

The Relationship between Foreign Capital Inflows and the Economic Growth of Kenya

¹Beatrice Muigai, ²Dr. Muturi Willy

Abstract: The flow of FDI, foreign debt, foreign aid and remittances from countries of origin to developing countries has raised debate on the development potential in receiving countries. These foreign capital inflows enhance the economic growth of the recipient countries as they are used for development and poverty alleviation. This study aimed at establishing the relationship between foreign capital inflows and economic growth of Kenya using Panel data for the period 2000-2015. Some of the factors pointed out in the literature include remittances, foreign aid, foreign debt and FDI. The study used causal research design and Ordinary Least squares method. Data was collected using a data collection sheet which was cleaned and coded. The data was analyzed using multiple linear regressions method. The findings have established that there is a relationship between FDI inflow and GDP of Kenya. The study has also established that the relationship between foreign debt and economic growth in Kenya is negative. As foreign debt increase, economic growth deteriorates. The study has further established that remittances indicators are the most significant factors influencing the economic growth in Kenya. Finally, the study has established that on average foreign Aids had more negative impact on GDP growth in the 2004 relative to early 2014.

Keywords: Balance of Payment, Budget aid, financial globalization, Market imperfections.

1. INTRODUCTION

A booming interest on the part of foreign capital inflows has developed over the past few years by international monetary institutions, donor countries, receiving countries and academics. The flow of FDI, foreign debt, foreign aid and remittances from countries of origin to developing countries has raised debate on the development potential in receiving countries. These foreign capital inflows enhance the economic growth of the recipient countries as they are used for development and poverty alleviation. Kenya is working hard to achieve the goals as set in the vision 2030. Internal sources of finance are not usually enough to finance both recurrent and development expenditures of the country (Afrodad, 2003). To curb this financial constraint, the country obtains external finances in terms of FDI, foreign debt, foreign aid and remittances. However, if the finances are obtained beyond a certain limit for instance public debt, it may have detrimental effects on the country such as inability to pay the loan. This would make the country to direct every income obtained from other sources including taxes towards repayment of the loan further deteriorating the economic growth. Remittances and foreign direct investment may also have no effect on economic growth depending on the purpose for which the money is used. On the other hand, foreign aid may have positive or negative effect on the economic growth of a country. Several studies have been carried out on the effect of these foreign capital inflows on the economic growth of a country and brought conflicting results (AECT, 2001)

Statement of the problem:

Availability of capital is one of the essential factors for economic development. Internally generated cash flows are not usually enough to finance long term projects. Developing countries have thus resorted heavily on foreign capital to achieve rapid economic growth (Putunoi and Mutuku 2013). To accelerate the pace of accomplishing the remaining goals, Kenya will continue to benefit from remittances by the Kenyan Diaspora, increased foreign direct investments, more portfolio inflows and cooperation from our development partners (National Economic and Social Council, 2007). However, if a country borrows beyond a certain limit, it may be unable to repay the debt leading to scaring away of other foreign investors, negative image of the country and will direct all other government revenues to the repayment of debt.

Numerous researches have been conducted to ascertain the relationship between foreign capital and economic growth of the country. Ocharo and Wawire (2014) investigated the relationship between capital flows and economic growth by

looking at the causality, effects and implications of foreign debt, foreign direct investment and portfolio investments on economic growth in Kenya. Other studies have investigated the impact of various components of private capital inflows on economic growth are cross-country (Gheeraert and Mansour, 2005; de Vita and Kyaw, 2009; Macias and Massa, 2009). In their single country study, Sethi & Sucharita (2009) did not include cross-border interbank borrowing as one of the components of private capital inflows. To the best knowledge of the researcher, no single study has been carried out on the effect of the four forms of foreign capital inflows jointly. This study aimed at establishing the relationship between foreign capital inflows and economic growth of Kenya, ascertain the extent to which each of the components of foreign capital inflows affects the economic growth and which components of foreign capital inflows have more effect on economic growth as compared to the others.

