

The Impact of International Financial Liberalisation on Economic Growth: The Case of CARICOM

Carlene Belford and Kevin Greenidge

Introduction

The need for the efficient mobilisation of both domestic and foreign resources has prompted many countries to adjust their policies concerning international financial transactions. This has resulted in a rapid increase in the implementation of financial liberalisation programmes within the last three decades. The Caribbean is no exception, although the process started somewhat later than in other parts of the world and mostly as part of economic stabilisation and structural adjustment programmes. The implementation of financial liberalisation policies reflected efforts to improve competition in the domestic financial system and to attract more capital with the objective of establishing a more efficient system of mobilisation and allocation of resources in the economy.

In recent times, efforts to create a Caribbean Community Single Market and Economy (CSME) have led member governments to step-up their liberalisation processes. Protocol II of the arrangements for the CSME is the most relevant in this regard and sets out guidelines for the provision and establishment of services and the movement of capital within the Caribbean Community (CARICOM) region. The requirements of Protocol II are that member states remove restrictions that inhibit, in any way, the rights of establishment, the provision of services and the movement of capital throughout CARICOM. With an increasing trend towards international financial liberalisation prompting various commitments by regional

governments, an understanding of the impact of financial liberalisation on economic growth is extremely important, particularly for the small, vulnerable countries of CARICOM.

Although economic growth is a complex process, it has been widely speculated that financial liberalisation is an essential component for its sustainability. Indeed, the main impetus behind the liberalisation process in developing countries has been the belief that it promotes growth and stability by stimulating savings and improving overall economic efficiency. Bekaert, Harvey and Lundblad (2000) proposed that liberalisation can lead to increased growth by improving risk sharing, which can lower the cost of capital, thus encouraging additional investment through more open and efficient capital markets. In addition, Klenow and Rodriquez-Clare (1997) surmised that through financial liberalisation countries can benefit from enhanced financial technology, which the endogenous growth literature has shown may lead to higher economic growth.

The bulk of the empirical work has focussed on the relationship between financial development and growth, with very little analysis of the effect of the financial liberalisation process on economic growth. Moreover, at the time of this study, no comprehensive empirical work had been conducted for developing economies, even though the experiences of most of these countries after the implementation of financial liberalisation programmes have been disappointing. For example, financial liberalisation programmes in Chile, Uruguay and Argentina led to high real interest rates and deterioration in their balances of trade. More pointedly, Jamaica is still grappling with macroeconomic instability (balance of payments and fiscal deficits of large magnitudes) after a period of rapid liberalisation. The reaction of advocates of financial liberalisation, such as McKinnon (1997) and Fry (1997), to the unfavourable evidence is that the failure of the liberalisation processes in these countries was the result of inadequate banking supervision, high and unstable inflation and unsustainable fiscal deficits.

With these views in mind, this paper attempts to investigate the nature of the impact of international financial liberalisation on economic growth in twelve Caribbean countries over the period 1979 to 1999. An index of international financial liberalisation, developed by Belford and Greenidge (2002), is added to a standard growth regression and estimated using panel data methods. The term *international financial liberalisation* is emphasised instead of *financial liberalisation*, because in essence, financial liberalisation is a much broader concept consisting of three aspects: first, the opening-up of a country to the free flow of international finance, referred to as international financial liberalisation; second, the removal of controls and restrictions on the functioning of financial institutions, so that they are properly integrated in the world financial markets; and third, the granting of autonomy by the government to the central bank in order that its supervisory and regulatory role *vis-à-vis* the banking sector is dissociated from the political process of the country. Not all of these aspects are immediately contemplated or demanded, but represent the ultimate goal of financial liberalisation, which may be ushered in by stages.

The next section reviews the theoretical and empirical link between liberalisation and growth. Section two details the measure of financial liberalisation used, and discusses its properties along with financial liberalisation trends in the Caribbean. The empirical model and method of estimation are briefly discussed in Section three. The regression results are presented in Section four followed by some summary remarks in Section five.

1. Review of Literature

Theoretical Arguments

Theoretical evidence of the effect of financial liberalisation on economic growth can be traced as far back as Bagehot (1873), who proposed that the financial system plays a critical role in the adoption of better technologies that effectively

mobilise resources, thus encouraging economic growth. Perhaps the earliest formal model in favour of financial liberalisation was provided by McKinnon (1973) and Shaw (1973). These authors attributed the lack of real capital accumulation and poor economic growth in less developed countries to financial repression. They define financial repression to include high reserve ratios, directed credit programmes and interest rate ceilings and argued that these resulted in low savings and investment and credit rationing. McKinnon and Shaw believed that liberalisation of financial markets would expand the real supply of total credit, induce a higher volume of investment and adjust the real interest rate to its equilibrium level of savings which, in turn, would likely to impact positively on economic growth.

