Determinants of Foreign Direct Investment in Nigeria "Evidence from Co-Integration and Error Correction Modeling"

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Abstract

This study investigates the determinants of Foreign Direct Investments (FDI) in the Nigerian economy using annual time series data for the periods 1970 to 2010. Utilizing the Error Correction Modeling (ECM) technique, the results show that the major determinant of foreign capital inflow in the economy is the ratio of external debt to Gross Domestic Product both in the short run and long run. However, some factors such as the size of the national income, the degree of openness to trade, the existing stock of foreign capital in the previous period, inflation rate and exchange rate are well maintained through to the long run. The study recommends that government should place less emphasis on policies that encourage external borrowing and embrace those that strengthen and stabilize the economy: such policies are those designed to maintain price and exchange rates stability, reduction in fiscal deficit, increase in domestic investments and the diversification of the economy for export trade among others. These are crucial to foreign capital inflow to the economy.

Keywords: Foreign Direct Investment, Cointegration, Error Correction Modeling

1. Introduction

Part of the glaring features of underdevelopment is the low rate of capital formation occasioned by low rate of savings as well as low human capital formation and underutilization. Given this backdrop, there is little wonder that the last few decades have witnessed a phenomenal upsurge in the flow of foreign direct investment (FDI) to developing countries. The low income countries in their developmental process are becoming increasingly conscious of the fact that FDI is a major stimulus to economic growth given the inadequacy of financial resources, technology and skills. Several other reasons can be adduced for the dramatic increase in the flow of FDI to developing countries. These include low levels of domestic savings, underdeveloped financial sector as evidenced in the limited capacity to harness domestic financial resources among other factors. Furthermore, the new wave of globalization, has added more impetus to the flow of FDI to the host countries.

Admittedly, the last few decades, have been characterized by intensive research on the determinacy and growth enhancing effects of FDI. Agiomirgianakis, Asteriou and Papathoma (2003) defined FDI broadly as capital flows resulting from the behavior of multinational companies (MNCs).

They argue that MNCs expand their activities abroad for a variety of reasons including, among others, exploitation of economies of scale/scope. On the other hand, they continued, governments are also engaged in a policy competition altering key factors of their economic policies such as domestic labour market conditions, corporate taxes, tariff barriers, subsidies, privatization and regulatory regimes policies in order to embrace FDI activity in their country.

Although the seminal idea on the effects of FDI on growth originated from Solow (1956); through his growth model, the activities of MNCs have increased significantly over the last two decades. There is currently a convergence of opinions that FDI is a desirable element for economic development due largely to the existence of a net positive relationship between external financial assistance and economic performance of recipient countries. Romer (1990) argues that FDI is one of the contributory factors in the diffusion, dissimilation of knowledge and assimilation of technologies and ideas.

Over the years , the flows of FDI to low income countries including Nigeria has been unpredictable in both scale and direction. From early 1970's, net resource flows to developing countries have been fluctuating, rising rapidly since 1986 to an unprecedented US$285 billion in 1996. In the 1970s FDI contributed only 12per cent of all financial flows to developing countries. This was followed by a sharp fall in private lending as a result of loss of confidence of international banks on borrowing countries.

Nigeria is the second largest FDI recipient. Traditionally, FDI has been concentrated in the extractive industries constituting 51.4percent of the FDI stock in 1970. However, due to recent diversification into the manufacturing sector, it (extractive industries) represents 24.8 percent in 2005 as against 41.1 percent of FDI stock within the same period.

In the study on capital flows in Nigeria Issues and Determinants: Essien and Onwioduokit (1999) using the Error Correction Modeling technique showed that macroeconomic conditions of host countries reflecting opportunities for investment, risk, market conditions, and rate of returns are very crucial in attracting capitals. The study which covered the period 1970 to 1997 has some implication for our present effort. This is because the flows of FDI to Nigeria have more than doubled between 1997(₦128, 331.08m) and 2005 (₦269,844.7m). This study therefore constitutes a major step toward evaluating the relative significance of changing explanatory variables that may attract FDI into Nigeria. The study also aims at assessing and quantifying empirically, the major factors determining foreign company's decision to invest during the period 1970 to 2010.

The remainder of this paper is organized as follows:

Section 2 analyses the relevant theoretical background in order to sustain our study. Section 3 contains a brief review of existing FDI literature. Section 4 provides details of methodology and specification of models including econometric approach and the selection process used in identifying robust variables. In section 5, we present the estimated regression result. Finally, section 6 has summary and concluding remarks.