Objectives:

- i. To establish the relationship between foreign direct investment and economic growth.
- ii. To find out the relationship between foreign debt and economic growth.
- iii. To determine the relationship between remittances and economic growth.
- iv. To investigate the relationship between foreign aid and economic growth

2. THEORETICAL REVIEW

The Neo-classical theory:

Capital flows are driven by return differentials among countries. If there are no restrictions, capital will flow where returns are higher and capital is relatively scarcer, i.e. to developing countries. This situation allows countries to improve their pattern of inter-temporal consumption, by either lending money to finance more lucrative projects abroad, or borrowing money more cheaply than what could be borrowed domestically to finance more investments. Essential to this theory is the identity that equals the current account to the difference between saving and investment: $CA = X - M = S - I$. This implies that savings and investment decision are the key variables of analysis of capital flows. According to Brunnermeier et al., (2012), capital flows are traditionally viewed as the financial counterpart to savings and investment decisions in that capital should flow from capital rich countries with lower rates of return to capital-poor countries with higher returns. The focus is typically on net capital flows, since that is what counts for funding a country's borrowing requirements. However, (Lucas, Robert 1990) argue that capital does not flow from developed countries to developing countries despite the fact that developing countries have lower levels of capital per worker. They explained that this could be as a result of differences in fundamentals that affect the production structure of the economy, such as government policies, technological differences, missing factors of production and the institutional structure. They also attributed this to international capital market imperfections, mainly sovereign risk (risk of nationalization), uncertainty of returns and asymmetric information.

Dependency theory:

This theory is predicated on the assumption that resources flow from a "periphery" of poor and underdeveloped states to a "core" of wealthy states, enriching the latter at the expense of the former. It is a central contention and standpoint of dependency theory that poor states are impoverished and rich ones enriched by the way poor states are integrated into the "world system" (Todaro, 2003; Amin, 1976). Poor countries export primary commodities to the rich countries that then manufacture products out of those commodities and sell them back to the poorer countries. Raul Prebisch (1960) held that economic activity in the richer countries often led to serious economic problems in the poorer countries in that the "Value Added" by manufacturing a usable product always cost more than the primary products used to create those products. Therefore, poorer countries would never be earning enough from their export earnings to pay for their imports.

Dependency theory attempts to explain the present underdeveloped state of many nations in the world by examining the patterns of interactions among nations and by arguing that inequality among nations is an intrinsic part of those interactions (Chew and Denmark, 1996). This theory is based on the Marxist view of the world that sees globalization in terms of market capitalism and exploitation of cheap labor and resources in return for obsolete technologies of the west.

The Dual-gap theory:

According to Oloyede (2002), the analysis explains that development is a function of investment and that such investment which requires domestic savings is not sufficient to ensure that development take place. There must be the possibility of obtaining from abroad the amount that can be invested in any country as identical with the amount that is saved. Omoruyi (2005) stated that most economies have experienced a shortfall in trying to bridge the gap between the level of savings and investment and have resorted to external borrowing in order to fill this gap. This gap provides the

motive behind external debt as pointed out by (Chenery, 1966) which is to fulfill the lack of savings and investment in a nation as increases in savings and investment would vis-à-vis lead to a rise in economic growth (Hunt, 2007). The dual-gap analysis provides a framework that shows that the development of any nation is a function of investment and that such investment requires domestic savings which is not sufficient to ensure that development take place (Oloyede, 2002). The dual-gap theory is coined from a national income accounting identity which connotes that excess investment expenditure (investment-savings gap) is equivalent to the surplus of imports over exports (foreign exchange gap).