Levine (1997), who provides an excellent review of the literature on the effectiveness of intermediaries in ameliorating informational asymmetries, reducing transaction costs, and facilitating contracts, concludes that the level of financial intermediary development has a large and causal effect on long-run economic performance. More specifically, two messages emerge from his paper. The first is that domestic banking system development has a large causal impact on economic growth. The second is that domestic banking system development influences growth primarily through total factor productivity growth. Thus, if international financial liberalisation boosts the functioning of the domestic banking system, this could have large growth effects.

Financial liberalisation may also lead to economic growth when capital markets are imperfect and financing constraints exist (see for example, Hubbard, 1998; Gilchrist and Himmelberg, 1998). Under these circumstances, external finance is more costly than internal finance, and investment is sensitive to cash flow. In this regard, financial liberalisation may impact on economic growth by reducing capital market imperfections, thereby decreasing the external finance premium. In turn, a well-functioning stock market, largely through its influence on the efficiency of capital allocation, the diversification of risks,

and stimulation of greater corporate control, can exert positive effects on economic and financial activities. Boot and Thakor (1997) argued that as stock markets become more liquid, agents have greater incentives to expend resources in researching firms. In other words, larger, more liquid markets, provide more opportunities to profit from new information, and this enhances resource allocation with corresponding implications for economic growth.

As articulated by Jensen and Murphy (1988), greater corporate control through takeovers makes it easier to tie managerial compensation to stock price performance, hence enhancing managerial incentives and, thereby, also boosting resource allocation.

Risk diversification is an issue discussed extensively in the literature on stock markets and their influence on growth (see for example, Levine, 1991; Bencivenga, Smith, and Starr, 1995). Liquid equity markets, for instance, make long-term investment more attractive because savers are allowed to liquidate their assets quickly and cheaply, while allowing companies to enjoy permanent access to capital secured through equity issues. Through its role of providing longer-term, more profitable investments, liquid markets improve the allocation of capital and the economic growth process.

Empirical Evidence

Most of the empirical studies of the relationship between financial liberalisation and economic growth have employed a standard growth regression modified by the inclusion of some measure of financial liberalisation. Using positive real interest rates as a proxy for financial liberalisation, Fry (1978) suggested that on average a one percentage point increase in the real deposit interest rate towards its competitive free market equilibrium level is associated with a 0.5 percentage point rise in the rate of economic growth. Lanyi and Saracoglu (1983) reported a positive and significant relationship between financial liberalisation and the average rates of growth in real gross

domestic product during the period 1971 to 1980. The World Bank (1989), utilising a similar methodology, reported that regression results showed a positive and significant cross-section relationship between average growth and average real interest rates over the period 1965 to 1985 in 34 developing countries. Furthermore, Roubini and Sal-I-Martin (1992), using pooled regressions, posited that the growth rate of countries with positive real interest rates was 1.4 per cent higher than those countries with negative real interest rates.

King and Levine (1993) investigated the relationship between financial liberalisation and long-run output growth. In their cross-country analysis, four financial indicators were constructed: liquid liabilities divided by gross domestic product (GDP); domestic assets in deposit money banks as a ratio to domestic assets of both deposit money banks and the central bank; domestic credit to the private sector as a ratio to aggregate domestic credit; and domestic credit to the private sector divided by GDP. Four growth indicators were also computed. These were the average rate of growth of per capita real GDP; the average rate of growth in the capital stock; the residual between the average rate of growth per capita real GDP and 0.3 of the average rate of growth in capital stock, as a proxy for productivity improvements; and the share of gross domestic investment in GDP. King and Levine found that each financial indicator was positively and significantly correlated with each growth indicator, and concluded that financial development is a good predictor of economic growth. A similar result was obtained by Klein and Olivei (1999), using the same methodology as King and Levine, estimating the effect of capital account liberalisation on economic growth. However, these authors found little evidence of capital account liberalisation promoting financial depth, and, by extension, economic growth in developing countries. As a result, policy reforms in developing countries should require capital account liberalisation to come at a later stage when adequate institutions and sound macroeconomic policies are in place.

