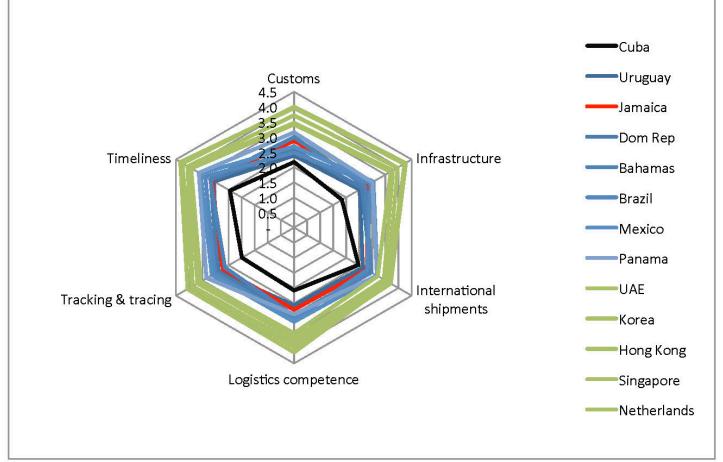
In 2012, in each of these areas Jamaica had a lower score than all of the regional competitors other than Cuba; and in two areas, customs and logistics competence, Jamaica's score was as low as Cuba's. By 2014, however, the distinction between Jamaica and the regional comparators is much less clear, with Jamaica catching-up and surpassing a number of countries in the areas of infrastructure and customs. Notwithstanding this, Jamaica had the second lowest score for timeliness,<sup>8</sup> and the third lowest score for logistics competence, tracking and tracing, and international shipments. This indicates that in spite of the improvements made by the government, the private firms in Jamaica that are involved in the transport and logistics system are in need of significant bolstering if the country is to be a leading regional hub location.



**Figure 3.4** - Components of the Logistics Performance Index (2012)

Source: World Bank, http://lpisurvey.worldbank.org/international/scorecard/radar

Figure 3.5 - Components of the Logistics Performance Index (2014)

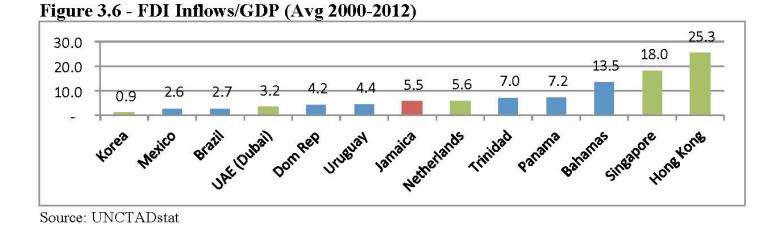


Source: World Bank, http://lpisurvey.worldbank.org/international/scorecard/radar

### **Current Performance in Attracting Foreign Investments**

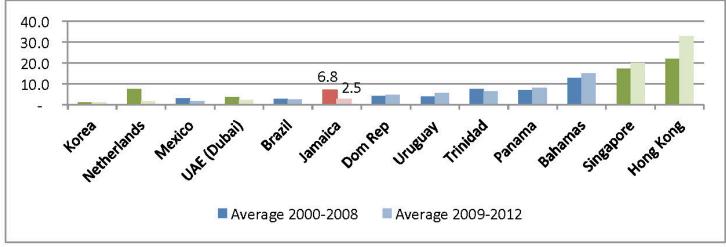
Such bolstering can come through foreign direct investment (FDI), as MNCs can provide some of the services that are not being efficiently supplied. The development of Singapore's logistics hub was catalysed by the attraction of a number of multinational giants, both in the hub core through providers of logistics and transportation services, as well as in the supported and related industries in sectors such as petrochemicals, IT and finance. Dubai followed a similar model and by 2006 was able to attract a quarter of the world's top 500 companies.

Jamaica's current poor logistics performance can thus be turned around if the country is able to attract foreign investments into certain key sectors. Figure 3.6 suggests that Jamaica's recent history in attracting FDI has only been average, with the ratio of FDI inflows to GDP for the period 2000 to 2012 being higher than those of Mexico, Brazil, the Dominican Republic and Uruguay, but significantly lower than those of Trinidad and Tobago, Panama and the Bahamas.



In figure 3.7, when the ratio of FDI inflows to GDP is disaggregated to reflect the inflows before and after the recent global crisis, the Jamaican performance is shown to be even worse. With an average of 2.5% between 2009 and 2012, Jamaica has the third lowest ratio of FDI inflows to GDP amongst regional counterparts, being only marginally higher than Mexico and Brazil. The Dominican Republic, Uruguay, Trinidad and Tobago, Panama,

and the Bahamas were all able to maintain significantly higher FDI to GDP ratios than Jamaica in the immediate aftermath of the global crisis. It is also noteworthy that apart from the Netherlands, Jamaica had the sharpest decline in FDI inflows to GDP in the period immediately after the crisis.



## Figure 3.7 - FDI Inflows to GDP Before & After Global Crisis

Source: UNCTADstat

Even if a country is unable to attract a large quantity of foreign investments, if the investments are directed to sectors that are critical to the hub core and supported and related industries, they could still have a significant catalysing impact. In Singapore, for example, in the early stages of its hub development, the government sought to concentrate the inflows of investment into transportation, logistics, IT, finance and petrochemicals.

In figures 3.8 and 3.9 the number of MNCs recently established in Jamaica and the average FDI inflows to the country are broken down by sector. Figure 3.8 indicates that since 2000 a total of 18 MNCs have been established in Jamaica in the areas of wholesale and retail trade and transportation, storage and communication, and an additional two in machinery and equipment. When the value of FDI inflows is, however, examined in figure 3.9, it is clear that inflows to those sectors are negligible. Over 80 per cent of the FDI inflows to Jamaica are concentrated in three sectors. A third of the total FDI inflows go to mining and quarrying (bauxite), a quarter to hotels and restaurants (tourism) and another quarter to business activities.

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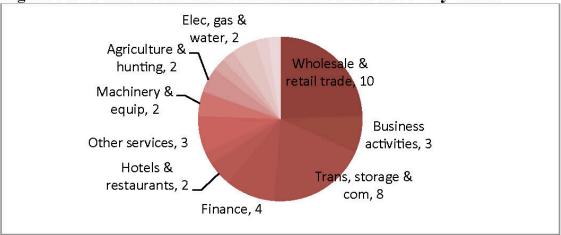
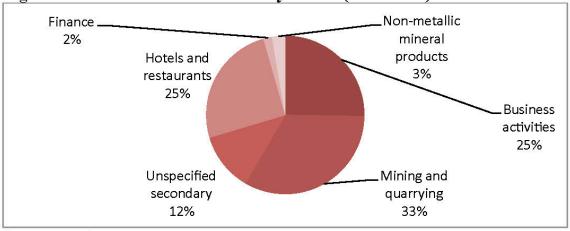


Figure 3.8 - # MNCs Established in Jamaica since 2000 - By Sector

Source: www.investmentmap.org

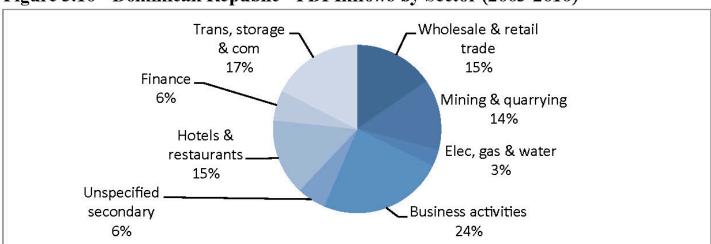


## Figure 3.9 - Jamaica - FDI Inflows by Sector (2001-2010)

In figures 3.10 to 3.12, the contrast to the comparator countries is significant. Not only are these economies more diversified, FDI inflows are already being directed to sectors that are critical to the operations of logistics hubs. In the Dominican Republic the second largest recipient of FDI inflows is the transportation, storage and communications sector (17%), followed closely by the wholesale and retail trade sector (15%). In Panama this order is reversed, with the wholesale and retail trade sector (20%) being the second largest recipient of FDI inflows, followed

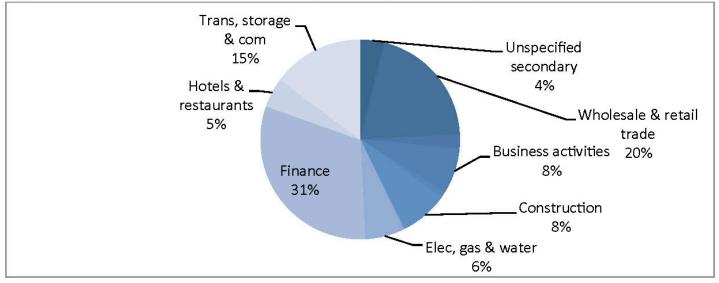
by transportation, storage and communications (15%). Mexico seems to be the most diversified of the four economies, receiving significant shares of FDI inflows to wholesale and retail trade (8%), motor vehicles and other transportation equipment (8%), transportation, storage and communication (6%), electrical and electronic equipment (6%), metal and metal products (5%), and chemicals and chemical products (5%).

