

Assessment of the Constraints to Economic Growth in Jamaica

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1.0 Focus of this Assessment

The issue of growth constraints in Jamaica is a long-standing subject of analysis and public discussion. It has crucial relevance both in the context of a well-known history of slow growth since the 1970s and in the immediate context of an economy undergoing a deep recession. Many reports have been written, old and new, and the list of constraints emerging from these reports is long, which begs the question of where to start in dealing with them on a practical level. There are important questions of cause and effect that have not been adequately addressed in the existing analyses. Actual policy responses have been mostly lacking in comprehensiveness and continuity, and implementation of policy has been a recurring problem. However, there are also significant achievements that need to be properly documented and studied for the lessons they offer for the conduct of effective policy.

The assessment presented here has a more limited focus and practical goal. It seeks to draw on available published reports to identify and rank prevailing constraints that are commonly recognized and, on this basis, to construct a practical menu of targeted areas for needed action in a medium-term policy framework.¹

As a small open economy, the capacity of Jamaica-based firms to penetrate and compete in export markets, as well as against imports in the local market, is the key to economic survival and growth. It is therefore necessary to focus sharply on those constraints, and their specific underlying features, that limit Jamaica's competitive standing in relation to the rest of the world economy. There exists a number of readily available recent reports, based on survey data, that can be used for this purpose. They form the main sources for this assessment.

The assessment is organized around an analytically useful distinction between supply-side and demand-side constraints. This approach has the distinct advantage that it leads to:

(1) a clear understanding of the need and scope for a differentiated mix of strategic interventions consisting of the following key elements:

¹ Based on data available at time of writing, October 23, 2010.

- aggregate-demand stimulus
- fiscal incentives
- removal of structural impediments

(2) recognition of the different but shared responsibilities for action by government and the private sector.

2.0 Measures of Jamaica’s Competitive Standing in the World Economy

To assess Jamaica’s overall competitive standing in the world economy, it is useful to consider three sets of international indicators (all constructed by international agencies) that figure prominently in current world-wide policy discussions:

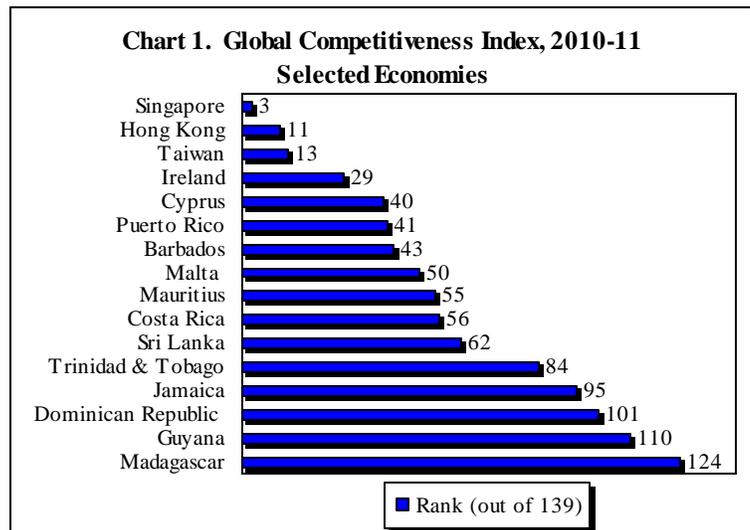
- (1) Global Competitiveness Index (GCI)
- (2) Doing Business Index (DBI)
- (3) Corruption Perception Index (CPI).

They differ in their underlying components, but have overlapping features that allow for a test of consistency across indices. Based on surveys conducted annually over many years, they also enable tracking over time of an economy’s relative standing.

Jamaica’s position on these indicators is examined here in comparison with a number of economies specially selected from the complete list covered by each index. The selected economies are mostly island-type economies (Caribbean neighbours included as far as possible), with relatively small populations, many of them with a similar historical background and recent past of economic underdevelopment, and with a sufficiently differentiated position in the rankings (and in economic performance measured in terms of per capita income-levels and recent growth) to establish a clear pattern of leadership among them.

The GCI provides a direct, composite measure of international competitiveness, defined across a broad range of components that are thought to represent critical elements of an economy’s capacity to maintain and support entrepreneurship, investment, and production of goods and services which can successfully compete in the world market against products of other economies.

Chart 1 shows Jamaica’s standing on this measure.