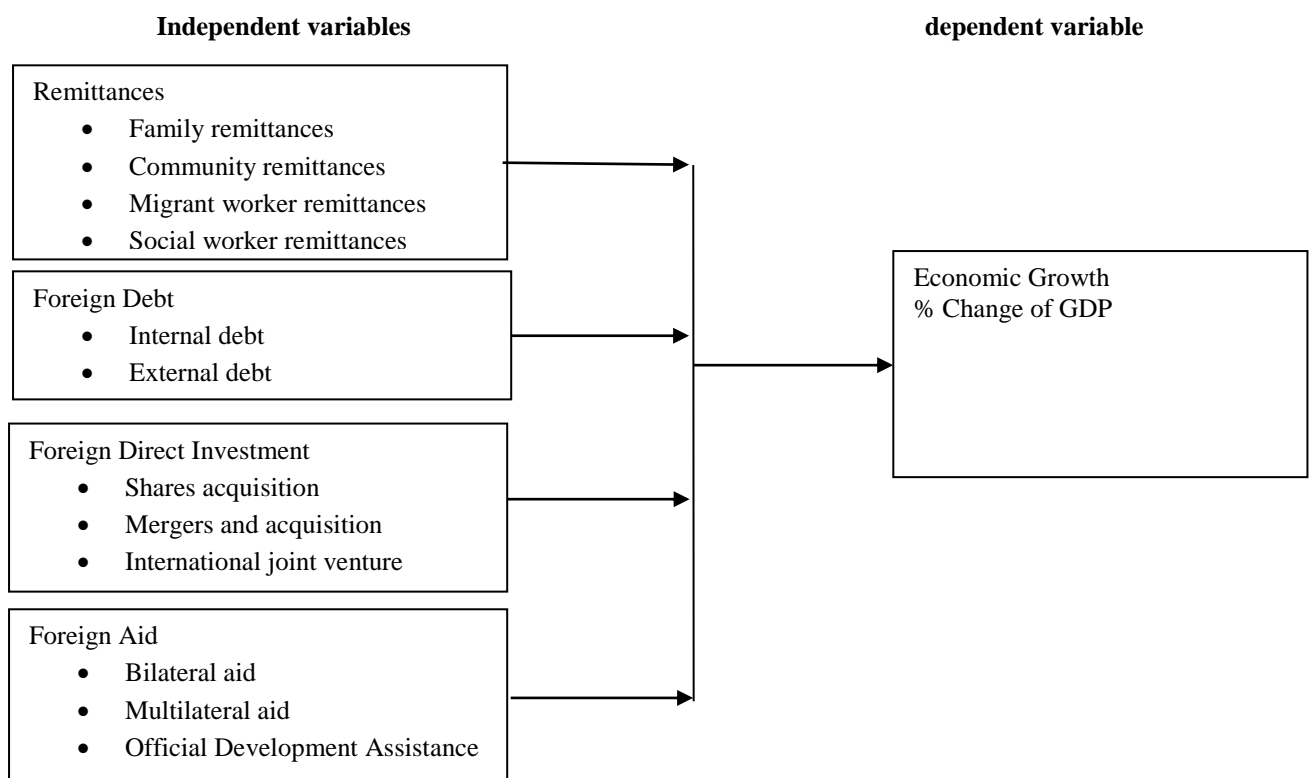
Pure self-interest theory:

Pure self-interest theory is a motivation to remit. In this case, a migrant sends remittances with the aspiration to inherit, to demonstrate laudable behavior as an investment for the future or with the intent to return home. Vargas-Silva and Huang (2006) suggested that some emigrants send remittances because they expect to return home in the future and can benefit from the household’s gratitude from having sent remittances. Lucas and Stark (1985) mentioned that when emigrants intend to return to their home country, they would send more remittances to ensure that their social assets, that is, relationships with family and friends are intact. Others have argued that if there is a minimal amount of money to be remitted, parents and other family members can encourage transfers above this benchmark level by offering a ‘reward’ in the form of land or any other inheritable assets (Hoddinott, 1994).

In summarizing the self-interest theory of remittances, Rapoport and Docquier (2005) claimed that a positive relationship exists between migrants sending remittances and their income and education, recipient household wealth and short-run income shortfalls as well as familial ties. They however stated that the relationship between migrants remitting and the recipient households’ long run income is ambiguous.

3. CONCEPTUAL FRAMEWORK

A conceptual frame is a written or visual presentation that explains either graphically, or in narrative form the key factors, concepts or variables and the presumed relationship among them (Miles, Huberman, 1994). In this study, the researcher sought to establish the relationship between foreign capital inflows and the economic growth of Kenya. It was conceptualized within the dependent-independent variable components and their indicators. The figure below shows a diagrammatic representation of the relationship between the dependent and independent variables.



4. CRITIQUE OF EXISTING LITERATURE

Whereas capital inflows have been associated with higher levels of economic growth in some countries, it may also lead to overheating. Capital inflows may lead to excessive expansion of aggregate demand or macroeconomic over-heating. This expansion is likely to be reflected in inflationary pressure, real exchange rate appreciation, and widening current account deficits (Chea 2011)

5. RESEARCH GAPS

Several studies have been done locally; Ocharo and Wawire (2014) investigated the causality between foreign direct investment, portfolio investment and cross-border interbank borrowing and economic growth of Kenya. Makori et al (2015) researched on the effects of external capital on economic growth in Kenya. (Aham, Emeka (2012) found the causal relationship between foreign capital inflows and economic growth of Nigeria. Baillui (2000) investigated the effects of capital flows on economic growth in developing countries. These studies while shedding so much light on capital inflows, they were only limited to each of the component of foreign capital inflows and their effect on economic growth. To the best of the researcher knowledge, for the few that focused on not even a single research has identified and investigated the effect of macro-economic factors on the availability of foreign capital inflows such as insecurity and the correlation between foreign debt, foreign aid, remittances and foreign direct investment and their corresponding effect to economic growth in the context of Kenya.