Bekaert, Campbell and Lundblad (2001) introduced a financial liberalisation indicator to a standard growth model. Taking a simulated sample and randomly dating the time at which each country removed its financial restrictions, generated the financial liberalisation indicator. The results revealed that the liberalisation coefficient was positive and significant, and increased the growth rate of real per capita gross domestic product by 1.1 per cent. As cited by McKinnon (1997), the findings emerging from these cross-country regressions can be interpreted as supporting the argument that better functioning financial systems motivate faster economic growth.

The results of financial liberalisation for many developing countries, however, have not met *a priori* expectations. According to El Hady (1997), the implementation of financial liberalisation policies in countries such as Chile, Argentina and Uruguay in the 1970s led to high real exchange rates, bank insolvencies, appreciation of exchange rates and a deterioration of the balance of payments. McKinnon (1997) and Fry (1995) claim that inadequate prudential supervision and regulation enabled distress borrowing to crowd out borrowing for investment purposes by solvent firms, resulting in financial and economic paralysis. Despite the controversies surrounding the effects of financial liberalisation, there is theoretical and empirical evidence supporting a positive relationship between financial liberalisation and economic growth. The problem appears to be the transformation of the economy from a state of financial repression to a state of financial liberalisation.

Fry (1995) proposes that the following prerequisites are essential for successful financial liberalisation: adequate prudential regulation and supervision of commercial banks, implying some minimal levels of accounting and legal infrastructure; a reasonable degree of price stability; fiscal discipline in the form of sustainable government borrowing that avoids inflationary expansion of reserve money by the central bank (the problem here is direct domestic borrowing by the government or the indirect effect of government borrowing that produces surges of capital inflows which require large purchases

of foreign exchange by the central bank to prevent exchange rate appreciation); profit maximising, competitive behaviour by the commercial banks; and, a tax system that does not impose discriminatory explicit or implicit taxes on financial intermediation. Given that these conditions are met, governments should not undertake all their liberalisation measures at the same time. Instead, policies must be strategically planned to minimise the disruptive effects of financial liberalisation, while allowing the economy to benefit from opportunities available in the global market.

2. Trends of Financial Liberalisation and Growth in CARICOM.

Previous financial liberalisation indicators were limited to a measure of openness, such as exports plus imports as a percentage of GDP (see Lewis and Craigwell, 1998) or financial development in the form of broad money as a ratio to GDP (see Lensink and Morrissey, 2000). More recently, Bynoe-Mayers and Craigwell (2002) constructed an index of financial liberalisation based on key characteristics of the financial system, including market structure, financial products availability, institutional environment, monetary policy instruments and financial and exchange controls. The indices developed in Belford and Greenidge (2002) utilised the detailed qualitative information in the International Monetary Fund's (IMF's) Annual Report on Exchange Arrangement and Exchange Restrictions to generate an index for each country which reflects changes in financial liberalisation policies and captures both capital and current account restrictions and regulations. The indices for the CARICOM countries used in this study are presented in Table 4.1.

The process of financial liberalisation in the Caribbean really got underway during the early 1990s, mainly as a result of the countries engaging in IMF stabilisation and structural adjustment programmes, to restore economic growth. The adoption of such policies was in an effort to liberalise the

domestic financial systems of these countries and, in some cases, included the lifting of restrictions on capital flows and the floating of exchange rates. Guyana, Jamaica and Trinidad and Tobago are some of the Caribbean countries that implemented extensive financial liberalisation programmes as part of their economic reforms (El Hadj, 1997).

In 1991, the average growth rate in the region was 1.7 per cent, ranging from 7.8 per cent in Guyana to -3.9 per cent in Barbados, whose economy had just gone into recession. In light of the fact that all countries in CARICOM suffered from a lack of diversification, which exposed them to the deleterious effects of international price shocks and economic crises, CARICOM leaders renewed their commitment to liberalisation on a regional level. It was proposed that greater openness facilitates greater closeness in the Caribbean. This they anticipated would generate macroeconomic stability and foster economic growth.

In 1991, the Jamaican economy grew by just 0.7 per cent. In that same year, Jamaica, without any sequencing, implemented its last set of financial liberalisation policies. It is interesting to note that, since then, the growth rate of the Jamaican economy improved, with increases in real GDP of 1.5 per cent in both 1992 and 1993. However, the economy declined in 1996, when output fell by 1.4 per cent and continued to deteriorate up to 1999, when a 0.4 per cent decrease in output was recorded. From the data presented in Table 4.1, Jamaica is one of the most liberalised economies in the region, with a financial liberalisation index of 13.0. However, growth has been a mere 0.09 per cent, on average, over the period 1991 to 1999.