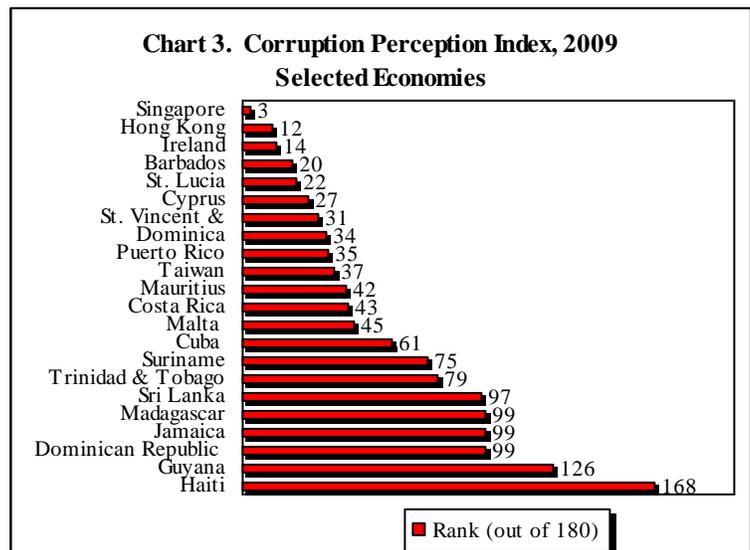
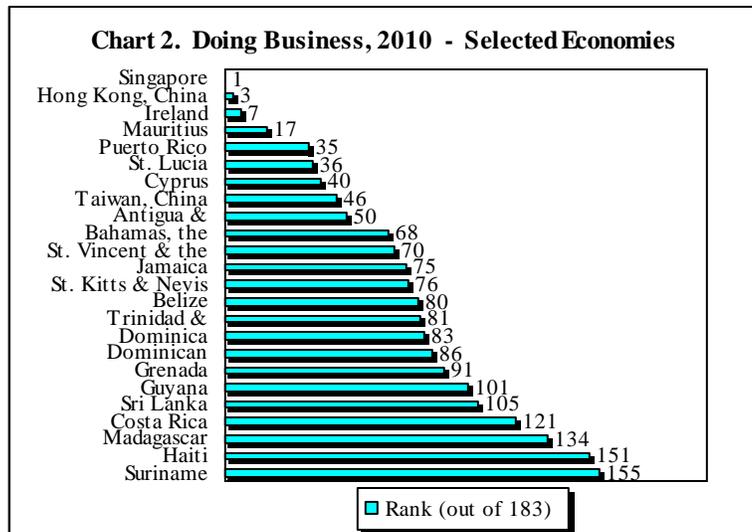
The DBI focuses more narrowly on quantitative indicators of the system of regulations affecting the conduct of business activity in different stages of such activity, all the way from starting a business to closing a business, and including specific indicators for the following: dealing with construction permits, employing workers, registering property, getting credit, protecting investors, paying taxes, trading across borders, and enforcing business contracts.

Chart 2 shows Jamaica’s standing on this index.

The CPI is even more narrowly focused, but no less relevant. Constructed by Transparency International, it ranks countries “by their perceived levels of corruption, as determined by expert assessments and opinion surveys”. It is touted by TI as one of its “reliable quantitative diagnostic tools regarding levels of transparency and corruption at the global and local levels.”

Chart 3 shows Jamaica’s position in this ranking.

From these three indices, it appears that Jamaica ranks relatively far behind the leaders, both in the sub-group of selected economies and in the full group of economies. Within the full group, it falls well below the median, by 25 slots on the GCI, and by 10 slots on the CPI. It does relatively better on the DBI (17 slots above the median); but still remains far behind at the 75th position. Within the sub-group it ranks ahead of only three economies at the bottom of the list, on both GCI and CPI; it does better on DBI by holding a position exactly in the middle of the sub-group.



From further examination of the time trend in rankings on these indices as well as in their underlying indicators, it also appears that Jamaica has been losing ground during the years covered by the data (see Tables 8.2, 8.4, 8.6). Therefore, the rankings observed in the most recent data represent a continuing decline in Jamaica’s relative position.

These findings could be considered to raise an alert and cause concern regarding the current status of the Jamaican economy in the international arena. They have served to raise alarm in some quarters. Certainly, they must be taken to indicate that Jamaica still has a far way to go and a difficult road ahead, if the national goal is “to reach developed country status by the year 2030”, as declared in the *Vision 2030 Jamaica, National Development Plan*.

Nevertheless, there is a need to exercise caution in the interpretation of these rankings, for at least two reasons.

First, there remains a certain ambiguity as to the relation between cause and effect, which leaves a degree of openness in regards to policy choices.

For instance, consider the fact that, within this sub-group of economies, the position on all three indices is highly correlated with per capita income, as shown in Chart 4.² This result indicates that, at least for this sample of economies, higher per capita income is strongly associated with a higher level of competitiveness, lower level of corruption, and greater ease of doing business. Despite this remarkable symmetry, it would be premature and unwarranted to infer from this result a simple one-way causation, in either direction, between the level of per capita income and any or all of these indices. The relationship is a complex one that cannot be reduced to any such simple formula.