Source: <u>www.investmentmap.org</u>

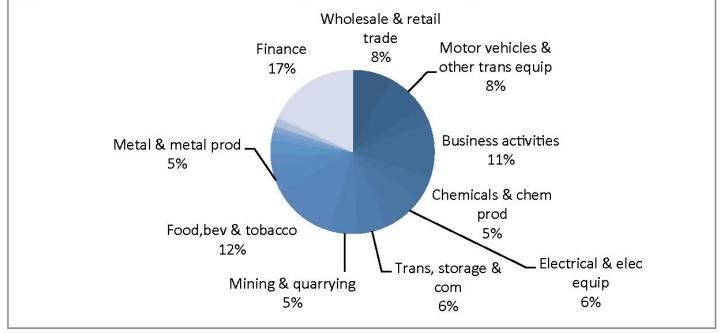


## Figure 3.10 - Dominican Republic - FDI Inflows by Sector (2003-2010)

## Figure 3.11 - Panama - FDI Inflows by Sector (2003-2010)



## Figure 3.12 - Mexico - FDI Inflows by Sector (2003-2010)



## WHAT ARE THE PRECONDITIONS TO CREATING NATIONAL WEALTH THROUGH LOGISTICS HUBS?

The analysis in the previous section has shown that it is very unlikely that the JLH will automatically create national wealth in Jamaica. This is because the country currently: (i) does not specialize in the areas of service provision typically associated with logistics operations; (ii) is outperformed in three key components of the logistics environment by most of the potential regional competitors; and (iii) has one of the worst records amongst comparator countries of attracting FDI inflows to the sectors that are critical to the logistics hub core and supported and related industries.

This, however, does not mean that the country will never be able to achieve prosperity through the JLH. It does indicate, though, that the process may take some time, and will require the country to undertake the groundwork needed to create the desired impact. This is not unusual, as the countries that now have successful logistics hubs have had to go through similarly lengthy processes. In Singapore, many of the key infrastructural pillars of the logistics hub were developed in the 1970s, the thrust to attract the multinational companies which served as the anchors of the hub core occurred in the 1980s and early 1990s, and in the mid to late 1990s and early 2000s there was further capacity expansion and administrative improvements. A similar process was followed in Dubai, with infrastructural development spanning the 1970s and 1980s, anchor companies being established in the 1980s and 1990s, and expansion occurring in the mid to late 2000s.9

The experiences of these and other countries clearly indicate that for logistics hubs to be successful and to generate national wealth, certain preconditions must first be satisfied. In section 2 it was shown that logistics hubs will only generate the job and wealth creation that will lead to increased national income and prosperity if the right types of firms and entities are mobilized to operationalize the hub core, and if new firms arise and/or existing firms expand to exploit the potential for supported and related spin-off industries. The preconditions for success are thus integrally related to the ability of the economy to attract and/or foster the creation of these firms. Figure 4.1 broadly categorizes these preconditions into five areas: Natural endowment; Physical infrastructure; Economic incentives; People and processes affecting trade and logistics; and the Business environment.

These areas have been colour-coded to reflect the following categorizations:

• **GREEN** – This is an area in which Jamaica already has a distinct advantage.

• AMBER – An area in which: (i) Jamaica has clear potential; (ii) has made recent and significant improvements; and/or (iii) on which the GOJ has placed significant and serious attention.

• RED – An area in which the country tends to perform poorly.

#### Natural endowment

This refers to the strategic location of the country, and clearly is the foundational precondition without which there can be no prospects for the development of a logistics hub. Such hubs typically develop in regions located in between trade routes. A good location thus enhances connection to trade centres and markets for goods and services.<sup>10</sup> With its location at the centre of North-South and East-West shipping lanes, Jamaica is advantageously positioned.

The expansion of the Panama Canal will heighten the potential of benefitting from this positioning, as 'ships will bring goods from the Far East destined for the eastern seaboard of the United States and Canada through the canal to the Caribbean.'<sup>11</sup> It is for this reason that natural endowment has been colour-coded in figure 4.1 as green, as this is an area in which the country already has an advantage.

There are, however, two important points that should not be ignored:

• Jamaica is not the only country that has a geographic location that allows it to benefit from these trade patterns. All of the regional comparators included in this study can argue to a greater or lesser extent that their location provides key advantages; and

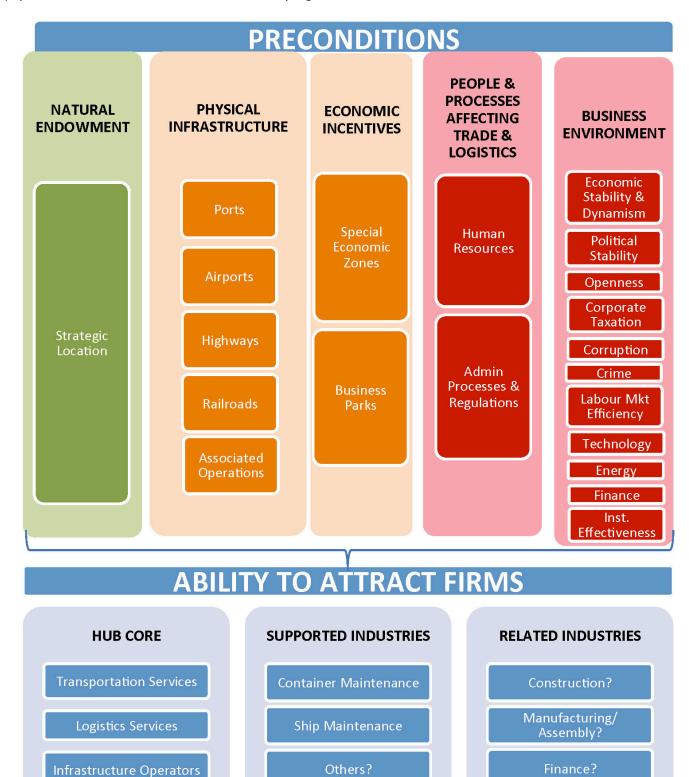
• A good location is a necessary but not sufficient condition for the development of a logistics hub.

## **Physical infrastructure and operations**

The second critical precondition is the development of the physical infrastructure, which is at the centre of any logistics

hub. As indicated in figure 4.1, this involves constructing the port, airport, highway and railroad infrastructure that form the backbone of the hub. An effective and multi-modal transportation system allows firms to get their goods and services to the market in a secure and timely manner.

Within this system ports are critical, as about 90% of world trade volume is transported by sea.<sup>12</sup> With recent massive increases in ship sizes and load and propulsion capacities, ships can travel longer distances and are able to limit the number of port calls to a few selected hubs and load centres.



This has two key implications: (i) deep-sea ports are necessary to accommodate such large ships; and (ii) locational advantages are diminished when ships have the capacity to bypass ideally-located ports to dock at alternate sites with better facilities and/ or services.<sup>13</sup> Achieving hub-status is thus critical in a relatively small region such as the Caribbean, with a number of competing ports.

Jamaica has the advantage of having the 7th largest harbour in the world. The GOJ plans to build on this natural advantage by: (i) dredging Kingston Harbour to increase its depth; (ii) expanding the capacity of the Kingston Container Terminal to allow for increased storage; (iii) utilizing Cow Bay in St. Thomas as a bulk shipment port; (iv) developing a dry dock facility on the South Coast of the island to offer ship maintenance and repair services; and (v) exploring the possibility of partnering with the Chinese to develop a special economic zone and transhipment port in the vicinity of the Goat Islands.<sup>14</sup>

Air cargo will be handled by the country's two international airports. The GOJ plans to expand cargo facilities and extend runways at both airports. It also plans to develop the Vernamfield airfield into an air cargo and logistics site, with a commercial free zone, and a complex providing aircraft maintenance and repair. The completion of the Highway 2000 project is expected to provide in-island connectivity, as is the rehabilitation of sections of the country's railway lines.<sup>15</sup>

The government has placed significant attention on the projects related to these infrastructural preconditions. Because of the natural advantages that the country has in relation to its ports, and the extensive projects being planned to improve the infrastructure, physical infrastructure has been colour-coded in figure 4.1 as amber. It is an area in which Jamaica has potential, in which improvements have been recently made, and on which the GOJ has clearly placed its focus. This was evidenced in figures 3.4 and 3.5 by the improvement in the LPI ranking for infrastructure between 2012 and 2014. We, however, have not categorized it as green, as more work remains to be done, and Jamaica still ranks behind Brazil, Panama and Mexico in this respect.

## **Economic incentives**

In countries that have established successful logistics hubs (such as Singapore and UAE – Dubai) the construction of the necessary infrastructure was followed by attempts by the government to attract multinational corporations (MNCs) and sometimes national companies to act as anchors for the hub. Anchor companies are defined as large, well-recognized and highly efficient and competitive companies that locate within the hub and create incentives for other firms to come to the cluster. Such companies include logistics and transportation businesses, as well as manufacturing, commercial and services firms.<sup>16</sup>

Given their importance, governments have typically developed marketing plans to attract them, including tax incentives. For example, in Singapore tax incentives were given to manufacturing companies in the 1960s-70s, financial service firms in the 1980s and technology firms in the 1990s, all in an attempt to help move the country up in the value chain as the economy matured.

In Dubai, the Jebel Ali Free Zone Authority (JAFZA) was established in 1985 as an industrial and distribution facility dedicated to attracting FDI. Companies operating within the free zone have access to a favourable tax regime and dedicated administrative procedures. In 1999 Dubai expanded on this initiative through the creation of its first fusion business-park and free zone (Dubai Internet City), wherein 30 million square feet of land with buildings representing 1 million square feet of leasable space was provided. Within the first year the park had 180 tenants including giants such as Microsoft, Oracle, IBM, Dell, Sony Ericcson, etc. Several more business parks were created in Dubai, including Dubai Media City, Dubai Industrial City, Dubai Health Care city, etc.<sup>17</sup>

The GOJ seems poised to follow a similar path, as it has promised the establishment of Special Economic Zones (SEZs) to encourage manufacturers to engage in value added activities to goods passing through the hub. The government has defined these SEZs as operating outside of the country's customs territory, where licensed activities will take place with attractive incentives and supporting trade and business facilitation. The existing Garmex Freezone is to be adapted for this purpose. The GOJ however notes that the SEZ will be different from the previous free zone regime (wherein 85% of the goods produced in the zone had to be exported). 'The SEZs will permit the importation of goods manufactured in the zone into the national territory without any restrictions other than the application of import duties and taxes.'18 Also to be established are the Caymanas Economic Zone (which is to dedicate several acres of land to production activities such as light manufacturing and assembly, information technology, food processing, distribution and creative industries), and the Naggo Head Informatics Park (which is expected to create 100,000 square feet of new factory space for ICT businesses).<sup>19</sup>

The provision of economic incentives has been colour-coded in figure 4.1 as amber. The precarious future of the planned projects was recently highlighted by the GOJ's cancellation of a muchtouted plan to begin work on the Caymanas Special Economic Zone through a joint-venture agreement between the Factories Corporation of Jamaica and the Sovereign Beijing Consortium. The project was cancelled because of the GOJ's inability to provide a government guarantee for the Factories Corporation of Jamaica due to stringencies associated with the IMF loan. Notwithstanding this, the provision of economic incentives to attract companies is an area in which the government has some (albeit limited) experience through the past free zone project, and for which it seems to be dedicating some sustained attention, as the Caymanas Economic Zone has been on the agenda for several years.

