

Capital Inflows and Economic Growth: A Case for Kenya

Abstract

The magnitude of capital available for investment is undoubtedly one of the most important factors of production to be considered before any investment venture is adopted. Analysis on the cost of acquiring any funding is a prerequisite to acceptance or rejection of such sources of funds. It is in this context that this study endeavored to assess the effect of capital inflow on the Kenyan economy. Using causal research design, the study assessed effect of capital flows to the Kenyan economy in the post independence period. Descriptive statistics and test for stationarity were conducted on the data before being regressed using OLS method. Presentation was done in form of tables, charts and graphs. It was found that FPI and Foreign debt have a positive and robust influence on economic growth in the short run. However, both FPI and AID displayed positive and insignificant effect on economic growth in the short run. Interestingly, FDI didn't exert significant effect in the short run with regression coefficient, $\beta = 0.2107$, the coefficient's p value = $0.1679 > 0.10$. Based on these findings the study concludes that FDI has no effect on economic growth in the long run, FPI has a positive effect in the both in the short run and long run despite its unsteady inflows. Foreign debt is growth promoting in the short run but has no effect in the long run, thus, recommends incentive for FDI to revamp sectors lagging behind in development, introduction of risk hedging financial instruments (for example Swaps and options) in the capital markets and matching foreign debt funded project returns to their repayment arrangements.

Key words: Capital inflows, Economic growth, Foreign direct Investment

Introduction

Developing and transition economies experience high capital inflows from the developed economies; this situation becomes more accelerated with trade liberalization and formation of economic integrations across the world. While capital inflows often help deliver the economic benefits of increased financial integration, they also create important challenges for policy-makers because of their potential to generate overheating, loss of competitiveness, and increased vulnerability to crisis (Cardarelli *et al*, 2009).

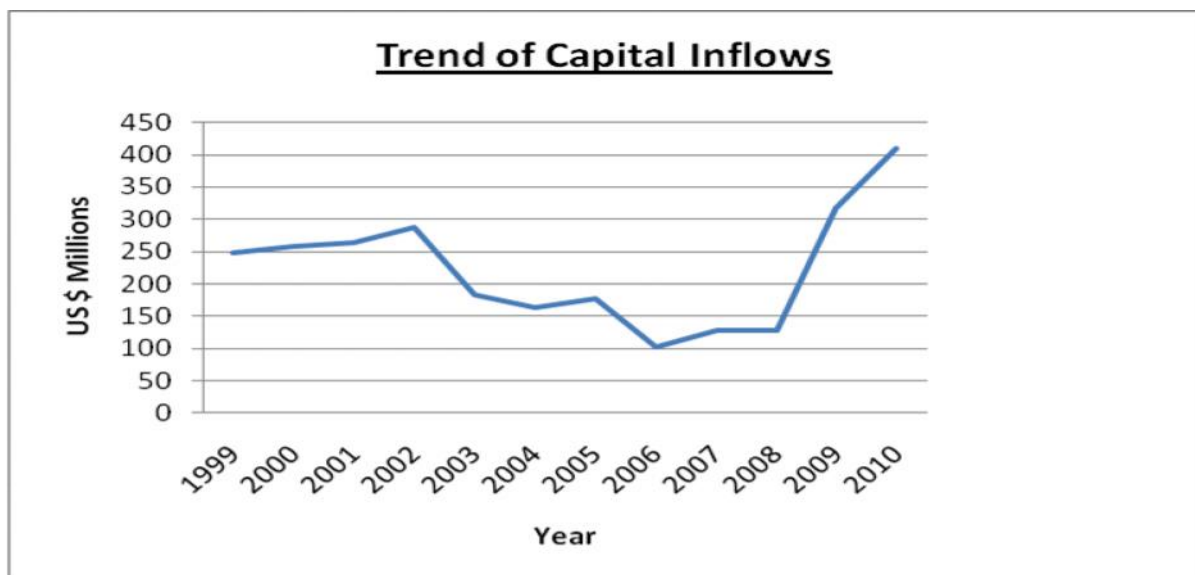
Despite the divergent views from various studies, most have recorded evidence suggesting that capital flows reinforce a positive growth dynamics. They tend to go more to countries with strong investment climates, and their long-run benefits are most pronounced in such environments. As many of the countries with strong investment climates are middle rather than low-income economies international capital flows in recent decades may have contributed to a widening of income differentials between the developing countries, just as they did a century ago (O'Rourke and Williamson, 1999).

Globally, there is evidence that foreign direct investment to developing countries grew twelve times between 1985 and 1998 that is; from USD 14 billion in 1985 to USD 166 billion in 1998 (UNCTAD, 1999).

