A LOOK AT INWARD FOREIGN DIRECT INVESTMENT (FDI) TRANSACTIONS FOR BARBADOS

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ABSTRACT

Foreign direct investment (FDI) is defined as the holdings of 10% or more of the voting stock of a foreign enterprise. It has attracted interest from developing countries because of the benefits derived in terms of the injection of foreign exchange earnings, creation of employment opportunities and the inoculation of capital and technology. Foreign exchange is the lifeblood of the Barbadian economy while employment generation leads to a higher revenue intake through taxes. With additional tax revenue, government is placed in a better position to spend more funds to improve the country's infrastructure. The paper identifies those countries that have provided Barbados with the majority of its FDI over the years. Finally, using cointegration analysis, this paper examines the long and short run determinants of FDI inflows into Barbados for the period 1970-2003. The data indicate that in the long run, FDI is influenced by wages, prices and the investment climate, while in the short run, FDI is influenced only by wages.

Keyword: Foreign Direct Investment (FDI), wages, investment climate

1. Introduction

Foreign direct investment (FDI) is defined by the International Monetary Fund as the holdings of ten percent or more of the voting stock of a foreign enterprise. It mainly consists of equity capital, retained earnings and loans from a parent company. Unlike commercial lending, it comprises part of a package of technology and management, both of which can boost productivity. These factors commend FDI for financing in developing countries.

Despite the importance of FDI in Barbados, there has been little empirical work on this topic as it relates to that country. FDI not only boosts Barbados' foreign reserves, which are the lifeblood of the economy, but it can also generate employment in the country. As employment rises, Government's tax intake is likely to expand and with rising tax revenue, government is in a better position to use some of these funds improve the country's infrastructure. It is because of the above-mentioned reasons that a study of this nature has been undertaken.

The paper is organized as follows. Section 2 looks at a review of the literature on FDI. Section 3 focuses on FDI trends in Barbados, its composition, and the geographical origin of FDI inflows The fourth section attempts to identify possible variables that may impact on FDI both in the long and short run using regression analysis and annual data spanning from 1990 to 2003. Section 5 looks at the long and short run results of the equations and this is followed by a conclusion.

2. A Literature Review of Foreign Direct Investment (FDI)

Over the years, a significant amount of work has been done on FDI. Campbell (2003) sought to ascertain the impact of FDI on Barbados' current account between 1970-1999, using regression analysis and annual data. The result showed that FDI impacted negatively on the current account both in the short run and long run. This implied that any benefits to Barbados arising from FDI transactions would be possibly offset by imports and the repatriation of profits to abroad, thereby exerting pressure on the country's foreign reserves.

Belgrave and Ward (1997) estimated the impact of FDI on the Barbados economy using data for 255 firms over the period 1985 to 1995, with the specific reference to the manufacturing sector. They looked at the influence of foreign equity on the survival of manufacturing firms, utilizing a binary-choice probit model. The results showed that the foreign equity variable did not explain firms' survival. Even when the sample was disaggregated by sector, the same result was obtained.

Recent literature has emphasized the importance of exchange rate movements in determining FDI inflows. There was a school of thought that (expected) changes in the level of the exchange rate would not alter the decision by a firm to invest in a foreign country. While an appreciation of a firm's home country's currency would lower the cost of assets abroad, the (expected) nominal return goes down as well in the home currency, leaving the rate of return identical.

Froot and Stein (1991) used a different line of reasoning in suggesting that low values of the host country encouraged FDI. They focused on entry by acquisition and argue that currency depreciations make acquisitions by foreign firms more profitable by creating undervalued assets.

Hartman (1984) tested the impact of taxes on FDI by examining behavior of foreign affiliates in the United States of America (USA). The author was only able to gather data on host country (US) tax rates and returns, but not parent (foreign) country tax rates and returns. Thus, he separately regressed retained earnings FDI and new transfer FDI on the host country (US) tax rate, not controlling for these unobservable parent country tax rates. He found that retained

earnings FDI responded significantly to the host country tax rate as hypothesized. Transfer FDI, however, did not respond significantly to host country tax rates which could then be explained by not controlling for parent country tax rates (and differences in returns across the countries).