In the early 1990s, the Barbadian economy went into recession with declines in output of 3.3 per cent, 3.9 per cent and 7.2 per cent in 1990, 1991 and 1992, respectively. Barbados began to liberalise exchange controls in 1994, and in that same year the index value moved to 7.5 (see Table 4.1). In addition, the economy grew by 4.3 per cent, the highest rate since 1987.

Table 4.1 Indices of Financial Liberalisation

	Trinidad and Tobago	Suriname	St. Vincent and the Grenadines	St. Lucia	St. Kitts and Nevis	Jamaica	Guyana	Grenada	Dominica	Belize	Barbados	Antigua and Barbuda
1979	5.5	6.5	6.5	7.0	-	4.5	5.5	6.5	6.5	7.0	6.0	11.0
1980	5.5	6.5	7.0	7.0	-	4.5	5.5	6.5	7.0	7.0	6.0	11.0
1981	5.5	6.5	8.0	7.5	-	4.5	5.5	6.5	7.5	7.0	6.0	11.0
1982	5.5	6.5	8.0	7.5	-	4.5	5.5	6.5	7.5	7.5	6.0	11.5
1983	5.5	6.5	8.0	7.5	-	5.0	5.5	6.5	7.5	8.5	6.0	11.5
1984	5.5	6.5	8.0	7.5	7.0	5.0	6.0	6.5	7.5	8.5	6.0	12.5
1985	5.5	6.5	8.0	7.5	8.0	5.0	6.0	6.5	7.5	8.5	6.0	12.5
1986	5.5	6.5	8.0	7.5	8.0	5.5	6.0	6.5	7.5	8.5	6.0	12.5
1987	5.5	6.5	8.0	7.5	8.0	6.0	6.0	6.5	7.5	8.5	6.0	12.5
1988	6.5	7.0	8.5	8.0	8.5	6.5	6.0	7.0	8.0	9.0	6.5	13.0
1989	6.5	7.0	8.5	8.0	8.5	6.0	6.5	7.0	8.0	9.0	6.5	13.0
1990	6.5	7.0	9.0	8.0	8.5	6.5	7.5	7.0	8.0	9.0	6.5	13.0
1991	6.5	7.0	8.5	8.0	8.5	13.0	8.5	7.0	8.0	9.0	6.5	13.0
1992	7.5	7.0	9.0	8.5	8.5	13.0	11.0	7.0	8.0	9.0	6.5	13.0
1993	13.0	7.0	9.0	8.5	8.5	13.0	11.0	7.0	8.0	9.0	6.5	13.0
1994	13.0	7.5	9.0	8.5	8.5	13.0	11.5	8.0	8.0	9.0	7.5	13.0
1995	13.0	7.5	9.0	8.5	8.5	13.0	12.0	8.0	8.0	9.0	7.5	13.0
1996	13.0	7.5	9.0	11.5	8.5	13.0	12.0	8.0	8.0	9.0	7.5	13.0
1997	13.0	7.5	9.0	11.5	8.5	13.0	13.0	8.5	9.0	9.0	7.5	13.0
1998	13.0	7.5	9.0	11.5	9.0	13.0	13.0	8.5	9.0	9.0	7.5	13.0
1999	13.0	8.0	9.0	11.5	9.0	13.0	13.0	8.5	9.0	9.0	7.5	13.0

Source: Greenidge and Belford (2002)

As shown in Table 4.2, Barbados experienced an average growth rate of 2.9 per cent since the implementation of its financial liberalisation programme, and is therefore considered to be moderately liberalised.

Trinidad and Tobago commenced its liberalisation programme in the early 1990s; however, at a somewhat slower pace than Jamaica. In 1993, the economy declined by 2.6 per cent, but recovered with an increase in output of 5.0 per cent in 1994 and 3.2 per cent in 1995. Presently, the Trinidad and Tobago economy is one of the most liberalised in the region, with an index value of 13.0 and, as illustrated in Table 4.2, has increased, on average, by 3.82 per cent during the latter half of the 1990s.

Table 4.2

CARICOM Countries Average Growth Rates (%)

Countries	1980-1984	1985-1989	1990-1994	1995-1999
Barbados	0.34	3.18	-1.86	2.92
Belize	2.92	10.92	5.96	3.38
Guyana	-8.56	-1.18	5.48	5.34
Jamaica	-0.10	1.70	1.82	-0.78
OECS	4.81	7.60	2.98	2.88
Suriname	-2.30	1.72	0.82	n.a.
Trinidad and Tobago	0.72	-4.04	1.08	3.82

Source: IMF's International Financial Statistics CDROM 2001

Note: n.a. means not available.