Zhang (2001) carried out an investigation on whether FDI promote economic growth using a sample of eleven countries from Latin America and East Asia. He concluded that FDI's impact on host economy is country specific but FDI tends to more likely promote economic growth when host countries adopt liberalized trade regimes, improve education and employ export oriented FDI.

Possible sources of finance on one hand of the official capital flows is in form of grants or loans, provided by bilateral or multilateral aid agencies, packaged with or without technical assistance, and on the other hand is the private capital flows from banks, capital markets, companies and individuals, which take the form of short and long term loans, acceptances of company and government bonds, portfolio and direct investments. These capital flows may or may not be debt creating, and net capital outflows generated by residents may also reduce total resources available for finance, offsetting net capital flows generated by non residents (Prasad *et al*, 2007).

In the recent past, the Kenyan economy has experienced acute hike in the magnitude of capital inflows as exemplified by the following trend;



Different researchers have raised varied opinions on the role played by capital flows to the growth of economies of either the importers or exporters of capital. According to Prasad *et al* (2007), there is evidence that there are flows of capital from nonindustrial to industrial countries (uphill flow of capital) which they concluded that reduced reliance on foreign capital is associated with higher growth. This contrasts the results by Hansen and Tarp (2001) who asserted that foreign aid under all likelihoods increases growth rate unconditionally.

The knowledge disparity found in literature prompts the need for more country specific studies to be conducted in order to raise more conclusive and informative results about the countries unique behaviors. The straightforward view of the development economists is that capital is essential for growth and its origin does not matter (Waheed, 2004). Unfortunately, growth experience of many developing countries has not been very satisfactory owing to the fact that they accumulated large external debt and are now facing serious debt servicing obligations.

EMPIRICAL OVERVIEW

Composition of Capital Inflows

The composition of capital inflows matters a lot; literature shows that it is not just the degree of financial openness, but also the composition of capital inflows, that determines the quality of a developing country's experiences with globalization (Prasad *et al.*, 2003). For instance, FDI inflows tend to be far less volatile than other types of inflows. In particular, FDI appears to be less subject to sharp reversals than other types of inflows, particularly bank lending. External debt, on the other hand, clearly increases vulnerability to the risks of financial globalization. In particular, debt crises are more likely to occur in countries where external debt is of relatively short maturity (Frankel and Rose 1996: Detragiache and Spilimbergo 2001).

The problem, of course, is that the composition of inflows and related matters such as the maturity structure of external debt are not entirely under the control of developing-country governments. Countries with weak macroeconomic fundamentals are often forced to rely more on external debt and end up having little choice but to borrow at short maturities. Financial integration can in fact aggravate the risks associated with weak macroeconomic policies. Access to world capital markets could lead to excessive borrowing that is

channeled into unproductive government spending, ultimately increasing vulnerability to external shocks or changes in investor sentiment. In addition, lack of transparency has been shown to be associated with increased herding behavior by international investors, which can destabilize financial markets in an emerging market economy. Furthermore, a high degree of corruption tends to adversely affect the composition of a country's inflows, making it more vulnerable to the risks of speculative attacks and contagion effects. Thus, the apparently negative effects of globalization appear to be related to a particular kind of threshold effect. Only countries with good institutions and sound macroeconomic policies tend to have lower vulnerability to the risks associated with the initial phase of financial integration and are able to realize its full benefits (Barro, 1997).

Capital inflows can be categorized into two broad classes, (i) Debt creating inflows and (ii) non debt creating inflows. According to Sethi and Patnaik (2005), debt creating inflows comprise external assistance, external commercial borrowing and short term credits whereas non debt creating inflows are foreign direct investment and foreign portfolio investment.

Foreign Direct Investment

The theory of capital movements was the earliest explanation for foreign direct investment which viewed FDI then as a form of portfolio investments explained by (Aliber, 1971). A ground breaking contribution to the explanation of FDI was raised by (Hymer, 1960) who viewed FDI as a means of transferring knowledge and other firm assets, both tangible and tacit, in order to organize production abroad. Converse to foreign portfolio investment, FDI did not involve control or ownership being relinquished. FDI involves transfer of technology from technology saturated environment to a region with less technological advancement. The diffusion of technology can take place through a variety of channels which involve transmission of ideas and new innovations. Imports of high technology products, adoption of foreign technology and acquisition of human capital through various means are certainly important conduits for international diffusion of technology.

Campos and Kinoshita (2002) examined the effects of FDI on growth for the period 1990-1998, for 25 Central and Eastern European and former Soviet Union transition economies. In these countries FDI was purely transfer of technology from one country to another. Their main results indicated that FDI had a significant positive effect on the economic growth of each selected country. These results were consistent with the theory that equates FDI with technology transfers that benefit the host country. Similar results were found by (Madura and Picou, 1990; Hooley *et al.* 1996).

