

**Effects of Capital Flight on Economic Growth
in Kenya**

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DECLARATION

This Thesis is my original work and has not been presented for a degree in any other University

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This Thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

This thesis is dedicated to all regulatory authorities in Kenya who endeavor to apply prudent financial guidelines on capital flight with the aim of achieving economic growth in Kenya. Special dedications go to my dear wife Sharon Mutanu Macheru and my daughter Sally Gathoni Macheru. It is through your patience, understanding, support and encouragement during the entire duration of the course that I made it. Further dedication is to my dear parents Moses Ngunjiri Macheru and Mary Gathoni Ngunjiri for their sacrifice in educating me and for teaching me the discipline and value of hard work when I least knew the world. May God forever shower you with his blessings. To my siblings, Ann, Paul, Sharon, Philip, James and Mercy, I will forever remain grateful for your encouragement during the period of the course.

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LIST OF ACRONYMS AND ABBREVIATIONS

AfDB	African Development Bank
ADI	African Development Indicators
ADF	Augmented Dickey-Fuller test
AEG	Augmented Engle-Granger
ARDL	Autoregressive Distributed Lag
BOP	Balance of Payments
CA	Current Account Balance
CBK	Central Bank of Kenya
DB	Debt Balance/Outstanding
DSR	Debt Service Ratio
EAC	East African Community
ECM	Error Correction Model
EDR	External Debt Repayments
EG	Economic Growth
FDI	Foreign Direct Investment
FER	Foreign Exchange Rate
FIS	Foreign Investment Survey
FPIO	Foreign Portfolio Investment Outflows
FR	Foreign Reserve
GDP	Gross Domestic Product
GFI	Global Finance Integrity
GMM	Generalized Method of Moment
IDP	Investment Development Path
IFDI	Inward Foreign Direct Investments
IFS	International Financial Statistics
IIF	Institute of International Finance
IMF	International Monetary Fund
KF	Capital Flight
KNBS	Kenya National Bureau of Statistics
Ksh	Kenyan Shilling
LDC's	Less Developed Countries
MNC	Multinational Corporations
NFDI	Net Foreign Direct Investment

NOI	Net Outward Investment
NPV	Net Present Value
OECD	Organization of Economic Cooperation and Development
OFDI	Outward Foreign Direct Investment
OLS	Ordinary Least Square
PP	Phillips-Perron
PPP	Purchasing Power Parity
PR	Profit Repatriations
SAP	Structural Adjustment Programs
SDG	Sustainable Development Goals
SSA	Sub-Saharan African
SVAR	Structural Vector Autoregressive
U.S.	United States
UNCOMTRADE	United Nations Commodity Trade
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VAR	Vector Autoregressive Model
VECM	Vector Error Correction Model
VIF	Variance Inflation Factor
WDI	World Development Index
WEO	World Economic Outlook
WESP	World Economic Situation and Prospects

DEFINITION OF TERMS

Capital Flight: It involves the movement of a country's financial securities and assets as well as domestic savings away from financing domestic real investments to financing foreign financial investments in advanced economies (Gachoki & Nyang'oro, 2016).

Capital Outflow: This term is used as a proxy for capital flight. It implies movement of investible resources out of a developing country (Olawale & Ifedayo, 2015).

Economic Growth: It refers to the growth of a country's potential output caused by growth in its aggregate demand. It is often measured as the percentage rate of increase in real gross domestic product (GDP) and indicates the fiscal health, growth and development of a country's economy (Saxena & Shanker, 2016).

External Debt Repayment: It is the financial settlement of a country's debt borrowed from foreign lenders, who includes the banks, governments or international financial institutions. Normally, the external debt repayments are settled in the currency in which the loan was made, unless the loan terms dictate otherwise (Olawale & Ifedayo, 2015).

Financial Globalization: It refers to the opening of a country's financial markets to international financial institutions for the purpose of global capital generation and movement (Adekunle, 2011).

Foreign Exchange Rate: It is the exchange rate of a country's local trade currency to a foreign currency. It is the value of a country's money for international trade in goods and services (Uguru, Ozor & Nkwagu, 2014).

Foreign Portfolio Investment Outflows: These are the investments in financial assets which includes equity and debt securities, usually at below 10% of an enterprise. Equity securities usually cover all financial instruments and records that acknowledge financial claims to the residual values of any incorporated enterprise. Financial securities such as shares or stocks usually denote the ownership of equities while debt securities cover primary instruments such as bonds and debentures, or

secondary instruments such as financial derivatives (International Monetary Fund, 1993).

Foreign Reserve: This is the official public sector foreign financial asset that is readily available to effect trade. They are controlled by their host country's monetary authorities, for the purposes of direct financing of trade payment imbalances and direct regulation of their magnitude of such related imbalances, through their exchange markets. This affects the country's currency exchange rate (Olawale & Ifedayo, 2015).

Gross Domestic Product (GDP): This refers to an economy's market value of goods and services produced in a given time period, usually one year. GDP evaluates the economic state of a given country. The higher the GDP of a country, the stronger its economic state (WESP, 2016).

Outward Foreign Direct Investment (OFDI): This is the net outflow of a country's investment for the purpose of acquiring a long-lasting management interest, usually at or above 10 percent of an enterprise's capital. The financial investments must be operating in a country that is not of the investor. It includes investments in financial assets such as equity share capital, reinvested earnings intra-company's loans and other forms of long and short term-based capital. This is largely demonstrated in a country's balance of payment account (UNDP, 2012).

Profit Repatriation: This refers to the financial return of an investors foreign-earned incomes, profits or financial assets back to the investors company's home country, for the purpose of re-investments (Saxena & Shanker, 2016).

Theory: A theory is a set of a given systematic interrelated concepts, definitions and propositions that are aimed at explaining and predicting of a given phenomenon, in a particular field of knowledge (Cooper & Schindler, 2011).

ABSTRACT

Financial globalization spurs economic growth by availing additional capital to the economy, leverages the effects of capital flight in the economy and generates foreign exchange rate for a country. However, in Kenya this seems not to happen. Kenya continues to receive foreign capital inflows and lose billions of dollars to capital flights at the same time. The annual economic growth rate averaged 5.43 percent from the year 2004 until 2016, which lags behind the Vision 2030's main economic pillar that aims at an economic growth of 10% p.a. The main challenge Kenya is facing today is to regulate capital flight, enhance economic growth and control the foreign exchange rate volatilities. Since foreign exchange rate is a strong determinant of gross domestic product, the effects of capital flights are thus a great economic concern. The dependent variable for this study was economic growth while the independent variables included external debt repayments, foreign portfolio investment outflows, outward foreign direct investments and profit repatriations. The general objective of this study was to determine and evaluate the effect of capital flight on the economic growth in Kenya. The specific objectives were to evaluate the effect of external debt repayments, foreign portfolio investment outflows, outward foreign direct investments and profit repatriations on the economic growth in Kenya. Lastly, the final specific objective was to evaluate the mediating role of foreign exchange rate on the relationship between capital flight and economic growth. The indicator of economic growth was the percentage change in gross domestic product. This study adopted an ex-post facto research design with a sample size of 30 years from 1986 to 2016 and relied on secondary data from Kenya National Bureau of Statistics, International Financial Statistics, Central Bank of Kenya, International Monetary Fund, World Development Index, United Nations Commodity Trade and African Development Indicators. This study adopted a panel data regression model using the ordinary least squares method. Hausman test was performed to determine the appropriate model for this study. Baron and Kenny model was used to detect the mediating effect on the relationship between capital flight and economic growth. Descriptive statistics were carried out to determine the spread of data over time. A correlation analysis was conducted to check for highly correlated variables. The study applied four panel unit root tests: Levin, Lin and Chu, Im, Pesaran and Shin W-stat, Augmented Dickey-Fuller test and PP - Fisher Chi-square. Granger causality tests were conducted to establish the existence of a unidirectional, bidirectional or no causal relationship between the proxies of capital flight and economic growth. The probability value of the F-test was employed to examine the null hypothesis. The test results showed that there was a negative relationship between external debt repayments, outward foreign direct investments and foreign exchange rate on the economic growth in Kenya but the effects were insignificant. Foreign portfolio investments outflows were found to have a positive relationship with economic growth in Kenya, but the effect was also insignificant. Further, profit repatriations significantly impacted economic growth negatively, during the study period, the magnitude of which a slight repatriation of 0.48% each year resulted to a 1% reduction in economic growth. The study found that FER did not mediate on the relationship between capital flight and economic growth. The findings of this study will benefit policy makers to make appropriate policies that discourage capital flight, improve FER management, cushion investors and traders from FER fluctuation risks, and boost the country's economic growth. This study will also benefit academicians interested in capital flight studies and the growth of a country's economy as it aims at shedding light on the conclusions earlier drawn on the pertinent problems of capital flight in Kenya.

CHAPTER ONE

INTRODUCTION

1.0 Overview

Kenya is one of Sub-Saharan Africa's fastest-growing economies with an average annual growth of 5.4%, making it East Africa's largest economy but still lags behind the targeted 10% annual economic growth as envisioned in Vision 2030's economic pillar (Trading Economics, 2016). In spite of the governments' continuous campaigns to boost economic growth through a robust capital base from the foreign direct investments, capital flights continues unabated and constitute a major constraint to economic growth in Kenya (Ndikumana & Boyce, 2012). As such, the increased economic growth has not translated into regional and global competitiveness expected from financial globalization (Ampah, Kiss, & Koto, 2018). The main challenge that Kenya faces today is to adequately address the effect of capital flight on the government's sustainable development goals (SDGs), the vision 2030 as well as the Big Four Agenda, projected to stimulate economic growth. This study provides a useful guide to policymakers concerned with the achievement of the vision 2030 and the Big Four Agenda on economic growth in Kenya.

1.1 Background of the Study

As Kenya's economic growth continues on a positive trajectory, the economy continues to receive more foreign capital and at the same time lose internally generated investment capital, which slows economic growth (Gachoki & Nyang'oro, 2016). The debate on capital flight management in international finance literature continues to attract great attention in the allocation of financial resources. Capital flight, whether normal or abnormal, affects the source country's ability to generate domestic financial savings, control foreign exchange volatility, boost investments and enhance economic growth (Ampah; et al., 2018). Most developing countries often experience increased capital flight due to the increased effects of financial globalization (Adekunle, 2011). As much as financial globalization has contributed to a global efficient allocation of capital, it has in the same breath created capital leakage avenues for developing economies (Sandri, 2014 & Bredino, Fiderikumo & Adesuji,

2018). For capital flight to positively influence economic growth, investment capital must flow from developed to developing countries (Olasunkanmi, 2015). Investors from under-developed economies, who tap into investment opportunities outside their economies, actively contribute to capital flight (Geda & Yimer, 2016).

