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Impact of Capital Flight on Private Investment in Kenya

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Abstract

Purpose: Private investment is the engine of growth in an economy. It is a major source of employment besides positively contributing to national output. Conversely, when capital flight occurs, domestic private savings and resource mobilization is undermined thus brings about low private investment. This research paper analyses the impact of capital flight on private investment in Kenya. The paper offers a summary of why private investment in Kenya is undermined by capital flight due to the resource gap which it creates. Further, it develops an equation to estimate investment which is derived from the flexible accelerator theory of investment.

Methodology: In order to examine the relationship between capital flight and private investment, time series data from 1970 to 2012 is employed and OLS regression analysis is used.

Results: The study found that capital flight has an adverse effect on private investment. Econometric results of this study support the existence of a negative relationship between capital flight and private investments. The study shows that external debt, change in terms of trade, real interest rate and ratio of private credit to GDP also affects private investment.

Unique contribution to theory, practice and policy: In order to increase new levels of private investments, government ought to put in place measures to regulate financial flows despite the policies and laws development countries and tax havens. The government should put in place strategies to encourage bias in home investment. This will encourage private investment and reduce capital flight. Lastly, reforms in the financial and regulatory system at the global level are required as well as in international institutions such as World Bank, World Trade Organization and International Monetary Fund. This requires a great deal of coordination between the Kenyan government and the international institutions.

Key words: *Capital flight, private investment, economic growth*

1.0 INTRODUCTION

Investment is one of the leading factors that promote economic growth and development in developing countries like Kenya. Long-term solutions to poverty and unemployment may be reached through investment. On the other hand, capital flight shrinks the available capital for investment purpose in the economy therefore lowering investment. Deprivation of capital in Africa through capital flight has witnessed increasing attention from policy makers and researchers including Ajayi (1997), Boyce and Ndikumana (2012), and Yalta (2010) among others. The striking paradox is that despite having a massive deficit in capital inflows, the continent ranks high in capital flight. This paper focuses on how capital flight affects private investment in Kenya.

Investors from developed economies responding to investment prospects in less developed economies are said to be foreign direct investors (FDI) while counterparts in under developed economies are said to contribute to capital flight (Ajayi, 1997). For this reason, a general definition of the term capital flight in economics does not exist. This is due to lack of a precise and acceptable measurement and definition of capital flight. Several definitions of have led to different measures of capital flight. Amongst the different definitions and measures, World Bank's residual method which differentiates between recorded sources of funds and recorded uses of funds has received more attention in literature (Gusarova, 2009). Capital flight is a negative flow and for the purpose of this study, capital flight is defined as unrecorded capital outflows by the residents of a developing country (Yalta, 2010).

There exist numerous explanations of capital flight in economic literature and therefore there exist no common agreement on the approach to use in measurement of capital flight. To that end, there exist a range of approaches to measurements of capital flight. The definition adopted for capital flight determines the measurement used. Numerous explanations of capital flight have been advanced. Consequently, several measures of capital flight are found in economic works, this includes; balance of payments/ residual, hot money and dooley method (Mullineux & Murinde, 2003).

The first method is the balance of payments (BoP) method. The method attempts to match the capital inflows sources in foreign investment and external debt with their uses. The difference is known as capital flight. This method is also known as residual and is generally used in the economic literature. The method recognizes key difficulties in unraveling capital flight and normal/ordinary outflows (Mullineux & Murinde, 2003).

The second method was advanced by Dooley (1994). Dooley method focuses on determining illegal capital outflows from a country. The method contends that capital flight and illegal outflows are majorly driven by need to put monies outside the local resident authorities' control. Dooley method considers all leakages that are non interest receiving as illegal and concludes that the surplus of outflows over registered stock on external assets is capital flight (Lawanson,2007).

The other measure of capital flight is the hot money. This theory argues the short term disparities in financial markets (both domestic and international) are the key causes of capital outflow. Capital flight goes unrecorded because of the unlawful nature of capital movements. Net errors and omissions are included to explain the short term capital flows which are not captured (Lawanson,2007).

The rational idea advanced by Weeks (2015) is that capital flight occurs either for the purpose of evading seizure, or in pursuit of greater earnings, or to avoid taxation. Capital flight results to anti-social activities which are classified as illegal in many countries.