Lyrroundi, Papanastasiou and Vimvakidis (2004) investigated the relationship between foreign direct

investment and economic growth for transition economies using Bayesian analysis. Their results indicate that FDI does not have significant relationship with economic growth for transition countries. Their results were consistent with the findings of (Carkovic and Levine, 2002).

Foreign Portfolio Investment

Fewer studies examine the effect of equity foreign portfolio investment (FPI). For example, Bekaert and Harvey (2000) suggest that private equity flows have a positive direct effect on macroeconomic performance in emerging markets. Also, Durham (2003) finds that the positive effect of FPI on growth is contingent on financial and legal variables. In particular, FPI inhibits (promotes) growth in countries with comparatively small (large) equity markets and pervasive (limited) corruption.

Portfolio equity flows have played an important role for external firm in developing countries. The static benefits of portfolio equity flows have been documented in numerous studies; Claessens *et al.* (1995) and Stultz (1999), for example, find that increases in equity flows have been associated with significantly lower cost of equity capital by reducing discount rate on future cash flows and by decreasing agency costs through improved corporate governance. Higher equity flows may be associated with asset price volatility as a result of imbalance between a small domestic asset supply and a large and strong international integration of stock markets should dampen asset price volatility. Stultz (1999) finds no evidence that portfolio flows increase the volatility of equity returns, or destabilize securities markets.

Owing to the fact that literature on foreign portfolio investment is still scanty particularly in Africa, a study on impact of foreign portfolio investment on economic growth does not only benefit the country under which the investigation is done but also add value to the existing knowledge.

Foreign Debt

Liquidity constraint hypothesis is captured as a crowding out effect, by which the requirement to service debt reduces funds available for investment and growth. A reduction in the current debt service should lead to an increase in current investment for any given level of future indebtedness (Cohen, 1993). Khan and Rahin (1993) attempted to estimate the impact of foreign assistance on the economic development of Pakistan. They employed a single-equation model for estimating savings and economic growth function for period 1960 -1988. They came up with negative (but insignificant) impact of foreign assistance on savings and held that different types of capital had different effects, for example, FDI was found to be inversely related to savings (but the size of its coefficient was insignificant) and loans were negatively related to domestic savings. A recent study by Adepoju *et al* (2007) analysed time series data for Nigeria over a period from 1962 to 2006. Exploring time to time behavior of donor agencies as an outcome of various bilateral and multilateral arrangements, they concluded that accumulation of external

debt hampered economic growth in Nigeria.

Jayaraman (2008), focused on the flow of foreign aid in six pacific Island countries over a period of 1988 to 2004. These countries have been among the top recipients of foreign aid till early 1980s, but later on could not maintain the level of higher aid inflows due to change in political situation. While assessing whether the higher flow of foreign aid and external debt had ever contributed to the growth in these countries, the study concluded a significantly positive relationship between external debt and real GDP. Finally, Hameed *et al* (2008) explored the dynamic effect of external debt servicing, capital stock and labour force on economic growth for Pakistan for a period of 1970 to 2003. They found an adverse effect of external debt servicing on labour and capital productivity which ultimately hampers economic growth. Amanja *et al* (2005) using disintegrated aid into loans and grants to Kenya for the period 1964-2002 found that grants had a positive significant effect on growth in the long run whereas loans affected economic growth negatively.

Review of past studies on debt and economic growth indicate that majority of their findings consider debt to be growth retarding though the degree of negative impact vary from country to country. This empirical research points out the exact position of the Kenya's economic performance in relation to foreign debt, which, in turn, gave a solid framework for formulating debt related economic policies.

RESEARCH METHODOLOGY

Research Design

This study adopted causal relationship research design. According to Cooper and Schindler (2006), the concern in causal analysis is with how one variable affects, or is responsible for, changes in another variable. In business research, cause effect relationship is less explicit. In business, using this research design, what one is interested in, is understanding, explaining, predicting and controlling relationship between variables. Possible relationships that occur between variables under this research design can be categorized into three possibilities; symmetrical, reciprocal and asymmetrical. The study utilized longitudinal data series covering a longer time dimension.

Sampling and Sample Design

Probability sampling is based on the concept of random selection; it is a controlled procedure that assures that each population element is given a known non zero chance of selection. However, there are researches which non probability sampling may be the only feasible alternative, that is, total population may not be available for study in certain cases or the study is looking for a range of conditions (Cooper and Schindler, 2011). This study utilized purposive sampling by using the most recent data series from the CBK, KNBS and World Bank database on the variables under investigation to meet the objectives of this research.