There is, however, insufficient publicly-available information on the government's plans and timelines to rigorously assess the financial feasibility and potential economic impact of these projects. Please note though, that although economic incentives have been used to attract companies to logistics hubs in their developmental phases, this is noted to be a risky strategy which should not be relied on too heavily. This is because other countries can offer better incentives and lure the companies away. Countries that initially used economic incentives to attract companies quickly turned their attention to other fundamental preconditions that are required both to attract and, more importantly, to keep them. The fourth and fifth preconditions discussed below address these types of issues.

## People and processes affecting trade and logistics

A major decision that faces all large shipping lines is which port to dock at. Numerous studies have shown that shipping lines base such decisions on factors relating not only to transportation costs (i.e. ocean and inland transport costs), but also on port costs, port efficiency, and quality of service received at ports.<sup>20</sup> For non-shipping MNCs, their decisions as to location choice are similarly important. Studies have shown that marketseeking MNCs place great emphasis on the logistics capabilities of the host country, on the quality of logistics providers, ICT infrastructure, and the efficiency of import-export procedures. Asset-seeking MNCs consider very similar factors, placing particular emphasis on the costs of logistics service providers and import-export procedures.<sup>21</sup> The people and processes affecting trade and logistics are thus very important to the ability of the country to attract the firms required to operationalize the hub core, and to populate the supported and related industries that will spin-off from the core.

Some studies have asserted that human capital is the most important factor to assure the sustainability of a logistics hub. This is because the overall efficiency of the logistics hub is dependent on the efficiency of each worker, which increases with the quantity and quality of education that the population receives. Workers with little formal education find it much more difficult to adapt to the advanced processes and techniques required within logistics hubs. 'Quality higher education and training in logistics is crucial for companies that want to move up the value chain beyond simple production processes and services.'<sup>22</sup>

The import-export procedures that are so very important to both shipping and non-shipping MNCs are a major part of the administrative processes and regulations that affect trade and logistics. Logistics services depend on the efficiency of procedures like customs clearance and import/export documents. They are an important precondition to the success of logistics hubs, as transaction costs generated by delays and complex administrative processes decrease the profitability of businesses. The OECD (2009) notes that when companies make locational decisions they seek to enhance efficiency and competitive advantage by looking for countries wherein there are: 'more transparent and predictable procedures, impartial and uniform administrative border requirements, simplified and electronic custom clearance systems, harmonization of administrative requirements, the application of internationallyagreed standards and regulatory cooperation (for example to enable pre-arrival clearance of shipments), coordination, and risk management.'

Although Jamaica's performance in the LPI ranking of efficiency of the customs clearance process improved between 2012 and 2014, the country is still ranked below the Bahamas and Panama – potential regional competitors, and is well-behind the world leading standard (see figure 3.5). With regards to human capital, Jamaica's Vision 2030 and the World Bank (2011) identify low productivity and poor educational performance as two of the major problems affecting the economy. The World Bank (2011) has pointed to the lack of skill as a constraint on realized labour productivity. It has been observed 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 is for these reasons that the precondition – people and processes affecting logistics and trade has been colour-coded in figure 4.1 as red. It is an area in which Jamaica has tended to perform poorly, and to which the GOJ needs to place significantly more attention.

## The business environment

In a study seeking to ascertain whether companies would decide to locate a branch within a newly-established regional hub, business executives have insisted that even though all of the factors previously discussed are important, the significance of the socio-political and business environment should not be underestimated. Even where special economic zones are created with streamlined procedures and incentives, it is noted that the staff and family members of firms locating in the country have to live and do business in the wider economy and so ease of doing business in the country is a critical consideration.<sup>23</sup>

This is even more so as the logistics hub is positioned as a driver of national growth. The GOJ has to be careful to ensure that balanced development of the whole country is pursued, as opposed to the emergence of enclave economies within protected zones. If widespread growth is to be achieved as in other countries, efforts will have to be made to establish linkages between firms operating within the logistics hub and firms elsewhere in the economy.<sup>24</sup> Such efforts should centre on enhancing dynamism in the economy by improving the general business environment. When this is done local entrepreneurs will find it easy to capitalize on new business opportunities coming from the hub operations.

The project was cancelled because of the GOJ's inability to provide a government guarantee for the Factories Corporation of Jamaica due to stringencies associated with the IMF loan. Notwithstanding this, the provision of economic incentives to attract companies is an area in which the government has some (albeit limited) experience through the past free zone project, and for which it seems to be dedicating some sustained attention, as the Caymanas Economic Zone has been on the agenda for several years.

There is, however, insufficient publicly-available information on the government's plans and timelines to rigorously assess the financial feasibility and potential economic impact of these projects.



The GOJ has acknowledged that 'a critical element in the equation to make the Logistics Hub successful is the involvement of suitable, long-term investors.<sup>25</sup> In this respect, the government asserts that the country has an advantage over regional competitors in numerous areas, including:

• Location, as Jamaica is at the junction of global trade corridors;

• Physical infrastructure that facilitates sea-sea, sea-air and airair connectivity;

• Planned special economic zones and businesses parks offering incentives and support to businesses;

• A highly skilled, educated and trainable workforce, as well as maritime, aviation and telecommunications capabilities;

• An investment-friendly business climate, with all government agencies geared towards modernizing their processes to improve the experience of doing business in Jamaica; and

• An established tradition of democracy, implying political stability and transparency.<sup>26</sup>

The previous section has indicated that there is some support for the GOJ's assertions for the first three points, as these are areas in which Jamaica either already has a distinct advantage, or in which the country has exhibited clear potential and/or made recent improvements. These are also areas which the GOJ has emphasized heavily in public pronouncements about the logistics hub. The same cannot be said about the latter three points, which are summarized in the previous section as the people and processes affecting trade and logistics, and the business environment. Preliminary assessments suggest that these are areas in which Jamaica has consistently performed poorly. This is important, as numerous studies suggest that these areas are critical elements of the foundation upon which successful logistics hubs are built. This section will utilize cross-country comparative analyses to assess the veracity of the GOJ's claims that Jamaica has a competitive advantage over regional competitors in these two areas.

## PEOPLE AND PROCESSES AFFECTING TRADE AND LOGISTICS

## Human Resources

Logistics hubs that are successful at creating national wealth are more likely to develop in countries with a high level of human capital, wherein there is widespread basic formal education, and a large proportion of the population has had quality higher education. Figure 5.1 indicates that Jamaica had the lowest adult literacy rate of all the comparator countries in 2013 (86.6%), with some regional competitors such as Uruguay and Trinidad and Tobago having rates that are approaching worldleading standards. Jamaica's low literacy rate is partially explained in figure 5.2, where it is shown that the country also has the lowest primary education enrolment rate. Although Jamaica had amongst the highest secondary enrolment rates, the enrolment rate at the tertiary level was significantly below those of Mexico, the Dominican Republic and Panama. The proportion of the Jamaican population receiving the foundational literacy and numeracy skills at the primary level, and those receiving higher-order skills at the tertiary level is thus below many of the regional competitors.

The quality of education is also a major factor. Figure 5.3 indicates that Jamaica's score for quality of education in the 2014 Global Competitiveness Report ranked it above the Dominican Republic, Brazil and Mexico, but below Uruguay, Panama and Trinidad and Tobago. The country's ranking for quality of math and science education was better, with only Trinidad and Tobago having a higher score. This is important as it has been argued that sound basic skills in mathematics and science can foster increased national innovativeness, with mathematics being a particularly important foundation for advanced training in logistics.

100.0 95.0 90.0 86.6 85.0 80.0 **Janaico Janai Janai** Janai J

Figure 5.1 - Adult literacy rate, % (2013)

Source: Global Information Technology Report

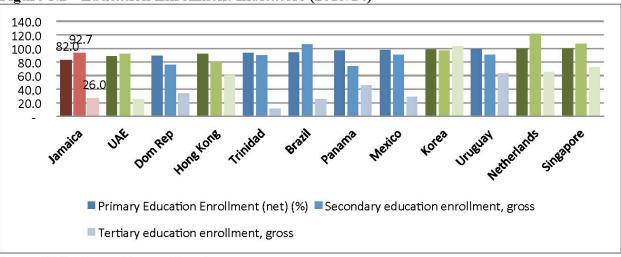


Figure 5.2 - Education Enrollment Indicators (2013/14)

Source: Global Competitiveness Report

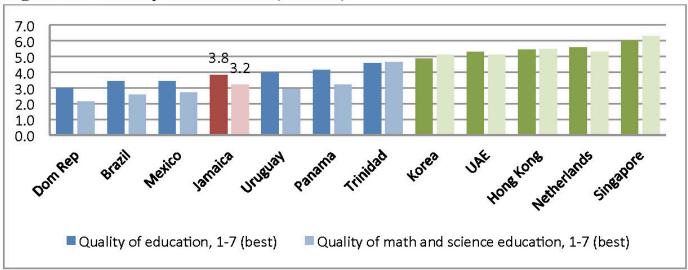


Figure 5.3 - Quality of Education (2013/14)

Source: Global Competitiveness Report

Early exposure to ICT is also important in the current ICT-enabled logistics environment. Figure 5.4 indicates that Jamaica has an average ranking relative to regional competitors with respect to Internet access in schools, performing better than the Dominican Republic, Brazil and Mexico, but worse than Trinidad and Tobago, Panama and Uruguay.

