

Election Induced Fiscal and Monetary Cycles: Evidence from the Caribbean*

By

Amos Peters
Economic Intelligence and Policy Unit
Caribbean Community Secretariat
P.O. Box 10827
Georgetown
Guyana
Tel: (592) 225-8850
Fax: (592) 227-4537
E-mail: amosp@caricom.org

Key Words: Elections, Least Squares, Autoregressive Conditional Heteroskedasticity

* Prepared for presentation at the XXXIII Caribbean Centre for Monetary Studies conference, Radisson Fort George Hotel, Belize City, Belize. The usual disclaimer applies.

ABSTRACT

This study examines, whether governments in the Caribbean systematically attempt to alter voter preferences through the use of fiscal and monetary policy tools prior and during election periods. We estimate a variant of the Nordhaus politico-economic model for selected Caribbean countries. Ordinary Least Squares and Autoregressive Conditional Heteroskedastic estimators are employed to empirically test this hypothesis and the results indicate, for the most part that there is little or no evidence to support the existence of election induced fiscal and monetary cycles.

1. INTRODUCTION

Newly paved roads and sidewalks, free chicken and ham, zinc and galvanise distribution, duty free concessions, and extraordinary merriness coming from the rum shops. These are all in some way characteristics of elections in the Caribbean, with a specific design and intent, and that is to alter voter preferences in favour of the incumbent.

The English speaking Caribbean is generally a model of representative and constitutional democracy, having regular electoral cycles, a phenomenon that is the exception rather than the rule in developing countries. Elections over the last couple of decades have been with few exceptions generally free and fair. This is of particular importance since in many developing countries; governments use force and intimidation to change voter preferences. Other governments rig elections, effectively rendering voter preferences irrelevant.

Caribbean countries have inherited the British Parliamentary democracy where the executive power and the legislative powers are elected jointly; and the executive power derives from the party that commands the majority in the legislature. All Caribbean countries have a minimum of two (2) political parties to contest elections.

There have been many studies, *political and economic*, that have attempted to empirically investigate the existence of politically induced cycles in macroeconomic policy instruments and outcomes in both developed and developing countries. The results have been mixed. However, in the Caribbean, this much-discussed phenomenon is an untested hypothesis.

The purpose of this paper, therefore, is to determine whether Caribbean governments systematically use *fiscal and monetary policy instruments* to enhance their re-election prospects. In the section that follows, the theory that guides the empirical estimation is outlined followed by an account of the literature. Section 3 then describes the data and

the methodology employed within the study. Section 4 presents and discusses the results of the empirical investigation and section 5 concludes the paper.

2. THEORY AND LITERATURE

According to Nordhaus (1975, 1989) governments are assumed to stimulate the economy with expansionary fiscal or monetary policy before elections, thus resulting in lower unemployment and wealth transfers that increase the popularity of the government and consequently the likelihood of re-election. In the post election period, the government stabilizes the economy through restrictive policies in order to balance the excesses of the pre-election period. The basic assumptions of political business cycle theories are that voters are myopic and the economy exhibits nominal rigidities (Rogoff: 1990). Governments, therefore, raise consumption by cutting taxes, increasing transfers, and distorting government spending toward projects with high immediate visibility (Rogoff: 1990).

Nordhaus (1975) originally assumed adaptive expectations. Persson and Tabellini (1990) and Rogoff (1990) assume rational expectations and in their models (Rational Political Business Cycles), political budget cycles arise out of temporary information asymmetries about the incumbent government's competence. The incumbent government therefore must signal its competence to voters by distorting pre-election fiscal and monetary policy toward high profile consumption expenditures.

In the Nordhaus political business cycle theories, the Phillips curve trade-off between unemployment and inflation is a critical assumption. It is presumed that incumbent governments can manipulate policy instruments at will, to select a desired unemployment and inflation co-ordinate (Howard: 2001). So a vote maximizing government would fix through policy instruments a high inflation, low unemployment co-ordinate, before elections and then after elections slide along the Phillips curve to a low inflation, high

unemployment co-ordinate. Nordhaus assumes that voters have no knowledge of the Phillips function.

Macro experience and research has shown that unemployment and inflation can exhibit a positive relationship. High unemployment co-existing with high inflation, called stagflation, is a common occurrence in developing countries. Howard (2001) points out that developing countries are commonly highly open economies, and this feature imposes additional constraints on governments to manipulate policy instruments. The two aforementioned arguments imply an imprecise trade-off between inflation and unemployment and constrained ability of governments not only to fix a desired inflation-unemployment co-ordinate but also limited ability to set either inflation or unemployment rates. If this is true for developing countries, it is particularly true for Caribbean economies, which are small and extremely open economies. Inflation as a consequence is usually imported. Exchange rate targeting, common in the Caribbean further constrains the ability of governments to fix at will a desired level of unemployment.

In the section that follows, the specification of our model attempts to account for the balance of payment constraints and administrative constraints that inhibit the ability of government to induce cycles in policy instruments.

Hibbs (1977) and Alesina (1987) present partisan models (Partisan Theory) that are based on two parties with alternative preferences over inflation and unemployment, competing for office. Partisan cycles are the consequence of this as conservative parties systematically generate lower inflation and higher unemployment than liberal parties and conversely liberal parties systematically generate lower unemployment and higher inflation. Partisan theories basically predict economic expansion at the beginning of a liberal administration and a recession at the beginning of a conservative administration. In these models voters are typically assumed to have rational expectations (Rational Partisan Theory). Partisan models are not widely applicable to developing countries because often the conservative-liberal distinction between mainstream parties does not exist, and also due to the imprecise nature of the Phillips curve function.

Howard (2001) discussed the relevance of political business cycles to developing countries. Howard (2001) agrees with Alesina (1989) that it is more useful to examine political budget cycles, examining whether the fiscal deficit deteriorated in an election year. The analysis would assume that:

1. Politicians are rational agents who seek to maximize votes;
2. Central Banks are not independent;
3. Governments cannot fix inflation-unemployment co-ordinates (i.e. the Phillips curve trade-off is not binding); and
4. There is a binding balance of payment constraint.

The above assumptions are employed in this study. This approach reduces the necessity of including business sector variables that ideally should be included in political business cycle theory, which attempts to explain away inflation and unemployment.

Central Bank independence and the underdeveloped nature of money and capital markets affect the way monetary policy works. First of all, the assumption of central bank dependence allows the study to explore the possibility of election induced monetary policy cycles, but to the extent that there is real life deviation away from this assumption, there may be no electoral cycles in money. Moreover underdeveloped, uncompetitive, low volume and inactive money and capital markets leave the functioning of the money transmission mechanism in doubt. The consequence is that monetary policy in the Caribbean is an unrefined instrument that governments may be reluctant to use. Lastly exchange rate targeting, pursued by most Caribbean countries added to external constraints, may make monetary policy to influence macro aggregates such as income and employment in the short-run, an unlikely policy instrument for governments to manipulate since there may be adverse consequences such as devaluation that can

increase inflation and unemployment and ruin any re-election prospects an incumbent might have had.