The literature was also consistent in arguing that FDI flows depended on the GDP (or the rate of growth of GDP) in both the home and host country. GDP in the host country was expected to attract FDI both because it suggested profitable investment opportunities and because the domestic funds for financing the investment were more readily available (Caves 1989). GDP in the home country was also important, but the direction of the effect was ambiguous. A positive relationship to FDI might be expected for two reasons: the larger the GDP, the greater was the potential number of firms that could engage in FDI; and high GPD created the liquidity to finance FDI (Grosse and Trevino, 1996). A negative relationship might be expected because high or rising GDP made domestic investment more attractive relative to foreign investments (Caves 1989).

Another strand of determinants were relative factor costs. Relative factor cost differentials are created by differences in productivity growth and differences in factor prices. The most consistent measure of relative factor cost is wages, a variable that is commonly used. Thus we expect that when wages in the host country rises relative to those in the home country, FDI is discouraged (negative sign) (Pearce 1993, Globerman 1998).

Government policies could also influence the attractiveness of the host country to foreign investors more directly through tax and regulatory initiatives. The priori expectation is that, other things being equal, increased business regulations will have the same effect by increasing the costs of doing business in the host country. Indirect policies such as screening agencies to review FDI proposals could be seen as forms of business regulation directed specifically at foreigners, thereby discouraging inward FDI. However one prominent exception was stated by Kurdle (1995) who analysed U.S FDI in Canada over time, with specific reference to the role of the Foreign Investment Review Act. He found that the Act had minimal impact on FDI inflows from the United States to Canada.

Codrington (1987) analysed the pattern of FDI inflows to Barbados between 1977 and 1985, noting that most of those flows went to public utilities, manufacturing and tourism activities. In the case of public utilities, most of the funding was provided by non-resident enterprises with a major controlling interest in the sale of telephone and electricity services. As for manufacturing, the Industrial Development Corporation was established in 1969 to attract FDI and a ten-year holiday was granted to manufacturers selling their total output outside of the Caribbean Community (CARICOM). Between 1977 and 1985, foreign ownership was most pronounced in the metals group where 83 per cent of the firms had at least 25 percent ownership. In the case of tourism, the Hotel Aids Acts of 1956 was the earliest attempt to develop the tourist industry in Barbados, exempting building materials and equipment for hotels from customs duties and permitting a seven-year tax holiday for some establishments. The formation of the Board of Tourism two years later also provided further stimulus to the industry. By 1970, North American and the United Kingdom interest controlled a large proportion of the available capacity. Fifteen years later, just over one half of the establishments had at least 25 percent ownership.

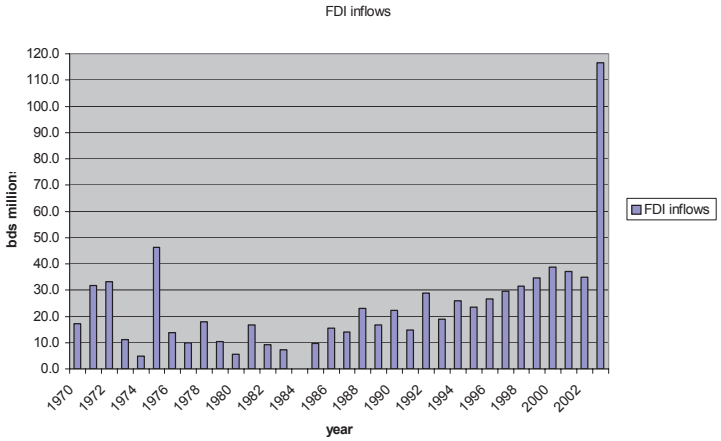
3. Trends in FDI inflows into Barbados

Over the past three decades, there have been two distinct periods of growth of FDI inflows into Barbados, from 1970 to 1975 and from 1985 to 2003. During the period 1970-1975 long-term capital inflows averaged 30 million per annum. FDI dominated these inflows, accounting for three quarters of the total, but portfolio capital was also gaining in importance. Direct investment comprised mainly of loans from parent companies to their branches and subsidiaries (62.9%) and undistributed earnings (22 %)

Although FDI inflows were less dominant compared to other investment capital inflows after 1985, their contribution to the development of Barbados still remained important. According to Codrington (1987) when details on the sectoral performance became widespread, direct investment was dominated by manufacturing and oil companies which together accounted for seventy-eight percent of the total. Between 1977 and 1985 most foreign firms were in the sub-sectors producing electronic components and clothing. They accounted 71% of direct investment in manufacturing. Firms, which assembled electronic components, attracted roughly three-fifths of branch investments and parent company loans, while producers of textiles got one-third of the reinvested earnings and accounted for nearly all market loans. Overall manufacturing attracted 10 % of all foreign capital inflows during the period and about 32% of all direct investment.