Consequently, capital flows needs the control and guideline of cross-country flows. Regulating capital flow and reducing capital flight is equivalent to regulating normal market transactions enforcing trading laws that prevent fraud (Weeks, 2015). For the purpose of this study we use the residual method. The choice of this method is motivated by the other methods have major weaknesses (Hermes *et al.*, 2002).

Keynesians recognized capital flight phenomenon as a danger posed by an open economy, and argue that it is impossible to achieve full employment in a country if the capital flows freely among countries. Keynesians assume that in order to control international capital movements the country's central bank needs to monopolize its supply of foreign exchange movement and control (Barro, 2009).

Keynesians believe that governments are justified to stimulate economic growth through the use of deficit causing fiscal policy. The theory assumes that interest rate sensitivity of investment is low and the economy is not at full employment. In such a situation increased government spending causes minimal increase in the interest rate whilst increasing output and income (Ghura & Goodwin, 2000). One of the positive effects of government spending is that it increases private investment due to the investors' expectations. This is based on the principle of the multiplier where a change in government expenditure induces a greater change in output. Barro (2009) illustrates this point by explaining that an increase in aggregate demand leads to increased output in the Keynesian model, that entails more real income, hence a further increase in aggregate demand.

1.2 Problem Statement

In the last four decades capital flight in Sub-Saharan Africa (SSA) has been on the rise. For instance a study by Boyce and Ndikumana (2012) estimated that Kenya's tax loss from trade misinvoicing by multinational corporations and other parties is estimated to be 8.3 per cent of government revenue. Additionally, Kenya lost USD4.9 billion in capital between 1970 and 2010 (Boyce & Ndikumana, 2012). Lastly, Kenya is believed to have lost as much as USD1.5 billion between 2002 and 2011 to trade misinvoicing (AU, 2015). Increase in capital flight reduces funds available for investment, causes an increase in cost of funds due to scarcity and consequently reduces private investment. Private investment has been identified as one of the pillars for achieving sustainable economic growth in Kenya (Njuru *et al.*, 2013). To that end, capital flight constitutes a problem and if it is not addressed, it will slow down saving, investment and economic growth of Kenya. The main objective of the study was to investigate the impact of capital flight on private investment in Kenya. The study also established the relationship between capital flight and private investment in Kenya and also drew up policy recommendations that address the problem of capital flight and encourage private investment in Kenya.

2.0 THEORETICAL FRAMEWORK

2.1 Theories of investment

Several approaches have been put forward to explain investment. These include the following simple accelerator theory, flexible accelerator model or neoclassical theory and Tobin's Q theory. Simple accelerator model was founded by Clark (1917). This model assumes a constant capital-output ratio for firms' and that to maintain a given level of output, capital stock (K) is necessary. The relationship is proportional to output (Y) and hence there exist a proportional change in investment to the desired output. This relationship can be presented as below;

$$K_t - K_{t-1} = I_t = k\Delta Y_t \quad (1)$$

Where; K_t is capital stock in period t , K_{t-1} is the stock of capital at the end of previous time period, it is net investment in period t , k is the desired capital-output ratio and Y_t is output in period t . The main weakness in this theory is that it assumes the ratio of desired capital to output is constant. This is not true because it varies with a change in the cost of capital and technology. Secondly, the theory assumes that firms respond to changes in demand in a way that investment is at all times sufficient to keep the desired capital stock same as the actual capital stock and this is not necessarily true.

Flexible accelerator model or partial adjustment model of investment was suggested by Lucas (1967). The theory postulates a constant proportion of adjustment towards the desired level. This model further assumes investment rate of a firm is determined by the gap between desired capital stock (K^*) and the existing capital stock (K). As a result, firms plan to close the capital stock gap. The equation for net investment is as below:

$$I_t = K_t - K_{t-1} = \delta(K_t^* - K_{t-1}) \quad (2)$$

Where, K is the actual capital level, K^* is the desired capital stock by local firms; K_{t-1} is the previous time's stock of capital and δ denotes adjustment coefficient. In this model, the desired stock of capital is positively correlated with the expected growth in GDP. The desired capital (K^*) depends on capital flight, external debt, private credit to GDP ratio, terms of trade and real interest rate, among others as summarized in equation (3). Thus, an investment model can be specified in a function form as: k

$$K^* = f(KF, EXD, DCR, ToT \text{ and } RiR) \quad (3)$$

The liquidity theory proposes that fluctuations in profits earned causes fluctuations in investment (Tinbergen, 1939). The theory further argues that profits earned measure expected profits. Moreover, the level of investment is constrained by availability of funds. The firm may opt to source for funds externally to finance its investment where internal sources of funds are exhausted (Mbaye, 2012).