The timing of elections in some countries is endogenous. This is particularly true in the Caribbean. Incumbent governments may opportunistically decide to call general elections before the constitutionally due date, thereby risking its remaining time in office in the hope that it can win a fresh election. Sometimes the government may suffer a loss of confidence in the parliament. When governments lose their workable majority, fresh elections usually follow.

According to Rogoff's (1990) model, pre-election fiscal and monetary policy distortions are likely to be less severe under the above-mentioned circumstances than under end of term elections. The call for an early election is a signal by itself (a non-distorting one). Alternatively stated, during favourable times, an incumbent may not need to distort policy instruments by as much. In this study we do not make a distinction between early elections and end of term elections.

There have been a number of empirical studies on election induced fiscal and monetary cycles. Schuknecht (1996, 1998) finds fiscal policy cycles of the 'Nordhaus' type for a panel of developing countries. Ames (1987) focuses on seventeen Latin American countries between 1947 and 1982. His results support the proposition that governments change the composition of public spending so as to make electoral gains. Edwards (1994) studies the political business cycle in Chile over the period 1952-1973 and finds evidence to support the existence of electoral cycles. Bates (1998) examines public investment cycles in Zambia in the 1960's, and Krueger and Turan (1993) finds evidence of these cycles in Turkey. Howard (2001) observes that the fiscal deficit in Barbados has a tendency to rise in some election years but does not conclude that a definite budget cycle exists. Empirical attempts at testing for electoral cycles have in general yielded mixed results. For developing countries, the evidence is primarily anecdotal (Schuknecht: 1998). Agenor and Montiel (1996) test for electoral cycles in Columbia, Costa Rica, and

Venezuela over the period 1972-1990. Their results do not provide much evidence for fiscal policy electoral cycles in those countries.

3. DATA AND METHODOLOGY

Data and Study Area

The evaluation of the existence of election induced fiscal and monetary cycles is based on data obtained from the International Monetary Fund International Financial Statistics CD ROM and Yearbook, and the IMF Government Finance Statistics. Additional data was collected from various issues of Central Bank reports¹ and statistical bulletins. Data on elections was obtained from the political database of the America's maintained by Georgetown University. The study area consists of The Bahamas, Barbados, Belize, Guyana, Jamaica, St Vincent and the Grenadines, and Trinidad and Tobago and the sample time range is 1969-2000.

As stated earlier the Caribbean has regular election cycles, and follows the British Westminster parliamentary model, which is a representative democracy. Table 1 below illustrates the election years for the study area over the period 1969-2000.

Table 1 Election years in selected Caribbean countries: 1969-2000

Bahamas	Belize	Barbados	Guyana	Jamaica	St Vincent & G'dines	Trinidad & Tobago
1972	1969	1971	1973	1972	1972	1971
1977	1974	1976	1980	1976	1974	1976
1982	1979	1981	1985	1980	1979	1981
1987	1984	1986	1992	1983	1984	1986
1992	1989	1991	1997	1989	1989	1991
1997	1993	1994		1993	1994	1995
	1998	1999		1997	1998	2000

Source: Political Database of the America's and www.pup.org.

¹ Central Bank reports from all countries in the study area were used.

Figure 1 Government Spending and Electoral Cycles in selected Caribbean countries (annual percentage changes)

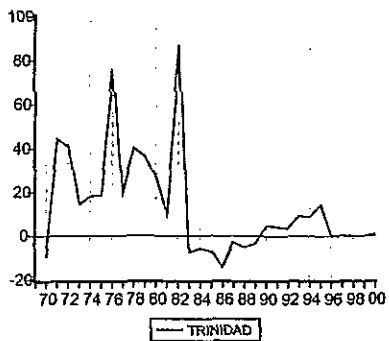
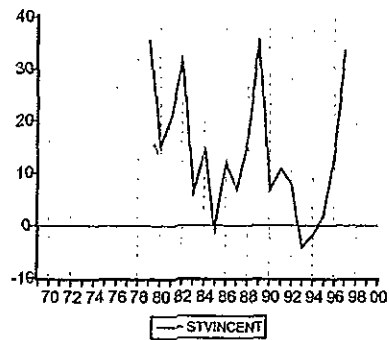
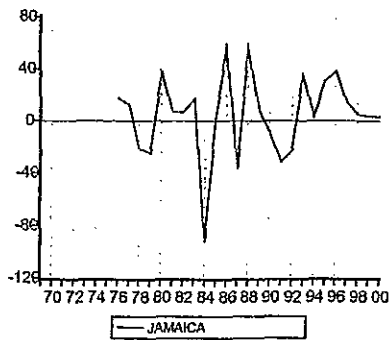
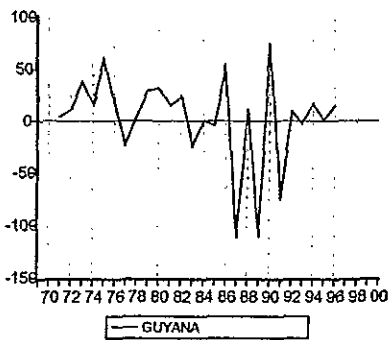
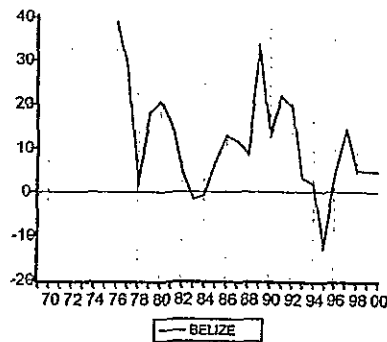
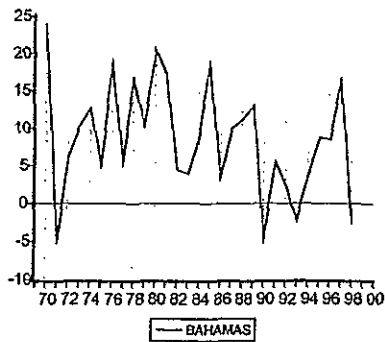
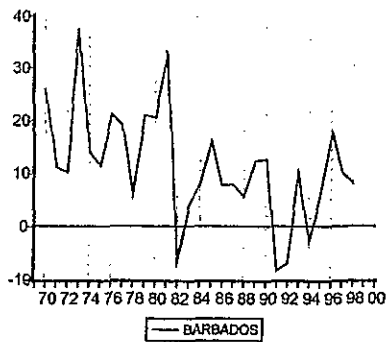


Figure 2 Money and Electoral Cycles in selected Caribbean countries (annual percentage changes)