The imbalance of capital inflows and outflows in the economy leads to insufficient internal capital formation in developing economies leading to increased capital flight. Most developing countries suffer from this imbalance as a result of their vicious cycle of low capital production, low income generation, and low levels of domestic savings which leaves them with little funds to meet their financial obligations including debt repayments (Ampah et al., 2018). When a country experiences a shift of its savings, away from financing its local investment to foreign ones, the resultant effect will be a decrease in its domestic savings, investments and consequently economic growth (Gachoki & Nyang'oro, 2016). This leaves them on the verge of collapse (Clement & Ayodele, 2016). There is need for developing economies like Kenya to take a deliberate effort and review their capital formation policies in order to achieve the right mix of capital that accelerates economic growth and regulates the levels of its capital flight. The very existence of increased capital flight indicates a country's possible inability to enhance a domestic investment culture (Adekunle, 2011).

If uncontrolled, capital flight can shrink a country's investment capital and lead to lost domestic financial resources (Ndiaye, 2014). This would equally translate to lost opportunities for economic growth (Al-basheer, Al-Fawwaz, & Alawneh, 2016). The existence of capital flight in Kenya leads to macroeconomic instability, manifested through increased external debt repayments, varying outward foreign direct investments, imbalanced foreign portfolio investment outflows and unregulated profit repatriations as well as foreign exchange rate overvaluations. The macroeconomic instabilities that emanates from the capital outflows have been scarcely addressed in the Kenya Investment Act of 2004 as well as the new investment draft report of 2017 (GOK, Kenya Investment Policy, 2017). The lack of clear policies on capital flight in Kenya places the government on a dis-equilibrium point as it seeks to invest more funds into the economy in a quest to achieve development targets including the Big Four Agenda, vision 2030 and the Sustainable Development Goals (SDG).

The current deliberate effort to speed up economic growth by developing countries has led to an upward trajectory in the public debt uptake, especially from generous economies like China (Bredino et al., 2018). Foreign debt is attractive due to the low interest rates charged compared to that charged locally (Ampah et al., 2018). Kenya is among the developing countries that has prioritized external debt as a mode of boosting its economic growth and has adopted the Debt Sustainability Framework (DSF) developed jointly by the International Monetary Fund (IMF) and World Bank to conduct Debt Sustainability Analysis (DSA), as a debt sustainability indicator to cushion it from the risk of experiencing debt repayment distress (IMF, 2016). There is need for the developing economies to adopt policies that yields an accurate measure on the optimum external debt repayment that a country should comfortably service without it taking a toll on its economic growth. Such policies should be entrenched in the host country's sustainable development goals and tied to the vision 2030 as well as the Big Four Agenda in Kenya for it to impact-fully spur economic growth.

Research on worlds developing country's debt crisis has demonstrated that most of the economies that adopted external debt as an avenue for boosting economic growth had large stocks of debt, and suffers from debt-servicing difficulties in the recent times (WESP, 2016). Such economies are faced with the problem of domestic resources allocation in the economy. They are often forced to make hard choices on resources allocation between external debt repayments and the provision of domestic services that are critical to boost economic growth (Al-Basheer et al., 2016). Their use of internally generated income to service external debt leaves the economy with very little and often no funds for domestic investments (Ngugi, Ngugi & Njaramba, 2016). Further, the loan interest paid thereof increases a country's budget deficit and reduces public savings especially when private savings do not increase to compensate for the difference. The economy will ultimately experience increased loan interest rates payables, crowd out private investments and hamper economic growth and drive the economy far away from achieving its short- and long-term economic goals.

The global financial crisis for the periods 2009 and 2010 renewed the debate on the implications of foreign portfolio investment outflows on the originating country's economy (IMF, 2011). Capital outflows negatively affect developing countries' economies through decreased savings and investments from the private sector

(Froberg & Waris, 2011). The highly volatile nature of financial assets and their global linkage to country's macro-economic cycles leads to capital flight, orchestrated by a minor economic shock (Adekunle, 2011). Globally, the foreign portfolio investment outflows from emerging markets are relatively small but growing speedily as a result of increased income growth from the globalized economic environment (Noman, Rahman, & Naka, 2015). This has necessitated a re-look at the policy measures that each country should put in place to regulate these flows. Kenya should seek to adopt a portfolio investment outflow policy in its SDG's agenda, the vision 2030 as well as the Big Four Agenda. This will enable it to identify the accurate and optimum point where increased foreign portfolio investments spur economic growth.

The foreign portfolio investment outflows regulation is critical to a country's economic growth. If not well regulated, it can cause a sudden systemic stop, a situation where large unexpected and uncontrolled decline of capital inflows lead to a rapid increase in foreign currency-denominated debt and liquidity crises in the host country (Koskei, 2017). The foreign portfolio investment outflows have a direct effect on the foreign exchange rate and the economic growth of a country (Ayala, Nedeljkovic, & Saborowski, 2015). *Ceteris paribus*, foreign portfolio investment outflows have a positive role in a country's economic growth, as it is a source of foreign exchange which can positively contribute to the achievement of the 10% annual economic growth as envisioned in Kenya's vision 2030 economic pillar (GOK, Kenya Investment Policy, 2017).

Financial globalization leads to outward foreign direct investments (OFDI) from the economies that has a lower domestic risk sharing financial market orchestrated by its high demand for precautionary assets. outward foreign direct investments is often achieved when an investor seeks to establish a significant degree of influence, often a 10% or more of the voting power on the management of an enterprise in a foreign country. This leads to an outflow of direct investments from the host country especially when the asset's holder notices that their investment capital is subjected to high risk levels locally (Onder & Karal, 2013). As investors always seeks for opportunities to minimize their capital risk, this informs them to obtain a hedge on their financial assets by seeking a safe place to invest in the international market (Clement & Ayodele, 2016). Thus, outward foreign direct investments are attributable

to increased financial globalization that exposes the domestic market to foreign markets. This offers investors an investment option with lower cost of production, and higher returns (Noman et al., 2015).

Outward foreign direct investments were initially thought out as a consequence of economic development (Dunning & Narula, 1996). Thus, limited attention has been paid by developing countries on the contribution of outward foreign direct investments in the development of home countries economy, especially when the investing multinationals are from less advanced economies (Knoerich, 2017). Although some countries, such as China, Malaysia and Singapore have explicitly promoted OFDI as a path to economic growth and development (Dunning & Lundan, 2008; Luo, Xue, & Han, 2010), Kenya is yet to follow suit. Notably, with the emergence of less advanced economies as critical sources of foreign direct investments, the need for a policy shift in Kenya to appreciate the role of outward foreign direct investments in promoting the economic growth of countries from which these investments emanate is imminent.

Extensive research on the mechanisms through which outward foreign direct investments contributes to economic development in home countries would edge Africa's Agenda 2063 closer home, and contribute to the achievement of Kenya's Big Four Agenda of a transformed economy. Host countries should prioritize on development of policies that allows repatriation of incomes for the purpose of outward foreign direct investments in order to achieve a sustainable and inclusive economic growth.

Often, foreign investors prefer to repatriate their locally earned profits, incomes, dividends and capital gains in order to reduce the risk of loss of their investment capital (Saxena & Shanker, 2016). If host countries fail to design robust policies that create an enabling environment for re-investment of these earnings, profit repatriation will continue to increase. This potentially undermines the country's existing investments and decreases the available resources that would have been key to economic growth (Fischer, 2014). Notably, profit repatriation re-assigns financial savings overseas resulting in fewer resources available to finance domestic investment and promote economic growth (Ndiaye, 2014; Zakaree & Ayodeji, 2012; Fofack &

Ndikumana, 2014). Therefore, Kenya should seek to get the optimum allowable level of profit repatriations in its sustainable development goals. This would put the country on the road map to economic growth, realize its vision 2030, the Big Four Agenda as well as control the foreign exchange rate in the economy.

Foreign exchange rate is determined by the foreign financial transactions of a country (Bohlin, 2010). If the investors anticipate currency depreciation, they hedge against this risk by shifting their investments abroad in search of higher returns and avert the risk of loss of purchasing power. This exerts pressure on the exchange rate (Zakaree & Ayodeji, 2012). The regressive effect of capital flight is heightened when financial imbalances culminate in foreign currency depreciation (Asongu, 2014). If capital flight is not regulated, it would cause the exchange rate movement uncontrollable, as it tends to remain high when the foreign exchange rate is depreciating (Auzairy, Fun, Ching, Li, & Fung, 2016). Foreign exchange rate is a strong determinant of economic growth and thus, its role in the relationship between capital flight and economic growth in Kenya should be entrenched in the development agenda as well as its sustainable development goals, if the country is focused on achieving its vision 2030 as well as Africa's 2063 agenda which includes the establishment of Africa Monetary Union that will minimize Africa's dependence on the global financial system.

The achievement of Africa's 2063 agenda is expected to ultimately stabilize its host country's foreign exchange rate. This is premised on the theorem that a financially healthy economy requires the right foreign exchange rate that does not stray too far from its equilibrium in order to achieve a meaningful economic growth (Nag, Baksi, & Majumder, 2015). Thus, the regulation of capital flight helps to control foreign exchange rate movements as capital flight tends to remain high when the exchange rate is depreciating (Auzairy et al., 2016). The right policies to regulate the fluctuations of foreign currency are critical to the growth of the economy (Sandra, 2015; Cherop & Changwony, 2014; Ndikumana & Boyce, 2011). It is the responsibility of the existing government to develop effective policies that seek to regulate and control capital flight and maintain a stable competitive real exchange rate that boosts Kenya's economic growth.