Globally, the gap still remains unfilled as several studies have been carried out. Prasad (2007) did a study on the relationship between foreign capital inflows and economic growth of industrial and non-industrial countries. Yothin (2011) conducted a survey on the effect of foreign capital inflows to economic growth of a country using a sample of 100 countries. Different countries have different characteristics in terms of political stability, their balances of payments, investment levels and the extent of development. So carrying the same research on other countries can give either the same of different results. So, this study will attempt to establish the same relationship test in Kenya.

6. RESEARCH METHODOLOGY

The research design used in this study was causal research design. The target population was Kenyan economy for the financial period 2000/2001-2014/2015. The target population for ODA, public debt and FDI was Kenya National Bureau of statistics, OECD and World Bank database while data concerning remittances was drawn from Central Bank of Kenya and World Bank. The study used Statistical Package for Social Sciences (SPSS Version 21.0) to estimate the result of the correlation between the variables..

Model

The study employed time series multiple regression method to develop a model on the relationship between foreign capital inflows and the economic growth of Kenya. In this study the following was the regression equations that were used to test the significance of the study hypotheses:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where,

Y= Economic growth

X1: Public debt

X2: Foreign Direct Investment

X3: Remittances

X4: Foreign aid

ε : Error term

The economic growth was measured in terms of GDP. Public debt, foreign aid, foreign direct investments and remittances was measured by total value in \$US dollars. β_0 is the constant or intercept while β_1 , β_2 , β_3 , and β_4 , are the corresponding coefficients for the respective independent variables. ε is the error term which represents residual or disturbance factors or values that are not captured within the regression model. The interpretation of X , β and ε is the same for the subsequent equations for testing the other study objectives

7. RESULTS AND DISCUSSION

Descriptive Analysis

Table 4.1 Descriptive summary

Variable	Minimum	Maximum	Mean	Std Deviation
Economic growth	-0.071	0.457	0.111	0.103
Foreign direct investment	7.759	9.976	9.244	0.608
Foreign debt	0.029	0.615	0.179	0.127
Remittances	12.000	87.000	59.667	23.452
Foreign aid	0.785	18.287	3.333	3.459

Augmented Dickey-Fuller unit root test

A series integrated of order zero $I(0)$ is said to be stationary. It had been shown in econometric studies that most macroeconomic time series are not stationary at levels (Engle and Granger, 1987). Non-stationary series have infinite variance asymptotically which leads to invalid asymptotic analysis since they face spurious and inconsistency regression problems. Augmented Dickey-Fuller unit root (ADF) test was used to examine the properties of the time series data.

Giving this knowledge, testing for stationary of variables to obtain a more reliable result becomes very essential. The test revealed that at 5% critical values, Domestic Product and Remittances are stationary at levels with the probability of 0.0000 respectively as shown in Table 4.2. At first differencing, Foreign Direct Investment, Foreign Debts and Foreign Aids are stationary with the probability value of 0.0006, 0.0004 and 0.0030 respectively.

Table 4.2: Augmented Dickey-Fuller Unit Root Test

Variables	ADF Levels	at	ADF Test Statistic	Pro. Values	5% Test Critical Values	Decisions
GDP	4.1245		4.2525	0.0000	-3.7520	1(0)
Foreign direct investment	0.8750		-5.7230	0.0006	-2.6822	1(1)
Foreign debt	-1.5450		-6.1250	0.0004	-2.6620	1(1)
Remittances	5.2416		3.2200	0.0000	-2.8672	1(1)
Foreign aid	-0.4575		-5.3502	0.0030	-2.7450	1(1)

Hausman Test

To choose between FEM and Random Effect Model (REM), the researchers had conducted Hausman test. The null hypothesis states that REM is better than FEM. From table 4.3, the p-value of 0.0000 reckons the researchers to accept null. Under the random effect, the model assume that error term uncorrelate with repressors or the independent variables. This concludes that random effect is the best. The results have been summarized in the table 4.3 below.