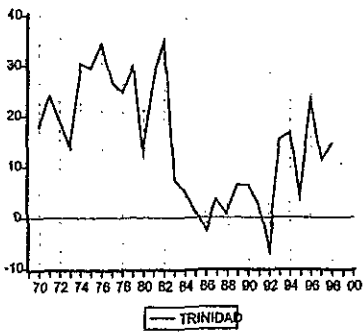
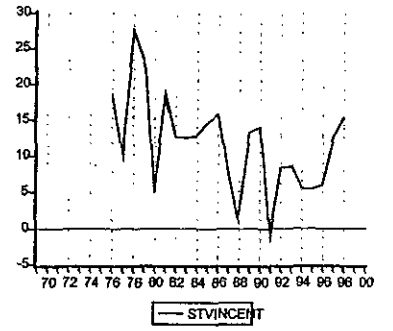
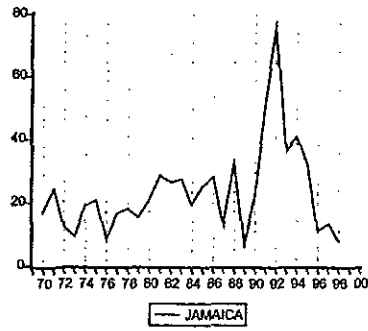
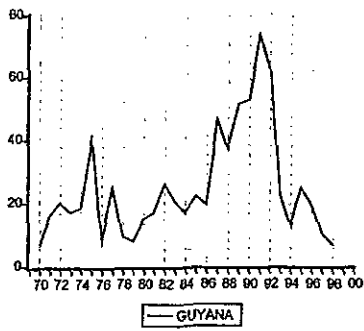
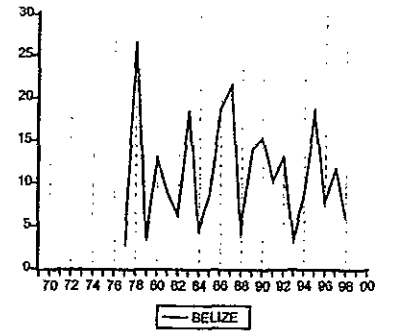
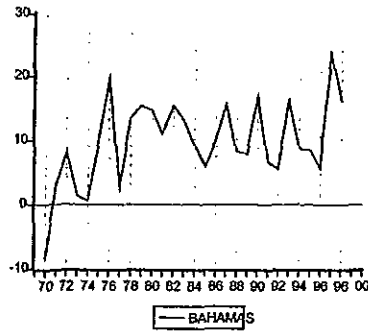
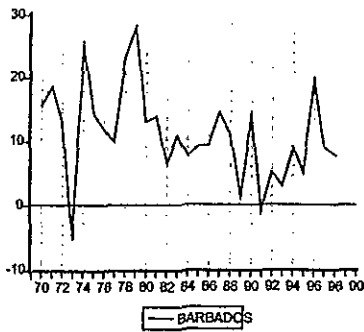


Figure 1 shows the rate of growth of public spending in the Bahamas, Barbados, Belize, Guyana, Jamaica, St Vincent and the Grenadines and Trinidad and Tobago during the period 1969-2000. Meanwhile, figure 2 shows the rate of growth of M2 for the same countries over the comparable period. No obvious pattern emerges for both expenditure and M2. There are numerous factors that affect the movement of these variables thus it is not possible to make casual inferences by observing the data. To account for other factors we use a formal econometric framework, outlined in the following sub-section.

Econometric Issues and Variables

To capture the effects of elections on macroeconomic policy tools the general regression model below is estimated,

$$y_t = \alpha_t + \beta X_t + \gamma Z_t + \varepsilon_t \quad (1)$$

where y_t represents various dependent variables at time t namely: government expenditure, current expenditure in per cent of total government expenditure, wages and salaries in per cent of total government expenditure, fiscal revenue and M2. X_t is the election variable that captures the influence of elections. Finally, Z_t is a vector of other factors such as lagged dependent variables, net foreign assets, gross domestic product, the nominal exchange rate, and fiscal revenue. All variables were tested for stationarity in levels and first differences using the Augmented Dickey Fuller test and the overwhelming majority of the variables were $I(1)$ ².

The study employs two well-known estimators and a series of statistical tests. The first estimator is the Ordinary Least Squares (OLS) estimator and the second is the Autoregressive Conditional Heteroskedasticity (ARCH) estimator (Engle: 1982). The ARCH is particularly relevant here where variances in the dependent variables are being modelled. If heteroskedastic errors exist, the ARCH estimator may be a more efficient estimator than OLS. Consider equation (2) below:

² Results not shown. In the model, all variables are either differenced or log differenced.

$$y_t = \beta' X_t + \varepsilon_t, \quad (2)$$

$$\sigma_t^2 = \alpha_0 + \alpha_1 \varepsilon_{t-1}^2,$$

where y_t , a function of exogenous variables and an error term, is the mean equation. In the equation above σ_t^2 is the variance of ε_t conditional on ε_{t-1} . By recursively correcting and updating the model, the ARCH estimates can improve on the OLS derived values.

The Dependent Variables

Following Ames (1987) and Agenor and Montiel (1996), in the first estimation, the model links movements in central government public expenditure to general elections and other economic factors. In the second estimation, government revenue is used as a dependent variable to assess whether governments forego revenue (conversely increasing disposable income of voters) on or before election periods. In a third step a hypothesis on M2 is tested to determine whether the monetary policy instruments are employed to influence voter preferences. The other dependent variables are current expenditure, capital expenditure and wages and salaries all in per cent of total government expenditure. For all variables, we take natural log difference, which is the rate of growth of the variable at time t .

The Election Variable

The election variable is a dummy that takes on the value of 1 in the current and previous year of the election, -1 in the year after an election and 0 in all other years. In this study, we only consider general elections. The motivation behind the definition of the dummy variable lies in the assumption that incumbent administrations in the year preceding an election and in the election year itself, attempt to expand the economy, whereas after the election, measures are put in place to correct the excesses of the pre-election period. This

also takes into account that within an election year, just after the election has taken place, the incumbent administration may have to reward its “friends” and “supporters” (Schuknecht: 1998). If election cycles exist, the co-efficient of this variable is expected to be positive where the estimation involves expenditure dependent variables and M2 and negative when the dependent variable is fiscal revenue.

The Z Variables

Lagged Dependent Variables: All regressions include a lagged dependent variable, and in this study, this is interpreted as the rate of change of the dependent variable in the preceding period. Generally, this is to account for policy inertia, but in the case of expenditure variables the lagged dependent variable accounts for administrative constraints since previous budgets often affect the appropriations in current budgets.

Fiscal Revenue: The rate of change of fiscal revenue in the previous period is used in the expenditure regressions. This variable represents the budget constraint. Government outlays are constrained by the financial resources available to the administration.