The Guyanese economy was in recession throughout the 1980s. In 1988, Guyana began implementing its Economic Recovery Programme in which financial sector reform was undertaken along with other economic reforms. The economy experienced growth in 1989, but declined by 3.0 per cent one year later. In 1992, Guyana recorded the highest growth rate in the region (7.8%) and real GDP continued on an upward trend until it slowed in 1995. As shown in Table 4.1, the Guyanese economy is highly liberalised with an index value of 13.0 and revealed fluctuating growth, averaging around 5.5 per cent over the last ten years.

The members of the Organisation of Eastern Caribbean States (OECS) as a group experienced strong economic growth during the 1980s and into the 1990s. With the exception of Antigua and Barbuda, the members of the OECS are reasonably financially liberalised, with an average growth rate of 2.9 per cent over the last ten years. As seen in Table 4.1, Antigua and Barbuda had been almost fully financially liberalised as early as 1984, and has experienced fluctuating rates of growth, averaging around 4.8 per cent during the period studied.

3. Modelling and Estimation Issues

A Caribbean Growth Model

Following the approach of Lewis and Craigwell (1998), a typical Caribbean growth model includes government consumption as a per cent of GDP, foreign direct investment, gross domestic investment, gross international reserves and the population growth rate. The relevance of each variable is described below.

Government consumption as a ratio of GDP is used as a proxy of the impact of government policy on economic growth. It is assumed that this variable includes expenditures that do not directly affect productivity, but entails distortion of private decision-making. For example, distortionary taxes usually have a negative effect on economic growth, since they lead to a higher

level of government consumption, which in turn implies a lower level of per capita output.

Foreign direct investment was observed to be the main form of capital inflows in many CARICOM countries. These investment resources are directed toward improving infrastructure mainly in the tourism sector, and as a result, it is expected that foreign direct investment should have a positive impact on growth rates in the region.

Caribbean governments have envisioned that greater gross domestic investment, in areas such as education, health and transportation, will lead to an increase in both physical and human capital and, hence, higher rates of economic growth. Given that a decline in a country's foreign reserves reduces its ability to import goods and services essential for production, as well as impedes its ability to honour foreign debts, both of which can retard economic growth, an improvement in a country's international reserve position should contribute to higher rates of growth.

Finally, an increase in the rate of population growth is likely to have a negative effect on growth of per capita incomes, since an expansion in the number of persons in the non-working age group exerts greater pressure on social services, such as health and education, resulting in limited availability of resources. Also, Sarel (1992) argues that a rise in population growth diverts efforts into child rearing, instead of expanding worker productivity.

When the financial liberalisation index is added to these standard growth variables, its impact on economic growth is expected to be positive, based on the evidence presented earlier. Inflation is also included in the model since it is generally accepted that a low and stable inflationary environment is more conducive to economic growth than one characterised by high, volatile inflation.

Estimation Procedures

The estimation methodology used was panel data techniques. One justification for such an approach is to examine the variation coefficient, measured as the ratio of the standard deviation to the mean, for the individual explanatory variables over time and across countries. If the variability across countries is greater than over time, then a panel data approach can be used (see Barajas, Steiner and Salazar, 1999). Table 4.3 presents variation coefficients for the explanatory variables. The across country coefficient is obtained by computing a single average observation over time for each country, and the time-variation coefficient is derived by computing an aggregate country average for each time period. It appears that the across-country variability is larger than the time variability for all the variables shown, and in some cases, this variability is quite large. These results suggest that utilising panel data methods would be best to capture such cross-section variability.

To account for the differences in the level of economic development, social norms and infrastructure among CARICOM countries, a fixed-effects model was utilised. An F Test (see Green, 2000) was used to determine between the fixed-effects specification and a common intercept model. In addition, the model was estimated by the method of generalised least squares with cross-section specific weights.

The data used are of annual frequency and span the period 1979 to 1999. The variables real GDP and population were obtained from the International Monetary Fund's, *International Financial Statistics* CD-Rom (January 2001). Reserves in months of imports, gross domestic and foreign direct investment were all taken from the World Bank's Development Indicators CD-Rom (2000). These latter variables were then deflated by real GDP.