2. Theoretical Background

Over the years, various studies in FDI have adopted two approaches – The first approach examines the impact of FDI on economic growth while the second focuses on the basic set of determinants controlling the motivation for cross- border investment.

Against the backdrop of the growth effect of FDI, various studies have attempted to address the following questions

i. What is the relationship between FDI and economic growth?
ii. What is the precondition for FDI to promote growth?
iii. What are the mechanisms through which growth can be achieved?

The seminal idea on the growth of an economy came from the new classical growth theory. Solow (1956) developed growth models which attempted to isolate key variables that determine FDI in growth.

Wang (1990) postulated that FDI activities have positive direct effect on economic growth of the home country. This can be achieved by stepping up production and transferring knowledge to suppliers. The indirect effect of the activities of FDI is the quality of workforce in the home country.

Barrel et al (1997) using a model of labour – augmenting technical progress estimates for the period 1972-1995 stated that about 30 percent of the growth of British FDI manufacturing productivity is attributable to FDI inflows.

Blomstrom and Kokko (1996) argued that FDI enhance the host country employment and output rates as well as significant potential spillover effect toward local firms of host countries. Other studies show that FDI affects recipient country's economic growth through new technology and subsequent spillover to domestic firms (Krugman 1995) and through knowledge transfer (De Mello and Sinclair 1995).

In illustrating the determinants of FDI, Mundell (1957) argues that relative factor endowments and cost constitute the controlling motivation for cross- border investment concluding that the incentive for capital flow is greater, taking into cognizance the existence of large difference between capital rich and capital poor countries.

The International Monetary Fund (IMF) study shows that the intra EC-FDI flows account for 4.5 percent of European Union (EU) GDP in 1995. This suggests that more additional explanatory variables affecting FDI should be incorporated into a general equilibrium model.

Following the IMF's findings, many researchers incorporated additional exogenous variables within this framework, assumed to affect cross- border investment decisions. These include market size, domestic labour market size, cultural and language differences, exchange rate stability and governmental indicators among others.

Recent empirical studies suggest several measures that government of host countries should take to attract FDI. These are taxes, subsidies, regulatory regimes and revitalization.

There is also theoretical and empirical evidence which considered a mechanism playing an important role in attracting FDI. This is the level of economic development. Barrel and Pain (1998) argue that the stage of economic development and the so called Investment Development Path (IDP) of the recipient country play vital roles in attracting FDI inflows.

3. Review of Existing Literature

3.1 The Determinants of FDI

Literatures are replete with theoretical and empirical evidence on foreign Direct Investment Attraction and its determinative effects.

The Overseas Development Institute (ODI Briefing Paper (1997 (3) September) shows that an extensive literature based generally on three approaches - aggregates econometric analysis; survey appraisal of foreign investors' opinion and econometric study at the industry level has failed to arrive at a consensus. The reason adduced for this development includes the lack of reliable data particularly at the sectoral level and the structural diversity of countries pooled together in the empirical work on FDI determinants.

The ODI briefing paper identified the following factors as influencing the destination of the investment – host country rather than industry specific factors such as:

i. Size of market
ii. Openness
iii. Labour costs and productivity
iv. Political risk
v. Infrastructure
vi. Incentives and operating conditions
vii. Privatization.

The paper concludes that over the last 25 years, large market size, low labour cost and high returns in natural resources are among the major determinants in the decision to invest in the low income countries.

Earlier studies on FDI had adopted either one or a combination of two approaches -the first is the pull factor approach and the second the push factor approach.

The pull factor approach looks at the relationship between the host country specific condition and the inflow of FDI. In this approach, the FDI is either classified as

i. Import – substituting
ii. Export increasing or
iii. Government initiating (Moosa 2002)

The push factor approach examines the key factors that could motivate multi- national corporations (MNCs) to work to expand their operations overseas. This approach classified FDI as horizontal or market seeking and vertical or conglomerate (Caves 1996; Moosa 2002)

With regard to the pull factor, Akhter (2000) argued that there are a number of socioeconomic and political factors in the host country that influenced FDI. He identified infrastructure, market size, level of human capital development, distance from major market, labour cost, openness of economy to international trade, exchange rate, fiscal and other non- tax incentives, political stability, monetary policies and the extent of liberalization or otherwise of the financial sector.