The close clustering of the world-leading logistics countries in all three of the indicators shown in figures 5.3

and 5.4 points to the importance of quality education and good foundational skills in maths, science and IT. The large gap between Jamaica and these countries highlights how far off Jamaica is from being globally competitive in these areas.

While foundational skills are important, the literature also suggests that quality higher education and training is crucial for companies that want to move up the value chain.

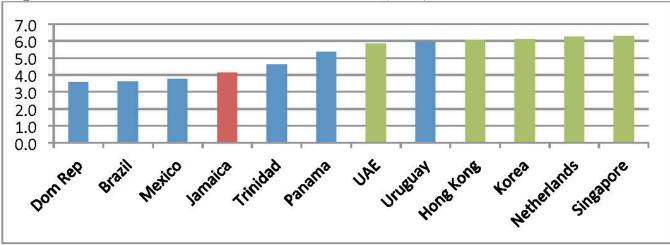


Figure 5.4 - Internet access in schools, 1-7 (best), 2013/14

Source: Global Competitiveness Report

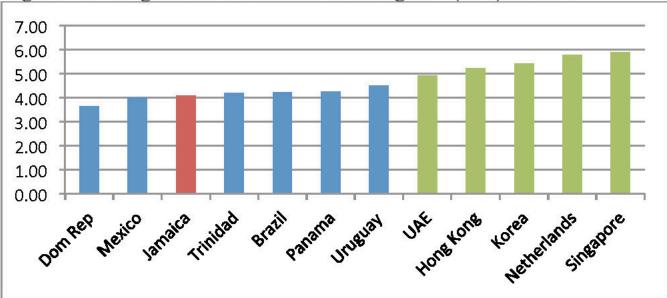


Figure 5.5 - Higher education and training, 1-7 (best), 2013/14

Source: Global Competitiveness Report

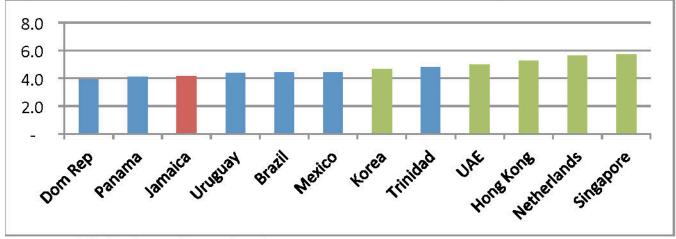


Figure 5.6 - Quality of Management Schools, 1-7 (best), 2013

Source: Global Information Technology Report

As shown in figure 5.5, the Global Competitiveness Report (2014) has given Jamaica a particularly low score for higher education and training, with Trinidad and Tobago, Brazil, Panama and Uruguay having higher scores. Specific training in logistics is also important, with such training typically being delivered in management schools. In figure 5.6, the quality of management schools in Jamaica was again among the lowest of the regional competitors, with Uruguay, Brazil, Mexico, and Trinidad and Tobago receiving higher scores.

The end result of the efforts to build human capital in a country is greater innovativeness and enhanced competitiveness, as firms utilize cutting-edge technology and techniques. Based on the previous results, it is not surprising that figure 5.7 indicates that firm-level technology absorption in Jamaica is ranked below most of the regional comparators, with Mexico, the Dominican Republic, Brazil and Panama having higher scores. Jamaica was also outperformed by Panama, Mexico and Trinidad and Tobago with respect to the availability of scientists and engineers, professionals that are critical to firms' ability to develop and/or absorb new technology (see figure 5.8). When viewed holistically, these indicators clearly show that Jamaica is at a disadvantage relative to many of the regional competitors both in terms of the human resources that are currently available, and the access to and quality of institutions in place to improve them.

## Administrative Processes and Regulations

Logistics services depend on the efficiency of import-export procedures. Delays and complex administrative processes decrease the profitability of businesses, and thus detract firms from relocating or establishing a branch within the logistics hub of any country. Although it was indicated in section 3 that the efficiency of Jamaican customs procedures increased significantly between 2012 and 2014, the analysis in this section will show that the country remains poorly positioned in all of the indicators relating to such procedures, and that considerably more work is required in this area.

Figure 5.9 shows that at a position of 118th, Jamaica currently has one of the World Bank's worst ranking for trading across borders. Amongst regional competitors, only Brazil has a lower rank. Based on data on the comparator countries provided by the World Bank's Doing Business Report (2014), the factors that contribute to Jamaica's low rank include:

• the second highest number of documents required to facilitate an export (figure 5.10);

• the highest number of days required to export (figure 5.11);

• the second highest costs associated with exporting (figure 5.12);

• the third highest number of documents required to facilitate an import (figure 5.13);

• the third highest number of days required to import (figure 5.14); and

• the second highest costs associated with importing (figure 5.15).

Not surprisingly, this consistently poor performance across all indicators relating to import-export procedures has precipitated a relatively high burden associated with customs procedures in Jamaica. Figure 5.16 shows that the 2014 Global Competitiveness Report has given Jamaica the third worst score among the comparator countries, with Mexico, Uruguay, the Dominican Republic and Panama having lower burdens associated with customs procedures. This has had an adverse impact on the inflows of FDI to the country, as figure 5.17 indicates that Jamaica has the second worst ranking amongst regional competitors for the business impact of rules on FDI.

The continued poor performance of Jamaica in importexport procedures, even in spite of recent improvements, highlights how far the country is coming from, and, more importantly, how much more remains to be done if the Jamaica Logistics Hub is to be competitively positioned. The country should take very little comfort in the stated plans to facilitate improved efficiency within special economic zones (SEZs), because:

• Most, if not all, the regional competitors have similar plans. If they are better able to foster a culture of efficiency in customs procedures under normal circumstances, it is highly likely that their plans for improved efficiency in SEZs will be more effectively implemented than in Jamaica; and

• The desire to avoid the creation of enclave economies and to strive for balanced development outside of the SEZs, should drive comprehensive attempts at improved customs efficiency throughout the entire economy.

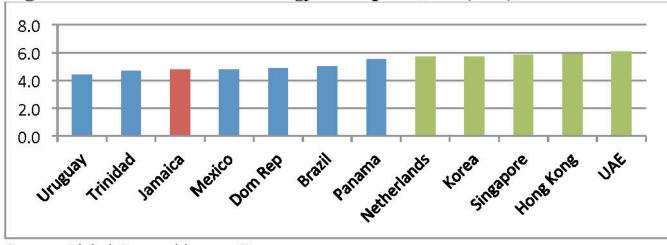


Figure 5.7 - Firm-level technology absorption, 1-7 (best), 2013/14

Source: Global Competitiveness Report

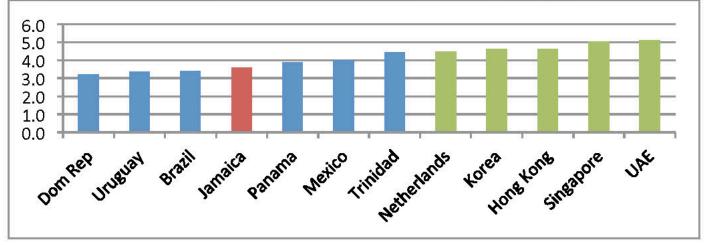
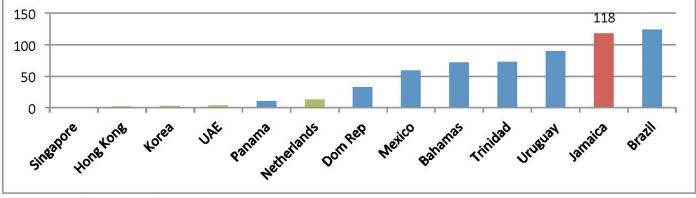