Chart 4. Correlation of Indicators with GDP per capita, 2009 Selected Economies						
Region	Global Competitiveness Index 2009-10 (Score)		Corruption Perception Index 2009 (Score)		Ease of Doing Business 2009 (Rank)	
	r	n	r	n	r	n
Caribbean	0.715	8	0.686	10	-0.686	8
Other Regions	0.713	9	0.891	9	-0.781	8
Caribbean + Others	0.772	17	0.840	19	-0.786	16

Notes: (1) r = correlation coefficient, n = number of observations. (2) Sources: For list of economies and data on rank/score, see Tables 8.1, 8.4, 8.6; for data on growth rates, see <http://unstats.un.org/unsd/nationalaccount/data.asp>

Consider, also, the relation between the position of the selected economies on these indices and their actual growth performance. As Chart 5 shows, there exists no discernible relation between the position in a particular year and growth in that year or average growth in that and the ensuing one or two years. The correlation coefficient is generally quite low (with two odd exceptions) and all negative in sign. Thus, if one were

² Note that, in these correlations, the variables GCI and CPI are specified as a quantitative score, and a higher score means a higher rank (higher level of competitiveness and lower level of corruption). In contrast, DBI is specified as the number of the rank and so a higher number means a lower rank.

to ask, is it possible to predict growth performance in any current year or medium term from knowing the relative position of an economy on these indices, the answer would have to be a resounding No!

Chart 5. Correlation of Indicators with Growth Rate of Per Capita Income Selected Economies										
Region	CPI score (2008)/ Growth rate 2008		CPI score (2007)/ Growth rate 2007-08		CPI score (2006)/ Growth rate 2006-08		GCI score 2007-08/growth rate 2007-08		GCI score 2006-07/ growth rate 2006-08	
	r	n	r	n	r	n	r	n	r	n
Caribbean	-0.145	14	-0.126	14	-0.186	12	-0.705	8	-0.291	7
Other regions	-0.808	7	-0.521	7	-0.230	7	-0.444	8	-0.167	8
Caribbean + Others	-0.277	21	-0.106	21	-0.055	19	-0.393	16	-0.182	15

Notes: (1) r = correlation coefficient, n = number of observations. (2) Sources: For list of economies and data on rank/score, see Tables 8.1, 8.4, 8.6; for data on growth rates, see <http://unstats.un.org/unsd/nationalaccount/data.asp>

Second, since they are highly aggregated macro-indices, these indicators paint a very broad brush and, consequently, fail to reveal the great diversity of actual underlying patterns in the economy. It is at this more detailed and concrete level that specific constraints can be identified and the practical policy issues become more transparent.

3.0 Identifying the Existing Constraints

Viewed at the level of detail offered by the underlying components of the macro-indices, it is possible to gain more insight into specific areas of strength and weakness in the Jamaican economy and to begin to identify the prevailing constraints in more specific terms.

For this purpose, the DBI offers two levels of detail: ten different indicators, with a corresponding country-ranking for each, and specific quantitative measures for the components underlying each indicator.

The GCI offers a more complex picture consisting of several different levels and types of detail: (a) twelve “pillars” of competitiveness, with a corresponding country rank and quantitative score for each, (b) a detailed list of specific components underlying each pillar, with a corresponding country rank for each, (c) a broad classification of pillars according to three major categories: basic requirements, efficiency enhancers, and innovation and sophistication factors, (d) a ranking of “the most problematic factors for doing business” as perceived by respondents in a survey, and (e) the economy’s “stage of development”, in or between three defined stages: (stage 1) factor driven, (stage 2) efficiency driven, (stage 3) innovation driven – Jamaica is found to be in transition between stages 1 and 2.

As a bonus, it is useful to include here an additional data set (see Table 8.7) which identifies “business environment constraints for firms” as determined by the World Bank’s Enterprise Surveys. It provides a ranking of 11 constraints, as perceived by in-country firms, and allows a direct comparison between exporters and non-exporters as well as cross-country and cross-region comparisons.

The rankings for broadly defined constraints provided by these sources were arranged side-by-side to aid direct comparison across the different rankings. What emerges from this comparison is a degree of consistency across all rankings such as to allow drawing from them a kind of “average of the rankings”. Chart 6 shows the top ten constraints, derived in this way, listed in descending order of significance.

While all constraints on this list would obviously require attention, there is also a clear need to focus the use of limited resources, time, and effort in dealing with them by establishing priorities. To that end, this ranking can be considered to provide an objective basis for determining priorities in the reform effort going forward.

Chart 6. Average Ranking of Main Constraints in Business Activity	
Constraints	Rank
Crime & violence	1
Corruption	2
Taxation	3
Electricity	4
Finance	5
Macroeconomic instability	6
Bureaucracy & regulation	7
Quality of labour force	8
Quality of infrastructure	9
Foreign trade regime	10

Source: Compiled by author.

4.0 Taking a Close-up, Hands-on View of the Constraints

From the wide array and large body of data assembled here, one could go on to compile a long, more detailed list of features constituting the constraints relevant to direct action on the ground. Each and every item on this list would be a matter of particular concern in some setting of ongoing activity by policy makers and administrators as well as in the day-to-day conduct of economic activity by economic agents. In this respect, the data

can be made to serve a very useful and constructive purpose. Specifically, the following practical uses are worth considering.