In the remaining period from 1986-2003 there was a steady increase of FDI. During this interval total FDI inflows totaled $553 million, an average of $34.5 million per year. The highest level of FDI inflows occurred in 2003 when $116.5 million was recorded (see Figure 1), more than triple the amount the previous year. This high figure occurred mainly on the strength of the acquisition of a privately held local company by a foreign institution and to a lesser extent, higher investment in branches as well as an increase in undistributed profits. Prior to 1996, investment in branches was significantly higher than undistributed earnings but after 1996, the latter accounted for more than half of FDI.

Figure 1. FDI inflows into Barbados, 1970-2003



Source: Balance of Payments, Central Bank of Barbados

According to the UNCTAD's FDI/TNC World Investment Report (2003) between 1990 and 2002, Canada has been Barbados' highest foreign direct investor investing over $100 million during the period, an average of $8.3 million dollars annually. This was followed by the USA and then United Kingdom although investment from the latter appeared to have stopped have latter stopped after 1994 (see Table 1). Other foreign direct investors during this period included China, Colombia, Germany, Malaysia and Republic of Korea.

Table 1. FDI in the host economy, by geographical origin, 1990-2002

Economy	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Canada	1252.3	2624.6	3237.4	3703.2	3636.3	4263.1	6295.3	8660.7	10986.6	12751.3	13122.9	14407.9	15126.6
China	1.3	1.3	1.3	1.3	1.3	1.3							
Colombia			0.5	0.5	0.5	1.0	1.0	1.4	1.6	1.6	1.9		
Germany									183.5	258.2	295.0	272.3	
Malaysia												128.4	128.4
Republic of Korea						0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4
United Kingdom	331.6	237.6	176.9	201.4	196.9								
United States	252.0	291.0	340.0	471.0	391.0	698.0	848.0	787.0	929.0	3030.0	2141.0	1435.0	1487.0

Source : UNCTAD, FDI/TNC database
Notes: Data are based on information reported by the economies listed above. Data for China are on a approval basis

The data in the above-mentioned Report showed that during the international recession of 1990 to 1992, foreign direct investment by Canada into Barbados expanded from 68.1% of total FDI to 86.1%. On the contrary FDI by UK declined from 18% to 4.7% while in the case of the USA, although its FDI into Barbados increased, its contribution to overall FDI was substantially slower during that period. Consequently, its FDI as a percentage of total FDI into Barbados moved downwards from 13.9% to 9.2%. China and Columbia both invested less than 1% into the Barbados Economy during these three years.

The period from the years 1993 to 2000 was a period where the Barbados economy recorded consecutive years of economic growth. During these eight years, according to Table 1, Canadian foreign direct investment grew steadily from 84.5% of total FDI into Barbados in 1993 to a height of 91.6% in 1997. FDI for continued to rise in the years that followed but its percentage of total FDI contracted to around 84% in 2000 as a result of rising FDI inflows into Barbados by other countries, especially the USA. The FDI pattern of the USA fluctuated somewhat from 10.7% in 1993, to 9.2% in 1994, then rose by five percentage points in 1995 and reached its highest rate of 18.8% of total FDI by 1999. However in the three years that followed, FDI from the USA into Barbados, fell dramatically and at end-2002, reached 13.7% of overall FDI into Barbados.

4. Identifying Variables that Impact on FDI Inflows into Barbados

(a) Model Specification and Methodology

Our model of FDI inflows may be expressed as follows

$$FDI = f(INV, W, P_{BDS}, P_{USA}) \qquad (1)$$
$$\quad\; + \quad - \quad - \quad +$$

where FDI is real foreign direct investment, INV is the investment climate in Barbados, W represents wages, P_{BDS} is the domestic price variable and P_{USA} is the foreign price variable. The signs under the explanatory variables indicate the expected relationships with the dependent variable.