Figure 5.8 – Availability of scientists and engineers, 1-7 (best), 2013/14

Source: Global Competitiveness Report

## Figure 5.9 - Trading Across Borders Rank (2014)



Source: World Bank's Doing Business Report

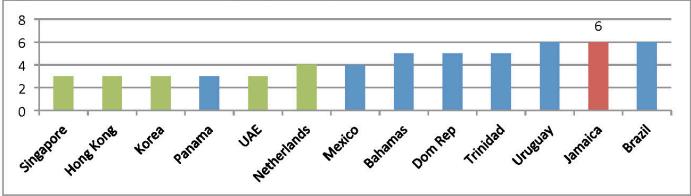


Figure 5.10 - Documents to export (number) 2014

Source: World Bank's Doing Business Report

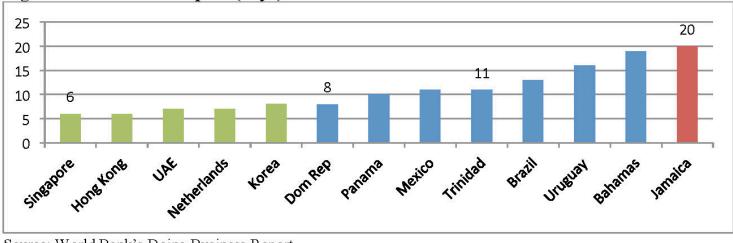


Figure 5.11 - Time to export (days) 2014

Source: World Bank's Doing Business Report

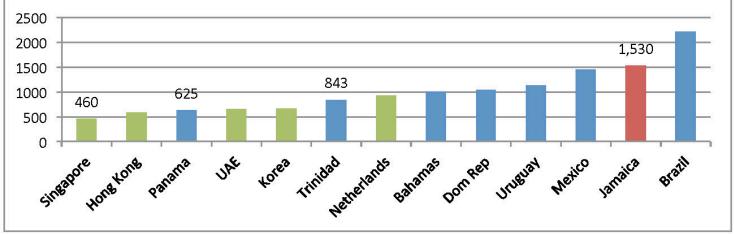


Figure 5.12 - Cost to export (US\$ per container) 2014

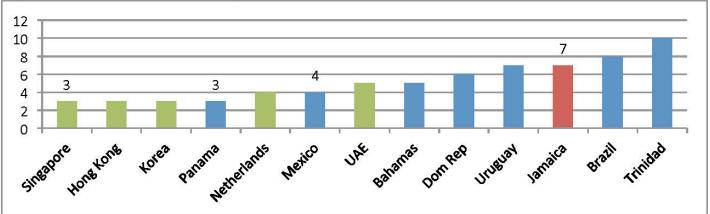


Figure 5.13 - Documents to import (number) 2014

Source: World Bank's Doing Business Report

Source: World Bank's Doing Business Report

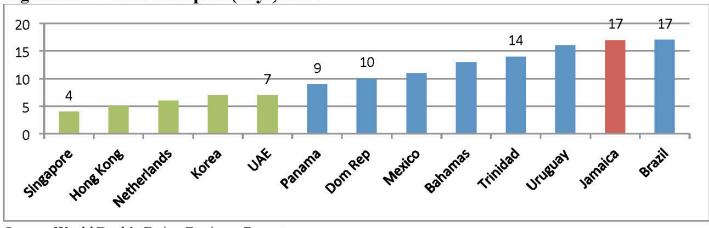


Figure 5.14 - Time to import (days) 2014

Source: World Bank's Doing Business Report

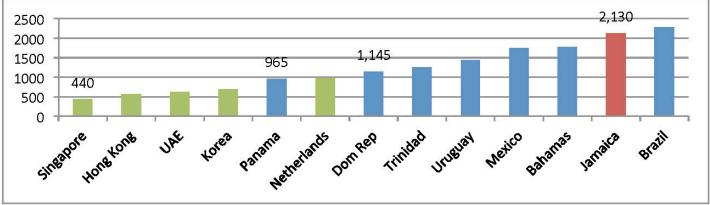


Figure 5.15 - Cost to import (US\$ per container) 2014

Source: World Bank's Doing Business Report

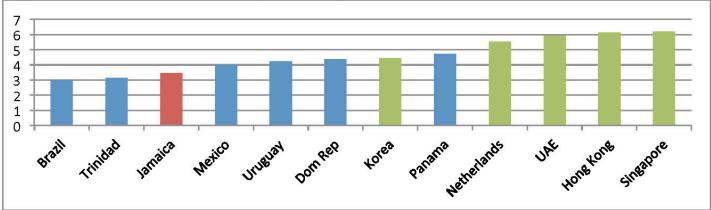


Figure 5.16 - Burden of customs procedures, 1-7 (best) 2013/14

Source: Global Competitiveness Report

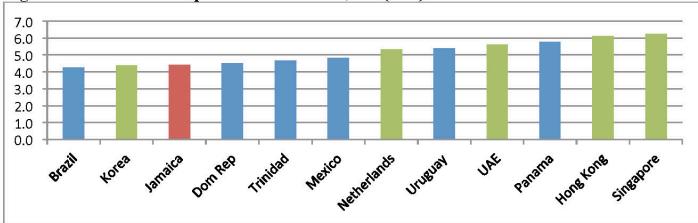


Figure 5.16 - Business impact of rules on FDI, 1-7 (best) 2013-2014

Source: Global Competitiveness Report

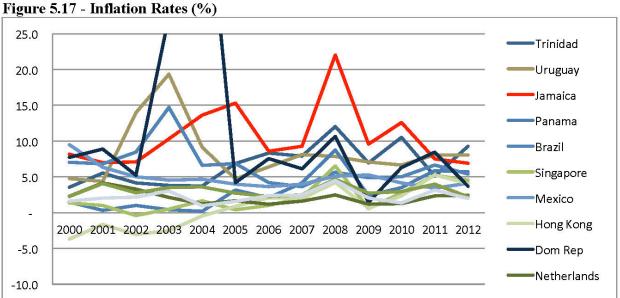
## **BUSINESS ENVIRONMENT**

#### **Economic Stability and Dynamism**

Macroeconomic risk is an important determining factor in the investment choices of firms. Macroeconomic instability increases uncertainty and shortens firms' planning horizons. Any investment that takes place in an uncertain environment is likely to be allocated to 'activities with quick returns, rather than long-term, higher-risk irreversible investment which would be more conducive to long-run productivity growth.'27

High and volatile inflation rates along with volatility in the exchange rate of a currency are the typically used indicators of macroeconomic instability. Figure 5.17 shows

the inflation rates for the comparators countries between 2000 and 2012. Jamaica has consistently had amongst the highest inflation rates, with only Trinidad and Tobago and Uruguay having higher rates of inflation in 2012. The contrast with the consistently low rates of inflation for the world-leaders in logistics provision is clear. Also clear is the relative volatility of the inflation rate in Jamaica, as evidenced by peaks and troughs in the rate which are more extreme than most of the comparator countries.



Source: World Development Indicators

The trend in Jamaica's nominal exchange rate with the US dollar has also caused concern among investors. Figure 5.18 indicates that the Jamaican dollar has depreciated to a much larger extent between 2000 and 2012 than any of the regional comparator countries. Some economists would argue that this simply reflects needed adjustments to the currency to reflect the economic realities. Figure 5.19 gives some credence to this view, as the real effective exchange rate for Jamaica is about average and relatively stable when compared to the regional competitors. Important, however, to this discussion is whether investors consider the nominal or real effective exchange rate when making their investment decisions. Most firm owners have access to, understand

and thus utilize the nominal exchange rate in their decisionmaking. The continued rapid depreciation of the Jamaican dollar thus remains a concern, particularly for local investors.

Firms also base their investment decisions on expectations of future demand. For firms selling in the domestic economy, economic dynamism and growth is thus an important determinant of whether and how much they are willing to invest. Figures 5.20 and 5.21 show that Jamaica performs poorly in this respect, with the lowest per capita GDP of all the comparator countries and the second lowest average economic growth rate between 2010 and 2013.

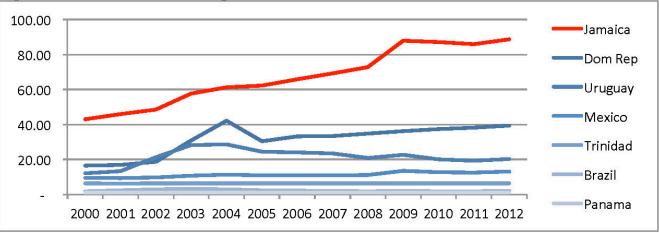


Figure 5.18 - Nominal Exchange Rate

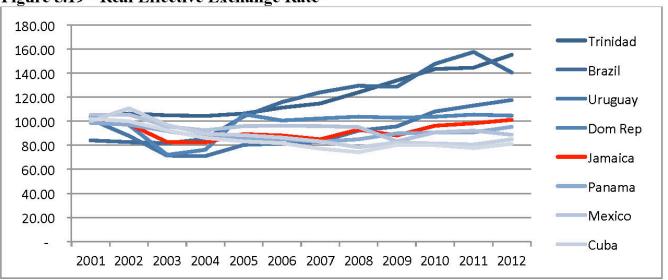
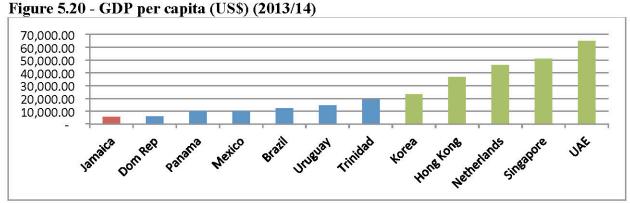


Figure 5.19 - Real Effective Exchange Rate

Source: UNCTAD, UNCTADstat

It may be argued that the logistics hub is expected to improve these figures, and so they should not be viewed as preconditions for success of the hub. However, the relationship is complex, as studies show that overseas investors consider the wealth and dynamism of an economy when making their locational decisions, even if they are not seeking to sell in the domestic market. This is because the employees of the local branch and their families want to live in relative comfort in a dynamic environment. The quality of life that they expect in the host country is therefore an important deciding factor.<sup>28</sup> Where there are a number of countries with similar locational and infrastructural advantages, it is not far-fetched to believe that the quality of life considerations could become paramount.



Source: Global Competitiveness Report

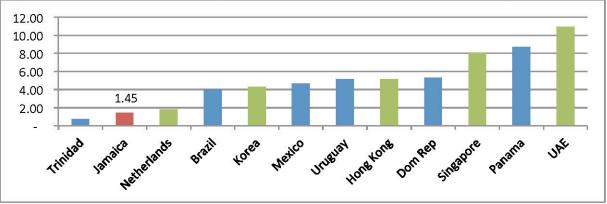
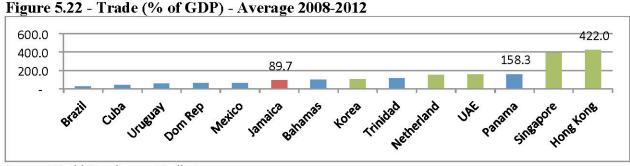


Figure 5.21 - Compound Average Growth Rate of Real GDP 2010-2013 (%)

Source: Computed by author from data in Global Competiveness Report

## Openness

One aspect of economic dynamism that is heavily considered in the locational decisions of overseas firms is the degree to which the economy is open to international trade. This is particularly important to firms involved in the logistics industry. It is also an area in which Jamaica performs relatively well. Figure 5.22 indicates that with an average trade to GDP ratio of 89.7% between 2008 and 2012, the Jamaican economy is among the most open of the regional comparators, with only the Bahamas, Trinidad and Tobago and Panama being more open. The average tariff rate applied in Jamaica is also lower than that of most of the regional comparators (see figure 5.23). The prevalence of trade barriers in Jamaica is similarly quite low, with the Global Competitiveness Report (2014) giving Jamaica the highest score among the regional comparators (figure 5.24).