(1) The list of detailed items underlying the DBI indicators (see Table E3) directly yields quantitative measures that could be used to focus needed action for reform and a template against which to measure progress in the reform effort. By comparing the actual level of performance on these measures across different economies, it is possible to set up quantitative measures of “international best practice” for each item. Progress in the reform effort in Jamaica could then be monitored and measured by the size of the remaining gap between actual practice in Jamaica and international best practice. In this way, the reform effort can be made to have a transparent, demonstrable, and objective basis that allows for public scrutiny and critical support.

(2) Similarly, the list of detailed items underpinning the pillars of the GCI can serve to focus needed action for reform. In particular, it can be used to identify specific areas of weakness and of strength relative to some objective measure. As illustrated in Table E5, the actual level of Jamaica’s ranking on the overall GCI, a rank of 95 for 2010-11, is used to establish the dividing line between weakness and strength in the detailed items. All items (indicated by red font) which fall below that rank constitute areas of relative weakness, perhaps deserving of priority treatment. All items (indicated by black font) falling above that rank could be considered as areas of relative strength.

There is no presumption here that Jamaica should simply copy what others do. The actual path to achieving best practice is subject to choice and the end result may be that Jamaica is able to prove its ability to innovate in particular areas and thereby establish new standards of best practice.

5.0 Dissecting the Supply-side Constraints and Responsibilities for Action

From a practical policy standpoint, in seeking to identify constraints affecting business activity relevant to a strategy of reform, it is useful to distinguish between factors operating on the supply-side of the business and those operating on the demand-side. Among the supply-side factors, a further distinction is useful between factors in the business environment and factors related to the internal operations of business firms. These distinctions matter because different considerations arise in each case in designing the actual reform programme.

A key feature of the constraints identified in Chart 6 is that they are supply-side constraints, all of which can be viewed as factors operating in the Jamaican business environment. They are factors that are, so to speak, “external” to the individual firm. As such, they may have a significant impact on all firms, in terms of the cost, risk, and uncertainty of doing business, depending on the actual cost structure, sectoral and geographical location of each firm.

Government has a unique responsibility in this case for seeking to address these constraints by adopting a range of instruments available to it through its roles in monetary management, taxation, economic regulation, delivery of public services (security, health, education, training, information dissemination) and provision of physical infrastructure.

By the totality of its actions in these various roles and by proactively targeting specific constraints for action, government can also influence the choices that firms make in critical areas such as employment of labour, investment, and geographical location. The particular, though not exclusive, role of fiscal incentives as an instrument for influencing business decisions is a relevant issue here and will be further examined, through analysis and evaluation of the existing incentive schemes, as the reform programme proceeds.

Aside from government’s role, there also exists a shared responsibility on the part of business firms to focus their efforts on addressing those factors internal to their operation that are under their direct control. In this connection, the GCI indicators are especially instructive in identifying specific areas where that responsibility comes into play, as can be seen from close examination of the “pillars” of competitiveness and the detailed indicators underlying them.

The GCI ranking of the 12 pillars for Jamaica is listed in Chart 7 in descending order of their “strength” as measured by their quantitative score. Many of them distinctly relate to internal operations of firms and some of these, e.g. technological readiness, business sophistication, and innovation, fall quite low in the ranking. Note that innovation is at the very bottom of the ranking, where it is tied in score with two other factors “external” to firms, namely market size and macroeconomic environment.

Chart 7. Strength/Weakness in Pillars of Competitiveness, 2010-11		
Rank	Pillars	Score
1	Health & primary education	5.2
2	Financial market development	4.5
3	Labour market efficiency	4.2
4	Goods market efficiency	4.0
5	Infrastructure	3.9
6	Higher education and training	3.9
7	Technological readiness	3.8
8	Business sophistication	3.7
9	Institutions	3.7
10	Innovation	2.9
11	Market size	2.9
12	Macroeconomic environment	2.9

Source: *The Global Competitiveness Report 2010-2011*, World Economic Forum.

For further elaboration of the constraints directly related to the internal practices of firms in Jamaica, Chart 8 lists the specific indicators of such practices (with their global ranking) underlying the GCI pillars. Evidently, this list points to a host of relevant matters which deserve closer attention by business leaders.

Chart 8. Strength/Weakness in Internal Practices of Business, 2010-11	
Pillar/Indicator	Rank (out of 139)
Goods market efficiency	80
Intensity of local competition	72
Extent of market dominance	93
Degree of customer orientation	117
Labor market efficiency	83
Reliance on professional management	58
Hiring & firing practices	59
Female participation in labor force	78
Cooperation in labor-employer relations	115
Pay & productivity	116
Financial market development	46
Soundness of banks	47
Financing through local equity market	47
Availability of financial services	63
Affordability of financial services	95
Venture capital availability	125
Ease of access to loans	128
Technological readiness	60
Availability of latest technologies	52
Firm-level technology absorption	75
Internet bandwidth	78
FDI and technology transfer	90
Business sophistication	81
State of cluster development	79
Extent of marketing	82
Value chain breadth	83
Local supplier quality	84
Willingness to delegate authority	89
Production process sophistication	92
Control of international distribution	102
Local supplier quantity	111
Innovation	93
Utility patents per million population	53
University-industry collaboration in R&D	66
Quality of scientific research institutions	67
Company spending on R&D	83
Capacity for innovation	107

Source: *The Global Competitiveness Report 2010-2011*,
World Economic Forum.