Foreign exchange rate is an important variable on studies of capital flight and its underlying determinants. If the exchange rate is well managed, foreign currency reserve would be sufficient, foreign exchange rate would stabilize and economic growth realized (Khondker, Bidisha & Razzaque, 2012). Poorly managed exchange rates can be disastrous for economic growth (Egbe, 2015). The anticipation of a devaluation of the national currency is also a major cause of capital flight as speculators can choose to withdraw their funds from domestic to foreign banks. Countries with a stable foreign exchange rate which is a basis for strong macro-fundamentals suffer lower capital flights and attract more flows after a financial crisis (Fratzscher, 2012). Kenya should continually develop policies that control foreign exchange rate fluctuations, and avoid macroeconomic uncertainties that would affect the right balance of capital flight and economic growth.

1.1.1 Global Perspective of Capital Flight

The global economy remains trapped in a prolonged period of slow economic growth at 3.1% in 2016, compared to the previous year's 3.2 percent. In year 2014, the global economy grew by 3.4% and declined marginally to 3.3% in 2015. This prolonged sluggish growth was characterized by weak global investments and the rising debt levels that were fueled by developed countries deliberate move to allow capital flights (WEO, 2017). In the last two decades, there has been a dramatic increase in capital outflows following the 1999 implementation of national policy encouraging outward foreign investments in Kenya (Waqar , Helian, & Mohammed , 2017).

The Chinese growth model is highly dependent on the accumulation of outward foreign direct investments (Lee, Syed, & Xueyan, 2013). Further, outward foreign direct investments from Brazil, China, India, Mexico, Russia, South Africa and Turkey and other developing countries has risen sharply since the millennium, reaching US\$460 billion or 39% of global foreign direct investment outflows in 2013 (UNCTAD, 2014). Since mid-1980s, the growth rate of world's foreign direct investment outflows has surpassed that of world's GDP and domestic investment, making it an economic concern.

Outward foreign direct investments from the developing countries have shown signs of volatility than those from advanced economies. This is because the economies of most developing countries are small and as such a small amount of foreign outflow makes a big impact on these economies (Mugendi & Njuru, 2016). Between 2008 and 2009, foreign direct investments outflows from advanced economies declined by 46 percent, while, in the developing countries, the decline was only 22 percent. (UNDP, 2012.) This signified a deliberate move to allow the existence and increase of licit capital flight by the developed countries. Thus, there seems to exist a relationship between capital flight and economic growth. Developing economies should therefore identify the optimal level of capital flight that yields their countries a positive economic growth.

1.1.2 Africa Perspective of Capital Flight

Africa has been seen to put very little effort into controlling its capital flight despite having a consistent deficit in its financial inflows (Gachoki & Nyang'oro, 2016). This has reduced the stock of financial resources available to finance economic growth, thus accelerating capital flight (Nkurunziza, 2015). The international financial institutions have influenced African countries through Structural Adjustment Programs (SAP), to adopt exports and open their markets to foreign trade (Gupta & Sengupta, 2013). The continent as a principal source of capital flight has experienced substantial levels of capital outflows over the past decades (Boyce & Ndikumana, 2012a). This has influenced their economic growth to depend heavily on skewed investment arrangements, loans and debt financing leading to more capital outflows (Drewry, 2014).

Capital flight in Africa may be relatively small from a global perspective but carries substantive heavier costs for the source economies in terms of foregone economic growth opportunities (Ndikumana, Boyce, & Ndiaye, 2015). Overall, approximately 60% of global foreign direct investments income on equity was repatriated to home countries of foreign investors in 2010 (Ndikumana, Boyce, & Ndiaye, 2013). Further, over the past decades, Africa has lost over one trillion dollars to capital flight, without including all forms of illicit financial flows (AFDB, 2014; GFI, 2013; Boyce and Ndikumana, 2012; Henry, 2012). Compared to other regions, capital flight from

Africa represents a more severe problem, causing heavy losses in government revenue, forgone investment, and lost output (Ndikumana et al., 2014). Capital flight is facilitated, in particular, by the opacity of the international banking system and by inadequate enforcement of rules on financial transparency and corporate accountability (Boyce & Ndikumana, 2014). This has led to a loss of economic growth in most of the African economies.

The overall economic growth for the Africa region rebounded after global economic factors and regional shocks had slowed economic growth in 2016. The problem of capital flight deserves serious attention as most African countries have remained in the grip of a severe external debt crisis. Africa's GDP per capita is 16% lower than it would be if the continent had been able to retain its private wealth at home (Asongu, 2014). In recent decades, African governments have achieved significantly lower investment levels than other developing countries (Ndikumana, 2000). If African countries were able to attract back the flight component of private wealth, domestic private capital stock would rise and economic growth realized.

Agenda 2063 not only concentrates on Africa's continental development aspirations but acknowledges the fact that for the entire continent's economy to grow, the premise of Agenda 2063 must then be fully adopted at both regional and country level. Agenda 2063 further demonstrates not only Africa's future goals but also identifies the key flagship programs that can boost Africa's economic growth and lead to the continent's rapid transformation. Key highlights include: the real per-capita incomes would significantly increase, capital flight sustained at optimal levels, GDP would potentially grow at 7% and foreign exchange rate volatility stabilized due to the expected functional African Customs Union, the African Common Market and African Monetary Union by 2023.

1.1.3 Sub Saharan Africa Perspective of Capital Flight

The subject of capital flights from Sub-Saharan Africa has triggered an international discussion for the past three decades (Ampah et al., 2018). The financial crisis of the late 2000s generated a global recession and decreased the cross-country private flow of investment funds in Sub-Saharan Africa (SSA) (Weeks, 2014). In SSA, growth

decelerated to 1.6% in 2016 from 3.4% in 2015 due to similar capital flight challenges (Foreign Investment Survey, 2016), and declined to 3.4% in 2015 from 5.0% in 2014 (WEO, 2015). This demonstrates that Africa is losing lots of investment capital to capital flight. In 2015, portfolio outflows reached a record of \$40 billion, the largest withdrawal since 2008 (UNCTAD, 2013).

Estimates of capital flight show that Sub-Saharan Africa lost a total of \$814.2 billion between the 1970-2010 periods. This stock of capital flight including compound interest earnings reached \$1.06 trillion, which slightly exceeded the combined economic size of \$1.05 trillion in 2010, for the SSA countries as measured by their GDP (GFI, 2013). The stock of capital flight also exceeds the \$188.6 billion of external debt owed by these countries, making them in aggregate a net creditor to the rest of the world (Ampah et al., 2018).

1.1.4 East Africa Perspective of Capital Flight

The EAC Vision 2050 is the East Africa Community's blueprint for economic development and foreign direct investment promotion. However, the slow growth of the global economy over the last three years affected the achievements of the annual targets under the EAC Vision 2050. While there has been progress on trade and investment, more so as a result of the increasing global prices for commodities, such related benefits have only accrued to the developed economies. At the same time, the impact of the slowdown in global economic development over the past four years still has an impact on foreign direct investments and growth of trade in the EAC (EAC Secretariat, 2017).

EAC maintained its lead in Africa's growth with an economic growth of 5.6 percent in 2017, up from 4.9 percent in 2016. The region is implementing a common market, has put in place the right fiscal architecture to achieve a monetary union by 2023 and adopted a Political Confederation as a transitional model for the East African Political Federation. Foreign direct investments outflows to the EAC partner states increased to US\$31.4 million in 2017 from US\$4.5 million in 2016 (EAC Secretariat, 2017).

As the fastest growing region on the continent, EAC recorded an annual average growth rate of 6.7 per cent between 2013 and 2017, more than double the African average. According to UNECA estimates, the region is set to grow at 6.0 per cent in 2018, rising to 6.2 per cent in 2019. (ECA, 2019). Article 24 of the EAC Common Market Protocol requires the region's Partner States to eliminate restrictions on the free movement of capital. That includes restrictions based on nationality, place of residence, current payments, and where capital is invested, because such restrictions undermine realization of the common market. This will pave way for the EAC partner states to start the debate on capital flight which has been missing in the EAC policy deliberations.

1.1.5 Kenyan Perspective of Capital Flight

Kenya is home to a growing market of 48.5 million people and is becoming more closely integrated with the EAC, which offers a market of more than 173.5 million citizens of the EAC, with a combined GDP of US\$ 163.5 billion. (Korsak, 2017). Kenya as one of the best growing economies in the EAC lost over 4.9 billion dollars in capital flights between 1970 - 2010 (Ndikumana & Boyce, 2012). Additionally, it is estimated that Kenya has been losing an average of KES 40 billion every year through capital flight since 2011.

Kenya's foreign and domestic debts are alarming, reaching KES 4.6 trillion in 2017 as the country struggles to service it. (Barasa & Atela, 2018). On the flipside, the country's economic growth rate has been gradual ranging from 5.7% in 2015 to 5.8% in 2016 and reached an all-time high of 12.40% in 2010 and a record low of 0.20% in 2008, though this lag behind the Vision 2030's main economic pillar that aims at economic growth of 10% p.a (Trading Economics, 2016). Although Kenya is the most industrially developed country in the EAC, all sectors of the economy have been liberalized for investment and marketing, with a free inflow and outflow of capital (Korsak, 2017). Under the eighth Sustainable Development Goal, Kenya is premised on its Vision 2030's main economic pillar that aims at economic growth of 10% p.a.

Kenya's capital formation and economic challenges are not unique. Its greatest obstacle to economic growth emanates from insufficient regulation of capital flight

that negatively influences internal capital formation that accelerates investments as well as its link to the international financial system that accelerate capital flight (Massa 2014). Simply put, the right mix of capital flight components that would generate the much-needed finances to boost economic growth are insufficient (Agbaje, 2013). Kenya's financial systems inefficiencies have increased the economic downturns and triggered capital flight (Were & Tiriongo, 2012).

At the domestic level, a policy review is imminent in order to address the need to enhance Kenya's external debt servicing capacity, regulate the outward foreign direct investments as well as review the investment act of 2004 to accommodate the optimum levels of allowable capital flight in quest to achievement Vision 2030 as well as the Big Four Agenda. Further, a good economic growth should provide a favorable foreign exchange framework that leverages the impact capital flight (Trading Economics, 2016).