Table 4.3

**Variation of Variables Over Time and
Across Individual Countries**

Variables	Over Time	Across Countries
Government Consumption	0.19	1.34
Inflation	0.65	0.97
Foreign Direct Investment	0.89	1.76
Real GDP	3.33	10.62
Gross International Reserves	0.20	0.42
Nominal GDP	1.39	2.21
Gross Domestic Investment	0.42	1.29
Financial Liberalisation	0.16	0.18

4. Results

Table 4.4 presents the results of the growth model, which appears to be generally consistent with the literature. Government consumption as a per cent of GDP enters with a negative and significant coefficient, suggesting that distortionary fiscal policies associated with government consumption have inhibited economic growth in the region. In accordance with *a priori* expectations, gross international reserves have a positive and highly significant impact on growth. This means that countries with higher levels of reserves are more likely to have higher growth rates. Gross domestic investment also enters with a positive and highly significant coefficient, indicating that large amounts of domestic investments, in areas such as education and health, improve the quality of human capital, thus fostering economic growth. The foreign direct investment variable was found to have a significantly negative impact on growth. Hence, increases in foreign investment in the Caribbean have led to

lower per capita growth. One possible explanation for this result is that foreign direct investment may be crowding out domestic investment.

The population growth rate had a negative effect on economic growth, signifying that countries with lower population growth rates usually experience higher levels of economic growth in the long run. From the results, it was seen that for every 1 per cent increase in a country's population growth rate, its rate of economic growth declined by almost 1 per cent. As in many cross-sectional growth models the effect of inflation on economic growth is controversial. It was found that inflation had a negative, but insignificant effect on economic growth. This result is not surprising since, with the exception of Jamaica and Guyana, the countries in the model have had stable inflation rates over the sample period.

The introduction of the liberalisation indicator to the standard Caribbean growth model improved its explanatory power and a likelihood ratio test revealed that the model with the financial liberalisation index best fits the data (see Table 4.4).

The results indicated that the regional effect of financial liberalisation on growth is significantly negative. This suggests that the nature and structure of the CARICOM economies as a whole may not yet be suited for financial liberalisation. At the individual level, of the eleven CARICOM countries studied seven had insignificant financial liberalisation coefficients (see Table 4.5). These included Guyana, Jamaica and Trinidad and Tobago, which can be considered as highly liberalised. This implies that the process of financial liberalisation appears not to have contributed to real economic growth in these countries as the advocates of financial liberalisation have promised.

This may in part be no fault of liberalisation, but may have resulted from the timing of and steps taken in the implementation of the process. It is generally accepted that financial liberalisation should not be undertaken until a large measure of macroeconomic stability has been achieved. However, countries like Jamaica and Guyana have embarked on the liberalisation path during periods of high macroeconomic

instability. By 1990, Jamaica's fiscal deficits had risen to record heights, stemming from bailout efforts due to the 1988 hurricane, and money creation was beginning to accelerate the rate of inflation, pushing the economy to the verge of macroeconomic instability. This, along with poorly capitalised and supervised financial institutions, rendered the Jamaican economy unsuitable for the rapid pace of financial liberalisation which it undertook in 1991.

Table 4.4

Growth Regressions: Using a Caribbean Growth Model

Variables	Statistics
Foreign Direct Investment	-30.650 *** (5.398)
Government Consumption	-2.095 * (1.268)
Gross Direct Investment	2.758 ** (1.295)
Gross International Reserves	0.273 *** (0.062)
Population	-0.983 *** (0.044)
Inflation	-0.083 (0.079)
Financial Liberalisation	-0.803 * (0.458)
R ² (With Financial Liberalisation)	0.621
R ² (Without Financial Liberalisation)	0.561
Log Likelihood (With Financial Liberalisation)	-740.23
Log Likelihood (Without Financial Liberalisation)	-765.50

Notes: White's heteroscedasticity-consistent standard errors given in brackets

* means significant at the 10% level

** means significant at the 5% level

*** means significant at the 1% level

Table 4.5

**Country-Specific Slope Estimates of a Caribbean
Growth Model: The Liberalisation Effect**

Column 1	Column 2
Antigua & Barbuda	0.984 (3.464)
Barbados	0.240 (0.457)
Belize	0.899 (0.987)
Dominica	-6.717 *** (1.044)
Grenada	-3.284 ** (1.386)
Guyana	0.847 (4.682)
Jamaica	-0.470 (1.634)
St. Kitts & Nevis	-3.307 (2.860)
St. Lucia	-1.940 *** (0.211)
St. Vincent & the Grenadines	-1.170 ** (0.544)
Trinidad & Tobago	0.982 (0.842)
Observations	216
Adjusted R ²	0.583
Durbin-Watson statistic	2.093

Notes: White's heteroscedasticity-consistent standard errors given in brackets.