6.0 Demand-side Constraints

Demand-side constraints affect the capacity of firms to sell products and depend on the specific sources of demand. One such source is exports, the direct effect of which is industry specific and firm specific, depending crucially on the proportion of exports in total sales which varies widely by industry and by firm. But there is also an attendant indirect or spillover effect of exports on aggregate domestic demand since domestic demand is highly dependent on income from exports. Therefore the domestic component of firms' sales is affected as well by exports. Aggregate demand is also strongly influenced by government expenditure and by private investment, while imports constitute a leakage from the demand pool.

The actual composition of aggregate demand in Jamaica is shown in Chart 9.

Chart 9. Composition of Aggregate Demand, 2009 (current prices)		
	J\$mn	Percent of GDP
Gross Domestic Product at market prices	1,083,448.30	
Private Final Consumption Expenditure	884,373.60	81.6
Government Final Consumption Expenditure	170,007.70	15.7
Net National Savings	73,967.30	6.8
Exports of Goods & Services	357,349.17	33.0
Imports of Goods & Services	562,468.99	51.9

Source: Statistical Institute of Jamaica; Bank of Jamaica.

Exports from Jamaica have declined significantly in recent years, in large part as a direct result of the ongoing recession in the global economy, and in the US economy in particular as the largest market for Jamaica's exports. There is little that Jamaica-based firms can do in the near term to combat this effect insofar as its origins go beyond their reach. However, there is still scope for adopting a strong marketing effort to project an improved market presence through advertising. In the medium term, there is need to focus as well on developing a supply response that strengthens the capacity for market penetration through creative efforts to improve the quality and attractiveness of the product and to diversify both products and markets.

Government can provide constructive support and aid to this process in various ways, on the supply side certainly (as indicated in the previous section) and on the marketing side as well. The specific firms and sectors involved also bear a special responsibility to exercise initiative in this process and to share the attendant costs. Wider deployment and strengthening of the business-network model, currently practiced by a number of

progressive Jamaica-based firms and widely used internationally, is recommended here as the most effective mechanism for reducing transaction costs, realizing economies of scale, and providing a platform for penetrating export markets.

At the present moment, a critical issue on the demand-side concerns the ongoing effects that the current program of fiscal consolidation being carried out under the GOJ's stand-by agreement with the IMF is having on the state of domestic demand in Jamaica. The actual effects have been closely followed and systematically studied by the PIOJ and reported in published documents. These reports point to a definite need to create fiscal space in the IMF program to accommodate measures that would help to stimulate domestic demand, remove structural impediments, and thereby offset the pro-cyclical effects of other features of the program.

It is also recognized that a demand stimulus, though necessary, is not sufficient to set the economy on a growth trajectory. It should be complemented by strategic interventions specifically oriented to promote growth at the industry and firm level.

7.0 Towards a Differentiated Mix of Strategic Interventions

The preceding analysis helps to set the stage for sorting out the range of options that come into play in seeking to design a growth-inducement strategy for the Jamaican economy in the current context. It also points a clear way towards a rational and balanced programme of action that can respond to the challenge. In particular it points to the necessity of adopting a differentiated mix of interventions that address the array of constraints identified here and the complex factors underlying them.

Because of limited resources and time, it is also necessary to establish priorities and to focus effort on a limited set of targeted areas for action to be implemented in an appropriate sequence over time. Limited resources and the time frame of a medium-term strategy (three years) set limits on what can be done and what results can be expected to follow.

Table 8.1. Doing Business 2010, Selected Economies

Economy	Ease of Doing Business	Starting a Business	Dealing with Construction Permits	Employing Workers	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
Antigua and Barbuda	50	59	21	54	103	113	27	128	53	71	64
Bahamas, the	68	61	100	42	149	71	109	42	37	120	31
Belize	80	147	4	23	128	87	119	57	117	168	25
Costa Rica	121	127	128	110	49	61	165	154	60	132	101
Cyprus	40	25	77	93	64	71	93	37	15	107	21
Dominica	83	38	27	80	113	71	27	68	86	167	183
Dominican Republic	86	107	92	97	112	71	57	70	36	86	146
Grenada	91	52	15	49	162	87	27	82	79	162	183
Guyana	101	97	39	87	72	150	73	113	76	75	129
Haiti	151	180	126	28	129	135	165	99	144	92	155
Hong Kong, China	3	18	1	6	75	4	3	3	2	3	13
Ireland	7	9	30	27	79	15	5	6	21	37	6
Jamaica	75	19	49	39	122	87	73	174	104	128	23
Madagascar	134	12	107	152	152	167	57	74	111	155	183
Mauritius	17	10	42	36	66	87	12	12	19	66	73
Puerto Rico	35	15	149	22	124	30	16	104	105	97	30
Singapore	1	4	2	1	16	4	2	5	1	13	2
Sri Lanka	105	41	168	96	148	71	73	166	65	137	45
St. Kitts and Nevis	76	86	8	19	153	87	27	100	53	114	183
St. Lucia	36	36	12	20	76	87	27	40	103	165	47
St. Vincent and the Grenadines	70	45	3	57	137	87	27	62	52	102	183
Suriname	155	171	98	70	168	135	180	32	101	178	149
Taiwan, China	46	29	97	153	30	71	73	92	33	90	11
Trinidad and Tobago	81	65	82	45	170	30	20	56	49	169	183