Data Analysis and Presentation

Before the data was subjected to regression analysis, descriptive statistics was conducted to provide a general view of the distribution and behaviour of variables. This entail showing trends of various components of capital inflows and also real GDP which is the endogenous variable, in form of tables, graphs and charts. Test for normality of the data series is conducted by observing the Jacque Berra coefficient for significance (Moors, *et al*, 1996). Preliminary analysis was done, and the data set regressed using E views 5.

Testing for Stationarity

The study used ordinary least squares technique (OLS) to establish relationship that exist between the variables. This technique calls for testing of stationarity of the variables in the data series to avoid dealing with spurious regression. Testing for unit roots was done by Augmented Dickey Fuller (ADF) which entail using AR (1) process as;

$$Y_t = \mu + \rho \cdot Y_{t-1} + \varepsilon_t$$

Where; μ and ρ are parameters

ε_t is white noise

Y is stationary if, ρ is not equal to one i.e. $\rho \neq 1$ and not stationary if $\rho = 1$

Where, $\gamma = \rho - 1$ and the null and alternative hypotheses are;

$$H_0: \gamma = 0$$

$$H_1: \gamma > 1$$

This process is simplified by use of E-views 5 software which provides the Augmented Dickey Fuller (ADF) statistic and a critical value to be tested against.

Model Specification

The model used in this study is symbolically similar to the one used by Sethi and Patnaik (2005) represented as;

$$RGDP_t = \alpha_0 + \alpha_1 FDI_t + \alpha_2 FPI_t + \alpha_3 AID_t + \varepsilon_t$$

Where:

FDI represent foreign direct investment

FPI represent foreign portfolio investment

AID represents the debt components of capital inflows

ε_t represents error term, α_0 Constant,

α_1 , α_2 and α_3 are coefficients of FDI, FPI and AID respectively

This is a modification of their model to capture the objectives of this study

DATA ANALYSIS AND PRESENTATION

Testing for Cointegration

The results of the unit root test shows that all the variables are a random walk process. It does not however imply that in the long run the variables could express long run convergence. This calls for testing for cointegration to establish long run relationship. Using Johansen method of determining cointegration among the variables.

The cointegration test results show a rejection of the null hypothesis that none of the equations are cointegrated. This implies that the alternative hypotheses for at least one, at least two and at least three cointegrating equations are acceptable. Hence a conclusion that the variables used in the model have a long run relationship, thus, they can comfortably be used for estimation with less fear of running spurious regressions.

Table 4.1 Cointegration Test Results

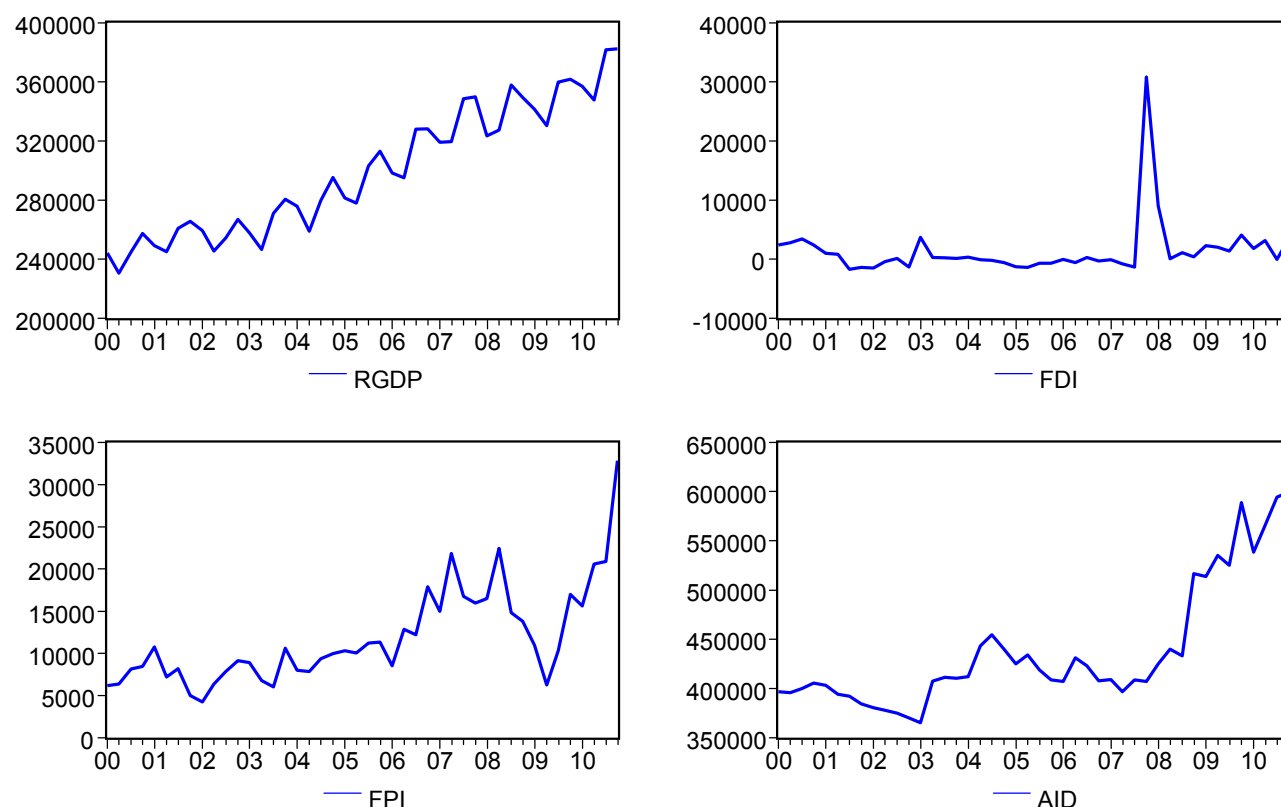
Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.598068	59.9	39.89	45.58	None **
0.339908	22.5296	24.31	29.75	At most 1
0.12533	5.499195	12.53	16.31	At most 2
0.000219	0.008964	3.84	6.51	At most 3