Another factor that may act as location specific advantage in attracting FDI to host countries is the presence of natural resources such as mineral ores, petroleum and natural gas, coal and other raw materials.

Recent developments indicate that new determinants have been added to the FDI literature. This new dimension relates to the recent global change in the economy referred to as third wave of democratization. In it, the new face of global economy in the area of new information and communication technology have been identified as likely determinants of a developing country found to have positive effects on FDI inflows notwithstanding their impact on FDI which is adjudged as country specific.

The push factors that may or may not motivate MNCs to expand their frontiers of investment overseas attracted several studies. Recent researches indicate that governments embark on macroeconomic and institutional reforms such as domestic labour market condition, corporate taxes, interest rate, stable exchange rate in order to increase the confidence of international investors and enhance FDI activity in their country.

Over the years, FDI literature has been characterized by diverging and converging views and empirical results on the determinants of FDI flow especially to developing countries, leading to the emergence of a distinctive set of factors frequently used in econometric modeling. Lim (2001) did a survey of FDI literature and came up with a list of seven important factors. These include:

i. Size of the host market
ii. Agglomeration effects
iii. Factor cost
iv. Fiscal incentives
v. Business/ Investment climate
vi. Trade barriers/ Openness
vii. Economic distance/ Transport cost

3.2 Trends in Foreign Direct Investment Inflows to Nigeria (1970- 2010)

Following the new wave of global integration, the attitudes of many developing countries have significantly changed. This development is underscored by the need to provide investment friendly environment in order to catch up with this global integration train. To achieve this goal, they (developing countries) have become more willing to offer numerous financial and non-financial incentives to Multinational Corporations (MNCs) in order to encourage them to increase direct investment flows (UNCTAD).

From the early 1970s, net resource flows to developing countries have been characterized by uneven pattern. For example, the 1970s witnessed FDIs constituting only 12 percent of all financial flows to developing countries.

However, this trend has been reversed resulting in a rapid rise since 1986. This is due largely to open-door policies and some external factors in the developed world such as low interest rates and the cycle of economic growth. In addition to this trend, the mid 1980s also witnessed the growing integration of markets and financial institutions, increased economic liberalization and technologies in the area of computing and telecommunications. This has contributed to a near doubling of private flows to low income countries including Nigeria.

The table on FDI flows, shows that the flows to developing countries increased from US$59.6billion on the average between 1989 and 1994 to US$241billion in 2000. In the same vein the stock of FDI in developing countries increased from US$257billion in 1990 to US$ 2,032 billion in 2000.

However, in spite of this dramatic increase in stock and in flows of FDI to developing countries, recent trend, over the last decade, shows that the geography of flows has been uneven. The table we refereed to shows that between 1989 and 2000, two regions Asia, Latin America and Caribbean attracted 92.5 percent (Latin America and the Caribbean 29.4% and Asia 63.1%) of the total flows between 1984 and 1994; in 2000 the two regions attracted 95.2 percent of all the total FDI flow.

The implication of this is that Africa including the least developed countries and the pacific region attracted an insignificant proportion of between 2.5 and 4.8 percent of FDI inflow to developing countries in the period 1989/1994 and 2002.

FDI flows to Nigeria has witnessed an unstable trend over the years. From early 1970s net flows of FDI to Nigeria have followed an uneven path. It rose from ₦1,003.2m to ₦1,763.7m in 1973.

At the end in 1974, FDI inflows stood at ₦1,812.1m rising again in 1975 to ₦2,287.5m. In 1980, Nigeria's real FDI stood at ₦3,620.1m; it rose to ₦9,993.6m in 1987 and further rose to ₦10,899.6m in 1989 due largely to the result of the policy measure of the Structural Adjustment Programme (SAP) in Nigeria. However, in 1990, the flow fell to ₦10,436.1m but rose to ₦70,714.6m in 1994. The astronomical rise to ₦119,391.9m in 1995 ushered in an era of increased and sustained inflow of FDI to Nigeria. In 2000 the net inflow averaged to ₦101,512.82m between 1991 and 2000. This increase was sustained to 2003. Thereafter, the increase was no longer sustained as the net inflow fell to ₦399,841.9 in 2008 as against the previous figure of ₦552,498.6m in 2007. Between 2001 and 2010, the net inflow averaged to ₦353,138.95 million.