Source: *Doing Business Report 2010*, World Bank

Table 8.2. Jamaica: Doing Business, Indicators, 2006-2010

Indicators	Rank, Year					Correlation with time*
	2010	2009	2008	2007	2006	
Number of Economies	183	181	178	175	155	
Ease of Doing Business	75	67	63	50	43	0.989
Starting a Business	19	12	11	10	..	0.885
Dealing with Construction Permits	49	48	74	93	..	-0.942
Employing Workers	39	37	33	26	..	0.968
Registering Property	122	129	108	107	..	0.790
Getting Credit	87	84	115	101	..	-0.662
Protecting Investors	73	70	64	60	..	0.993
Paying Taxes	174	175	170	163	..	0.901
Trading Across Borders	104	102	92	74	..	0.942
Enforcing Contracts	128	126	103	46	..	0.909
Closing a Business	23	23	22	23	..	0.258

*Data adjusted for differences over time in the number of economies.

Source: *Doing Business Report*, various years, World Bank.

Table 8.3. Jamaica: Doing Business 2010, Indicators and Details

Indicator	Rank (out of 183)	Value
Ease of doing business 2010	75	
Ease of doing business 2009	67	
Starting a business	19	
Procedures (number)		6
Time (days)		8
Cost (% of income per capita)		5.3
Minimum capital (% of income per capita)		0
Dealing with construction permits	49	
Procedures (number)		10
Time (days)		156
Cost (% of income per capita)		265.7
Employing workers	39	
Difficulty of hiring (index = 0-100)		11
Rigidity of hours (index = 0-100)		0
Difficulty of redundancy (index = 0-100)		0
Rigidity of employment (index = 0-100)		4
Redundancy cost (weeks of salary)		62
Registering property	122	
Procedures (number)		6
Time (days)		55
Cost (% of property value)		9.5
Getting credit	87	
Strength of legal rights (index = 0-10)		8
Depth of credit information (index = 0-6)		0
Public registry coverage (% of adults)		0
Private bureau coverage (% of adults)		0
Protecting investors	73	
Extent of disclosure (index = 0-10)		4
Extent of director liability (index = 0-10)		8
Ease of shareholder suits (index = 0-10)		4
Strength of investor protection (index = 0-10)		5.3
Paying taxes	174	
Payments (number per year)		72
Time (hours per year)		414
Total tax rate (% of profit)		51.3

Indicator	Rank (out of 183)	Value
Trading across borders	104	
Documents to export (number)		6
Time to export (days)		21
Cost to export (US\$ per container)		1,750
Documents to import (number)		6
Time to import (days)		22
Cost to import (US\$ per container)		1,420
Enforcing contracts	128	
Procedures (number)		35
Time (days)		655
Cost (% of claim)		45.6
Closing a business	23	
Time (years)		1.1
Cost (% of estate)		18
Recovery rate (cents on the dollar)		64.5

Source: *Doing Business Report 2010*, World Bank

Table 8.4. Global Competitiveness Index, 2006-07 – 2010-11, Selected Economies

Region/Country	2010-11		2009-10		2008-09		2007-08		2006-07	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Number of Countries	139		133		134		131		122	
Caribbean										
Barbados	43	4.5	44	4.4	47	4.4	50	4.3	41	4.7
Puerto Rico	41	4.5	42	4.5	41	4.5	36	4.5	n/a	n/a
Costa Rica	56	4.3	55	4.2	59	4.2	63	4.1	68	4.1
Suriname	..	..	102	3.6	103	3.6	113	3.4	104	3.5
Trinidad & Tobago	84	4.0	86	3.9	92	3.9	84	3.9	76	3.9
Dominican Republic	101	3.7	95	3.8	98	3.7	96	3.7	93	3.7
Jamaica	95	3.9	91	3.8	86	3.9	78	3.9	67	4.1
Belize										
Guyana	110	3.6	104	3.6	115	3.5	126	3.2	113	3.3
Other Regions										
Singapore	3	5.5	3	5.5	5	5.5	7	5.4	8	5.6
Hong Kong	11	5.3	11	5.2	11	5.3	12	5.4	10	5.5
Ireland	29	4.7	25	4.8	22	5.0	22	5.0	22	5.2
Cyprus	40	4.5	34	4.6	40	4.5	55	4.2	49	4.3
Taiwan	13	5.2	12	5.2	17	5.2	14	5.2	13	5.4
Mauritius	55	4.3	57	4.2	57	4.2	60	4.2	55	4.2
Malta	50	4.3	52	4.3	52	4.3	56	4.2	51	4.2
Sri Lanka	62	4.2	79	4	77	4	70	4.0	81	3.8
Madagascar	124	3.5	121	3.4	125	3.4	118	3.4	111	3.3