*(**) denotes rejection of the hypothesis at 5 % (1%) significance level

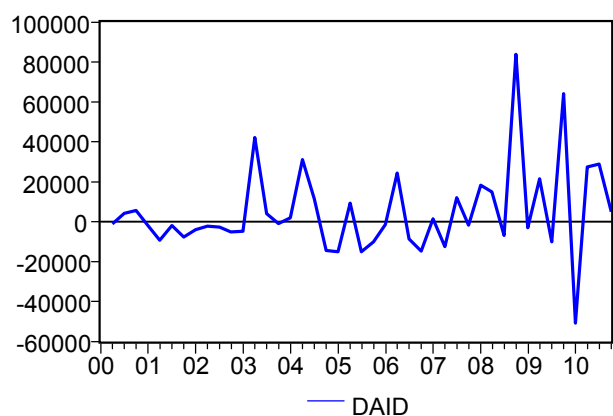
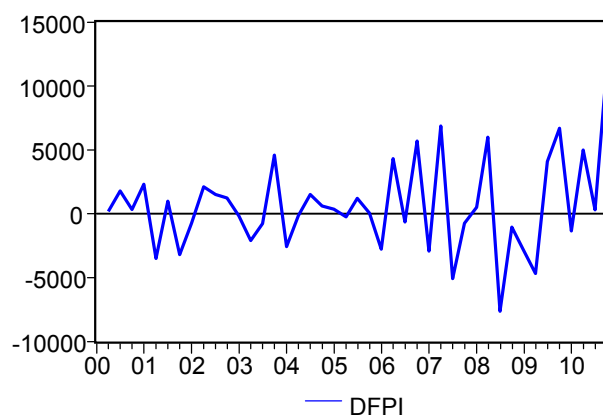
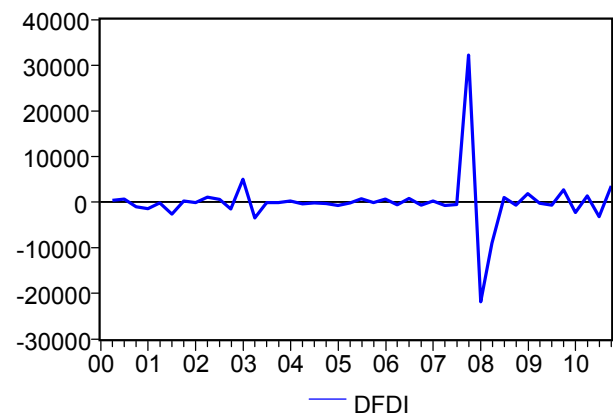
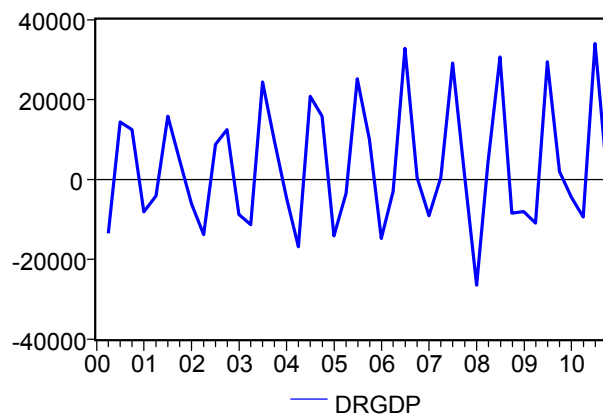
L.R. test indicates 1 cointegrating equation(s) at 5% significance level. From the above table the test statistics exceed the critical values (5%) in the LR.