Net Foreign Assets: The rate of change of the net foreign assets in the previous period is used in the expenditure regressions and in the M2 regression. This represents the foreign exchange constraint that governments face, conditional on the proportion of import expenditure in total government expenditure. Expansionary fiscal and monetary policies, may increase import demand, and reduce foreign reserves, and could ultimately result in either external payment difficulty or exchange rate problems. The negative outcomes as a result of this can have diminishing effects on government popularity. Hence there is a trade off to be made by governments and this variable accounts for that.

Exchange Rate: For Jamaica and Guyana, the rate of change of the exchange rate is employed to account for increases in the dependent variable owing to currency

depreciation since significant fluctuation in the exchange rates of these two countries, would have an expansionary effect on the nominal values of the dependent variable.

4. RESULTS AND DISCUSSION

The results indicate that elections in the Caribbean do not have a systematic impact on public expenditure growth or on the growth of money. The OLS regressions in table 2³ show that the lagged growth rate of government expenditure is not significant for all countries except for Belize. Fiscal revenue however has a positive and significant effect for the Bahamas, Barbados, Belize and Guyana but for the other countries the coefficients are not significant. Net foreign assets have a positive effect on spending only in Barbados. The election dummies do not have significant coefficients. The ARCH regressions in table 3 bear similar results, with the election dummies for all countries registering statistically insignificant coefficients. The lagged dependent variables with the exception of Belize and Jamaica are not significant in any of the regressions, while the lagged growth rate of tax revenue is positively significant in the Bahamas, Barbados, Guyana and Jamaica. The net foreign asset variable in the ARCH regressions is positively significant in all the countries except St Vincent and the Grenadines. These results provide no evidence to suggest that there is an electoral cycle in government expenditures.

³ In all tables R^2 denotes the coefficient of determination, σ the estimated standard error of the regression, η (2) the Lagrange multiplier test statistic for serial correlation in the residuals of order up to 2, and $arch(1)$ the Engle test statistic for autoregressive conditional heteroskedasticity of order up to 1. *Chow* denoted the chow predictive failure test statistic for the last 2 years of the sample period.

Table 2 OLS Estimation Results: Government Expenditure

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.066** (3.288)	0.023 (0.743)	0.020 (0.785)	0.050 (1.056)	0.174** (4.417)	0.066 (1.330)	0.127* (2.060)
$\Delta \ln Exp_{t-1}$	-0.278 (-1.213)	0.069 (0.439)	0.318* (1.728)	-0.244 (-1.546)	-0.356 (-1.215)	0.362 (1.355)	-0.070 (-0.343)
$\Delta \ln Rev_{t-1}$	0.372* (2.001)	0.564** (3.077)	0.363** (3.016)	0.822** (4.156)	0.017 (0.347)	-0.033 (-0.095)	0.192 (0.783)
$\Delta \ln NFA_{t-1}$	2.8E-06 (0.086)	0.0004* (2.034)	0.0006 (1.081)	7.6E-06 (1.170)	1.8E-05 (1.592)	0.001 (0.542)	9.3E-05 (2.561)
$\Delta \ln Exch_{t-1}$	-	-	-	0.260** (2.107)	0.420* (1.736)	-	-
<i>Elec</i>	0.011 (0.618)	0.010 (0.478)	0.005 (0.238)	0.047 (0.760)	0.047 (1.152)	0.044 (1.236)	-0.122 (-1.679)
R^2	0.140	0.347	0.434	0.567	0.333	0.178	0.434
σ	0.066	0.083	0.077	0.180	0.190	0.106	0.180
$\eta(2)$	0.598	0.995	-	0.419	2.811	0.212	-
<i>arch(1)</i>	0.921	0.483	0.086	0.223	2.881	8.6E-06	1.126
<i>F</i>	0.938	3.060	2.305	5.245	1.698	0.704	2.496
<i>Chow</i>	1.090	0.519	0.131	0.270	0.113	1.291	1.158
<i>Estimation Period</i>	1971-1998	1971-1998	1979-1998	1971-1996	1977-1999	1980-1997	1971-1996

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

Table 3 ARCH Estimation Results: Government Expenditure

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.052 (8.895)	0.014 (0.493)	0.055** (5.522)	0.048 (1.250)	0.133** (8.182)	0.066 (1.565)	0.062* (1.831)
$\Delta \ln Exp_{t-1}$	-0.144 (-1.498)	0.071 (1.227)	0.317** (4.936)	-0.202 (-1.546)	-0.243** (-4.433)	0.362 (1.593)	0.130 (0.585)
$\Delta \ln Rev_{t-1}$	0.322** (2.591)	0.602** (3.607)	0.030 (0.442)	0.827** (4.774)	0.037** (2.661)	-0.033 (-0.111)	0.278 (1.318)
$\Delta \ln NFA_{t-1}$	3.96E-06 (0.213)	0.0005** (2.456)	0.001 (1.568)	8.9E-06* (1.686)	1.8E-05** (4.803)	0.0006 (0.639)	6.2E-05** (1.952)
$\Delta \ln Exch_{t-1}$	-	-	-	0.251** (2.247)	0.283** (3.830)	-	-
<i>Elec</i>	0.014 (1.740)	0.010 (0.624)	0.009 (0.567)	0.050 (0.990)	0.014 (1.263)	0.044 (1.455)	-0.047 (-0.961)
R^2	0.112	0.344	0.285	0.566	0.251	0.178	0.245
σ	0.070	0.087	0.091	0.190	0.214	0.116	0.1186
<i>F</i>	0.442	1.836	1.127	3.348	0.720	0.397	1.189
<i>Estimation Period</i>	1971-1998	1971-1998	1977-2000	1971-1996	1971-1998	1977-1998	1971-1998

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

Tables 4 and 5 present the estimation results of the monetary regressions. Both the OLS and ARCH regressions yield similar results. In the OLS regressions, the lagged dependent variable is positively significant in Jamaica and Trinidad and Tobago but exhibits a 'wrong' sign for Belize where the coefficient was negative and significant. For the same regressor the ARCH regressions yielded positive and significant coefficients for Jamaica, St Vincent and Trinidad. Net foreign assets have a positive effect in Belize and Trinidad and a negative effect in Guyana. The election dummy coefficients are without exception all statistically insignificant, thus indicating that there is no statistical evidence to support the existence of electoral cycles in M2 and by extension in monetary policy.