Overall, the inflow of FDI to Nigeria has been witnessing an increase over the years.

4. Methodology

4.1 **Introduction**

The study examines the determinants of foreign capital inflow in the Nigerian economy. Adopting the Error Correction Mechanism (ECM) approach, the Stationarity profiles of the various time series data; the short run or/and long run relationships between the FDI and the explanatory variables were evaluated. The stationarity conditions of time series and the relevant co-integrations were assessed using the Augmented Dickey Fuller (ADF) and Augmented Engel-Granger respectively. The short run relationships were assessed using the Error Correction Mechanism (ECM) procedure.

4.2 **Cointegrating Regression Equation**

The original equation of the study focuses on Foreign Direct Investment and the variables associated with it as probable determinants. The cointegrating equations are given as follows:

$$\mathbf{FDI_t = \alpha_0 + \alpha_1\, GDP_t + \alpha_2\, OPEN_t + \alpha_3\, FDYR_t + \alpha_4 REINT_t + \alpha_5\, INFL_t + \alpha_6\, DEBT_t + \alpha_7\, REXR_t + U_t}$$

A-priori Expectation: $\alpha_1, \alpha_2, > 0$; and $\alpha_3, \alpha_4\ \alpha_5, \alpha_6 < 0$; $\alpha_7 <> 0$

Where:

FDI = Foreign Direct Investment
GDP = Gross Domestic Product used as a proxy for market size or purchasing power
OPEN = Openness of the economy; held as a proxy in terms of the share of imports or exports (or both) in GDP
FDYR = Fiscal Deficit as a ratio of GDP
INFL = Inflation rate.
This variable and FDYR are used as proxy for macroeconomic instability
REINT = Real interest rate measured as the ratio of Domestic product to GDP.
DEBT = Debt income ratio. This variable is a measure of the debt to GDP in recognition of the impact of rising indebtedness to FDI outcomes.
REXR = Real exchange rate (volatility) – Aggregate FDI flows will increase in proportion to a depreciation of the domestic currency
U = Stochastic error term.
t = Current variable

4.3 Unit Root Test For Stationarity

It is always ideal to ascertain the Stationarity profile of time series data before embarking on any regression analysis if such analysis is to be meaningful. The importance of Stationarity of time series stems from the observation that non-Stationarity of time series results in 'hollowness of regression' if employed for analysis. The implication of this is a high coefficient of determination (R^2) even when no significant relationship exists in the function. However, if the variable data are found to be stationary, the cointegration regression will be adopted, if otherwise the cointegration test will be applied. For this purpose therefore, the Augmented Dickey Fuller (ADF) test (Dickey and Fuller (1981) was employed in the study. The Unit Root Equation is given as:

$$\Delta Y_t = \mu + \delta Y_{t-1} + \Sigma \Phi_i \Delta Y_{t-i} + \epsilon_t$$

The model suggests a random walk model with drift.

4.4 Cointegration Test

In order to determine the long run relationship between FDI and the relevant explanatory variables, the cointegration test was employed. Two variables are cointegrated if they have a long run equilibrium relationship (Gujarati: 2009). For this reason therefore, the study employed the Johansen's Cointegration procedure. The cointegrating test equation is given as below:

The Johansen's Trace statistic model is presented below:

$$\lambda_{trace} = -T \sum_{i=r+1}^{n} \ln (1-\lambda)$$

λ_{trace} = Trace statistic, T= number of sample observation, r=rank

4.5 Error Correction Mechanism

The ECM analysis was employed in the study to determine whether short run relationships exist between FDI and the explanatory variables. By the Granger Representation Theorem, if two variables are cointegrated, their relationship can be expressed as ECM (Gujarati: 2009). The ECM equation is given as

$$\Delta Y_t = \alpha_0 + \alpha_{i-k}\Delta X_{ti} + \alpha_2 ECM + \acute{\varepsilon}_t$$

The equation above shows the ECM model.