Testing for Stationarity

Before going to apply OLS technique, the first step is the test of stationary of the variables. This entails determining the order of integration or non-stationary properties of time series. This study has employed a widely used formal test for unit roots known as the Augmented Dickey Fuller (ADF) test. If a vector y_t is integrated of order d ($y_t \sim I(d)$), then the variables in vector y_t need to be differenced d times to induce stationarity. The assumption here is that the data generating process is characterized by non stationarity with stochastic trend. ADF test was employed at both intercept and trend with the lag length selected to ensure that the residuals are white noise.



Using the ADF test, the variables were not stationary at level except for foreign direct investment. After differencing once, real GDP, foreign portfolio investment and foreign debt attained stationarity. This indicate that they are all I(1) process Trend analysis on the variables at level and first difference are detailed below;



Testing for Heteroscedasticity- Whites Test

Homoscedasticity is one of the basic requirements for using classical least squares regressions for any investigation. This is an assumption that the disturbances u_i appearing in a regression have the same variance (constant variance). Symbolically,

$$E(u_i^2) = \sigma^2 \quad i = 1, 2, \dots, n$$

For this reason, White Test was used to test for heteroscedasticity which returned an Obs*R-squared statistic of 6.084625 with probability of 0.637753 which is statistically significant at all levels of significance hence the null hypothesis of homoscedasticity couldn't be rejected. Testing using the F statistic test also affirmed homoscedasticity with test statistic of 0.7005 and MacKinnon p value of 0.6887.

Having established that the variables had a long run convergence and also there was no risk of operating with spurious regressions since Engel Granger two step procedures was used to confirm that the error term was stationary at level. The study regressed RGDP on FDI, FPI and AID using OLS technique, but the result could not be considered reliable because the Durbin-Watson (DW) statistic was low at 1.078 indicating autocorrelation (presence of positive serial correlation among residuals), which violates OLS assumptions. To solve the problem of an AR (1) term of endogenous variable was allowed and the results obtained are presented in table 4.2 below:

Table 4.2 Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RGDP(-1)	0.781437	0.110431	7.076232	0.0000
FDI	-0.180665	0.507334	-0.356107	0.7237
FPI	1.018071	0.614947	1.655541	0.1061
AID	0.071162	0.056537	1.258675	0.2158
C	25053.84	21242.35	1.179429	0.2456
R-squared	0.888544	Mean dependent var		300554.4
Adjusted R-squared	0.876812	S.D. dependent var		43298.31
S.E. of regression	15196.91	Akaike info criterion		22.20452
Sum squared resid	8.78E+09	Schwarz criterion		22.40931
Log likelihood	-472.3971	F-statistic		75.73552
Durbin-Watson stat	2.253198	Prob(F-statistic)		0.000000

Despite the fact that in the results DW-statistic is 2.253, there was need to use a test that captures AR(1) errors. LM test developed by Breusch-Godfrey is a widely used test for higher order ARMA errors and is also applicable whether or not there are lagged dependent variables. LM test results showed Obs*R-squared of 1.6445 and MacKinnon p-value of 0.1996 hence, null hypothesis that there is no serial correlation in the autoregressive model cannot be rejected at all levels of significance.

Real GDP has a significant positive impact on itself as shown by the behavior of the lagged variable; RGDP (-1), this is a clear indication that economic growth is explained by its past behavior. Moreover, it signifies that the model used has left out important components of explaining GDP. The presence of a big constant at 25053.84 though not significant in the long run with $p = 0.2456$, is an indicator that in the absence of the specified regressors, the endogenous variable would still be explained by other variables not envisaged by the model. This was echoed by the error correction model results with a constant of 2766 which is significant at 5%.

FDI returned a negative coefficient of 0.18 which is insignificant with a p value of 0.78. Conversely, FPI and AID positively affects economic growth with coefficients at 1.01 and 0.07 respectively.