** means significant at the 5% level

*** means significant at the 1% level

The need for the presence of well-functioning economic, social and legal institutions in order to realise benefits from financial liberalisation has been stressed by various commentators, including Rodrik (1999). This is where developing and industrialised economies differ. Developing economies simply do not have the required institutional

structure to handle large movements of capital efficiently. This is supported by Edwards (2001), who came to the conclusion that the positive relationship between capital account openness and economic performance is only realised after the country in question has reached a certain degree of development, specifically, a somewhat advanced domestic financial market. He further argued that while for financially sophisticated countries an open capital account is a boon, at low levels of financial development, a more open capital account might have a negative effect on performance.

Also noteworthy from the results presented here, is that the effects of financial liberalisation on economic growth in Dominica, Grenada, St. Lucia and St. Vincent and the Grenadines were negative and highly significant. This negative impact could be due to reform policies that were not properly sequenced and coordinated, which may have greatly increased the transitional costs of financial liberalisation.

Conclusion

The paper augments the standard growth model of Lewis and Craigwell (1998) with an indicator variable for international financial liberalisation. Notwithstanding the many benefits of financial liberalisation proposed by the advocates, it appears that the process of international financial liberalisation adopted by CARICOM countries has not significantly contributed to economic growth. Such policies have left many of these countries with higher levels of foreign indebtedness and government intervention to prop up failing domestic institutions.

Since implementing its liberalisation process, Trinidad and Tobago has experienced positive current account balances and its budget deficits are under control. However, there appears to be a recurring downward pressure on the exchange rate, which frequently requires the intervention of the Central Bank. Guyana continues to experience fiscal and balance of

payments deficits and there is persistent depreciation of its exchange rate against the United States dollar. Jamaica is still grappling with macroeconomic instability (balance of payments and fiscal deficits of various magnitudes). The instability of the exchange rate and the wide spread between lending and deposit rates resulting from liberalisation policies have rendered the Jamaican economy unfavourable to investment, thus hindering economic growth.

Given the high volume of trade to GDP in CARICOM economies, financial liberalisation policies may be beneficial to these countries by providing a more competitive domestic financial sector. However, the liberalisation of the financial sector must and should be preceded by certain conditions. After these pre-conditions are met, governments need to liberalise slowly to ensure that the transitional costs of financial liberalisation are minimised. Such pre-conditions would include: a practice of fiscal discipline, prudential regulations of financial institutions to limit currency exposures and a reasonable degree of price stability.

A fitting point to conclude this study is "Never take your hands off the wheel". What this means is that some form of capital controls should be maintained, especially on short-term flows and on major capital outflows. Full capital account liberalisation often implies larger short-term borrowing, and unlike foreign direct investment, short-term capital more often than not brings few spin-off benefits.

Of course, some short-term capital, especially trade credits, is essential for the day-to-day operations of the economy, but too much can increase its vulnerability. Foreign direct investment brings with it, not just capital but also technology and market access. The overall policy should be to encourage stable, productive capital flows, while discouraging short-term 'hot money' flows. Since this study only addressed the issue of international financial liberalisation, one possible area of further research is to develop indicators of domestic financial liberalisation and combine them with the indices in this study to give an overall picture of total financial liberalisation in the

Caribbean (see for example, Bynoe-Mayers and Craigwell, 2002). Another topic for further discussion is whether there exists a proper sequence of financial liberalisation for Caribbean economies, given their structure, their dependence on foreign funds for development, the limited capacity of the domestic financial system, and the level of supervision and regulation.