Tobin's q model which was developed by Tobin (1969) is the next theory. The theory maintains that the firms' level of investment is determined by the ratio of present value of capital installed to the replacement cost of capital. This ratio is what is known as Tobin's q . A firm will raise its capital if this ratio (q) is larger than 1 and consequently decrease its capital stock if q is less than 1. The replacement cost of capital of the firm will be a dollar cost of capital and the firm will make profits more than a dollar at present value if the ratio q is bigger than 1. By investing more and more capital, firms will reap profits *ceteris paribus* and therefore the level of investment to be high. Consequently, if q is less than 1, by investing in new capital the present value of profits earned are not as much as the cost of the capital therefore, when q is less than 1 levels of investment will be close to zero. This model can be written as below:

$$q = (\delta/\lambda) \quad (4)$$

Where; δ is the firm's stock market value and λ is the price of capital.

Given the foregoing discussion on the above theories, flexible accelerator model has been and remains the most popular investment model and is easily applied in less developed countries like Kenya. Reason being data on fundamental variables like stock of capital and depreciation rates are not readily available in the less developed countries (Mutenyo, Asmah & Kalio, 2010).

2.2 Literature Review

A number of studies have looked at investment and capital flight. Oyieke (2011) studied the correlation between private investment financing and public investment in Kenya. The study used time series data and error correction framework for the period 1964 to 2006. The findings of the study were that local debt causes a negative and significant effect on investment. Whereas, agricultural investment has a positive and significant effect on private investment. Other factors significant include; external debt, real exchange rate, Political risk, Investment in infrastructure and tax.

While studying the factors of private investment using ARDL model, Kingori (2015) established that trade openness and real Gross Domestic Product (GDP) in the long run were the core factors affecting private investment while in the short run; real GDP is an important variable in explaining disparities in private investment, even though trade openness was not significant, inflation which was found to be significant.

Blejer and Khan (1984) analyzed factors that determine investment for 24 less developed countries. The study established if policy makers adopt tight monetary policy, private investment would be adversely affected. Additional, private investment in less developed countries is constrained by private sector flow of credit and the availability of financing. Similarly, Kinuthia (2015) using data for the period 1970 to 2010, examined the causality between capital flight and monetary policy in Kenya. Short run and Long run dynamics between monetary policy and capital flight were tested using Vector error correction model. The study found that illicit capital flight can challenge monetary policy, exchange rate in many less developed countries including Kenya.

Using panel data, Ghura and Goodwin (2000) investigates the factors affecting private investment in developing counties. The findings were real GDP growth was found to be insignificant in determining private investment in developing countries. This contradicts Altaleb and Alokori (2012) who analyzed the trends and determinants of investments for the period 1980-2010 in Jordan. The study concludes that private investments are significantly determined by exports and GDP.

There exists a mixed impact of GDP on private investment as established by Oshikoya (1994). This is because the relationship between private investment and GDP is positive in African countries, as slow economic growth discourages private investment. This finding is in line with studies by Blejer and Khan (1984), Serven and Solimano (1992) who concluded that gross domestic product is the most important determinant of private investment.

Using structural vector auto-regressions modeling techniques and time series data from 1965 to 2007, Karumba (2009) looked at factors affecting private investment in Kenya. The study established that the impact of shocks to tax administration override those of liberalization policies. Tax policy may promote or discourage private investment though other factors like government bureaucracy and corruption hinder private investment in many developing countries (Ghura& Goodwin, 2000).

Domestic investments are negatively affected by capital flight (Ndiaye 2011). Using ordinary least squares method and generalized method of moment using data from Franc Zone countries, Ndiaye (2011) found that an increase in one dollar of capital flight lowers domestic investment by 4.5 cents. The study suggests that repatriation of capital flight back to the country of origin will boost domestic investment.