1.2 Statement of the Problem

Kenya's GDP has been on a positive sluggish average growth of 5.43% p.a, in the period between 2004 to 2016, when compared to the targeted 10% annual economic growth as envisioned in Vision 2030's economic pillar (TE, 2016). The country's GDP grew to 5.8% in 2016 from 5.7% in 2015, and reached an all-time high of 12.40% in 2010 with a record low of 0.20% in 2008. Despite the positive growth in the country's GDP, Kenya continues to lose billions of dollars in capital with an estimated loss of over 4.9 billion dollars in capital flights between 1970 – 2010 and an annual average loss of KES 40 billion through capital flight since 2011 (Ndikumana & Boyce, 2012). However, Kenya has the potential to grow its economy by over 10% and achieve Vision 2030 if it is able to regulate and achieve the optimum level of capital flight that positively affects the economy.

The main challenge Kenya faces today is to regulate capital flight and spur economic growth. The numerous publications and research papers on capital flight in Kenya have not adequately addressed the effect of capital flight on Sustainable Development Goals, Vision 2030 as well as the Big Four Agenda. Further, Kenya has not implemented an effective capital flight management policy, nor identified and

accounted for its sluggish economic growth. To survive in this turbulent and dynamic global economic environment, Kenya must deliberately formulate policies that will analyze, monitor, measure and track an optimum level of capital flight allowable in the economy to spur economic growth and at the same time leverage the effect of foreign exchange rate volatilities.

The macroeconomic uncertainties in developing countries and the simultaneous existence of better investment opportunities in advanced countries confirms the investment diversion theory that there exists capital flight when investors from lowly developed countries hedge their loss of foreign investments by investing in more advanced countries which are considered less risky. If capital flight remains unregulated, it can lead to macroeconomic instability, manifested through: increased external debt repayments, outward foreign direct investments, foreign portfolio investment outflows and profit repatriations. The crowding out effect will be a depreciation of a country's domestic currency. Any attempt to defend it would lead to loss of foreign reserves which translates to decreased economic growth (Jude, 2014).

The debate on the effect of capital flight to economic growth in Kenya remains unresolved despite the highly documented academic research. Muchai & Muchai (2016) analyzed the relationship between fiscal policy and capital flight in Kenya and found out that fiscal policies have a negative relationship to capital flight. Their study however failed to address the effects of fiscal policies on capital flight and ultimately on economic growth. Ngugi et al., (2016) investigated the effects of public debt on economic growth in Kenya and demonstrated the existence of a negative relationship between public debt and economic growth. However, the study did not address the magnitude and external debt repayment effects of this form of capital flight to economic growth. Gachoki and Nyang'oro, (2016) examined the impact of capital flight on private investment in Kenya and found that that capital flight negatively affected private investments in Kenya. However, the effect of capital flight to economic growth was not addressed. Mudida (2011) studied the empirical aspects of capital flight in Kenya for the period 1970-2009, but did not point out their effects on foreign exchange rate and economic growth. Zainab (2009) studied on the determinants of capital flights in Kenya (1987 - 2007), Kipyegon (2004) investigated the determinants of capital flights from Kenya and Ng'eno (2000) researched on the

magnitude of capital flight in Kenya. Their studies concentrated more on the determinants of capital flight, leaving no evidence on their effect on economic growth.

This study adds to the body of knowledge in finance literature by the inclusion of capital flight effect on economic growth in Kenya, and explores the mediating role of foreign exchange rate in this relationship. The study addresses the effects of capital flight in Kenya that limit the country from achieving the Sustainable Development Goals, a major hindrance to Kenya's achievement of its Vision 2030 and the Big Four Agenda.

This study filled in on this existing knowledge gap. A key contribution of this study is to highlight this issue as an important but so far, much-neglected dimension in current research on capital flight. The managerial and policy recommendations in this study will provide a useful guide to policymakers concerned with the achievement of Vision 2030 and the Big Four Agenda, as well as the Sustainable Development Goals and Africa's Agenda 2063, which would potentially boost Kenya's regional and global competitiveness.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to investigate the effect of capital flight on economic growth in Kenya.

1.3.2 Specific Objectives

- i. To explore the effect of external debt repayments on economic growth in Kenya.
- ii. To examine the effect of foreign portfolio investment outflows on economic growth in Kenya.
- iii. To assess the effect of outward foreign direct investment on economic growth in Kenya.
- iv. To establish the effect of profit repatriations on economic growth in Kenya.

- v. To analyze the mediating effect of foreign exchange rate on the relationship between capital flight and economic growth in Kenya.

1.4 Research Hypotheses

H₀₁: There is a negative relationship between external debt repayments and economic growth in Kenya.

H₀₂: There is a negative relationship between foreign portfolio investment outflows and economic growth in Kenya.

H₀₃: There is a negative relationship between outward foreign direct investment and economic growth in Kenya.

H₀₄: There is a negative relationship between profit repatriations and economic growth in Kenya.

H₀₅: Foreign exchange rate does not mediate on the relationship between capital flight and economic growth.

1.5 Significance of the Study

This study contributes to literature by investigating the effects of capital flight on economic growth in Kenya, and suggests policy measures to address capital flight. Capital flight has been a significant component in the performance of the global economy in recent times (Fofack & Ndikumana, 2014). Numerous cases of capital flight have been reported in both developed and developing economies in the world. Capital flight has been found not to always affect economic growth negatively, although its increase can dry up liquidity in many developing economies (Muli & Ocharo, 2018). This may lead to a depreciation of the foreign exchange rates (WESP, 2016). This study was motivated by the important repercussions that capital flight and foreign exchange rate dynamics can have on the economy. They affect the level and composition of external balances, financial resource allocation and economic growth (Annina, 2011; Al-Sadig, 2013). The understanding of this phenomenon is important to policy-makers, researchers and students.

Previous studies on capital flights in Sub-Saharan Africa have primarily focused on documenting capital flight magnitude and exploring its determinants and as such, research on the effect of capital flight on economic development is at its early stages

(Nkurunziza, 2015). Ndikumana (2015) notes that no adequate attention has been paid to the effect of capital flight on the economy at the national level. This study sought to fill the research gap by adding the effect of capital flight in the Kenya's economy to the existing body of knowledge. In the case of Kenya, key areas of improvements were identified by this study whose major significance was to enable governments, regulatory bodies and agencies to understand the nexus between capital flight and economic growth as well as the role of foreign exchange in this relationship.

The results of this study seek to benefit policy-makers to appreciate that capital flight is not always bad for the economy. Capital flight too can spur economic growth and therefore the policy makers should consider its adoption in the existing economic policies in Kenya, especially in the process of amending Kenya's investment policy which is currently in draft form. The study further attempts to guide the policy-makers to explore the acceptable limits of capital flight that would yield economic growth and enable the achievement of Kenya's Big Four Agenda on economic growth. Academicians interested in the effect of capital flight studies and the growth of a country's economy will benefit from this knowledge as it aims at shedding light on the conclusions earlier drawn on the pertinent problems of capital flight and economic growth in Kenya.

1.6 Scope of the Study

This study used data for a thirty-year period between 1986 to 2016 to evaluate the effect of capital flight on economic growth both in the era of the pre-debt crisis of heavy borrowing from 1986 to 2002 when the Kenyan government made significant efforts to stimulate economic growth and, in the period from year 2003 to 2016 when similar efforts were made. This study used secondary data drawn from: World Development Indicators, International Financial Statistics, United Nations Commodity Trade Statistics Database, International Monetary Fund, African Development Indicators online databases as well as local publications from the Central Bank of Kenya and Kenya National Bureau of Statistics.

The proxies used to measure capital flight in this study were: external debt repayments, foreign portfolio investment outflows, outward foreign direct investments

and profit repatriations. Foreign exchange rate was incorporated in the model as a mediator on the relationship between capital flight and economic growth. One sub-variable of foreign exchange rate in the form of Ksh v/s USD was used because in Kenya, trade is conducted in US dollar being the official hard currency in accordance with Kenya Government Policy as per Exchange Control Circular No. 5/92/13 of 15/10/92. The proxy for economic growth used was the gross domestic product as GDP is the most incorporative measure for economic growth in a country. This is evidenced in the calculation of GDP per capita, where the doctrine of purchasing power parity gives a more accurate picture of a country's overall standard of living, to reflect its economic growth. (Ellyne & Mbewe, 2015)

This study used panel data technique for a thirty-year period (1986 to 2016) to examine the effect of capital flight proxies on economic growth. The study employed the use of Hausman test to determine which model was appropriate for this study. The Baron and Kenny (1986) model was used to detect the mediating effect on the relationship between capital flight and economic growth. Annual data covering the entire study period were collected and analyzed using the E-Views 7 statistical package. Further, a correlation analysis was conducted to check for highly correlated variables and avoid the problem of multi-collinearity and serial correlation. To avoid inappropriate model specification and increase the confidence of the results, time series properties of the data were investigated using the panel unit root tests.

1.7 Limitation of the Study

The idea of capital flight management is sensitive to economic growth as well as to the management of foreign exchange in a country. This study explored the proxies of capital flight with economic implications and limited them to Kenya. Therefore, these few proxies might be a decreased generalizability of the findings. This study mitigated this by ensuring that the variables chosen provide as much information as possible to establish the effect of capital flight on economic growth in Kenya as well as the mediating role of foreign exchange rate in this relationship.

The underlying data situation in Kenya was problematic as adequate data on capital flight was not easily available locally. The custodians of data did not have capital

flight data especially from the earlier years before 1986 and the available data was scattered in various publications that were available locally, but not updated online. Unavailability of data for the earlier years represented a constraint in choosing the period of 30 years for the empirical analysis. To overcome these challenges, international data from: International Financial Statistics, International Monetary Fund, World Development Indicators, United Nations Commodity Trade Statistics and African Development Indicators were used as they would provide a more accurate measure. Locally, constant follow up on phone, emails and physical visits to the custodians of data were made to get the publications and mine the data from their respective libraries.

This study acknowledged some limitations to the contribution of capital flight. There is a lack of clarity, however, on the severity of these constraints, and similar limitations have also been found in studies of other economic phenomena and international economic exchanges that are purported to have a positive impact on economic growth. Some forms of capital flight will contribute to economic growth more than others. To overcome these limitations, there is an urgent need for more research on the effects of capital flight. Such research should provide more detailed assessments of the types of capital flight which yield more, or less, and are beneficial to economic growth outcomes. This can be done by analyzing what types of financial assets generate which kinds of returns, how effective these returns are in facilitating economic growth, what mechanisms and government policies are supportive of this process, and to what degree capital flight benefit the home economy.