This model can be rewritten as follows:

$$FDI = b_o + b_1 INV + b_2 W + b_3 P_{BDS} + b_4 P_{USA} + u_t \qquad (2)$$

The sample period for the present study is largely dictated by the availability of data. Estimates of foreign direct investment inflows into Barbados are only available from 1970 therefore this study is restricted to annual data from 1970 to 2003. FDI, the dependent variable in our regression, is foreign direct investment deflated by GDP for Barbados, which is used as a measure of real foreign direct investment.

We use Barbados' Consumer Price index to measure domestic prices and USA consumer price index as a proxy for foreign prices. The base year for both indexes is1990 and we use the consumer price index for USA as a foreign price index since the United States is one of the major investors for Barbados.[1] We expect that as P_{BDS} rises foreign direct investment should decline, likewise if P_{USA} increases we expect that Barbados could benefit from a shift in their investment abroad, hence positive relationship should occur between two variables. The wages index W is used as a proxy to measure the level of wages using 1990 as a base year. An increase in wages would discourage foreign investment to Barbados resulting in a negative relationship between the two variables.

The United Nations Conference on Trade and Development (UNCTAD (1993) has suggested that the share of investment as a percentage of GDP may provide an indication of a country's investment climate. Kurdle (1995) provides some supporting evidence in this regard. Further Globerman and Shapiro (1998) employed this variable in their study with the expectation that it should be positively related to FDI. This variable is extremely important since it takes into consideration the stability of the country, interest rates, exchange rates, tax incentives, and income of the home country. As a country's investment climate improves it makes the country more attractive to earn FDI. FDI and the investment climate should therefore move in the same direction. Exhibit 1 provides a summary of the sources of the data, the variables, their expected signs and the units of measurement used in this study.

Exhibit 1

Variable	Definition	Source	Expected signs
FDI	Real Foreign Direct investment	Balance of Payments Barbados, International Financial Statistics Yearbook (IMF)	
P_{bds}	Domestic Prices	International Financial Statistics Yearbook (IMF	-
P_{USA}	Foreign Prices	International Financial Statistics Yearbook (IMF	+
W	Wages Index	Annual Statistical Digest	-
INV	Investment Climate	Annual Statistical Digest	+

If there is a long run equilibrium relationship between FDI and the explanatory variables in equation 2 and this relationship exhibits cointegration, then the Engle Granger (1987) test can be applied This is a two stage approach which shows the following:[2] The first stage is to estimate the parameters of the cointegration equation 1 and then test for the existence of unit roots in the estimated error term. If the error term does not have unit roots, the variables are cointegrated. Engel and Granger (1987) demonstrate that if cointegration is found in a set of variables such as in equation 2 then the cointegration regression can always be transformed into an Error Correction Model (ECM) of the form.

$$\Delta FDI = b_0 + b_1\Delta INV + b_2\Delta W + b_3\Delta P_{bds} + b_4\Delta P_{USA} + \delta u_{t-1} + \varepsilon_t \qquad (3)$$

[1] The consumer price index for Canada was also considered, unfortunately, however this variable was found to be of order 2, that is I(2).

[2] This method is preferred to the Johansen (1988) maximum likelihood method because it is more powerful in small samples. For further reading, see Inder, 1993, pp 53-68.

where u_{t-1} is the estimated error from the cointegration regression (equation 1) and Δ is the first difference operator. Estimation of this dynamic specification forms the second stage of the procedure. Both stages require only ordinary least squares (OLS) estimation. The parameter u_{t-1} of expected to be negative and significant.

It is well established that macro time series data such as the ones in this study tend to exhibit either a deterministic and/or stochastic time trend and are therefore non-stationary; i.e. the variables in question have means, variances and covariances that are not time invariant. According to Engle and Granger (1987), the direct application of OLS or GLS to non-stationary data produces regressions that are misspecified or spurious in nature. Also cointegration requires that all the variables in the long run cointegration equation should integrated of the first order, that is $I(1)$, so that prior to testing for cointegration, the order of integration for each variable should be established. The unit root test used is based on the Augmented Dickey Fuller (1979) test (hereafter ADF test):

$$\Delta y_t = \alpha + \rho y_{t-1} + \beta T + \sum_{i=1}^{p} \gamma_i \Delta y_{t-i} + v_i \qquad (4)$$

where y_t is the relevant time series variable, T is a linear deterministic trend and v_t is an error term with zero mean constant variance. The ADF statistic is a test of the significance of the estimated Δ, and its critical values are given in Fuller (1976).