Next we return to the other aspects of fiscal policy. Governments it is hypothesized use tax policy in addition to expenditure policy to influence macroeconomic outcomes and consequently the structure and form of voter preferences. They can do this by reducing tax rates or by purposely applying taxes in a way that minimizes revenue collection and enhances disposable income. Governments may sometime waive taxes or forego revenues in order to increase the disposable income of voters and sway voters to their camp. In tables 6 and 7, the growth rate of fiscal revenue is applied as the dependent variable to test whether electoral cycles exist in fiscal revenue. In tables 6 and 7, the lagged dependent variables were positively significant only for Trinidad and Tobago. In table 6, net foreign assets have negligible effect on the growth of revenue but in table 7, for Barbados and the Bahamas, net foreign assets has a positive and significant impact on the growth of revenue. In these regressions gross domestic product is introduced as a regressor, since revenue growth is believed to depend heavily on the rate of expansion of the economy and the associated levels of economic activity. We find that in the OLS estimation GDP has a significant positive impact on revenue growth in Barbados, Belize, Guyana and Trinidad whereas in the ARCH estimation, GDP is positive and significant in all countries except Jamaica. The election dummy coefficients are not significant although many of them exhibit the correct negative sign. Table 7 shows that St Vincent is an exception where the election dummy coefficient is negative and significant. The results do not provide much evidence of an electoral cycle in fiscal revenue either.

Table 4 OLS Estimation Results: M2

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.083** (4.275)	0.098** (3.370)	0.163** (6.494)	0.155** (5.404)	0.088** (2.521)	0.077** (3.290)	0.068** (2.039)
$\Delta \ln M2_{t-1}$	0.165 (1.015)	0.026 (0.104)	-0.569** (-2.491)	0.075 (0.514)	0.440** (2.318)	0.247 (1.305)	0.475** (2.287)
$\Delta \ln NFA_{t-1}$	6.9E-06 (0.311)	1.8E-05 (0.125)	0.0006 (1.547)	-7.7E-06** (-4.403)	-3.6E-06 (-0.677)	-0.0006 (-0.829)	2.6E-05* (1.651)
$\Delta \ln Exch_{t-1}$	-	-	-	0.267** (7.895)	0.202 (1.593)	-	-
<i>Elec</i>	-0.0004 (-0.026)	0.002 (0.139)	0.003 (0.187)	-0.013 (-0.953)	0.008 (0.360)	0.021 (1.267)	-0.026 (-1.175)
R^2	0.045	0.002	0.319	0.783	0.411	0.125	0.415
σ	0.053	0.071	0.051	0.065	0.092	0.061	0.085
η (2)	1.016	0.539	2.187	3.825	1.301	1.065	3.235
<i>arch</i> (1)	0.001	0.795	0.352	2.420	0.035	0.837	
<i>F</i>	0.376	0.014	2.659	18.905	4.017	0.857	5.5679
<i>Chow</i>	2.403	0.455	0.973	0.441	0.560	0.361	0.844
<i>Estimation Period</i>	1971- 1998	1971- 1998	1978-1998	1971-1996	1971- 1998	1977- 1998	1971- 1998

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

Table 5 ARCH Estimation Results: M2

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.084** (4.618)	0.090** (3.941)	0.167** (7.739)	0.155** (5.733)	0.053** (2.144)	0.080** (17.382)	0.071** (2.296)
$\Delta \ln M2_{t-1}$	0.165 (1.089)	0.008 (0.039)	-0.662** (-4.202)	0.075 (0.665)	0.631** (5.916)	0.273** (3.179)	0.467** (2.455)
$\Delta \ln NFA_{t-1}$	6.6E-06 (0.318)	6.7E-05 (0.456)	0.001* (1.860)	-7.7E-06** (-5.694)	-4.1E-06 (-1.516)	-0.0001 (-0.671)	2.6E-05* (1.846)
$\Delta \ln Exch_{t-1}$	-	-	-	0.267** (9.706)	0.045 (0.691)	-	-
<i>Elec</i>	0.0002 (0.015)	0.002 (0.167)	-0.008 (-0.595)	-0.013 (-0.970)	-0.004 (-0.239)	0.030** (7.17)	-0.027 (-1.343)
R^2	0.044	-0.019	0.254	0.783	0.296	0.053	0.415
σ	0.056	0.075	0.057	0.068	0.105	0.067	0.089
<i>F</i>	0.206	-	1.022	11.403	1.471	0.179	3.121
<i>Estimation Period</i>	1971- 1998	1971- 1998	1978- 1998	1971-1996	1971- 1998	1977- 1998	1971- 1998

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

Table 6 OLS Estimation Results: Government Revenue

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.045** (1.834)	0.076** (4.031)	0.010 (0.421)	0.009 (0.254)	-0.080 (-0.518)	0.068 (1.644)	-0.004 (-0.107)
$\Delta \ln Rev_{t-1}$	0.230 (0.913)	-0.163 (-1.041)	-0.453 (-1.186)	0.022 (0.132)	0.197 (1.074)	0.129 (0.305)	0.296** (2.033)
$\Delta \ln NFA_{t-1}$	4.6E-05 (1.605)	0.0002 (1.413)	-6.9E-05 (-0.156)	-5.8E-06 (-1.419)	-4.6E-06 (-0.146)	0.0008 (0.850)	-1.9E-05 (-0.931)
$\Delta \ln GDP_{t-1}$	0.271 (1.224)	0.419** (2.096)	1.159** (2.404)	1.311** (6.410)	1.792 (0.982)	0.284 (0.344)	0.777** (2.153)
$\Delta \ln Exch_{t-1}$	-	-	-	-0.449** (-3.297)	-0.399 (-0.311)	-	-
<i>Elec</i>	-0.014 (-0.584)	0.002 (0.140)	0.016 (0.568)	-0.025 (-0.794)	-0.252 (-1.303)	-0.028 (-0.943)	0.034 (0.721)
R^2	0.233	0.250	0.347	0.850	0.113	0.180	0.43
σ	0.064	0.077	0.075	0.106	0.744	0.090	0.157
$\eta (2)$	0.330	1.966	-	0.022	2.982	3.385	5.183
<i>arch (1)</i>	0.0006	0.002	1.262	0.316	0.120	0.866	0.390
<i>F</i>	1.291	1.922	1.328	22.710	0.409	0.713	4.132
<i>Chow</i>	1.005	0.169	0.126	0.736	0.144	0.413	0.068
<i>Estimation Period</i>	1974- 1995	1971- 1998	1979- 1997	1971- 1996	1977- 1998	1980- 1997	1971- 1997