1.8 Assumptions of the Study

Several assumptions on the validity and measurement of the variables were made in this study. A common assumption in panel data designs is that each entity has its individual characteristics that may or may not influence the independent variables. To solve this, the study employed Hausman test to determine which model was appropriate for this study. The fixed and random effects models cater for heterogeneity or individuality among the financial institutions by allowing each financial institution to have its intercept value which is time invariant, making it an appropriate model for this study.

Four panel unit root tests: Levin, Lin and Chu, Im, Pesaran and Shin W-stat, Augmented Dickey-Fuller test and PP - Fisher Chi-square were applied to ensure that no variable exceeded the I (1) order of integration, which would result in inconsistent estimations. These tests were founded on the assumption that all series were non-stationary under the null hypothesis but accounted for heterogeneity in the autoregressive coefficient, which was assumed to change freely among the states under study. Levin Lin and Chu t statistic were used to interpret the results for this study since it covered the most general specification for all the pooled variables with the inclusion of a constant, a trend and a lag (Mathiyazhagan 2005).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature on capital flight as well as its proxies which included external debt repayments, outward foreign direct investments, foreign portfolio investment outflows and profit repatriations, as well as foreign exchange rate and economic growth which was proxied by the GDP. Further, the chapter discussed the key theories underlying capital flights, economic growth and the mediating role of foreign exchange rate. The chapter further developed a conceptual framework and expounded on the empirical literature review, critique of the existing literature as well as a summary of the literature review. Lastly, the research gaps were addressed paving way for the research methodology.

2.2 Theoretical Review

The theoretical framework of the study is a structure that can hold or support a theory of a research work and explaining why the problem under study exists (Kothari, 2009). Thus, the theoretical framework is a group of theories that serves as a basis for conducting research and it helps the researcher to see clearly the variables of the study as well as the general framework for data analysis and research design (Orodho, 2008). This section covered the debt overhang theory, portfolio management theory, investment development path theory and the investment diversion theory to explain the role of external debt repayments, outward foreign direct investments, foreign portfolio investment outflows and profit repatriations respectively. The purchasing power parity theory was used to explain the effect of capital flight on economic growth, as well as the mediating role of foreign exchange rate in the relationship between capital flight and economic growth.

2.2.1 Debt Overhang Theory

Myers introduced this theory in 1977. He focused on corporate finance and the theory was first applied to development economics by Krugman (1988) and Sachs (1989) after the Latin American debt crisis in 1980s. Krugman (1988) argues that when

external debt exceeds the expected present value of the potential future payments to the creditors, the country no longer has any incentive to implement the necessary financial and macro-economic changes to improve its economic growth and repay the creditors (Freytag, Pettersson & Schmied, 2016).

Debt overhang refers to a situation where a firm's debt is so large that any returns generated by new investments is entirely absorbed by existing debt holders, such that projects with a positive net present value do not reduce a country's stock of debt (Myers, 1977). The debt overhang hypothesis postulates that there is a possibility that in future, external debt will be larger than the country's repayment capability and the expected debt servicing expenses will discourage both the local and foreign investments. The theory demonstrates that the stock of public debt as well as the debt repayments affect economic growth and alters the priorities of public spending thereby discouraging investment in the country (Ngugi et al., 2016). Krugman (1982) discussed debt overhang as one whereby a country's expected debt repayment amount exceeds the originally contracted levels.

Krugman (1989) and Sachs (1989) adopted the debt overhang concept in the international finance literature in the mid-1980s. They argued that sitting governments serviced their external debt by increasing future tax burden, a disincentive to investments. Sachs (1989) built on this theory and developed the debt laffer curve relating a country's debt magnitude to the repayment value. The higher the country's debt stock, the higher its current sacrifice for the sake of future growth. High levels of debt scare off investors (Ayadi, 2008). External debt repayments value increase with stock of debt up to a certain threshold beyond which more debt decreases return on investments and lower economic growth (Freytag & Penhelt, 2009). Debt overhang occurs if the aggregate stock of external debt in a country exceeds a country's repayment capacity (Sichula, 2012). The anticipated debt-service costs will depress economic growth (Ngugi et al., 2016). External debt may not always be negative to an economy as depending on the borrowing country's application of its external debt policies, it could benefit both the creditor and the debtor (Muli & Ocharo, 2018).

This theory was relevant to this study as it demonstrated how increased debt-servicing burden hinders economic growth. The theory demonstrates that if external debt

exceeds a country's repayment ability with some probability in the future, the expected debt service will most likely be seen to be an increasing function of her output, and as such, resources expected to develop the economy are indirectly taxed away by foreign creditors in form of debt service repayments (Utomi, 2014). The resultant effect is economic uncertainty, which discourages foreign investors and reduces the level of private investment in the economy (Ejigayehu, 2013). The theory demonstrated how developing countries are tightly tied in the debt trap to the extent that nearly all their foreign exchange rate earnings are likely to be spent on servicing their external debts. This depletes a country's foreign reserves and ultimately depreciates its foreign exchange and decreases economic growth.

2.2.2 Portfolio Management Theory

Harry Markowitz introduced this finance and investment theory in 1952 by demonstrating that investor's hedge against financial risk. He advocated for analyzing individual security vehicles to determine how they contribute to the portfolio's overall risk (Markowitz, 1952). Investors always have an appetite for less risky investments in their portfolio balance. Financial globalization offers a pool of investment options that yield a high expected return with low risk levels. This stimulates investors to review their investment portfolio. Often, the investors opt to shift their investments abroad in search of higher profits and minimum risk in foreign assets (Pineiro, 1997). The proponents of this theory opine that investors have the right to choose on where to hold their wealth. The risk-return trade-off influences this choice (Adekunle, 2012). The variances in perceived risk adjusted returns from originating and destination countries accelerate overseas investments (Smit & Mocke, 1991).

Collier and Dollar (2001) opine that any capital flight occurrence globally, is in response to portfolio choice and risks. The foreign exchange rates as well as the rate of return always influence the portfolio choice (Tille & Wincoop, 2007). Deveruox and Saito (2006) posited that the existence portfolio composition of net foreign financial assets is a significant cause of capital flows. In the portfolio choice context, these factors point to an increasing risk of losses on private investors real value of their domestic financial assets, forcing them to favor foreign financial assets (Collier & Dollar, 2001).

This theory is critical to this study as it explains the risk return relationship on foreign investor's portfolio. It demonstrates that it is not a securities own risk that is important to an investor, but rather the contribution the security makes to the variance of an investor's entire portfolio, which is a direct reflection of the investment host country's economic status (Rubinstein, 2002). It allows us to assess the effect of foreign portfolio investment outflows on the growth of Kenya's economy, within the context of the total public and private wealth and considers the proportion of private wealth held abroad. This will provide insight into effect of foreign portfolio investment outflows on economic growth, as well as suggest the possible strategies Kenya can take to regulate this capital flight as it seeks to spur economic growth.

2.2.3 The Investment Development Cycle or Path (IDP) Theory

John Dunning (1993) designed this theory and demonstrated that a country's outward and inward foreign investments depend on its level of economic development, measured by its gross domestic product. This theory states that leading countries follow a predictable pattern consisting of five stages (Iacovoiu & Panait, 2014). Stage 1 demonstrates a less developed economy that does not attract, nor generate any foreign direct investments. Stage 2 shows industrializing developing countries seeking to attract foreign direct investments through improved location advantages and generate minimum outward foreign direct investment, leading to a negative net investment position (outward foreign direct investments less inward foreign direct investments). Stage 3 shows that a country attracts significant foreign direct investments and generates outward foreign direct investments based on its innovations and international specialization. The net investment position remains negative. In stage 4, outward foreign direct investments are higher than inward foreign direct investments and the net investment position is positive. Stage 5 demonstrates advanced countries, with a balanced net investment position and very high levels of inward foreign direct investments and outward foreign direct investments (Zang, 2012).

The proponents of this theory such as Duran and Ubeda (2005) posited that outward foreign direct investments improves the local companies' ownership advantages and enhances outward foreign direct investments in future. They associated stages 1-3

with developing countries while stage 4 and 5 with developed ones. Behbehani and Al Hallaq (2013) posited that if the home country uses outward foreign direct investments as a substitute for its local investments, the increase in its outward foreign direct investments may reduce the economic growth of the home country. Nayak and Choudhury (2014) in their study embraced the fact that Governments can influence a country's stage of economic growth by regulating outward foreign direct investments.

This theory was valuable to this study as it expounded on the effect of outward foreign direct investments on economic growth in Kenya. The theory demonstrates that outward foreign direct investments increase with increased economic development, which offers firms more ownership advantage on economies of scale in production. This investment diversification yields a country locational advantage which goes to boost a country's economic growth (Zang, 2012). Wang and Wong (2007) suggested that economic growth is positively related to outward foreign direct investments, and that its increase offers home country financial institutions more liquidity to lend to foreign investors, thus boosting a country's economic growth.

2.2.4 The Investment Diversion Theory

Kindleberger (1966) originated the investment diversion theory. It postulates that due to the macroeconomic and political uncertainties in developing countries and the simultaneous existence of better investment opportunities in advanced countries, investors from lowly developed countries chose to invest their earned profits in more advanced countries which are considered less risky (Otene, 2010). Profits repatriation is clearly viewed from this standpoint of a benchmark portfolio balance where an investor has both the domestic and foreign assets (Pinheiro, 1997). Their goal is to earn higher returns, safe guard their already earned profits from instability, diversify their assets, and enjoy confidentiality (Dim and Ezenekwe, 2014).

The proponents of the investment diversion theory provide one of the well-known negative consequences of capital flight in the countries involved (Henry, 2013). The income repatriation and economic growth relationship is also driven by the high cost of capital as well as a limited financial market access for entrepreneurs in country, which forces them to seek less risky abroad investments on their personal savings

(MacDonald, 2015). Different levels of financial market development produce global imbalances as savers in less-developed financial markets seek safe assets in international financial assets (Ahnert, 2014). This offers a safe haven for investors funds and encourages a secure investment in a protected financial market (MacDonald, 2015).