If the series has a unit root and the linear trend is not significant, the series contains a stochastic trend. In this case, the estimated coefficients Δ and β in equation 3 should be zero. The series needs to be differenced to achieve stationary. If the series become stationary after the first difference, the series is integrated of order one, or $I(1)$.

Phillips and Perron (1988) note that if the estimated error term in equation 3 has problems of serial correlation and heteroscedascity, the ADF statistic is invalid. If this case the Phillips-Perron (1988) unit test should be employed. Both the ADF and Phillips-Perron test were employed.

5. Results

The first test to be performed on the data is that of determining whether the different variables underpinning the empirical analysis possess a unit root. For this purpose the Augmented Dickey Fuller Test (ADF) and the Phillips Perron (PP) test for unit roots are utilized. The results from that exercise are reported in table 2. At the 5 percent level of significance, the results indicate that all of the variables are integrated of order one I (1)

Table 2: Unit Root Tests

		Augmented Dickey Fuller	
Variables	**Level**	**First Difference**	
FDI		-2.987	-10.819**
P_{BDS}		-1.601	-4.400**
P_{USA}		-1.916	-5.955**
INVES		-3.181	-4.228*
W		-1.508	-4.173**

*Note: **,* indicates significance at the 1 and 5 percent significance levels, respectively. The ADF statistic was chosen based on the Hannin-Quinn criterion. Results from the Phillips Perron test are similar except W which was $I(1)$ at the 10 percent level of significance.*

The next step in this study is to ascertain if a long run equilibrium relationship (cointegration) exists among the variables. This was done by using the cointegration test first proposed by Johansen (1988) and Juselius (1990). This method was chosen over the one

originally proposed by Engle and Granger (1987) because it is capable of determining the number of cointegrating relationships for any given number of non-stationary series, whereas the latter assumes only one cointegrated relationship. The results are reported in table 3. Based on the trace statistic, one cointegrated relationship was found among the variables. In light of one cointegration relationship the Engle Granger two-step method was applied.

Table 3: Cointegration Analysis

Cointegration test			
Null Hypothesis	$r = 0$	$r = 1$	$r = 2$
Eigenvalue	0.868	0.630	0.275
Λ *trace*	118.522	53.650	21.805
95% critical value	**76.973**	**54.079**	**35.193**

Long-run Equation					
Variable	P_{BDS}	P_{USA}	*INVES*	*W*	constant
Coefficient	-0.1469	01862	0.1085	-0.0184	-1.9489

Note: *1. r stands for the number of ranks*
2. The statistic Λtrace are Johansen's trace eigenvalue statistics for testing cointegration. The null hypothesis is in terms of the cointegration rank r and rejection of $r = 0$ is evidence in favor of at least one cointegrating vector. Max-Eigen statistics were also calculated but are not reported since they yielded the same conclusions.
3. The standard errors and t-values of the estimated regression coefficients are not reports since these statistics are not valid (see Banerjee, Dolado, Hendry and Smith, 1986)

The long run coefficients are obtained by regressing the variables in level form (see table 2). All the variables have the correct signs. Consistent with previous studies on foreign direct investment, domestic prices and wages are negatively related to FDI inflows, while the investment climate in Barbados and prices abroad will move in the same direction as FDI inflows into Barbados. The coefficients of investment climate and foreign prices suggest that these variables have the greatest impact on FDI inflows while the impact of domestic prices and wages is not as robust.

Since cointegration has been established, following Engle and Granger (1987), an error correction model (ECM) is constructed to obtain the short run determinants of FDI. Modeling the short-run dynamics will provide information concerning how adjustments are taking place among the various variables, to restore long- run equilibrium to short term disturbances. This study also uses an application of the Hendry General to Specific methodology, which begins with a model that is over parametised and using a step-wise process, eliminates all insignificant variables until a parsimonious representation of the model is obtained. This model was restricted to one lag. The results are shown in table 3. The error correction term generated from cointegrated regression is negative and significant, confirming the long-run cointegrating results and its coefficient of 0.95% suggest a swift speed of adjustment to its new long-run relationship. The only variable that impacts on FDI in the short run is the wage index. A per unit change in wages causes a 0.12 unit change in FDI inflows.