Source: World Development Indicators

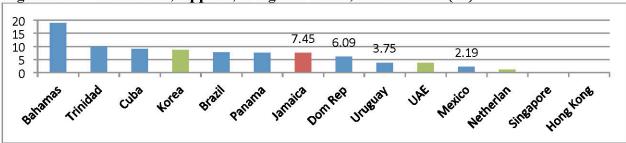
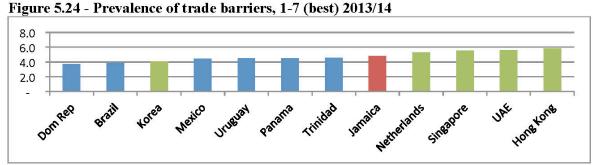


Figure 5.23 - Tariff Rate, Applied, Weighted Mean, All Products (%)

Source: World Development Indicators



Source: Global Competitiveness Report

### **Political Stability**

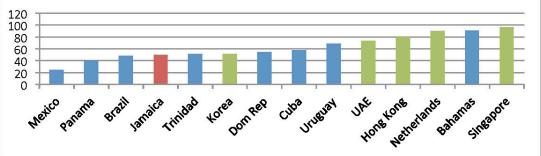
The political environment within a country is also an important factor considered by both domestic and foreign investors. This is particularly so when investments in an area new to the country are being encouraged by the government. Investors require some assurance that the government is serious about the new direction and that there will be policy stability and continuity even if administrations change. Before making an investment or entering a new market, companies need to make sure that conditions and rules will be sustained, and sudden and drastic changes will be avoided. This implies a degree of trust in the political system that long-term national vision prevails over party politics.<sup>29</sup>

Figures 5.25 to 5.28 indicate that the Jamaican political system is poorly ranked in these areas. With respect to political stability and absence of violence and terrorism, the World Governance Indicators (2012) ranked Jamaica above Brazil, Mexico and Panama. Trinidad and Tobago, the Dominican Republic, Cuba, Uruguay and the Bahamas were, however, all ranked as having a more stable political climate than Jamaica. In figure 5.26, public trust in Jamaican politicians is shown to be relatively low, with politicians in Trinidad and Tobago, Mexico, Panama and Uruguay all garnering higher levels of trust.

Figures 5.27 and 5.28 give two possible reasons for the low levels of trust in Jamaica. The scores provided by the Global Competitiveness Report (2014) indicates that there is a relatively high degree of favouritism in decisions taken by Jamaican government officials, with only the Dominican Republic and Trinidad and Tobago receiving lower scores. There is also limited transparency in government policymaking, with Jamaica having the second lowest score amongst regional comparators.

Government commitment and stability was viewed as a cornerstone of the ability of the Singaporean and Dubai logistics hubs to attract and keep the firms needed to operationalize the hub. These are areas for which the GOJ have a crisis of confidence. Missteps in the past have fuelled negative perceptions. This can only be overcome with increased transparency and bi-partisan efforts. Perceptions and history, however, represent high obstacles for the government to hurdle.

Figure 5.25 - Political Stability and Absence of Violence/Terrorism (2012 Rank)



Source: Worldwide Governance Indicators

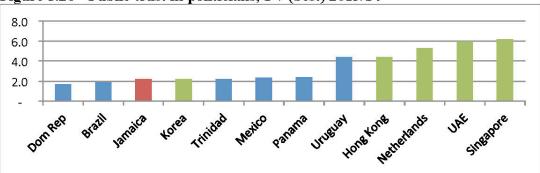


Figure 5.26 - Public trust in politicians, 1-7 (best) 2013/14

Source: Global Competitiveness Report

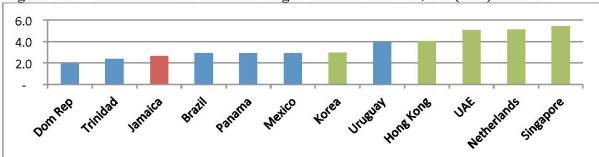


Figure 5.27 - Favouritism in decisions of government officials, 1-7 (best) 2013/14

Source: Global Competitiveness Report

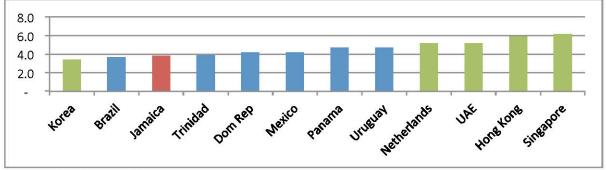


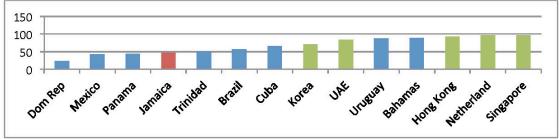
Figure 5.28 - Transparency of government policymaking, 1-7 (best) 2013-2014

## Corruption

Another precondition that is closely linked to the public's perception of the government is corruption. Whereas logistics hubs emerge and prosper based on their ability to reduce costs,<sup>30</sup> corruption increases transaction costs. The World Governance Indicator's (2012) Control of Corruption measure reflects for each country, 'perceptions of the extent to which public power is exercised for private gain, as well as capture of the state by elites and private interests.' Figure 5.29 shows that Jamaica has a lower ranking in this measure

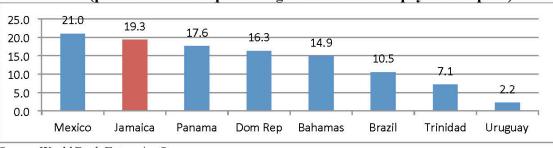
than Trinidad and Tobago, Brazil, Cuba, Uruguay, and the Bahamas, with the latter two approaching world leading standards. When the specific issue of bribery is examined in figures 5.30 and 5.31, it is clear that Jamaica has a particular problem in this area. With almost 20% of firms experiencing at least one bribe payment request, Jamaica had the second highest incidence of bribery in 2010. Jamaica also had the highest degree of bribery depth, with about 18% of public transactions being subject to a request for a gift or informal payment.

Figure 5.29 - Control of Corruption (2012 Rank)



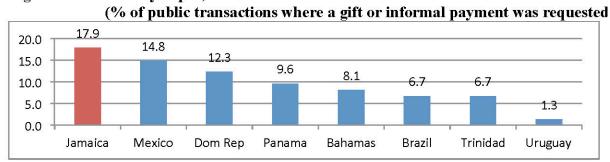
Source: Worldwide Governance Indicators





Source: World Bank Enterprise Surveys

Source: Global Competitiveness Report



Jamaica in a worse position than the other six regional

competitors. The more recent Global Competitiveness

Report's (2014) ranking of organized crime, also places

Jamaica as second worst (figure 5.33), as does its ranking

of business costs of crime and violence in the country

(figure 5.34). Overseas investors can be expected to pay



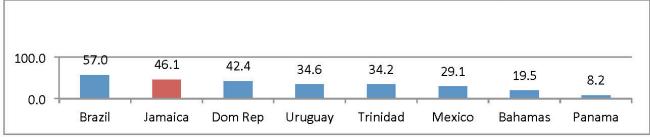
## Crime

Crime acts as a disincentive to investment in two ways. It increases the cost of doing business in a country, as firms are forced to spend greater sums on things like security, and it worsens overseas investors' perception of the country in regards to the potential quality of life for employees and their family who will be asked to relocate there. Jamaica has a much-publicized crime problem, which puts it at a disadvantage to the regional competitors.

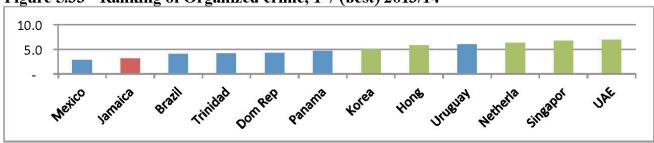
considerable attention to the latter, as they decide amongst competing venues.

Figure 5.32 shows that approximately 46% of firms operating in Jamaica identified crime, theft and disorder as a major constraint in 2010. This is second only to Brazil, putting





Source: World Bank Enterprise Surveys



## Figure 5.33 - Ranking of Organized crime, 1-7 (best) 2013/14

Source: Global Competitiveness Report

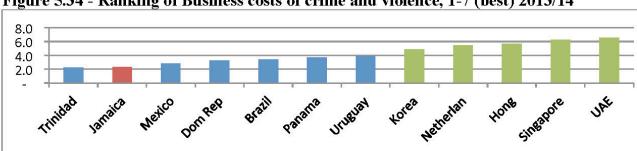


Figure 5.34 - Ranking of Business costs of crime and violence, 1-7 (best) 2013/14

Source: World Bank Enterprise Surveys

Source: Global Competitiveness Report

#### **Corporate Taxation**

A country's tax system can also act as a disincentive to investment in two ways – relatively high corporate tax rates, and burdensome tax administration processes. Figure 5.35 highlights Jamaica's relative disadvantage in both these areas. Approximately 73% and 43.4% of Jamaican firms identified tax rates and tax administration, respectively, as major constraints in 2010. For both these indicators Jamaica had the second worst performance of the regional comparators. The World Bank's more recent ranking of the comparators in paying taxes, which considers both rates and administration, shows that at 2014 Jamaica remained the second worst performer (see figure 5.36).