References

- Bagehot W.; *Lombard Street: A Description of the Money Market*, Richard D. Irwin, Homewood, IL, 1873.
- Barajas, A., R. Steiner, and N. Salazar; Interest Spreads in Banking in Colombia, 1974-1996, *IMF Staff Papers*, Vol. 46, No. 2, June 1999, pp.129-158.
- Bekaert, G. G., R. Harvey and C. Lundbald; Emerging Equity Markets and Economic Development, NBER Working Paper , No. 77631, 2000.
- Bekaert G., C. Harvey, and C. Lundblad; Does Financial Liberalization Spur Growth? NBER Working Paper, No. 8245, 2001.
- Belford C. and K. Greenidge; Measuring Financial Liberalisation in CARICOM, *Savings and Development*, Vol. 26, No. 2, 2002.
- Bencivenga V.R.; B.D. Smith and R.M. Starr; Transactions Costs, Technological Choice, and Endogenous Growth, *Journal of Economic Theory*, Vol. 67, 1995, pp. 53-77.
- Boot, A.W.A. and A.V. Thakor; Financial System Architecture, *Review of Financial Studies*, Vol. 10, No. 3, 1997, pp. 693-733.
- Bynoe-Mayers, N. and R. Craigwell; Measuring Financial Development in Barbados: 1978-1998, *Journal of Eastern Caribbean Studies*, Vol. 27, No. 1, March 2002, pp. 48-68.
- Edward, S.; Capital Mobility and Economic Performance: Are Emerging Economies Different? NBER Working Paper, No. 8076, 2001.

- El Hadj, S. O.; Financial Liberalisation: Its Relevance and Experience in the Caribbean, *Social and Economic Studies*, Vol.46, Nos. 2 and 3, 1997, pp. 1-30.
- Fry, M.J.; *Money, Interest and Banking in Development*, Johns Hopkins University Press: Baltimore, 2nd Edition, 1995.
- Fry M. J.; Money and Capital or Financial Deepening In Economic Development, *Journal of Money, Credit and Banking*, Vol. 10, No. 4, 1978, pp. 464-475.
- Fry M.J.; In Favour of Financial Liberalisation, *Economic Journal*, Vol. 107, May 1997, pp. 754-770.
- Gilchrist, S. and C. Himmelberg; Investment, Fundamentals and Finance, *NBER Macroeconomics Annual*, 1998, pp. 223-273.
- Hubbard, G.; Capital Markets Imperfections and Investment, *Journal of Economic Literature*, Vol. 36, No. 1, 1998, pp.193-225.
- Jensen, M. and K. Murphy; Performance Pay and Top-Management Incentives, *Journal of Political Economy*, Vol. 98, 1990, pp. 225-264.
- King, R. and R. Levine; Finance, Entrepreneurship and Growth, *Journal of Monetary Economics*, Vol. 32, 1993, pp. 513-542.
- Klein, M. and G. Olivei; Capital Account Liberalisation, Financial Depth and Economic Growth, NBER Working Paper, No. 7384, October 1999.
- Klenow, P. J. and A. Rodriquez-Clare; The Neoclassical Revival in Growth Economics: Has It Gone Too Far? *NBER Macroeconomics Annual*, 1997, pp. 73-114.

- Lanyi A. and R. Saracoglu; Interest Rate Policies in Developing Countries, *International Monetary Fund, Occasional Paper*, No. 22, October 1983.
- Lensink, R. and O. Morrissey; Aid Instability as a Measure of Uncertainty and the Positive Impact of Aid on Growth, *Journal of Development Studies*, Vol. 36, No. 3, 2000, pp. 31-49.
- Levine R.; Stock Markets, Growth, and Tax Policy, *Journal of Finance*, Vol. 46, 1991, pp. 1445-1465.
- Levine R.; Financial Development and Economic Growth: Views and Agenda, *Journal of Economic Literature*, Vol. 35, No. 2, 1997, pp. 668-726.
- Lewis, D. and R. Craigwell; The Determinants of Growth in a Small Open Economy: Barbados, *Journal of Eastern Caribbean Studies*, 1998, Vol. 23, No. 2, pp. 1-29.
- McKinnon, R. I.; *Money and Capital in Economic Development*, Brookings Institution: Washington DC., 1973.
- McKinnon, R. I.; *The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy*, The Johns Hopkins University Press: U.S.A., 1997.
- Rodrik, D.; *Making Openness Work: The New Global Economy and the Developing Countries*, Overseas Development Council: Washington D.C., 1999.
- Roubini, N. and X. Sala-I-Martin; Financial Repression and Economic Growth, *Journal of Development Economics*, Vol. 39, No. 1, July 1992, pp. 5-30.

Sachs, J.D. and A.M. Warner; *Economic Reform and the Process of Global Integration, Brookings Papers on Economic Activity*, No. 1, 1995, pp. 1-118.

Sarel M.; *Demographic Dynamics and the Empirics of Economic Growth*, unpublished paper, Harvard University, 1992.

Shaw E. S.; *Financial Deepening in Economic Development*, Oxford University Press: New York, 1973.

World Bank; *World Development Report*, Oxford University Press: New York, 1989.