Diagnostic test indicated the presence of serial correlation and heteroskedascity, so the Newey-West method is used to obtain standard errors that are corrected for these disturbances. These results are reported in table 4. Otherwise, tests for normality and specification error suggest that the model is well specified.

Table 4: Parsimonious Error Correction Model

Error Correction Model			
Constant	0.6650		
	(2.2528)**		
	-0.1174		
W	(-2.962)**		
	-0.9540		
u_{t-1}	(-5.778)***		
Summary Statistics			
Adjusted R^2	0.457		
Standard error	1.3488		
Diagnostics Tests			
		Probability	
Normality			
Jacque-Bera Statistic		6.4464	0.3983
Serial Correlation			
Breusch Godfrey LM statistic		6.2301	0.0444
Heteroskedasticity			
White test statistic		13.9257	0.0161
Specification Error			
Ramsey's Reset		0.7546	0.3850

*1. ***(**) denotes significance at the one (five) percent levels. .*

2 t- values are shown in parentheses.

Conclusion

The paper attempts to analyse inward FDI transactions for Barbados between 1970-2003. During this period most of Barbados' FDI came from Canada. The UK played a significant role in the early years but this role waned after 1995. Investment from the USA was relatively small but started to expand around 1996 and has remained high ever since. Indeed despite Canada's dominance with regard to FDI, its ratio to total FDI has fallen somewhat because of the increase in FDI from the United States. It is also interesting to observe that countries such as China, Malaysia, Germany, Columbia and Republic of Korea have been investing in Barbados, although their share of total FDI into Barbados is small to date.

As far as identifying variables that explain FDI into Barbados, this paper shows that in the long run FDI will be influenced by the wages, the investment climate and prices, both domestic and foreign. However in the short run, the variable that impacts on FDI is the wages. As far as policy is concerned it is the interest of Barbados to maintain sound investment climate, as been the case over the years. Further, it is important for this country ensure that wages are not far out of line with its competitors. Finally, a low inflation regime is desirable if FDI into Barbados is to boosted.

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APPENDIX A

Policy Framework

Attempts to attract direct investment (FDI) into Barbados have been stimulated by dramatic changes in the Barbados' relevant institutions. The Government of Barbados has adopted several measures to ensure that these objectives can be achieved. For example, The Barbados Industrial Development Corporation (BIDC) offers investment incentives applying broadly to the manufacturing industry under the Fiscal Incentives Act 1974. Some of these incentives are as follows:

• Enclave enterprises, which manufacture solely for export outside the CARICOM area, are entitled to a 10-year tax holiday;

• Capital-intensive industries with more than $50 million capital investment are entitled to tax holidays of up to 10 years;

• Manufacturers of approved products (beneficial products for Barbados) receive tax holidays of up to 10 years; and

• Enterprises covered under these three areas can import materials free of customs duty (as long as they cannot be procured inside the CARICOM area).

Moreover, there are additional incentives covering capital allowances, dividend taxation and loss carry-forwards.

Manufacturing companies in Barbados can also benefit from several international trading treaties or conventions:

• Under the provisions of the Caribbean Basin Initiative (CBI), products made in Barbados are given complete duty-free entry into the United States market, provided that at least 35 per cent of the products appraised value originates in Barbados;

• The Lomé Convention, which covers several products and services, as imported into or provided to the European Union (EU);

• CARIBCAN, which provides duty-free access to Canada for many Caribbean products.

In addition, products which are manufactured in Barbados and satisfy certain qualifying criteria, can be exported free of customs duties to the markets of the other CARICOM member states.

NATIONAL POLICIES TOWARD INWARD FDI

I. National policy framework

Industrial Incentives (Factory Construction) Act No. 1965-29, (effective 15 July 1966)
Source: Ibid., chapter 75

Exchange Control Act 1967
Source: http://www.lowtax.net/lowtax/html/jbscfir.html, 1 March 2004

Industrial Development (Export Industries) Act No. 1969-43 as amended in 1986, (effective 4 September 1969)
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Source: *Official Gazette*, 20 February 1984

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Source: Ibid. 18 October 1982

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II. International framework
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Paris Convention for the Protection of Industrial Property 1995
Source: http://www.wipo.org/treaties/general/parties.html, 24 Feb 2004