Impact of Foreign Direct Investment on Economic Growth

The first hypothesis was that foreign direct investment has no impact on economic growth in Kenya. Our results show that the variable has a negative coefficient (-0.1806) which, is statistically insignificant with a p-value of 0.723. Therefore, our results indicate that FDI does not exert any significant influence on growth for our sample in the long run hence, the null hypothesis could not be rejected. Granger causality results indicate a single direction effect between FDI and RGDP in the period under

investigation i.e. FDI granger causes RGDP whereas RGDP does not granger cause FDI. Trend exhibited by FDI inflows overtime indicate that the variable is not growth dependent but rather policy driven as explained by unusual hike in the first quarter of year 2008 owing to privatization of a State Corporation. This linkage between FDI inflows is further affirmed by the single direction causal relationship between them.

In the short run, parsimonious error correction model presented in Table 4.3, indicate that FDI impacts positively on economic growth in the short run as shown by a positive coefficient of 0.2107 though this is not significant as well with a p-value of 0.1676. Probable theoretical explanation to the negative impact of foreign direct investment on economic growth is crowding out of domestic investment. Positive coefficient reported in the short run tally with the expectation that FDIs increase aggregate demand of the host economy in the short run through productivity improvements and technological transfers. Conversely, it jeopardizes BoP of the country when they recover capital returns from the host country to where they originated from (home country).

Foreign Portfolio Investment has No Effect on Economic Growth in Kenya

Secondly, it was hypothesized that foreign portfolio investment has no effect on economic growth in Kenya. This hypothesis is tested by observing the coefficient of the model developed and the level of significance depicted by the probability column. FPI returned a positive coefficient of 1.01 with probability of 0.106, this figure though showing positive relationship, does not satisfy the significance test hence conclusion that it has no significant impact on economic growth in Kenya. However in the short run, FPI produced positive and significant results at 5% with a lag length of one. Hence, the null hypothesis is rejected and alternative for FPI has a positive impact on economic growth accepted.

Trend exhibited by FPI inflows overtime is volatile hence such unpredictable nature delimits its effect on economic growth. Furthermore, there is an indirect link between FPI and economic growth since it only involves transfer of capital, thus lack of management and monitoring.

Foreign Debt does not Impact on Economic Growth in Kenya

The third hypothesis was that foreign debt does not have any impact on the economic growth in Kenya. The results indicate that there is a positive impact of external debt inflow into Kenya on the economic growth as shown by a positive coefficient of 0.0711 with a p value of 0.2158 indicating positive but insignificant relationship between foreign debt and economic growth in Kenya during the period under study. Similar to the behaviour of FPI, foreign debt exhibits positive and significant impact on economic growth in the short run.

From the results it is interesting to note that foreign debt did not exert significant impact on growth in the long run though the impact felt in the short run as demonstrated by the results from the error correction model are significant. Possible reasons leading to such phenomenon can be attributed to stringent conditionalities attached to foreign borrowing (particularly aid), repayment of loans after the grace period and unreliability of donor inflows due to the volatility associated with foreign capital inflows to mismanagement of loan/aid financed projects. Furthermore, looking

at the full sample time series graph, the trend of external debt inflow to Kenya is at its low during an election year which tends to regain its growth after the elections. This cyclical behaviour of debt inflows distorts its impact economic growth making it irrelevant.

Error Correction Model

According to Adefeso and Mobolaji (2010), the primary essence of engaging in error correction representation is to capture the effect of short run movements in the empirical models. The equation estimated an over parameterised error correction by setting up a lag length long enough in order to ensure that the dynamics of the model are not constrained by too short lag length. In this case a lag length of four was chosen since it is perceived to be long enough to capture on the short term dynamics and also could not compromise much of the degrees of freedom.

In the initial over-parameterised model, all the variables were lagged equally but the model seemed difficult to interpret hence a parsimonious model for analysis was derived from the over-parameterised error correction model by using the general to specific (GTS) methodology. This reduction was carried out by eliminating the variables with insignificant coefficients successfully based on the imposition on these variables zero coefficients as they bear low t-statistics of < 2.0 approach or highest probability .

Table 4.3 Parsimonious Error Correction Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DRGDP(-2)	-0.522976	0.123055	-4.249949	0.0002
DRGDP(-4)	0.425147	0.113485	3.746277	0.0008
DFPI(-1)	0.728778	0.273160	2.667948	0.0124
DFPI(-3)	0.464017	0.305435	1.519202	0.1395
DFDI	0.210707	0.148976	1.414373	0.1679
DAID(-1)	0.106413	0.039996	2.660608	0.0126
DAID(-2)	-0.087403	0.048342	-1.808017	0.0810
DAID(-3)	0.092072	0.045660	2.016458	0.0531
LAGECT	-0.126033	0.068510	-1.839639	0.0761
C	2766.916	1100.892	2.513340	0.0178
R-squared	0.912408	Mean dependent var		3414.692
Adjusted R-squared	0.885224	S.D. dependent var		15736.30
S.E. of regression	5331.229	Akaike info criterion		20.21711
Sum squared resid	8.24E+08	Schwarz criterion		20.64366
Log likelihood	-384.2336	F-statistic		33.56455
Durbin-Watson stat	2.110104	Prob(F-statistic)		0.000000