While it is acknowledged that the GOJ plans to use tax incentives and streamlined procedures to attract investments in Special Economic Zones (SEZs), the warning previously given with respect to similar plans for customs procedures must be reiterated: • Most, if not all, the regional competitors have similar plans. If they are better able to foster a culture of administrative efficiency under normal circumstances, it is highly likely that their plans for improved efficiency in SEZs will be more effectively implemented than in Jamaica; and

• The desire to avoid the creation of enclave economies and to strive for balanced development outside of the SEZs, should drive comprehensive attempts at reduced tax rates and improved administrative efficiency throughout the entire economy.

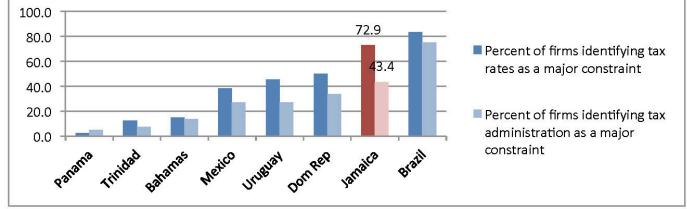


Figure 5.35 - % of Firms Identifying Issues with Taxation as Major Constraints - 2010

Source: World Bank Enterprise Surveys

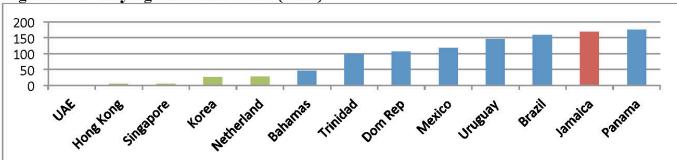


Figure 5.36 - Paying Taxes DB Rank (2014)

Source: World Bank Doing Business Report

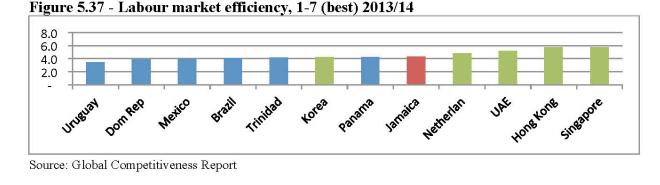
#### **Labour Market Efficiency**

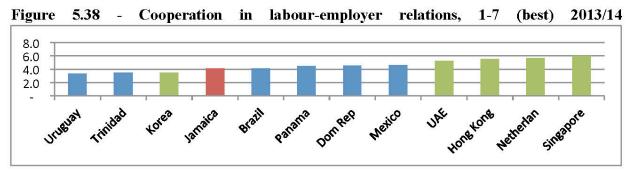
When the owners of foreign business were asked whether the country in which they were located could develop into a regional hub, some of the commonly listed barriers were related to labour market efficiency. These included: frequency of and ease with which labour-management conflicts are resolved; rigidity of labour laws; and perceptions of union power. It was noted that labour flexibility is a key incentive for overseas investment.<sup>31</sup> This involves the ability of companies to flexibly manage their workforce and quickly hire and fire employees.

Figure 5.37 presents the Global Competiveness Report's (2014) composite scores for the comparator countries for the efficiency of their labour markets. Jamaica has the best

score among the regional competitors. This composite score examines issues such as flexibility in wage determination, rigidity of employment, the extent to which hiring and firing practices are impeded by regulations, redundancy costs, etc.

Jamaica performed relatively well in all but one of these indicators. Figure 5.38 shows that Jamaica received the third lowest score amongst regional comparators for cooperation in labour-employer relations. So while the Jamaican labour market seems relatively efficient when compared to the regional competitors, cooperation in labour-employer relations is an area that still needs some attention.





Source: Global Competitiveness Report

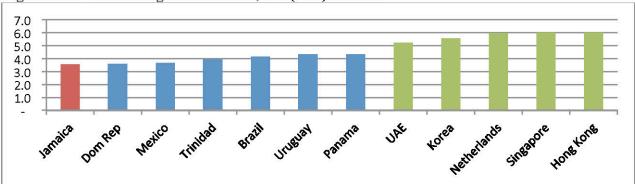
#### Technology

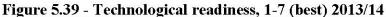
It is noted that in countries with the most successful logistics hubs, governments developed their IT infrastructure at approximately the same time as they developed the physical infrastructure, as both are binding preconditions. The ability to attract firms to logistics hubs is highly dependent on the country's access to and use of information technologies. The GOJ has recognized this, and in their promotional literature have touted Jamaica as the digital hub of the Caribbean.

The positioning of the country in figure 5.39, however, paints a different picture. The figure presents the Global Competiveness Report's (2014) composite scores for technological readiness.<sup>32</sup> Jamaica has the worst score among the comparator countries. Note, though, that the scores for all the regional comparators were very close, indicating that even though Jamaica had the lowest score, the country is not that far behind the other countries in this respect.

This is elucidated in figure 5.40, which shows the Global Information Technology Report's (2013) score for a number of technological indicators. The results suggest that for access to infrastructure and digital content, and affordability of ICT, the regional comparators received very similar scores. However for the availability of people with IT skills and business usage of IT, while three of the regional comparators had the same score as Jamaica, three of them performed better. For business and innovation environment, and government usage of IT two of the regional comparators had better scores than Jamaica, and between three and four had the same score.

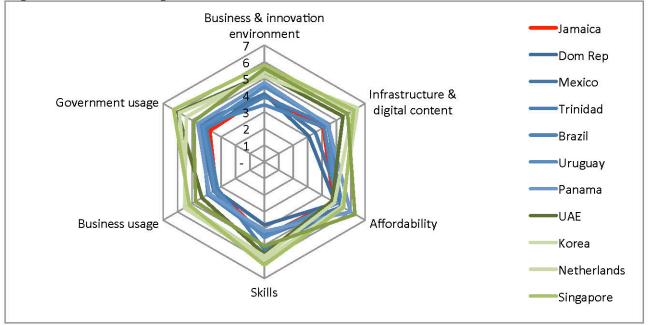
The results suggest that the regional comparators are very closely positioned in regards to technology, with Jamaica having no clear advantage in any of the individual indicators and being at a disadvantage to some countries for a few. This is certainly not a position about which the GOJ should boast, but is also not cause for undue concern.





Source: Global Competitiveness Report

## Figure 5.40 - Technological Indicators 2013



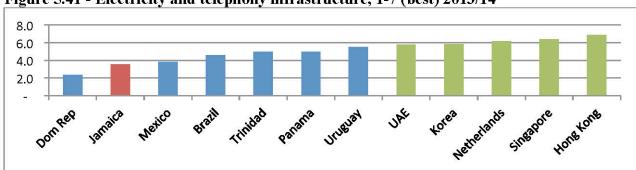
Source: Global Information Technology Report

## Energy

The cost of energy is frequently discussed as being a major disincentive to business in Jamaica. Although data unavailability precludes a comprehensive cross-country comparison of energy costs, it is noted that three of the regional comparators (Trinidad and Tobago, Mexico and Brazil) have oil reserves, and are thus expected to have significantly lower energy costs than Jamaica.

Report (2014) gives Jamaica the second lowest score amongst the comparator countries for electricity and telephony infrastructure, and for quality of electricity supply. High cost and unreliable supply of energy are both critical disincentives to investment in the country and put Jamaica at a disadvantage to the regional competitors.

Figures 5.41 and 5.42 indicate that Jamaica's problems with energy extend beyond costs. The Global Competitiveness





Source: Global Competitiveness Report

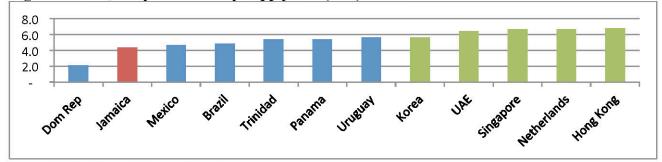


Figure 5.42 - Quality of electricity supply, 1-7 (best) 2013/14

Source: Global Competitiveness Report

## Finance

For local firms, their ability to exploit opportunities that may arise from the logistics hub is going to be dependent on their ability to access the financing needed to expand and/or modify their operations. Figure 5.43 indicates that approximately 41% of Jamaican firms identified access to finance as a major constraint in 2010. Only Brazil had a higher percentage of firms identifying this constraint. Jamaica also had the second lowest percentage of firms that were able to access a bank loan in 2010 (see figure 5.44).

Downward trends in interest rates since then may have alleviated concerns about the affordability of credit, but issues relating to access remain. This is evidenced in the 2014 Doing Business Report's ranking for getting credit, which highlighted Jamaica sharing the worst rank with Brazil (see figure 5.45). This score is heavily dependent on the depth of credit information available in the country and the coverage achieved by credit bureaus. Jamaica has already positioned itself for improved performance in these areas, as legislation has been passed allowing for the creation and licensing of credit bureaus. With the recent licensing of the country's first credit bureau, improvements in access to finance can be expected, as it should allow for borrowers to be rewarded with lower interest rates and unsecured loans based on their credit history.