Examining the effect of public investment on private investment in developing economies, Kehinde *et al.*, (2012) used a panel of developing countries. The study established that private investment is crowded in by public investment for instance; a growth in public investment by 10%, private investment will increase by 2%. Additionally, bank credit availability remains a major limitation to private investment.

A research by Mbaye (2012) on factors influencing domestic private investment in Kenya using data covering 1970-2010 established that there is a negative and significant influence on private investments. Conversely, real public debt, inflation public investment, deposit rates, financial liberalization and foreign exchange reserves have a negative and insignificant impact on private investments. Similarly, Njuru *et al.*, (2013) looked at the effect of taxation on private investment from 1964 to 2010. The results concluded that value added tax (VAT) and income tax have an adverse effect on private investment (Njuru *et al.*, 2013).

3.0 METHODOLOGY

Capital flight affects private investment in various ways as noted by Ndikumana (2014). First, the leakages cause a depletion of private savings which reduces capital formation. Secondly, uncertainty in macroeconomic indicators causes high levels of capital flight by as private agents assume macroeconomic policy economic regulation failure by government. As a result, private agents are concerned about future taxes being higher.

Jorgenson (1971) came up with the neoclassical methodology which is borrowed heavily from the flexible accelerator approach. The method argues that preferred level capital stock is equivalent to user cost of capital and output. It is in this line of research that most researchers Altaleb and Alokori (2012), Njuru, *et al.*, (2013) and Ghura and Goodwin (2000) have incorporated the following variables in their investment equation: Foreign Direct Investment, availability of domestic credit, debt, exports, interest rates and capital among others.

3.1 Model Specification

The accelerator theory takes investment as a function of economic growth and therefore the desired capital stock (K) is assumed to be directly related to levels of income (Y) in the long-run.

$$K = \alpha Y_t \quad (5)$$

where; α is a constant.

Differentiating the equation we get;

$$\Delta K_t = \alpha \Delta Y_t \quad (6)$$

Where; Δ represents the difference operator

Using the conventional capital accumulation identity (equation 2) to identify investment I, an equation showing the relationship between investment and desired capital stock is developed as below.

$$K_t = (1 - \delta) K_{t-1} + I_t \quad (7)$$

where; δ represents the depreciation of capital.

From equation (7) we obtain the following equation;

$$K_t - K_{t-1} = I_t - \delta K_{t-1} \quad (8)$$

The expression is rearranged assuming the proportion of depreciation to capital is too small¹ so we equate it to zero ($\delta = 0$), we can solve for I_t to yield the following equation;

$$\Delta K_t = I_t \quad (9)$$

Substituting Equation (9) in equation (6) we obtain;

$$I_t = \alpha \Delta Y_t \quad (10)$$

Where, I_t is the additional investment at period t and ΔY_t represents change in national output at time t . From equation 10, we can construe a direct relationship between Investment and National output.

3.2 Estimation procedure

To establish the impact of capital flight on private investment, this paper adopts and modifies Hadjimichael's (1994) model on the impact of capital flight on the economy using a panel data of 22 countries. Hadjimichael's model is as outlined below;

$$Y_{it} = \alpha_{it} + \beta X_{i(t-1)} + \gamma CF_{i(t-1)} + \varepsilon_{it} \quad (11)$$

Where dependent variable Y_{it} is the per capita growth of the GDP, $X_{i(t-1)}$ represent the set of control variables taken with the lag and $CF_{i(t-1)}$ is the proxy for capital flight.

From equation 10, we demonstrated that investment at period t is equal to a portion of the change in output. In this regard, contributors to the change in output have a direct bearing on the level of capital commitment (investment). This paper modifies Hadjimichael (1994) as;

$$I_t = \gamma + \beta_i \sum X_{it} + \alpha KF_t + \varepsilon_t \quad (12)$$

Where I represent Private investment, KF represents capital flight (as the main variable), and X_{it} represents a set of control variables (external debt, private credit to GDP ratio, terms of trade and real interest rate all as used by Yalta (2010); Blejer & Khan (1984)), α and β are coefficients and γ is a constant. Equation 12 represents the final equation to be estimated.