Convention establishing the Multilateral Investment Guarantee Agency (MIGA) of 11 October 1985 signed on 5 June 1991
Source: Depository of the original convention: World Bank; *International Legal Materials*, vol. XXIV (November 1985), p. 1505

Law 170 ratifying Agreement on Trade-Related Aspects of Intellectual Property Rights 1994, (effective 1 January, 1995)General Agreement on Trade in Services 1994, (effective 1 January, 1995), Fourth Protocol to the General Agreement on Trade in Services 15 February 1997, Fifth Protocol to the General Agreement on Trade in Services 12 December 1997
The ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, adopted 16 November 1977The Caribbean Community and Common Market (CARICOM) established by the Treaty of Chaguaramas in 1973 CARICOM Enterprises Act No. 1989-27
Source: Official Gazette, 21 December 1989

2. Bilateral treaties
Bilateral investment treaties for the protection and promotion of investments with United Kingdom 1993, Germany 1994, Venezuela 1994, Italy 1995, Switzerland 1995, Canada 1996, Cuba 1996, China 1998
Source: UNCTAD database on BITs and DTTs

Bilateral treaties for the avoidance of double taxation with Denmark 1954 Income and Capital, Norway 1955 Income and Capital, Switzerland 1963 Income and Capital, United Kingdom 1970 Income and Capital, Canada 1980 Income and Capital, United States 1984 Cooperation and Exchange of Information, United States Income and Capital, Finland 1989 Income and Capital, Norway 1990 Income and Capital, Sweden 1991 Income and Capital, Netherlands 1992 Air and Sea Transport, Venezuela 1998 Income and Capital, Cuba 1999 Income and Capital, China 2000 Income and Capital, Malta 2001 Income and Capital
Source: UNCTAD database on BITs and DTTs

APPENDIX B

Table 1. Largest affiliates of foreign TNCs in the host economy, 2002
(Millions of dollars and number)

Company	Home economy	Industry
A. Industrial		
Weatherford International Ltd.	Bermuda	Petroleum
R.R. Donnelley Barbados Ltd	United States	Printing and publishing
Arawak Cement Co. Ltd	Trinidad & Tobago	Non-metallic mineral
Michael Garment Factory Ltd.	Trinidad & Tobago	Textiles
Barbados Packaging Industries Ltd.	Canada	Chemicals
Ensopack Ltd.	Finland	Printing and publishing
Bondhus Barbados, Ltd	United States	Metals
Century Pipes Ltd.	Trinidad & Tobago	Chemicals
Jewell Barbados Srl	United States	Machinery and equipment
Sunglass Hut International Inc.	Italy	Precision equipment
B. Tertiary		
Cable & Wireless Bet Ltd.	United Kingdom	Telecommunications
Ccs Information Technology Ltd	Trinidad & Tobago	Trade
Mcenearney Quality Incorporated	Trinidad & Tobago	Trade
Hilton International	United Kingdom	Hotels
Ernst & Young	United States	Other business services
Barbados Steel Works Ltd	Guyana	Trade
Falconbridge International Ltd.	Canada	Other business services
Bayer Caribbean Ltd.	Germany	Trade
Charles Mcenearney & Co. Ltd.	Trinidad & Tobago	Trade
J. W. Potter & Co.	Guyana	Trade
Vieira And Company	Trinidad & Tobago	Trade
Mcenearney Alston	Trinidad & Tobago	Other business services
Kpmg Peat Marwick	United States	Other business services
Mirage Trading Corporation	Canada	Trade
C. Finance and Insurance		
Colonial Life Insurance Ltd.	Trinidad & Tobago	Insurance
Caribbean Commercial Bank Ltd.	Trinidad & Tobago	Finance
Caribbean Insurance Co Ltd	Trinidad & Tobago	Insurance
Concorde Bank Ltd.	United Kingdom	Finance
Cibc Trust And Merchant Bank	Canada	Finance
Clbe Trust & Merchant Bank	Canada	Finance
First Cumberland Bank Inc.	Bermuda	Finance
Garrison Investments Inc.	Bermuda	Finance
Everest Re Group Ltd.	Bermuda	Insurance
Stockwood Reinsurance Co. Ltd.	Switzerland	Insurance

Sources: UNCTAD WID Country Profile: BARBADOS