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

Table 7 ARCH Estimation Results: Government Revenue

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.047** (3.458)	0.066** (3.864)	0.036 (0.790)	0.066 (1.231)	0.170 (1.173)	-0.030* (-1.977)	-0.008 (-0.342)
$\Delta \ln Rev_{t-1}$	0.060 (0.531)	-0.185 (-1.298)	0.044 (0.546)	-0.293 (-0.808)	0.563 (1.505)	-0.038 (-0.369)	0.425** (3.202)
$\Delta \ln NFA_{t-1}$	6.8E-05** (3.435)	0.0003** (2.467)	0.001 (0.783)	1.7E-06 (0.270)	-2.7E-05 (-1.023)	0.0003 (0.734)	-1.2E-06 (-0.091)
$\Delta \ln GDP_{t-1}$	0.283** (2.138)	0.538** (3.685)	0.208 (0.559)	0.683** (3.314)	0.803 (0.947)	1.497** (7.125)	0.739** (1.975)
$\Delta \ln Exch_{t-1}$	-	-	-	0.470** (3.235)	-0.384 (-0.576)	-	-
<i>Elec</i>	0.002 (0.232)	-0.010 (-0.844)	-0.019 (-0.372)	-0.054 (-0.816)	-0.150 (-0.599)	-0.040** (-4.049)	-0.044 (-1.339)
R^2	0.101	0.375	0.045	0.572	-0.149	0.602	0.274
σ	0.074	0.074	0.211	0.189	0.874	0.067	0.182
<i>F</i>	0.282	2.103	0.126	3.439		3.023	1.321
<i>Estimation Period</i>	1974- 1995	1971- 1998	1979- 1997	1971- 1996	1977- 1999	1980- 1997	1971- 1997

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

The composition of government expenditure can present opportunities for electoral cycles as well, even if total expenditure does not exhibit such a cycle. Governments may bias pre-election spending to current expenditures and away from capital investment (Rogoff: 1990). The evidence in the literature is extremely scarce. Ames (1987) states that in Costa Rica the share of government wages rose before every election with the exception of the 1965 election. The following tables examine fiscal cycles in the composition of government expenditure. Within the context of the Caribbean, Rogoff's (1990) hypothesis that incumbent administrations shift expenditure away from capital expenditures to current, transfer-type expenditures may not be wholly applicable. Caribbean governments may not possess the flexibility to do this systematically, because the capital budget is usually funded from donor or lending sources that are keen on the appropriation of expenditures. Limited amounts are funded by current account surpluses, which may give the governments limited discretion to re-allocate resources.

Table 8 OLS Estimation Results: Capital Expenditure

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	-0.174 (-1.539)	-0.047 (-0.713)	-0.008 (-0.028)	-0.013 (-0.112)	-0.518 (-1.054)	-0.085 (-0.310)	-0.237** (-3.075)
$\Delta \ln \text{CapExp}_{t-1}$	0.076 (0.381)	-0.018 (-0.111)	0.050 (0.206)	-0.107 (-0.743)	-0.458 (-0.491)	-0.029 (-0.152)	-0.632 (-1.232)
$\Delta \ln \text{GDP}_{t-1}$	2.249* (1.907)	0.550 (1.283)	0.105 (0.036)	1.322** (2.020)	1.553 (0.494)	2.018 (0.795)	1.587 (0.748)
$\Delta \ln \text{Exch}_{t-1}$	-	-	-	-1.459** (-3.077)	-0.240 (-0.135)	-	-
<i>Elec</i>	0.107 (1.307)	-0.019 (-0.358)	-0.001 (-0.010)	-0.029 (-0.360)	0.160 (1.027)	-0.014 (-0.073)	0.010 (0.045)
R^2	0.416	0.067	0.010	0.385	0.392	0.038	0.381
σ	0.27	0.206	0.202	0.334	0.315	0.450	0.305
$\eta (2)$	0.249	2.393	-	2.308	20.611	1.269	-
<i>arch (1)</i>	0.994	0.185	0.802	1.520	0.689	0.478	0.062
<i>F</i>	2.611	0.573	0.016	3.291	0.644	0.145	1.027
<i>Chow</i>	2.052	1.075	1.234	0.031	1.220	5.842	-
<i>Estimation Period</i>	1981- 1995	1971- 1998	1985- 1997	1971- 1996	1990- 1998	1983- 1997	1982- 1995

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

In table 8 and 9, we examine electoral cycles in capital expenditure. The OLS regressions in table 8 show that elections have no significant effect on capital expenditure. For

Guyana the growth in GDP did have a positive and significant impact on capital expenditure growth but all other regressors for all countries were insignificant. In the ARCH regressions, GDP growth registered positive impacts for the Bahamas, Jamaica, and Trinidad in addition to Guyana whereas the lagged dependent variable had a negative impact in Jamaica. In Jamaica the election dummy has a positive and highly significant impact on the growth of capital expenditure. Again the evidence to support electoral cycles in government expenditure is scant.

Table 9 **ARCH Estimation Results: Capital Expenditure.**

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	-0.089* (-1.800)	-0.054 (-0.956)	0.175 (1.160)	0.047 (0.741)	-0.303** (-3.311)	0.006 (0.019)	-0.279** (-3.225)
$\Delta \ln CapExp_{t-1}$	0.129 (1.479)	-0.077 (-0.774)	-0.048 (-0.468)	-0.124 (-1.285)	-0.361** (-3.156)	-0.128 (-1.597)	-0.223 (-1.407)
$\Delta \ln GDP_{t-1}$	1.279* (1.713)	0.612 (1.246)	-1.321 (-1.321)	0.456** (2.553)	0.537** (2.448)	0.572 (0.171)	3.059** (3.554)
$\Delta \ln Exch_{t-1}$	-	-	-	-0.651 -3.396	0.332 1.347	-	-
<i>Elec</i>	0.045 (1.066)	-0.020 (-0.382)	0.027 (0.403)	-0.114 (-1.504)	0.198** (6.097)	-0.058 (-0.396)	-0.057 (-0.623)
R^2	0.187	0.108	0.162	0.301	0.266	-0.008	0.079
σ	0.306	0.211	0.364	0.374	0.411	0.509	0.499
<i>F</i>	0.459	0.534	0.270	1.362	0.182	-	0.138
<i>Estimation Period</i>	1981- 1996	1971- 1998	1985- 1997	1971- 1996	1990- 1998	1983- 1997	1982- 1995

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

The tables that follow report the estimation results of an econometric model that relates the logarithm of total current expenditure and a subset of it, wages and salaries, in per cent of total government spending to their respective lagged dependent variables, the current rate of economic growth and the election dummy. The estimation results do not yield further evidence of electoral cycles. The election dummy in the ARCH wages regression is only positive and significant for Barbados. All the other regressions have insignificant election dummy coefficients. For current expenditure estimation results in table 10 and 11, there are some significant election dummy coefficients for Barbados, Jamaica and Guyana but the signs for Barbados and Jamaica are negative, contrary to prior expectations.