5. Estimation of Results and Analysis

5.1Unit Root

Table 5.1: ADF Test Result

Variable	Order of integration	T (Tau)	MacKinnon Critical Values	
FDI	2	-4.090884*	-3.679322	1%
			-2.967767	5%
			-2.622989	10%
GDP	1	-8.039675*	-3.610453	1%
			-2.938987	5%
			-2.607932	10%
OPEN	1	-8.418306*	-3.610453	1%
			-2.938987	5%
			-2.607932	10%
FDYR	0	-5.812881*	-3.605593	1%
			-2.936942	5%
			-2.606857	10%
RENT	1	-10.03208*	-3.610453	1%
			-2.938987	5%
			-2.607932	10%
INFL	0	-3.382060**	-3.605593	1%
			-2.936942	5%
			-2.606857	10%
DEBT	1	-5.288445*	-3.639407	1%
			-2.951125	5%
			-2.606857	10%
REXR	1	-5.791478*	-3.610453	1%
			-2.938987	5%
			-2.607932	10%

*(Significant at all Mackinnon levels, 1%, 5% and 10%)
**(Significant at 5% and 10% Mackinnon Levels)

Result in table 5.1 shows that Foreign Direct investment (FDI) is integrated at order two (2). FDRY and Inflation Rate (INFL) are integrated at levels; GDP, Openness, Real interest Rate (REINT) DEBT and Real Exchange Rate are Integrated at order one (1) respectively. The integrated variables were used in the ECM procedure thus lending robustness to the outcome of the analysis.

5.2 Johansen's Cointegration

Table 5.2: Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.955058	314.9930	159.5297	0.0000
At most 1 *	0.786615	193.9999	125.6154	0.0000
At most 2 *	0.692844	133.7582	95.75366	0.0000
At most 3 *	0.580306	87.72262	69.81889	0.0010
At most 4 *	0.499009	53.86169	47.85613	0.0123
At most 5	0.330887	26.90614	29.79707	0.1040
At most 6	0.237742	11.23585	15.49471	0.1974
At most 7	0.016491	0.648511	3.841466	0.4206

Trace test indicates 5 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Trace Statistic in table 5.2 above indicates five (5) cointegrating equations thus suggesting a long run deterministic trend among the variables. Specifically, it indicates a long run relationship between FDI and Gross Domestic Product (GDP), and Openness of the Economy (OPEN), Fiscal Deficit Ratio (FDRY) Real Interest Rate (REINT), Inflation Rate (INFL), Debt Ratio (DEBT) and Real Exchange Rate (REXR). With the Unit Root test it was established that the variables are non-stationary at their levels, hence a cointegration test was carried out to assess the long run relationships of the variables in the equations.

5.2.1

Table 5.3: Estimates of Longrun Relationship

Normalized coefficients	**FDI**	**GDP**	**OPEN**	**FDRY**	**INT**	**INFL**	**DEBT**	**REXR**
	-	0.1212 (0.0500)	-27601.9 (3013.39)	284137.3 (16491.61)	758.21 (1331.27)	-1910.7 275.92)	-73433.8 (4234.78)	3352.1 (474.7)
Adjusted coefficients	**ΔFDI**	**ΔGDP**	**ΔOPEN**	**ΔFDRY**	**ΔINT**	**ΔINFL**	**ΔDEBT**	**ΔREXR**
	-0.6067 (0.2527)	-0.018889 (0.10393)	0.0000015 (0.000004)	0.000002 (0.000003)	0.0000089 (0.000007)	0.00006 (0.00004)	0.0000076 (0.000002)	0.000046 (0.000028)

*Standard Errors of the long run estimates are in parentheses.

The Normalized and the Adjusted long run coefficients as presented in table 5.3 were examined. However, attention is paid more in the normalized long run relationships due to the non-conformity of the signs of the coefficients to expectation of the Adjusted coefficients.

The Normalized coefficients show that Inflation Rate, DEBT (Debt-GDP Ratio) and Openness of the economy (OPEN) have significant negative impact on the Foreign Direct investment (FDI) on the one hand; and on the other hand, GDP (size of the economy), Fiscal Deficit Ratio (FDRY) and Real Exchange Rate (REXR) have significant positive impact on the volume of Foreign direct Investment in the economy.

Therefore, GDP, Openness, Fiscal Deficit Ratio, Inflation Rate, Debt-GDP Ratio and Real Exchange rate are important long run determinants of Foreign direct Investment inflow in Nigeria. Real Interest Rate is a very poor determinant of FDI in Nigeria.