Table 4.3: Effect of foreign capital inflows on the economic growth

Variables	Pool Effect	Fixed effect	Random effect
Intercept	0.2360		0.533
Direct investment	0.005	0.004	0.005
Foreign debt	-0.006	-0.003	-0.004
Remittances	0.002	0.002	0.003
Foreign aid	-0.002	-0.008	-0.009
Hausman Test	8.09 (p-value=0.230)	1.270 (p-value=0.246)	8.556 (P-value=0.000)
R2	0.28	0.40	0.48
No. observation	60	60	60

Correlation Analysis:

The study used correlation matrix to establish if linear relationship exists between individual variable and economic growth. From Table 4.3 below, there was: positive linear association between economic growth and foreign direct

investment(R =0.173); negative linear association between economic growth and foreign debt (R=-0.108); positive linear association was established between economic growth and remittances (R = 0.605); negative association between foreign Aid and economic growth (R=0.429); good and positive linear association was established between economic growth

Table 4.4 Correlation Matrix

Variables	FID	FD	Rem	FA	Economic growth
FID	1.000	-0.003	-0.292	-0.485	0.173
FD	-0.003	1.000	-0.624	-0.458	-0.108
Rem	-0.292	-0.624	1.000	0.416	0.605
FA	-0.482	-0.458	0.416	1.000	-0.429
Economic growth	0.173	-0.108	0.605	-0.429	1

Regression Analysis:

Regression results according to Fixed effect Model

Table 4.5: Regression coefficients of the relationship between foreign capital inflows and the economic growth in Kenya

Model		Coefficients Beta	Std. Error	T	Sig
1	(Constant)	1.050	0.217	4.84	0.553
	Foreign direct investment	0.350	0.145	2.41	0.005
	Foreign debt	-0.770	0.180	4.28	-0.004
	Remittances	0.875	0.192	4.56	0.003
	Foreign aid	-0.750	0.091	8.24	-0.009

As per Table 4.16, the equation ($RGDP_t = \beta_0 + \beta_1 FDI_t + \beta_2 FA_t + \beta_3 FD_t + \beta_4 RT_t + \dots + U_t$)

becomes: $Y = 1.050 + 0.350X_1 + 0.770X_2 + 0.875X_3 + 0.750X_4$

Where Y is real gross domestic product proxied for economic growth;

FDI is foreign direct investment;

FA is foreign aid;

FD is foreign debt;

RT is remittances.

The regression equation above has established that taking all factors into account (foreign direct investment, foreign aid, foreign debt and remittances) constant at zero GDP will be 1.053. The findings presented also show that taking all other independent variables at zero, a unit increase in the foreign direct investment would lead to a 0.350 increase in the scores of GDP and a unit increase in the scores of foreign aid would lead to a 0.770 reduction in GDP. Further, the findings shows that a unit increases in the scores of foreign debt would lead to a 0.875 reduction in GDP The study also found that a unit increase in the scores of remittances would lead to a 0.750 increase in GDP.

8. RECOMMENDATION

Since there is a positive though weak relationship between FDI and GDP in Kenya, to effectively manage these foreign investments so that the masses can feel the impact, the government of Kenya should avert a greater share of FDI in investment in Key sectors that contributes to the greatest exports and economy of the country. Key sectors will include agriculture because about 70% of the Kenyan population depends on agriculture. Trade liberalization in agricultural is mostly important and growth in agriculture has an equal effect on economic growth.

The government should pay more attention to the debt management profile particularly in its expenditure. Borrowed funds should be put into productive projects and programmes to improve the economy. There is great need for laws to guide sourcing, management and limits on loan-taking by the government. External debt should be tied to productive ventures rather than to social consumption.

Remittances are an important source of external capital that can help boost economic growth in Kenya. Two important characteristics of remittances are worth underscoring: they are largely unaffected by political or financial crises, tending to increase in times of hardship and they are equally spread among developing countries than are other financial flows. The country needs to consider adopting institutions that help in amplifying the growth effects of remittances into sustainable economic growth. The government in conjunction with financial institutions should come up with policies that make it cheap, easy and safe to receive remittances as well as establish efficient and effective formal channels for sending and receiving remittances.

It is recommended that the government should improve the productivity of its investment so as to generate positive returns and enhance its complementary role to private sector. It should also institute measures that stimulate and support private investment such as mobilization of domestic savings and creation of a stable macroeconomic environment.

Suggestions for Further Research

The share of Kenyan remittances from North America, Europe, Asian and other parts of the world differ. There is need for further research to determine the factors that contribute to the difference in the share of remittances of the different parts of the world.

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