3.3 Data source and measurements

Time series Secondary data for the period 1970 to 2012 is used. Data sources are as follows; Private investment is a proportion of GDP. This is obtained from Kenya National Bureau of Statistics (KNBS) economic surveys. Capital flight as a proportion of GDP is sourced from the World Bank development indicators database 2015. The ratio of private credit to GDP is obtained from Kenya National Bureau of Statistics (KNBS) economic surveys. Real interest rate is obtained from Central Bank of Kenya (CBK) bulletins while terms of trade for Kenya is obtained from International Monetary Fund (IMF) World Economic Outlook database 2015. Lastly, external debt is from World Bank development indicators database 2015.

Private investment (I) is the dependent variable and is measured as a percentage of GDP

Capital flight (KF) is expressed as a proportion of GDP. Measurement of capital flight is from secondary data from World Bank database using World Bank's residual method of measuring capital flight from 1970 – 2012². The relationship expected between capital flight and private investment is negative.

¹ Assuming investment financed by capital inflows has a long life span rendering the accruing depreciation at time t to be too small hence insignificant.

² This period was chosen due to limited data availability and it also captures three political regimes in Kenya.

Private credit to GDP ratio (DCR) is the sum of financial assets to private sector expressed as a proportion of GDP. A positive relationship is expected between private credit and private investment.

Real interest rate (RiR) is the commercial banks' lending rates determined by Kenya Bankers' rate (KBR) and set by central bank of Kenya (CBK). According to neoclassical theory of investment, interest rates are negatively related to investment and therefore high interest rates results to high cost of credit which in turn will discourage investment. This is because the desired stock of capital is a function of real output and the opportunity cost of capital and the desired capital stock is directly related to output and inversely related to the cost of capital. This follows that a decrease in the real interest rate lowers the opportunity cost of capital which in turn raises the desired capital stock and investment spending. The expected relationship between real interest rate and private investment is negative.

Changes in terms of trade (TOT) measures the ratio of a country's export prices to its import prices. Where TOT is less than 100%, then more capital is going out than coming in while if it's greater than 100% then there capital accumulation in the country. The terms of trade provides a critical component on determination of private investments. A decline in terms of trade lowers the purchasing power of a country's exports. This in turn increases the import price of other investment goods and lowers the ability of the private investors to spend on investment. It is expected that changes in terms of trade for Kenya will negatively affect private investment by increasing relative prices of imported capital goods.

External debt (EXD) is expressed as a proportion of GDP. This is the amount of debt a country borrows from foreign creditors divided by GDP. The loans and interest are paid back in the lending/borrowing currency. In order to earn the needed currency, trade with the lending country is necessary. Also according to debt cycle thesis by Avramovic (1964) an economy which is characterized by low domestic savings, external debt is considered as an important source of funding. Thus changes in external debt would influence the available resources for investment. The expected relationship between external debt and private investment in Kenya is negative. In this study; I, KF, ToT, DCR, EXD and RiR stand for private investment, capital flight, terms of trade, ratio of private credit to GDP, external debt, and real interest rate respectively.

4.0 EMPIRICAL RESULTS

4.1 Descriptive statistics

Table 1 displays a summary of descriptive statistics for the study variables.

Table1: Summary descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
EXD	43	22.26	7.33	33.76	6.00	-0.70	2.88
ToT	33	90.78	10.61	70.15	114.02	0.31	2.52
RiR	43	6.458	7.755	-8.13	21.10	0.10	2.33
I	43	18.94	2.06	15.39	25.08	0.34	3.42
DCR	43	27.01	4.54	15.12	34.84	-0.69	3.23
KF	41	0.73	0.49	-0.23	2.20	0.45	3.66

These results show that external debt has on average been 22.26% of the GDP. The skewness shows that most of the years the percentage of external debt as a percentage of GDP had been more than the mean. Also the value of kurtosis shows that the data was highly peaked.

EXD is the ratio of external debt to GDP; TOT is the ratio of changes in terms of trade to GDP; RiR is the ratio of real interest rate to GDP; DCR is the ratio of private credit to GDP; KF is the proportion of capital flight to GDP; I is the proportion of private investment to GDP.