The theory noted that the repatriated profits are ordinarily not available for investment in the host country (Dim and Ezenekwe, 2014). This widens the savings gap, constrains aggregate investment and limp economic growth. While the investment growth policy enhances and sustains long-term growth, capital flight does the opposite (Skare & Sinkovic, 2013). These negative macroeconomic effects often necessitate a country to borrow from abroad to reactivate the economy. This is often a further outflow that perpetrates external dependency and indebtedness. The crowding out effect may result to depreciation of the domestic currency and any attempt to defend it often lead to loss of international reserves (Jude, 2014).

This theory demonstrated that following a rise in a country's growth rates, aggregate savings often rise immediately while aggregate investment rises after a time lag, thereby generating capital flights, within the lag. This decreases a developing country's capital as well as its investment fund, ultimately affecting the foreign exchange rate as well as economic growth. This theory thus well explored the possible effect of profit repatriations on economic growth in Kenya.

2.2.5 Purchasing Power Parity (PPP) Theory

Professor Gustav Cassel of Sweden propounded this theory in 1918 and postulated that the nominal foreign exchange rate should reflect the purchasing power of one currency against another (Stephen & Sanmi, 2011). Whenever a nation saves a dollar of income, it can use it to finance domestic capital or a foreign asset and promote its economic growth (Suranovic, 2012). This theory demonstrates that the transactions of a country in the form of capital outflows directly and indirectly determine its foreign exchange rates and ultimately affects its economic growth (Bohlin, 2010).

Humphrey (1979) opined that the PPP doctrine in respect to disturbances to equilibrium, postulates an automatic self-correcting mechanism that keeps the actual exchange rate hovering close to its equilibrium level. PPP is frequently used in computing GDP and GDP per capita across countries. Although GDP per capita has often been criticized as an incomplete statistic of economic well-being, it explains a country's economic performance making the PPP a reliable tool to measure the relative size of economies (Schreyer & Koechlin, 2002). Radermacher and Durand (2012) described the PPP as an essential tool for comparing the price and volume levels of GDP and other indicators globally.

The World Bank uses PPPs to measure a country's economic growth, which narrows the gap between the richer and poorer countries considerably (WEO, 2015). Ayadi (2008) opine that increased returns on foreign assets relative to domestic asset as well as the uncertainty about whether purchasing power parity holds encourages capital flight. In the foreign-currency exchange market, net capital outflow represents the source of the supply of dollars, making it the variable that links the two markets (Ellyne & Mbewe, 2015). This theory was useful in this study as it attempted to demonstrate the importance in the mediating role of foreign exchange rate to the relationship between capital flight and economic growth. It explains that when calculating gross domestic product per capita, PPP gives a more accurate picture about a country's overall standard of living, which is a reflection of its economic growth.

When capital flows out of a country, it simply offers a purchasing power against commodities and services in its own country (Taylor & Taylor, 2004). Most exchange rate systems have failed to purge the incidences of capital flight and the motivation to correct the growing foreign exchange rate has been missing (Stephen & Sanmi, 2011). Ultimately, when investors anticipate a real depreciation, they tend to engage in capital flight to avoid the risk of loss of purchasing power. The effect of this is that gross domestic product negatively affects and further depreciates the domestic currency (Ellyne & Mbewe, 2015).

2.3 Conceptual Framework

A conceptual framework is a model of presentation where a researcher conceptualizes or represents the relationships between variables in the study and shows the relationship graphically or diagrammatically (Orodho, 2008). In this context, Orodho posits, a conceptual framework is a hypothesized model identifying the concepts or variables under study and showing their relationships. It forms part of the agenda for negotiation to be scrutinized, tested, reviewed and reformed as a result of investigation and it explains the possible connections between the variables (Smyth, 2004).

The key variables in this study were categorized as independent variable, mediator and dependent variable. Mugenda (2008) explained that the independent variables are called predictor variables as they predict the amount of variation that occurs in another variable while dependent variable, also called criterion variable, is influenced by another variable. The dependent variable is the variable that the researcher wishes to explain. A mediator variable explains the relationship between the independent and dependent variable (Frazier, Tix, & Barron, 2004).

This study analyzed how external debt repayments, foreign portfolio investment outflows, outward foreign direct investments and profit repatriations influenced economic growth. This relationship was mediated by the foreign exchange rate. The variables in the conceptual framework were derived from the theories identified in this study as well as from studies done by: (Bredino et al., (2018), Al-Basheer et al., (2016), Auzairy et al., (2016); Clement & Ayodele, (2016); Saxena & Shanker, (2016); Uguru, (2016); Bond, (2016); Egbe, (2015); Khan et al., (2015); Maana et al., (2015); Olawale & Ifedayo, (2015); Obidike, Uma, Odionye & Ogwuru, (2015); Ajayi and Ndikumana, (2015); Nag, Baksi & Majumder, (2015); Fofack & Ndikumana, (2014); Herkenrath, (2014); Sibanda, Ncwadi and Mlambo, (2013); Hill, Salisbury, Northedge and Kinninmont, (2013) and Zakaree & Ayodeji, (2012).

The conceptual framework is presented in figure 2.1.

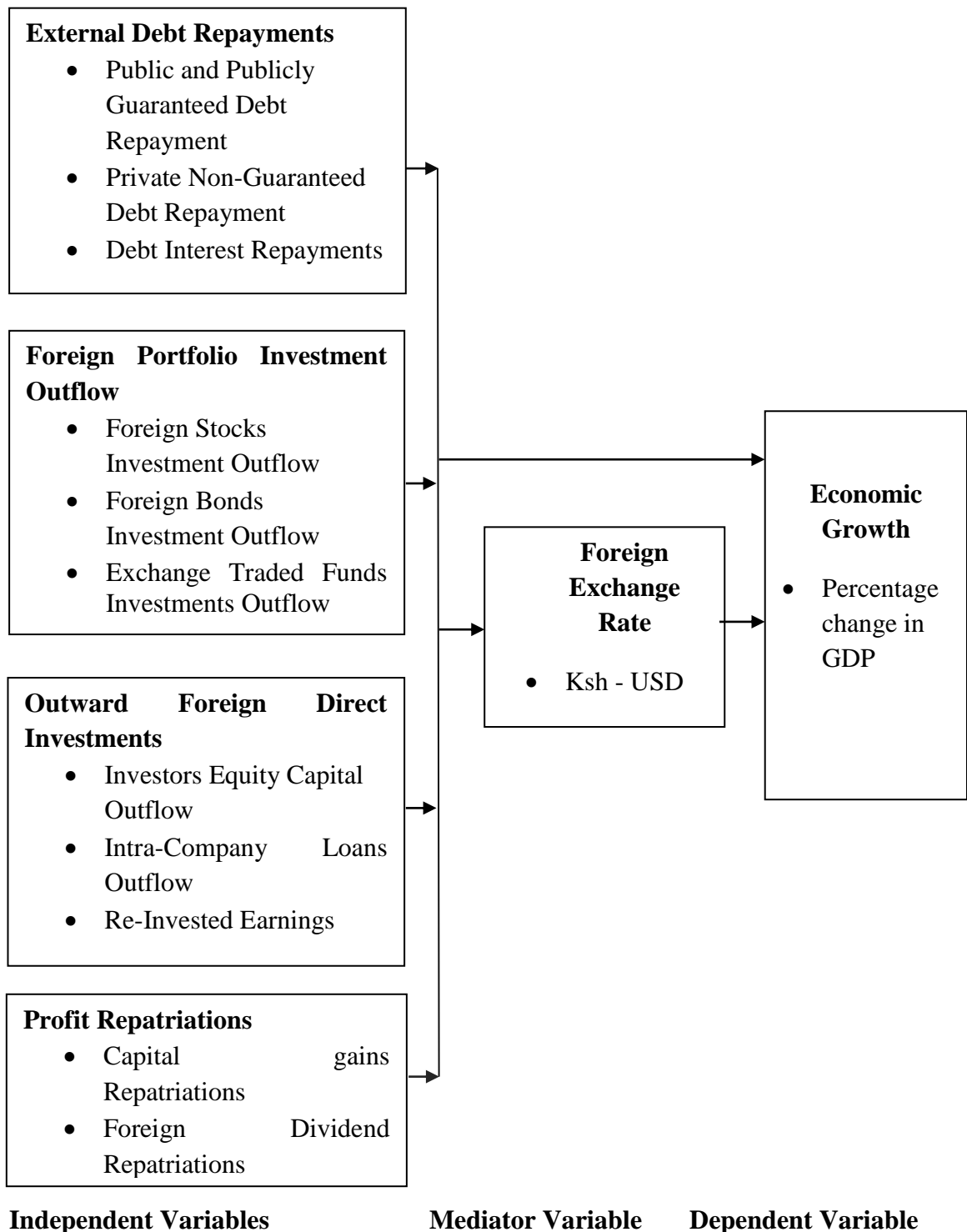


Figure 2.1: Conceptual Framework

2.3.1 External Debt Repayments and Economic Growth

Countries that exhibit the greatest capital flight are also most highly indebted and suffer from debt repayment problems (Bredino et al., 2018). Capital flight decreases a country's capital base forcing it to borrow externally to meet their budget needs, resulting to more capital flight, and slowdown of the economic growth (Tadesse, 2013). A large volume of capital flight reflects excessive taxation and economic mismanagement of the home country. This casts doubts about debt relief as an appropriate response to the debt-service problem and sends incorrect signals to investors (Olawale and Ifedayo, 2015).

The external borrowing is often fueled by capital flight. It occurs when the domestic currency siphoned out of the country through capital flight re-enters the country in the form of foreign currency that finances external loans to the same residents who transferred the capital (Ampah et al., 2018). This directly and indirectly causes higher external borrowing, which depresses domestic investment and economic growth (Koehler, 2013). As a result, this decreases the return on investors fund forcing them to flee domestic environment to save their domestic assets real value from depreciation (Agbaje, 2014). If successive governments continue postponing essential external debt repayment reforms, Kenya will still be dependent on external debt. Thus, the following hypothesis was proposed:

H₀₁: There is a negative relationship between external debt repayments and economic growth in Kenya.

2.3.2 Foreign Portfolio Investments Outflows and Economic Growth

The cross-border portfolio financial outflows are not a new phenomenon's in developing countries like Kenya (Herkenrath, 2014). Increased globalization of financial markets has promoted their economic significance distinctly, affecting both industrialized and developing countries (GFI, 2013a). Huge sums of money are transacted out of the developing countries into the global financial markets annually, in form of financial assets investments. In return, the investors earn higher returns which are ploughed back to the country in form foreign currencies. If well-regulated and governed, foreign portfolio investment outflows will earn a country foreign exchange as well as tax income from the return on investments. If unregulated, this

outflow of financial capital leads to weak financial and economic systems of the developing countries (OECD, 2013). The economic impact would be more severe given their smaller resource base and markets (Boyce & Ndikumana, 2011).