Table 10 OLS Estimation Results: Current Expenditure

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.030** (2.427)	0.007 (0.391)	0.030 (0.618)	-0.008 (-0.125)	0.054 (0.784)	0.014 (0.326)	0.067** (2.522)
$\Delta \ln \text{CurExp}_{t-1}$	-0.513* (-1.860)	-0.347** (-2.467)	-0.257 (-0.896)	-0.176 (-0.896)	-0.527 (-0.982)	0.423* (1.833)	-0.408** (-2.106)
$\Delta \ln \text{GDP}_{t-1}$	-0.475** (-2.469)	0.021 (0.226)	-0.333 (-0.589)	-0.454 (-1.241)	-0.105 (-0.195)	-0.143 (-0.334)	-0.2777 (-0.550)
$\Delta \ln \text{Exch}_{t-1}$	-	-	-	0.531* (1.850)	-0.012 (-0.039)	-	-
<i>Elec</i>	-0.012 (-1.354)	-0.038** (-2.606)	0.025 (0.522)	0.019 (0.431)	-0.034** (-1.969)	-0.038 (-1.690)	-0.004 (-0.074)
R^2	0.461	0.318	0.236	0.300	0.357	0.268	0.161
σ	0.038	0.054	0.105	0.171	0.054	0.067	0.072
$\eta (2)$	1.010	1.189	-	1.629	29.176	0.085	-
<i>arch (1)</i>	0.313	0.960	0.466	3.371	0.693	0.231	0.489
<i>F</i>	3.135	3.725	1.027	2.254	0.555	1.341	0.320
<i>Chow</i>	1.022	1.360	1.018	0.087	0.056	0.711	795.488
<i>Estimation Period</i>	1981- 1995	1971- 1998	1980- 1997	1971- 1996	1990- 1998	1983- 1997	1982- 1995

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

Table 11 ARCH Estimation Results: Current Expenditure

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>StVincent</i>	<i>Trinidad</i>
<i>Constant</i>	0.015* (1.980)	-0.001 (-0.285)	-0.010 (-0.438)	-0.088** (-4.466)	0.024 (1.182)	0.054 (1.429)	0.037** (2.661)
$\Delta \ln \text{CurExp}_{t-1}$	-0.290** (-3.467)	-0.260** (-3.395)	-0.134 (1.510)	-0.039 (-0.588)	-0.402** (-2.186)	0.303** (3.376)	-0.057 (-0.483)
$\Delta \ln \text{GDP}_{t-1}$	-0.117 (-1.464)	-0.069** (-2.742)	-0.142 (-1.633)	-0.007 (-0.269)	0.022 (0.197)	-0.564 (-1.220)	-0.186 (-0.740)
$\Delta \ln \text{Exch}_{t-1}$	-	-	-	0.154** (8.697)	-0.056 (-1.274)	-	-
<i>Elec</i>	-0.011 (-1.226)	-0.044** (-14.566)	0.033** (3.964)	0.071** (3.943)	-0.039** (-3.569)	-0.026 (-1.397)	-0.012 (-0.626)
R^2	0.117	0.192	0.084	0.088	0.321	0.350	-
σ	0.051	0.061	0.128	0.205	0.064	0.070	-
<i>F</i>	0.265	1.052	0.220	0.305	0.236	0.969	-
<i>Estimation Period</i>	1981- 1995	1971- 1998	1980- 1997	1971- 1996	1990- 1998	1983- 1997	1982- 1995

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

Table 12 OLS Estimation Results: Wages

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>Trinidad</i>
<i>Constant</i>	0.027 (0.995)	0.006 (0.762)	-0.080 (-0.566)	0.022 (0.314)	0.103 (0.405)	0.028 (.730)
$\Delta \ln Wages_{t-1}$	-0.423* (-1.725)	0.085 (0.550)	0.496 (1.059)	0.068 (0.325)	-0.549 (-1.538)	-0.258 (-0.828)
$\Delta \ln GDP_{t-1}$	-0.281 (-1.223)	-0.023 (-0.114)	0.949 (0.508)	-0.480 (-1.211)	0.233 (0.125)	-0.095 (-0.083)
$\Delta \ln Exch_{t-1}$	-	-	-	0.312 (0.979)	-0.759 (-0.709)	-
<i>Elec</i>	-0.017 (-0.996)	0.018 (1.451)	0.027 (0.346)	0.019 (0.368)	-0.021 (-0.328)	-0.009 (-0.126)
R^2	0.177	0.095	0.158	0.087	0.651	0.047
σ	0.058	0.022	0.107	0.214	0.220	0.140
$\eta (2)$	4.884	1.804	0.271	0.615	1.574	
<i>arch (1)</i>	0.002	0.547	9.731	0.983	0.411	0.372
<i>F</i>	0.790	0.313	0.250	0.499	1.862	0.083
<i>Chow</i>	3.188	3.85	0.303	0.540	0.264	3.431
<i>Estimation Period</i>	1981-1985	1986-1998	1990-1997	1971-1996	1990-1998	1982-1995

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote t statistics.

Table 13 ARCH Estimation Results: Wages

	<i>Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Guyana</i>	<i>Jamaica</i>	<i>Trinidad</i>
<i>Constant</i>	0.007 (0.580)	-0.008 (-1.066)	-0.071** (-2.477)	0.022 (0.877)	-0.081 (-1.133)	0.046** (7.160)
$\Delta \ln Wages_{t-1}$	-0.186** (-2.239)	0.137 (1.222)	0.594** (5.248)	0.139* (1.763)	-0.460** (-3.122)	-0.202** (-3.679)
$\Delta \ln GDP_{t-1}$	-0.016 (-0.124)	0.189 (1.255)	0.941** (3.322)	-0.241** (-5.399)	0.904** (2.152)	-0.457** (-6.357)
$\Delta \ln Exch_{t-1}$	-	-	-	0.080 (0.636)	-0.779** (-2.355)	-
<i>Elec</i>	-0.022 (-1.589)	0.019** (2.059)	0.003 (0.245)	0.021 (0.572)	-0.058 (-1.176)	-0.025** (-2.575)
R^2	0.067	0.125	0.075	0.067	0.715	0.160
σ	0.065	0.055	0.158	0.227	0.232	0.102
<i>F</i>	0.145	0.199	0.033	0.229	1.253	0.420
<i>Estimation Period</i>	1981-1996	1986-1998	1990-1997	1971-1996	1990-1999	1982-1998

Note: * - significant at the 10% level, ** - significant at the 5% level. Numbers in parentheses denote z statistics. Variance equations are not presented.

5. CONCLUSION

The results refute the hypothesis that incumbent governments in the Caribbean systematically use fiscal and monetary policy instruments to increase their popularity and win elections. Moreover, the findings provide no evidence that governments shift the composition of government expenditure prior or during election periods. Agenor and Montiel (1996) and Alesina et al (1993) in their respective studies of electoral cycles in developing countries also derive inconclusive results that provide little evidence to support the existence of electoral cycles. In fact Agenor and Montiel (1996) suggest that the lack of robust statistical results might reflect the fact that governments do not use policy instruments systematically but only when election outcomes appear highly uncertain. Frey and Schneider (1978) estimate a popularity function where the governments lead over the opposition is determined by the state of the economy⁴. They argue that governments only alter policy instruments when the lead over the opposition or popularity level is at a critically low level. Ideally this would have been an interesting model to estimate for Caribbean countries, but since polling is not yet a common feature of Caribbean elections, data constraints prohibit this type of analysis.