Source: *The Global Competitiveness Report*, various years, World Economic Forum.

Table 8.5

Jamaica: Global Competitiveness Index (GCI), overall and in detail, 2010-11*

Indicator	Rank (out of 139)
GCI 2010-11	95
GCI 2009-10 (out of 133)	91
GCI 2008-9 (out of 134)	86
A. Basic Requirements	103
1. Institutions	85
Strength of auditing & reporting standards	38
Protection of minority shareholders' interests	50
Judicial independence	51
Strength of investor protection	59
Transparency of government policy making	64
Ethical behavior of firms	64
Property rights	73
Business costs of terrorism	76
Diversion of public funds	78
Intellectual property protection	79
Irregular payments and bribes	79
Efficiency of legal framework in challenging regulations	81
Efficiency of legal framework in settling disputes	85
Efficacy of corporate boards	91
Wastefulness of government spending	98
Public trust of politicians	107
Reliability of police services	109
Burden of government regulation	112
Favoritism in decisions of government officials	116
Organized crime	134
Business costs of crime & violence	136
2. Infrastructure	65
Quality of port infrastructure	31
Quality of air transport infrastructure	47
Mobile telephone subscriptions	49
Quality of overall infrastructure	64
Quality of roads	71
Available airline seat kilometers	71
Quality of electricity supply	83
Fixed telephone lines	89
Quality of railroad infrastructure	n/a
3. Macroeconomic environment	137
National savings rate	75
Country credit rating	89
Interest rate spread	111
Inflation	119
Government budget balance	131
Government debt	132
4. Health and primary education	102
Tuberculosis incidence	18
Business impact of tuberculosis	54
Life expectancy	83
Business impact of malaria	84
Malaria incidence	84
Quality of primary education	89
Infant mortality	91
Business impact of HIV/AIDS	108
HIV prevalence	114
Primary education enrollment rate	119

Indicator	Rank (out of 139)
B. Efficiency Enhancers	80
5. Higher education & training	80
Extent of staff training	49
Secondary education enrollment rate	55
Quality of management schools	70
Internet access in schools	80
Tertiary education enrollment rate	86
Quality of the educational system	98
Local availability of research & training services	99
Quality of math & science education	115
6. Goods market efficiency	80
Time required to start a business	27
Number of procedures required to start a business	34
Prevalence of foreign ownership	46
Agricultural policy costs	48
Business impact of rules on FDI	51
Prevalence of trade barriers	62
Effectiveness of anti-monopoly policy	62
Buyer sophistication	69
Intensity of local competition	72
Extent of market dominance	93
Trade tariffs	95
Total tax rate	105
Degree of customer orientation	117
Extent & effect of taxation	121
7. Labor market efficiency	83
Rigidity of employment	8
Reliance on professional management	58
Hiring & firing practices	59
Flexibility of wage determination	65
Female participation in labor force	78
Redundancy costs	95
Brain drain	98
Cooperation in labor-employer relations	115
Pay & productivity	116
8. Financial market development	46
Legal rights index	20
Regulation of securities exchanges	23
Restriction on capital flows	47
Soundness of banks	47
Financing through local equity market	47
Availability of financial services	63
Affordability of financial services	95
Venture capital availability	125
Ease of access to loans	128
9. Technological readiness	60
Internet users	38
Availability of latest technologies	52
Broadband internet subscriptions	72
Firm-level technology absorption	75
Internet bandwidth	78
FDI and technology transfer	90
Continued	

Table 8.5 (continued)

Indicator	Rank (out of 139)
10. Market size	99
Domestic market size index	97
Foreign market size index	104
C. Innovation & Sophistication Factors	86
11. Business sophistication	81
Nature of competitive advantage	31
State of cluster development	79
Extent of marketing	82
Value chain breadth	83
Local supplier quality	84
Willingness to delegate authority	89
Production process sophistication	92
Control of international distribution	102
Local supplier quantity	111
12. Innovation	93
Utility patents per million population	53
University-industry collaboration in R&D	66
Quality of scientific research institutions	67
Company spending on R&D	83
Government procurement of advanced tech products	92
Capacity for innovation	107
Availability of scientists & engineers	123

* Details listed by order of rank within each "pillar".

Source: *The Global Competitiveness Report 2010-2011*, World Economic Forum.