The portfolio theory explains the preference for overseas investments but notes that the external portfolio diversification can only be taken to be a capital flight if the diversified investment does not report returns or have records at home (Tille & Wincoop, 2007). While Kenya's over-dependence on external assistance should provide at least some prospect that external donors can act as a lever for change by offering safe portfolio investments in their home countries, the overall levels of foreign portfolio investments have been overshadowed by high volumes of capital flight that decrease its GDP growth (Hill, Salisbury, Northedge and Kinninmont, 2013; Herkenrath, 2014). Therefore, the following hypothesis was proposed:

H₀₂: There is a negative relationship between foreign portfolio investment outflows and economic growth in Kenya.

2.3.3 Outward Foreign Direct Investment and Economic Growth

The movement of capital from a developing economy is viewed as an investment outflow that negatively affects economic growth (Obidike et al., 2015). Foreign direct investment outflows are a function of high uncertainty and risk with respect to returns on assets held domestically (Henry, 2013). Thus, investors often prefer to hold their assets abroad as a part of risk diversification (Obidike et al., 2015). This worsens a country's economic activity, more so if it heavily depends on internal financing (Uguru, 2016). The governing authority should seek to achieve an equilibrium state between the levels of foreign direct investment outflow and economic growth.

Foreign direct investment outflows have adverse effect on the growth rate of GDP. The stagnation and economic decline resulting from lack of regulating the foreign direct investment outflows are an indication that the government has lost control over the economy (Ndikumana & Boyce, 2008). For this reason, both licit and illicit capital outflows have found an easy escape out of the host country. Although there are numerous studies on the relationship between foreign direct investment inflows and economic growth, the number of studies on the relationship between outward foreign

direct investment and economic growth are very limited (Ameer, Xu & Alotaish, 2017). Thus, there was need to investigate the effect of foreign direct investment outflow on economic growth in Kenya. Therefore, the following hypothesis was proposed:

H₀₃: There is a negative relationship between outward foreign direct investments and economic growth in Kenya.

2.3.4 Profit Repatriations and Economic Growth

Foreign corporations are prone to export profits faster than they are reinvesting or than local firms bring home as they seek to meet the foreign shareholders interests (Bond, 2016). This is influenced by the returns and riskiness of domestic assets relative to foreign assets (Khan, Nallareddy & Rouen, 2015). The profit repatriated from developing countries not only aggravates the shortage of resources for development but also indirectly decreases domestic investments and reduces the government income through loss of tax receipts. This significantly reduces economic growth and causes foreign exchange drain (Lawanson, 2007).

Profit repatriation is a representative of a systematic expatriation of the surplus values created by a country with foreign resources (Matunhu, 2011). This point to the theoretical relationship between GDP growth and capital flight whereby high growth of real GDP signifies enhanced domestic investment opportunities and fewer foreign investments. As such, a negative relationship is expected between economic growth and profit repatriations (Olawale & Ifedayo, 2015). Therefore, the following hypothesis was tested:

H₀₄: There is a negative relationship between profit repatriations and economic growth in Kenya.

2.3.5 Capital Flight, Foreign Exchange Rate and Economic Growth

The increase in a country's economic growth attracts foreign capital, as investors seek to diversify their investments and take advantage of higher returns on foreign invested capital that would accelerate its domestic economy (Ajayi and Ndikumana, 2015; Sibanda et al., 2013). Ultimately, a country may experience a competitive exchange rate that translates to a higher economic growth (Ndikumana & Boyce, 2011). Foreign

exchange rate is determined by a country's foreign financial transactions (Bohlin, 2010). If investors anticipate currency depreciation, they hedge against this risk by investing abroad, earn high returns and avert the risk of loss of purchasing power. As capital flight involves the demand for foreign currency, it tends to exert pressure on the exchange rate, replicated in the depreciation of a country's local currency (Zakaree & Ayodeji, 2012). If capital outflows are not well regulated, it would make the foreign exchange rate movement uncontrollable, as capital flight increases when domestic currency depreciates (Maana et al., 2015; Auzairy et al., 2016).

The early neo-classical economists ignored the exchange rate in their economic growth models but focused more on savings and investment as key determinants of growth. They emphasized more of closed economy models which assumed that exchange rate had no role in the growth process (Omankhanlen, 2011). Financial globalization has made the exchange rate a key determinant to economic growth as it has opened up international markets to foreign investors making foreign exchange rate a key determinant to economic growth (Ayala et al., 2015). Poorly managed exchange rates can be disastrous for economic growth, and that a competitive currency is a key factor to a successful growth strategy (Henry, 2013). The policy makers should seek to ensure effective policies exist to regulate capital flight, maintain a stable and competitive foreign exchange rate that boosts a country's GDP and controls the level of capital flight (Sandra, 2015; Uguru, 2016). Thus, foreign exchange rate may explain the relationship between capital flight and economic growth in Kenya. Therefore, the following hypothesis was tested:

H₀₅: Foreign exchange rate does not mediate on the relationship between capital flight and economic growth.

2.4 Empirical Review

2.4.1 External Debt Repayments and Economic Growth

Muli and Ocharo (2018) in their study on external debt servicing and Current account balance in Kenya analyzed the relationship between external debt servicing and current account balance in Kenya. They used the secondary annual time series data for the period between 1980 and 2015. Granger causality was used which Vector error

correction model (VECM) was utilized because there was insufficient theory that connects these variables. The study found that external debt service granger causes current account balance in Kenya. They concluded that policies on external debt management should be carefully designed not to weaken macroeconomic fundamentals because they take long time before fizzing out

Ampah et al., (2018) in their study on capital flight and external debt in heavily indebted poor countries investigated the positive relationship between capital flight and external debt in SSA. They employed the Pooled Mean Group (PMG) estimation and datasets in the periods 1990 to 2012. The results found that external debt exerted a positive and statistically significant effect on capital flight both in short and long-run, suggesting that if foreign borrowing remains unchecked, it will continue to lead to massive capital outflow in heavily indebted poor countries in the Sub-Saharan Africa.

Mugambi and Murunga (2017) investigated the effect of external debt service on foreign direct investments in Kenya. The study used time series data running from 1980 to 2014 and estimated the long run cointegrating equation. They found that external debt service had a negative impact on country's foreign direct investments. The study recommended that the government should not heavily rely on external borrowing to finance economic growth but should rather reduce its spending on development to avoid plunging in more budget deficit crisis.

Ngugi et al., (2016) in their study on the effect of public debt on economic growth in Kenya for the sample period 1980-2013 employed both the times series regression model to investigate this relationship. The study found out that there exist a negative relationship between public debt and economic growth. They concluded that public borrowing (government) from international markets should be contained since they often lead to high cost of borrowing and crowding out of the private sector investments.

Mweni, Njuguna and Oketch (2016) examined the time series analysis of the relationship between GDP growth rate and external debt in Kenya over the period of 1964-2012 using time series data. Their study employed a macroeconomic debt

growth model of ordinary least square to estimate the relationship between GDP growth rate and external debt. The study revealed a negative association between GDP growth and external debt, implying that an increase in GDP growth leads to a reduction in the level of external debt stocks. In terms of the regression analysis, it was established that there is no statistically significant relationship between GDP growth and external debt during the period of study.

Adeniran, Azeez and Arem (2016) investigated the impact of external debt on economic growth in Nigeria. The study used the Vector Error Correction model and considered a sample period 1980-2014. The empirical findings found that external debt service payment negatively impacted the real GDP per capital growth in Nigeria significantly, signaling the existence of the debt overhang impact on economic growth. The study recommended that external debt should be discouraged for it is not reliable by government for the promotion of economic growth because of its retarding influence on growth.

Al-Basheer et al., (2016) studied the economic determinants of capital flight in Jordan and estimated the constraints of capital flight. They used multiple linear regression method and E-views program for the sample period 2000 - 2013. The study found existence of a positive statistically significant relationship between the external public debt, taxes, economic openness, previous capital flight, and capital flight in Jordan. Further, it showed a negative statistically significant relationship between the growth rate of the economy and capital flight and recommended on the need to monitor the flight of capital through creating a department in the central bank to control money flight.

Saxena and Shanker (2016) investigated the relationship between external debt and capital flight in India. The study employed the parametric statistical techniques of Two Staged Least Square Method for a sample period of 1990 - 2012 and found that there existed a positive correlation between external debt and capital flight in India. The study further demonstrated that the external debt for productive investment within reasonable levels enhances economic growth, but beyond certain levels additional indebtedness reduces growth. Further, the mounting burden of debt

servicing and debt crisis motivates capital flight, a paradoxical situation in which resources are flowing out of developing countries.

Magero (2015) investigated the impact of total debt servicing on macroeconomic performance in Kenya using the Vector Autoregressive model for the period 2010 to 2014. The study demonstrated that debt servicing had a significant effect on the macroeconomic performance, as a result of the estimated effects on the macroeconomic fundamentals. Debt servicing was seen to crowd out private investment with zero existence of debt overhang during the study period. Further innovations in total debt servicing would persist in the economy for over ten years to shrivel.

Shabbir (2013) explored the long run relationship between external debt and economic growth in 70 developing countries. The study used linear panel data model of fixed effects and random effects over the sample period 1976-2011. The study found out that increase in external debt stock reduces the fiscal space to service external debt liabilities and thus dampens the economic growth. High levels of external debt also reduce the level of private fixed capital formation.

Ndikumana and Boyce (2011) in their study on capital flight from SSA: linkages with external borrowing and policy options estimated the magnitude and timing of capital flight from 33 SSA countries. They parametric statistical techniques of OLS and GMM analysis and considered a sample period 1970 - 2004. They found that for every dollar in external loans to Africa in that period, roughly, 60 cents flowed back in form of capital flight in the same year, showing the existence of widespread debt fueled capital flight. They also found that the increase in the debt stock spurred additional capital flight in later years, thus confirming the debt-overhang effect. Aziz, Khayyam and Uddin (2014) investigated the determinants of capital flight from Bangladesh using times series data from 1973 to 2013. Linear regression model was used and ordinary least squares (OLS) function was applied to estimate the indicators of capital flight. It was identified that external debt, foreign direct investment, and foreign reserves to be the main causes of capital flight. Statistically, they proved that external debt was the major cause of capital flight from Bangladesh and concluded

that proper and efficient external debt management and utilization would be key strategy to alleviate the problem.