The results also show that on average, the terms of trade (which gives the ratio of exports' price to that of imports) is 90.70 with fluctuations of 10.61. The highest value realized was 114.02 while the least value was 70.15. The distribution is positively skewed and highly peaked. This means that in most of the years the value of terms of trade had been less than 90.78.

The average rate of interest rate since 1970 has been 6.45%. The highest rate of interest was 21.10 % and the least was -8.13%. The distribution of this variable was positively skewed meaning that the interest rate for most of the years had been lower than the mean. Also the kurtosis value is high meaning it was highly peaked.

On average, the value of private investment measured as a percentage of GDP was 18.94% fluctuating by 2.06. The least value of private investment was found to be 15.39% of GDP and the highest value recorded being 25.08% of GDP. The value of skewness was found to be 0.34 while that of kurtosis at 3.42. This implies that in most of the years, the value of private investment was less than 18.94% of gross domestic product.

The proportion of private sector credit was on average 27.01% of GDP with a standard deviation of 4.54. The highest value was 34.84% of GDP while the least value was 15.12% of gross domestic product. The private sector credit distribution is negatively skewed and highly peaked. This means the value of private sector credit was mostly more than 27.01% of the value of GDP.

Lastly, the proportion of capital flight to GDP was on average at 0.73% with some very little deviations of 0.49% of GDP. The least value of capital flight reported was -0.23% of GDP while the highest value was recorded at 2.20% of GDP. The distribution of capital flight (expressed as a percentage of GDP) was positively skewed and also very highly peaked. This implies that most of the value of capital flight between 1970 and 2012 was less than 4.94E-6%. This shows the loss of capital outflow has been substantial over the period of the study.

4.2 Correlation matrix of variables

Table 2 presents the correlation matrix of the variables.

Table 2 Correlation of the variables

	I	KF	EXD	RiR	ToT	DCR
I	1					
KF	-0.157	1				
EXD	0.219	-0.014	1			
RiR	-0.167	-0.108	-0.022	1		
ToT	-0.388	0.313	-0.171	-0.129	1	
DCR	0.313	0.151	0.110	0.343	-0.262	1

Computation of the correlation matrix helps in testing linear correlation between the model's variables as well as their strength, in terms of the best variable explaining the relationship between private investment and capital flight in Kenya.

Table 2 shows the results, the correlation is negative ($r = -0.157$) between capital flight and private investment implying that when capital flight increases private investment decreases and when capital flight decreases, private investment increases.

The results further shows a positive correlation between external debt and private investment ($r=0.219$) implying that increase in external debt corresponds with private investment increase. There is a negative correlation between interest rate and private investment in Kenya was found to have ion ($r = -0.166$) implying that a rise in interest rate correlated with a decline in private investment. The terms of trade and private investment had a negative correlation ($r = -0.388$) showing an inverse relationship. The proportion of credit extended to private sector and private investment had a positive correlation ($r=0.313$).

4.3 Regression results

We use OLS to test the effect of capital flight on private investment. Diagnostic tests done in the previous sections assured that the model meets all the assumptions of OLS: homoscedasticity, autocorrelation, model specification, stationarity and multicollinearity. Before conducting the regression, the data was cleaned up and any missing value was omitted in the tests through a list wise method. Thus the data was uniform and the number of years considered was for all the variables which ensured easy comparison. Regression test results are shown in table 3.

Table 3: Regression test results

	Coef.	Std. Err.	t	P>t
KF	-1.008	0.496	-2.03	0.04
EXD	0.144	0.146	0.98	0.34
RiR	-0.082	0.037	-2.22	0.04
TOT	0.031	0.046	0.66	0.52
DCR	0.339	0.131	2.6	0.02
Constant	19.650	0.533	36.89	0.00

Mean of dependent variable	0.7274	S.D dependent variable	0.4933
Sum Regression	24.0264	S.E of Regression	1.5718
R-squared	0.2884	Adj R square	0.1401
F(5, 24)	2.64	Prob> F	0.0488
No. of obs	43		

Table 3 shows the results from the regression test. The simple regression model was given by:

$$I = 19.650 - 1.008 \text{ KF} + 0.144 \text{ EXD} - 0.082 \text{ RIR} - 0.031 \text{ TOT} + 0.339 \text{ DCR}$$