Table 8.6. Corruption Perception Index, 2000-2010, Selected Economies

Region/Country	Rank									
	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Number of Countries	180	180	179	163	159	146	133	102	91	90
Caribbean										
Barbados	20	22	23	24	24	21	..	..	..	..
St. Lucia	22	21	24	..	..	..	..	..	..	..
St. Vincent & Grenadines	31	28	30		..	..	..	..	..	..
Dominica	34	33	37	53	..	..	..	..	..	..
Puerto Rico	35	36	..	..	..	..	..	..	..	..
Costa Rica	43	47	46	55	51	41	..	40	40	..
Cuba	61	65	61	66	59	62	43	..	..	30
Suriname	75									
Trinidad & Tobago	79	72	79	79	59	51	43	33	31	..
Grenada	..	..	79	66	..	..	..	..	..	..
Dominican Republic	99	102	99	99	85	87	70	59	63	..
Jamaica	99	96	84	61	64	74	57	45	..	..
Belize	..	109	..	66	62	60	..	..	..	..
Guyana	126	126	123	121	117	..	..	..	..	..
Haiti	168	177	177	163	155	145	131	89	..	..
Other Regions										
Singapore	3	4	4	5	5	5	5	5	4	6
Hong Kong	12	12	14	15	15	16	14	14	14	15
Ireland	14	16	17	18	19	17	18	23	18	19
Cyprus	27	31	39	37	37	36	27	..		..
Taiwan	37	39	34	34	32	35	30	29		
Mauritius	42	41	53	42	51	54	48	40	40	37
Malta	45	36	33	28	25	25	..	..		..
Sri Lanka	97	92	94	84	78	67	66	52		..
Madagascar	99	85	94	84	97	82	88	98		..

Source: Transparency International

Table 8.7 Business Environment Constraints for Firms – Comparison across Economies & Regions
(per cent of firms identifying each constraint)

Rank*	Constraint	Jamaica	Jamaica Exporters	Jamaica Non-Exporters	Costa Rica	Dominican Republic	Mauritius	Latin America & Caribbean	East Asia & Pacific	Eastern Europe & Central Asia	Middle East & North Africa	OECD	South Asia	Sub-Saharan Africa	All countries
	Year	2005	2005	2005	2005	2005	2009	..	..	..	..	..	..	..	..
	Observations	94	..	..	343	225	398	..	..	..	..	..	..	..	..
1	Tax Rates	60.0	57.9	60.0	38.2	51.1	25.1	36.7	23.1	40.1	45	21.5	23	38	35.4
2	Crime, Theft and Disorder	55.1	63.2	52.2	28.0	62.7	41.5	34.7	18	27	19.7	6.8	20.9	27.7	25.5
3	Tax Administration	49.4	52.6	49.3	19.0	32.4	16.2	27.5	15.5	21.1	32.7	16.9	17.9	26.2	23.5
4	Corruption	46.1	47.4	44.9	39.9	72.9	50.7	53.6	28.9	33.5	50.9	8.1	33.8	34.6	36.6
5	Electricity	45.6	57.9	42.9	16.6	81.3	42.9	39.0	24.1	35.1	42.9	6.1	53.4	50.1	39.3
6	Access to Finance	43.8	42.1	43.5	44.6	32.9	46.3	27.8	19.4	24.1	33.6	13	23.3	45.6	30.9
7	Labour Skill Level	41.6	42.1	40.6	13.4	30.7	45.7	31.5	23.5	29.7	38.8	10.7	15	20.3	25.3
8	Customs & Trade Regulations	33.7	42.1	30.3	14.9	19.6	17.7	16.4	14.3	13.8	23.6	6.8	12.3	20.1	16.5
9	Labour Regulations	19.1	10.5	21.7	24.2	13.8	8.8	18.0	8.9	9.8	23.6	10.2	10.7	7.8	11.4
10	Transportation	15.6	15.8	14.3	15.7	20.0	45.8	19.0	16.4	19	21.5	7.4	18.6	26.8	20.7
11	Business Licensing and Permits	12.4	10.5	11.6	14.0	10.7	18.6	15.9	9.3	15.8	26.8	9.7	11.9	15.5	15.2

*Ranking by firms in Jamaica

Source: *Enterprise Surveys*, World Bank Group

Table 8.8
Jamaica: Most Problematic Factors for Doing Business

Factors	Percent of Responses
Crime and theft	22.9
Inefficient government bureaucracy	13.1
Corruption	12.7
Access to financing	8.7
Inadequately educated workforce	8.7
Inflation	8.2
Poor work ethic in national labour force	7.8
Tax rates	6.6
Policy instability	2.8
Tax regulations	2.8
Inadequate supply of infrastructure	2.1
Restrictive labour regulations	1.4
Foreign currency regulations	1.4
Poor public health	0.6
Government instability/coups	0.1

Source: *The Global Competitiveness Report 2010-2011*,
World Economic Forum.