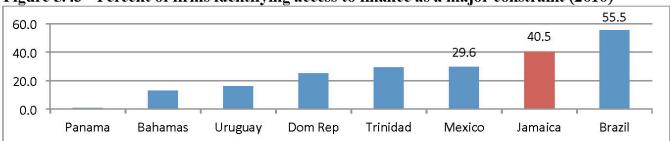
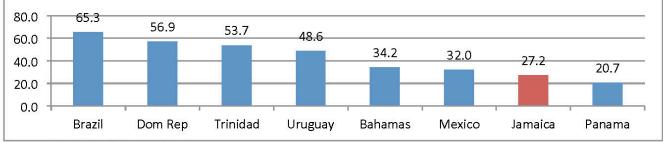


Figure 5.43 - Percent of firms identifying access to finance as a major constraint (2010)

Source: World Bank Enterprise Surveys





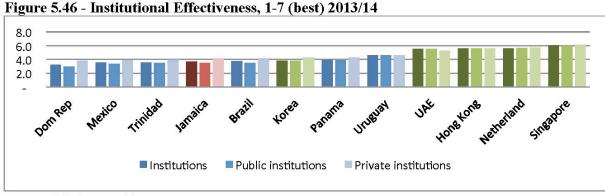
## Institutional Effectiveness

As previously noted, experiences in successful hub locations such as Singapore and Dubai, indicate that the efficient operation of the hub core and creation of spin-off industries require institutional support from the government and certain key NGOs. The effectiveness of the country's institutions is thus an important precondition to successful logistics hubs. Figure 5.46 presents the Global Competitiveness Report's (2014) scores for institutional effectiveness for the comparator countries. The results show that Jamaica's performance in this respect is average, being in the median position among regional comparators for the effectiveness of private and public institutions. In both instances, three of the regional comparators perform better and three worse than Jamaica.

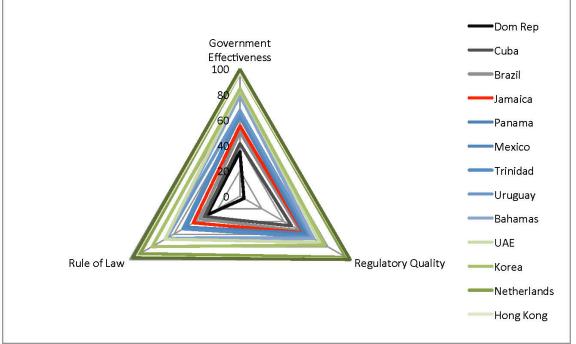
Source: World Bank Enterprise Surveys

In figure 5.47, the World Governance Indicators (2012) present three important measures of a country's institutional framework. The close clustering of the world leading logistics hubs towards the outer boundary of the graph indicate the consistent superior performance of these countries. All the regional comparators perform considerably worse, except for the Bahamas which approaches world leading standards in government effectiveness and rule of law. By contrast, five of the regional comparators perform better than Jamaica for those two indicators, and for regulatory quality, four of the regional comparators perform better than Jamaica.

The relative quality of the basic institutional foundation in Jamaica is therefore at best average, and, in some instances, below average. One area in which Jamaica performs particularly poorly is in the enforcement of contracts. Figure 5.48 presents the Doing Business Report's (2014) ranking of this measure. Jamaica has the second lowest rank of the comparator countries, and is considerably worse off than countries such as Uruguay, the Dominican Republic and Mexico. For firms considering whether or not to invest in a country, perceptions of poor performance in enforcing contracts is a red flag that they usually consider carefully.



Source: Global Competitiveness Report





Source: Worldwide Governance Indicators

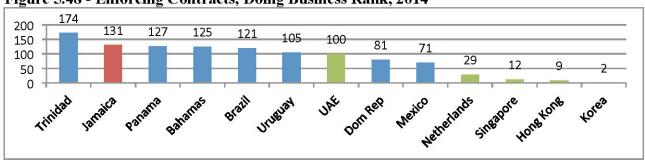


Figure 5.48 - Enforcing Contracts, Doing Business Rank, 2014

Source: World Bank Doing Business Report

## HOW SHOULD THE GOVERNMENT PRIORITIZE THE REFORM AGENDA?

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The Minister of Industry, Investment and Commerce, Hon. Anthony Hylton, addressing the Jamaican Parliament in regards to the Jamaica Logistics Hub (JLH) said that, '... in this mission, failure is not an option.' How is success measured? Presumably through the widespread generation of jobs and creation of wealth. Section 2 of this study has shown that logistics hubs will only generate significant job and wealth creation if the right types of firms and entities are mobilized to operationalize the core of the logistics hub, and if new firms arise and/or existing firms expand to exploit the potential for supported and related spin-off industries.

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Is Jamaica in a position where the Logistics Hub is likely to automatically create national wealth? No, for a number of reasons: (i) Jamaica does not currently specialize in the areas of service provision typically associated with logistics operations; (ii) the country is outperformed in three key components of the logistics environment by most of the potential regional competitors; and (iii) Jamaica has one of the worst records amongst comparator countries of attracting FDI inflows to the sectors that are critical to the logistics hub core and supported and related industries.

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So what does the GOJ need to do now? First it needs to recognize that wealth creation through the JLH will not occur overnight. It is a lengthy process that starts with ensuring that the preconditions to creating national wealth through logistics hubs are in place. This study has shown that the country's location, physical infrastructure, and planned special economic zones (SEZs) and businesses parks, are areas in which Jamaica either already has a distinct advantage, has exhibited clear potential, made recent improvements, and/or has clearly outlined plans. We however caution that overreliance on these advantages could be detrimental, as (i) locational advantages can be overstated because ships have the capacity to bypass ideallylocated ports to dock at alternate sites with better facilities and/or services; (ii) use of SEZs and business parks to offer economic incentives as a means of attracting companies to logistics hubs is a risky strategy, as other countries can offer better incentives and lure the companies away; and (iii) enclave economies could be created around the SEZs at the cost of balanced and sustained national development.

If widespread economic growth is to be achieved through the JLH, efforts will have to be made to establish linkages between firms operating within the logistics hub and firms elsewhere in the economy. Such efforts should centre on enhancing dynamism in the economy by improving the general business environment. The way forward for the GOJ should thus involve them looking beyond the traditional areas of emphasis – ports and parks – to the people and processes needed to make the JLH successful and to foster a dynamic Jamaican economy.

How should the GOJ prioritize its reform agenda? This is a difficult question, as many things need to be done. The World Bank (2010) notes that programmes promoting improved logistics performance should not attempt to isolate and sequentially address individual issues. Rather, comprehensive programmes of reform are needed, as a trade supply chain (the cornerstone of the logistics industry) is only as strong as its weakest link. 'Determining where the weakest links are and addressing them through targeted development interventions has therefore become a major element of the trade facilitation and logistics agenda.'

This study has highlighted a number of areas in which Jamaica has been significantly outperformed by potential regional competitors. These areas, which are summarized in Table 6.1, clearly warrant urgent attention by the GOJ, as they constitute Jamaica's weakest links.

BROAD DETRACTOR	SPECIFIC ISSUES	
Availability of Requisite Human Capital	Low primary school enrolment affecting basic levels of literacy and numeracy	
	Poor access to (or usage of) quality higher education and training, causing:	
	<ul> <li>Limited availability of people with IT skills</li> <li>Limited availability of engineers and scientists</li> <li>Low levels of firm-level technology absorption</li> </ul>	
Factors Increasing Business Costs	Burdensome customs procedures Crime	
	Corruption High corporate tax rates	
	Burdensome tax administration procedures Low levels of cooperation in labour-employer relations	
	Difficulty in enforcing contracts High cost of energy	
Concerns about Quality of Life	Lack of growth and dynamism in the economy Crime Poor perceptions regarding the rule of law	
Weak Institutional Support	Concerns about government commitment and policy continuity Poor perceptions regarding government effectiveness Poor perceptions regarding the rule of law	

## Table 6.1 – Areas Warranting Urgent Attention by the GOJ

Not all of the issues identified above can be solved immediately, but they all require immediate attention. The results of this study have shown that while the planned infrastructural projects and incentives to be offered through the special economic zones and business parks are important; the JLH will not be successful in fostering national job and wealth creation if the general business environment is not improved and the quality of human capital being produced through the country's education system is not enhanced. These issues are not new to the GOJ, but they have not to date received the concentrated and consistent attention that they deserve. This may be because some of the solutions do not involve grand project announcements, but rather require a quiet and determined focus on the nuts and bolts issues that make the difference between great ideas and realizable results.

## **ENDNOTES**

1. http://www.jamaicaobserver.com/regional/Not-just-Kingston-\_14601040

- 2. Lu et al (2010)
- 3. World Bank (2010)
- 4. Munoz and Rivera (2010)
- 5. Arvis et al (2010)
- 6. Munoz and Rivera (2010)
- 7. Arvis et al (2010)
- 8. It shared this position with Uruguay
- 9. Munoz and Rivera (2010)
- 10. Munoz and Rivera (2010)
- 11. http://jamaicalogisticshub.com/about/
- 12. World Bank (2010)
- 13 Haralambides et al (2011)
- 14. http://jamaicalogisticshub.com
- 15. http://jamaicalogisticshub.com
- 16. Munoz and Rivera (2010)
- 17. Munoz and Rivera (2010)
- 18. http://jamaicalogisticshub.com/faqs/
- 19. http://jamaicalogisticshub.com/special-economic-zones/
- 20. Haralambides et al (2011)
- 21. Lu et al (2010)
- 22. Munoz and Rivera (2010)
- 23. Lee and Hobday (2003)
- 24. Lee (2004)
- 25. http://jamaicalogisticshub.com/faqs/
- 26. http://jamaicalogisticshub.com/faqs/ http://jamaicalogisticshub.com/the-development-model/ http://jamaicalogisticshub.com/the-concept/
- 27. Pattillo et al (2004)
- 28. Lee and Hobday (2003)
- 29. Munoz and Rivera (2010)
- 30. World Bank (2010)
- 31. Lee and Hobday (2003)

32. Technological readiness measures the 'agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage information and communication technologies (ICTs) in daily activities and production processes for increased efficiency and enabling innovation for competitiveness.' It specifically measures things such as: Broadband Internet subscriptions; Internet bandwidth; Mobile broadband subscriptions; Mobile telephone subscription; Fixed telephone lines; Internet users; ICT use; Firm-level technology absorption; and FDI and technology transfer (The Global Competitiveness Report 2014).



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