5.3 Estimate of Error Correction Modeling (ECM)

The cointegration of the variables as established with the Johansen's criterion above necessitates the ECM analysis based on the Engel-Granger Representation Theorem: if two or more variables are cointegrated, their relationships can be expressed in terms of Error correction Modeling (ECM)

Table 5.4: Short -run Estimates

D(FDI,2)	D(GDP)	D(OPEN)	FDRY	D(INT)	D(INFL)	D(DEBT)	(REXR)	ECM
-8782.779 (-0.22458)	0.508735 (1.086989)	-15285.39 (-0.989807)	205442.6 (2.903943)	-429.4694 (-0.075604)	592.1763 (0.445199)	71570.00 (2.784442)	-22317.96 (-3.381826)	-1.465670 (-4.625862)
R^2= 0.568177; Adjusted R^2 =0.453024; F-Statistic=4.934115; Durbin-Watson Statistic = 1.688570								

*t-Statistic of shortrun estimates are in parentheses.

The coefficient of Disequilibrium Error Term (ECM) came up with the expected negative sign and is statistically significant considering its high t-statistics (-4.425862), the result therefore is an indication that short run relationship exists between FDI and GDP, Openness of the economy, fiscal Deficit Ratio, Real Interest Rate, inflation Rate, Debt Ratio and Real Exchange Rate in the economy.

The statistical insignificance of some coefficients of the variables and the unexpected signs underscores the disequilibrium nature of the short run. Therefore, deliberate actions/policy application of government economic planning body is required for correcting the short run case.

6.0 Summary, Conclusion and Recommendation

This paper has presented the report of an econometric study of the determinants of Foreign Direct Investment in Nigeria using time series data for the period 1970 to 2010 by employing the Error correction Mechanism procedure and in which case both the short run and long run determinants of Foreign Direct Investment in Nigeria were evaluated.

The Johansen's cointegration criterion established that Gross Domestic Product (GDP), Openness of the Economy, Fiscal Deficit Ratio, Real Interest Rate, Inflation Rate, Debt Ratio and Real Exchange Rate are important long run determinants of foreign Capital inflow into the Nigerian economy.

Interestingly, the Error Correction analysis also indicates that these variables; Gross Domestic Product (GDP), Openness of the Economy, Fiscal Deficit Ratio, Real Interest Rate, Inflation Rate, Debt Ratio and Real Exchange Rate are also important short run determinants of FDI in Nigeria.

The current external debt profile of Nigeria has been a major bane of the attraction of meaningful foreign capital inflow in the country. Foreign investors would want to compare this debt profile with the available income of the economy, which defines its market size. A high debt-income ratio is an indication of weakness of the economy hence a deterrent to investment inflows from abroad. However, in the long run,and with appropriate adjustments in Openness to Trade, GDP, Fiscal Deficit-income ratio, Real interest Rate and Exchange Rate, the economy can gain significant foreign capital inflow. Our study also confirms the significant role played by the newly emerged factor of agglomeration which contributes to the limited empirical evidence in this area.

The government should therefore frown at policies that will encourage external borrowing with its attendant service charges and embrace those that strengthen and stabilize the economy if meaningful foreign capital inflow will be experienced in Nigeria. Such policies capable of strengthening the economy include those designed to maintain price and exchange rates stability, reduction in fiscal deficit, increase in domestic investments and the diversification of the economy for export trade among others.

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Dependent Variable: D(FDI,2)
Method: Least Squares
Date: 02/07/01 Time: 04:48
Sample (adjusted): 1972 2010
Included observations: 39 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	-8782.779	(39108.34)	-0.224576	0.8238
D(GDP)	0.508735	(0.468023)	1.086989	0.2857
D(OPEN)	-15285.39	(15442.79)	-0.989807	0.3302
FDRY	205442.6	(70746.09)	2.903943	0.0069
D(INT)	-429.4694	(5680.507)	-0.075604	0.9402
INFL	592.1763	(1330.138)	0.445199	0.6594
D(DEBT)	71570.00	(25703.54)	2.784442	0.0092
D(REXR)	-22317.96	(6599.381)	-3.381826	0.0020
ECM	-1.465670	(0.316842)	-4.625862	0.0001

R-squared	0.568177	Mean dependent var	23114.80
Adjusted R-squared	0.453024	S.D. dependent var	186967.8
S.E. of regression	138277.3	Akaike info criterion	26.71108
Sum squared resid	5.74E+11	Schwarz criterion	27.09498
Log likelihood	-511.8661	Hannan-Quinn criter.	26.84882
F-statistic	4.934115	Durbin-Watson stat	1.688570
Prob(F-statistic)	0.000586		