Optimal results in Table 4.3 indicate that, in case of disequilibrium arising from a shock in the economy affecting the exogenous variables 12.6% will be cleared within the first quarter as expressed by the coefficient of the lagged error correction term (LAGECT) of -

0.1260 with a P-value of 0.0761. Finally, the model returned a Durbin Watson coefficient of 2.11 which indicates minimal autocorrelation in the estimation.

SUMMARY OF FINDINGS

From the results, we see that FDI as would be expected is positively correlated to economic growth at 0.2382. Consequently, FDI expressed a positive impact on the economy in the short run though insignificant with beta of 0.2107 as shown by the findings of the error correction model. However, in the long run, the net effect of FDI inflow to the economy is negative but insignificant as shown by the negative coefficient (-0.1806) of the regression model. Trend of the full sample time series data as presented in Appendix 3A, indicate a relatively stable flow of FDI inflow to Kenya overtime, but there are few noticeable cases of abnormal hikes in the flow. Granger causality test results returned unidirectional causality running from FDI to economic growth.

Results from descriptive statistics indicate that, FPI is positively correlated to economic growth at 0.7656. Trend analysis reveals an upward (but unsteady) sloping curve which suggests the volatile nature of this predictor variable. There exist bidirectional causality between FPI and economic growth from granger causality test. Upon regression, FPI had positive coefficients of 0.0124 in the short run and 1.0180 in the long run with p-values of 0.106 and 0.012 respectively. These signify its significant impact on economic growth (at 5% significance level) in the short run but less significant in the long run. Results from analysis indicate that FPI impacts positively to the Kenyan economic growth.

Foreign debt was found to impact positively on economic growth in Kenya both in the short run and in the long run though the effect in the long run was a beta of 0.0711 which is insignificant at all levels of significance (p value = 0.2158). It was found that foreign debt has a robust influence on economic growth in Kenya in the short run which dies off with time. Major contributor to this was seen to be its attachment to political developments in the country particularly election periods and suspension of aid due to mismanagement makes it highly unpredictable (volatile). Other factor contributing to this is the provision of window period before repayment commence especially for foreign aid, repayment of principle and interest reduces initial huge positive impact to such a level that is insignificant.

CONCLUSIONS

The study set to establish the impact of capital inflows on economic growth in Kenya. For the purposes of this study the entire capital inflow to the economy was categorized into three broad categories namely Foreign Direct investment (FDI), Foreign Portfolio Investment (FPI) and

Foreign Debt representing the debt component of capital inflows. From the summary of findings it is apparent that most of the variables of interest didn't seem to matter for growth in the long run whereas they exerted significant effect in the short run.

The general understanding is that FDI is one of the major channels through which advanced technology and expertise is transferred to a developing economy. It is observable from the findings that FDI didn't exert significant influence to economic growth in Kenya during the period under investigation. These results are consistent to the findings of (Lyroundi *et al*, 2004; Carkovic and Levine, 2002). However, it contradicted findings by (Campos and Kinoshita, 2002; Madura and Picou, 1990 and Hooley *et al*, 1996) who asserted significant positive impact of FDI on economic growth.

Results on FPI and economic growth converged with most studies by amply impacting positively to growth. This outcome coincided with the findings of (Berkaert and Harvey 2000; Durham 2003). It is however, conflict the static benefits of portfolio equity flows as documented by (Claessens *et al* 1995; Stultz (1999). Results indicate that FPI inflows to Kenya are pegged to political climate prevalent in the country which, in turn, induced the cyclical trend seen across time.

The study has evidently pointed out that foreign debt exerted significant positive effect on economic growth in the short run but this influence diminished in the long run. This is a clear sign that accumulation of foreign debt overtime will hamper economic growth. Results are consistent to the findings of Adepoju *et al* (2007) indicating situation of liquidity constraint in the economy.

Short of having the luxury of better and longer data series, there was no obvious way to deal with the robustness constraints imposed by the shortness of the sample. This notwithstanding, the findings of this study supplement existing knowledge base by concise explanation of unique behaviours of different components of foreign capital inflows to Kenya. It has clearly brought out interaction between economic growth and each category of capital flowing into the economy with FDI identified as policy dependent predictor of growth, whereas FPI and foreign debt behaviours hinged on prevailing macroeconomic and political climate in the country.

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