Where I - private investment, EXD - external debt level, RIR - rate of interest rate, TOT - terms of trade, DCR - domestic credit to private sector and KF –Capital flight

The results are interpreted to mean, holding other factors constant and disregarding the rest of the factors, the percentage of private investment to GDP would be 19.65%. The result indicates *ceteris paribus*; an increase of the external debt by 1% increased the private investment by 0.14%. The increase of interest rate holding other factors constant by 1% reduces the private investment by 0.08%. Also increase of the terms of trade by one unit leads to a reduction of private investment by 0.03%. An increase of domestic credit to private sector by 1% increases private investment by 0.34%. An increase in capital flight by 1 unit holding other factors constant reduces the private investment by 1.008 units. The results indicates that rise in external debt and domestic private sector increases private investment while increase in interest rates, terms of trade and capital flight declines the level of private investment.

The results show that capital flight has a significant effect on the level of private investment. A high level of capital flight decreases the level of private investment. This can be attributed to the fact that a high level of capital flight reduces savings and consequently the available resources required for investment. The regression test show that rate of interest rate significantly influences the level of private investment. An increase in the rate of interest increases the cost of credit which in turn lowers investment. Lastly, the level of domestic credit extended to the private sector directly affects the level of private investment. This can be explained by the fact that increased availability of credit to the private sector avails credit to the private investors who turn make use of it to make more investments in an economy.

5.0 SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Discussion

The study found that capital flight negatively affects the private investment. This finding similar to Ndiaye (2011) study which found that an increase in capital flight by a dollar resulted to a decline in domestic investment in Franc Zone countries by 4.5 cents. However, the estimate of the results was found to be insignificant. There exist of a negative relationship between capital flight and private investments from the econometric results of this study which provides the backing. Further, ratio real interest rate ratio and terms of trade also affects private investment negatively while domestic credit and external debt contributed to private investment positively. Important to note is that in the last ten years there has been a great reduction in capital flight in Kenya.

The results show that capital flight has a significant effect on the level of private investment. A high level of capital flight decreases the level of private investment. This can be attributed to the fact that a high level of capital flight reduces savings and consequently the available resources required for investment. The regression test show that rate of interest rate significantly influences the level of private investment. An increase in the rate of interest increases the cost of credit which in turn lowers investment. Lastly, the level of domestic credit extended to the private sector directly affects the level of private investment. This can be explained by the fact that increased availability of credit to the private sector avails credit to the private investors who turn make use of it to make more investments in an economy.

5.2 Conclusions

The study established a negative and weak relationship between capital flight and level of private investment. This shows there was some inverse relationship between the capital flight

and the level of private investment. According to Oyieke (2011), the external debt and private sector credit significantly affects private investment. This could be attributed to the fact that more capital flight drains a country's capital level whose investors depend to get finances for investment. Thus as more capital is lost less is left in a country for the investors to use for investment leading to private investment decline.

Kenya's public debt has been on the rise in the recent past. The central bank of Kenya estimated it at Ksh.3.2 trillion as at December 2015. External debt was Ksh.1.6 trillion for the same period. From the finding of this study, external debt affects private investment positively. On the other hand, increase in external debt leads to increase in capital flight. This is because individuals negotiating the loans are motivated by kickbacks and concealing some proceeds abroad for safekeeping and hence they ignore the risks.

5.3 Policy implications

From the results discussions and conclusions, there is need to put in place policies to promote external debt management transparency and accountability for instance debt audits to ensure debt sustainability.

Major policy prescriptions from the results include policy measures to lower capital flight. This boosts the resources available for private investment. In order to increase new levels of private investments, government ought to put in place measures to regulate financial flows despite the policies and laws development countries and tax havens. Policy practices in Latin American indicate that appropriate policies designed are effective in reducing capital flight (Weeks, 2015).

The government should put in place strategies to encourage bias in home investment. This includes; policies that reduce interest rates and raise the returns to investment, fiscal incentives like tax allowances, policies that increasing the quantity and quality of infrastructure and communication. This will encourage private investment and reduce capital flight.

Lastly, reforms in the financial and regulatory system at the global level are required as well as in international institutions such as World Bank, World Trade Organization and International Monetary Fund. This requires a great deal of coordination between the Kenyan government and the international institutions.

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