Ames (1987) argues that election cycles may exist in developed countries with pluralist regimes where incumbent may use policy instruments to create favourable macroeconomic co-ordinates such as high output and low unemployment, while incumbent administrations in developing countries are concerned with recruitment and maintenance of followers. Therefore political survival is based on the continual maintenance of constituency claims. This may bear some relevance to the Caribbean. In this case, election periods only add marginal pressure to incumbent administrations. Under this scenario, public spending would be under fairly steady pressure throughout a political cycle and would not experience inordinate upward pressure prior to elections.

⁴ The price levels, the unemployment rate, growth in real personal disposable income were all measures of the state of the economy. The popularity index was also regressed on popularity lagged one period, an election dummy and a dummy variable to measure depreciation of the government's popularity.

Howard (2001) states that output and employment in Caribbean economies is determined by numerous seasonal and external factors affecting exports of sugar, bananas, petroleum, bauxite and tourism services so in election years governments may not have the ability to off set recessionary factors affecting exports and may resort simply to satisfying the demands of rent seekers. This is not likely to have impacts on expenditures sufficient to induce budget cycles.

Additional considerations relating to monetary policy are the independence of central banks and the exchange rate policy of Caribbean governments. Independent central banks can severely reduce the ability of elections to induce monetary policy cycles since the whole rationale behind independent central banks is to eliminate or reduce tendencies by governments to borrow (new money) excessively, thereby creating rapid money growth and negative long-run inflationary consequences. Caribbean countries, with fixed or floating exchange rate regimes typically pursue exchange rate targets, using the exchange rate as a policy instrument to maintain macroeconomic stability, particularly low inflation and balance of payments stability. Exchange rate policy, however, constrains the ability of the authorities to employ monetary policy since pursuing money expansion can possibly jeopardize the achievement of an exchange rate goal or target. Underdeveloped money and capital markets make the money transmission mechanism even more uncertain, rendering the existence of monetary cycles in the region less likely.

Finally, while Caribbean governments may actually manipulate policy instruments to influence election outcomes, the results of the paper indicate that this is not a systematic occurrence. There may be many constraints not sufficiently accounted for by the regression models presented that make manipulation of policy instruments difficult. Since the estimation of politico-economic models involves considerable non-sample information, we suggest that frequentist estimation procedures may not be the most appropriate. For future research, Bayesian statistical inference may be the best framework for efficiently using all available information (sample and non-sample).

REFERENCES

- Agenor, Pierre-Richard and Peter J. Montiel, *Development Macroeconomics*, Princeton, 1996.
- Alesina, Alberto., (1987), 'Macroeconomic Policy in a Two-Party System as a Repeated Game', *Quarterly Journal of Economics*, 102, 641-678.
- Alesina, Alberto, Gerald D. Cohen, and Nouriel Roubini, (1993), 'Electoral Business Cycle in Industrial Democracies', *European Journal of Political Economy*, 9(March), 1-23.
- Alesina, Alberto., (1989), 'Politics and business cycles in industrial democracies', *Economic Policy*, 8 (April).
- Ames, Barry, (1987), *Political Survival: Politicians and Public Policy in Latin America*, Berkeley: University of California Press.
- Bank of Guyana, *Annual Report*, 1988.
- Bank of Guyana, *Statistical Bulletin*, Sept 1997.
- Bank of Jamaica, *Statistical Digest*, December 1994.
- Bank of Jamaica, *Statistical Digests*, April 2000 and May 2001.
- Bates, R., (1988), 'Governments and Agricultural Markets in Africa', in Bates, R. (ed.), *Toward a Political Economy of Development: A Rational Choice Perspective*, Berkeley, University of California Press.
- Central Bank of Bahamas, *Quarterly Statistical Digest*, Vol. 18, no 4, December 1991.

Central Bank of Bahamas, *Quarterly Statistical Digest*, Vol. 4, no 2, May 1995.

Central Bank of Bahamas, *Quarterly Statistical Digest*, Vol. 9, no 2, May 2000.

Central Bank of Barbados, *Annual Statistics Digest*, 2000.

Central Bank of Belize, *Statistical Digest*, November 1990

Central Statistical Office, Belize, *Abstract of Statistics*, 1994.

Edwards, Sebastian, (1994), 'The Political Economy of Inflation and Stabilization in Developing Countries', *Economic Development and Cultural Change*, 42, 235-66.

Engle, Robert F. (1982) 'Autoregressive Conditional Heteroskedasticity with Estimates of the Variance of U.K. Inflation,' *Econometrica*, 50, 987-1008.

Frey, B.S., and F. Schneider, (1978), 'A politico-economic model of the United Kingdom', *Economic Journal*, 88 (June).

Greene, William H., (1997), *Econometric Analysis (Third eds)*, Prentice Hall, New Jersey.

Hibbs, D., (1977), 'Political Parties and Macroeconomic Policy', *The American Political Science Review*, 7, 1467-87.

Howard, Michael, (2001), *Public Sector Economics for Developing Countries*, University of the West Indies Press, Jamaica.

IMF, *Government Finance Statistics*, 1994.

IMF, *Government Finance Statistics*, 2000.

IMF, *International Finance Statistics CD ROM*, 1999

IMF, *IFS Yearbook*, Vol. LIII 2000.

Krueger, A. and I Turan, (1993), The Politics and Economics of Turkish Policy Reform in the 1980's, in Bates, R. and Krueger, A.O. (eds.), *Political and Economic Interactions in Economic Policy Reform: Evidence from Eight Countries*, Oxford, Blackwell.

Nordhaus, W. (1975), 'The Political Business Cycle', *Review of Economic Studies*, 42, 169-190.

Nordhaus, W. (1989), 'Alternative Models to Political Business Cycles', *Brookings Papers on Economic Activity*, The Brookings Institution, 2, 1-50.

Persson, T. and G. Tabellini, (1990), *Macroeconomic Policy, Credibility and Politics*, Chur, Harwood Academic Publishers.

Political Database of the Americas (1999) Bahamas, Barbados, Belize, Guyana, Jamaica, St Vincent and the Grenadines, and Trinidad and Tobago : Various Parliamentary Elections 1969-2000. [Internet]. Georgetown University and the Organization of American States. In:

<http://www.georgetown.edu/pdba/Elecdata.html>. 23 October 19, 2001.

Rogoff, Kenneth, (Mar., 1990), 'Equilibrium Political Budget Cycles', *American Economic Review*, Volume 80, Issue 1, 21-36

Schuknecht, Ludger. (1996), 'Political Business Cycles and Fiscal Policies in Developing Countries', *Kyklos*, 49, 155-170.

Schuknecht, Ludger (April., 1998), Fiscal Policy Cycles and the Public Expenditure in Developing Countries, *WTO Staff Working Paper*, ERAD-9806.

[Www.pup.org/saidmusa.htm](http://www.pup.org/saidmusa.htm)