2.4.2 Foreign Portfolio Investments Outflows and Economic Growth

Koskei (2017) investigated the effect of foreign portfolio equity outflows on stock returns of listed financial institutions in Kenya for the period 2008 to 2014. The study population was 21 financial institutions listed in the Nairobi Securities Exchange. She adopted a causal research design in her study and a panel data regression using the Ordinary Least Squares (OLS) method. She found out that foreign portfolio equity outflows have no effect on stock returns of listed financial institutions, and as such on economic growth in Kenya. The study recommended implementation of policies that would curb foreign portfolio outflows in financial institutions and minimize reversals of foreign portfolio investments.

Spencer (2017) investigated the drivers of portfolio inflows and outflows for Jamaica. The study employed a Structural Vector Auto Regression (SVAR) model on quarterly data over the period 2003: Q1 to 2016: Q4. Further, impulse response functions and variance decompositions were used to investigate the underlying shocks that influence portfolio flows. The results showed that while both pull and push factors are important in explaining the behavior of portfolio flows for Jamaica, domestic factors play a dominant role. The findings show that economic growth, foreign and domestic interest rates as well as the exchange rate are more influential in driving portfolio inflows whereas the fiscal balance, domestic inflation and foreign interest rates are seen as having a stronger impact on portfolio outflows for Jamaica.

Noman et al., (2015) investigated the portfolio investment outflow and the complementary role of direct investments for 45 developing countries. The study adopted simultaneous equations approach to model the relationship between FPI and foreign direct investments over the sample period of 2001-2009. The study found an existence of both statistically and economically significant relationship between the two types of outflows. The outward foreign direct investments outflow was empirically significant predictive power in explaining the FPI outflow. Similarly, the

FPI outflow also has significant explanatory power for the observed level of foreign direct investments outflow.

Tiago and Caldeira (2015) analyzed the effect of foreign portfolio capital flows on stock returns of Brazilian listed firms through a 6-factors APT model, in which an additional risk factor for foreign portfolio capital flows was included, over the period 2000 to 2013. The study concluded that foreign portfolio capital flows are more associated to increases than to decreases in returns. Further, foreign portfolio capital flows were found to marginally decrease the cost of equity capital and marginally decrease the volatility of returns.

Atobrah (2015) investigated the determinants of portfolio flows of Sub-Saharan Africa (SSA). The study uses a panel data on 17 SSA countries over the period, 2005-2013, with domestic factors like market size, level of financial development, current account balance and trade openness. The study showed that current account balance and financial development have negative relationship with portfolio inflows. The results also suggest that market size, past portfolio inflows and the growth rate of industrialized countries positively affect portfolio flows to SSA.

2.4.3 Outward Foreign Direct Investment and Economic Growth

Ameer and Xu (2017) investigated the long-run effect of inward and outward foreign direct investment on economic growth: evidence from 28 developing economies over time period 2005-2014 annually. The study employed the Ordinary Least Squares (OLS) and Generalized Method of Moments (GMM) on the basis of macroeconomics panel data in developing economies. The study found that there is a positive and significant impact of foreign direct investment outflows and inflows on economic growth in the long run among developing economies. Further, the positive and significant effects of foreign direct investments inflows and outflows on economic growth were highly robust when different econometric techniques were employed.

Bano and Tabbada (2015) examined the extent and determinants of Foreign Direct Investment outflows in East, Southeast, and South Asian developing countries. The study used correlation and regression analysis for the sample period between 1980

and 2011. They found that foreign direct investment outflows are closely associated with high levels of GDP, high domestic savings, large foreign reserves, export orientation, and relatively large foreign direct investment inflows in the source countries, with the strength and importance of each factor varying with the level of development.

Onder and Karal (2013) analyzed the determinants of foreign direct investments outflow from a developing country: The case of Turkey. The study adopted the Panel data model as well as the Prais-Winsten regression analysis for the sample period 2002 to 2011. The study found that population, infrastructure, per-capita GDP of the host country, and home country exports to the host country are the factors having positive effect on outward foreign direct investments. Further, the annual inflation rate of the host country, its tax rate collected from commercial profit, and its distance from Turkey have a negative relation with investment outflows.

Umoru (2013) explored empirically the relative effect of capital outflows on the growth rate of GDP in Nigeria. The study adopted simultaneous equation model and the numerical coefficients of the model were estimated using the Generalized Method of Moment (GMM) using secondary data that covered the period 1980 – 2000. The study also adopted the Augment Dickey Fuller (ADF) regression in the test of hypotheses. The findings showed that capital flight has adverse effect on the growth rate of GDP and recommended on the need to implement economic policies that can invigorate domestic investment and discourage capital flight, to enhance economic growth in Nigeria.

Al-Sadig (2013) examined the effects of outward foreign direct investments on domestic investment using data from 121 developing home countries over the period 1990–2010, where Kenya was included in the sample. He employed Panel Data model. The empirical results show a robust negative relationship between outward foreign direct investments and the rate of domestic investment. A one percentage point increase in outward foreign direct investments leads to a reduction of about 29 percent in domestic investment.

Wong (2010) investigated the causal relationship between the outward foreign direct investments and its home country economic growth in Malaysia. The study used Time-series data, VAR and the Granger non-causality tests for the period 1999 to 2008 and found out that Malaysia's outward foreign direct investments doesn't Granger cause its domestic economic growth. Thus, Malaysia's domestic economic growth is not driven by the country's level of investments abroad. On the other hand, the study finds Granger causality between Malaysia's economic growth and its level of outward investments noting that the initial domestic economic growth is the cause of the increase in Malaysia's capital flight.

Kayam and Hisarciklilar (2009) examined the factors determining outward foreign direct investments in Turkey using the gravity model for the period 1992 - 2005. They found out that investments were in horizontal form, so as to reach out to faraway markets. Further, the study found out that as the distance between Turkey and the host country increased, investments also increased. Also, as the exports from Turkey to the host country increased, investment to the host country also increased and an increase in per-capita income both in Turkey and in the host, country negatively affected the investments.

Hattari and Rajan (2008) explored the trends and drivers of bilateral foreign direct investments flows in Hong Kong. They adopted a panel data model of annual data for 57 homes and 57 host countries between the periods 2000 -2005. The study found that distance is statistically significant and that a greater distance between home and host countries lowers outward foreign direct investments flows. Outward foreign direct investments flow to host countries with higher research and development spending as a share of GDP, with abundant natural resource endowment and a significant stock market capitalization.

2.4.4 Profit Repatriations and Economic Growth

Bachmann and Baumann (2016) in their study on the repatriation incentive of the foreign dividend exemption system, for the period 2003 to 2011 used the dividend exemption model as well as the hurdle rate concept to measure the effect of earnings repatriation in Japan, after the introduction of a new tax system in 2009, the so-called

dividend exemption system. Their findings demonstrated that though the dividend exemption model does not provide long-term incentives for foreign subsidiaries to repatriate their earnings, the policy change influences but does not determine the decision to distribute or retain profits.

Uguru (2016) examined the tax implications of capital flight in Nigeria. He used the parametric statistical techniques of the OLS model based on time series data quantifying capital flight under the hot money or balance of payment approach for the period 1970 - 2009. He found that a unit increase in capital flight leads to a 2% tax revenue decrease. Consequently, policy measures discouraging capital flight, like placing a limit on the repatriating percentage of local profit, would boost the tax revenue and improve economic growth in Nigeria.

Khan et al., (2015) investigated the impact of the corporate tax regime in the United States on the relation between the performance of U.S. corporations and the overall economy. The study used panel data model in addition to cross-country and cross-sectional analyses for the period 1975 to 2013 and found that the relatively higher corporate income tax rate and the accounting treatment of foreign earnings of U.S. corporations have contributed to growth in corporate profits not translating into overall economic growth. These features of the U.S. tax regime result in fewer corporate profits being channeled to subsequent domestic investments, leading to lower economic growth. The disparity between the growth rates of corporate profits and the economy is unsustainable in the long run. Social, political, and economic pressures should eventually cause the growth rates in corporate profits and the broader economy to realign.

Uguru (2011) examined the impact of capital flight on the corporate performance indices of profit, cost of production and tax paid by some selected multinational corporations in Nigeria. The study adopted the parametric statistical techniques of the OLS regression model for the period 1970 - 2009 and found that corporate profits were shifted abroad. This ultimately led to high cost of consumer goods in Nigeria, and capital flight, which reduced government revenue through tax evasion.

Graham, Hanlon, and Shevlin (2010) investigated the barriers to mobility by considering the lockout effect of U.S. taxation of worldwide corporate profits survey. The study used descriptive statistics using panel data analysis from a sample of 804 firms, and surveyed tax executives to examine the corporate response to the one-time dividends received and found that earnings are retained overseas due to the tax implications on repatriations. This boosted the overseas countries economic growth as profits are always re-invested.

2.4.5 Capital Flight, Foreign Exchange Rate and Economic Growth

Bredino et al., (2018) analyzed the impact of capital flight on Nigeria economy using combined global technique, Artificial Neural Network (ANN) as a predictive technique and classical techniques like Ordinary Least Square (OLS) and co-integration/error correction methods. The study covered the period 1980 - 2012. The research finding showed that capital flight had adverse impacts on the GDP, while exchange rate impacted positively on the GDP.

Gachoki and Nyan'oro (2016) examined the impact of capital flight on private investments in Kenya. They employed the time series data from 1970 to 2012 and OLS regression analysis and found that capital flight has an adverse effect on private investment. The econometric results of this study supported 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 affected private investment.

Muchai and Muchai (2016) investigated the Fiscal Policy and Capital Flight in Kenya using annual time series data for the period 1970–2010. They established that past capital flight, change in debt, and government expenditure have no significant impact on capital flight in Kenya. However, external debt, taxation, and expenditure practices under different political regimes have significant effects on capital flight.

Vukenkeng and Mukete (2016) investigated the relationship between capital flight and economic development in Cameroon by employing the Fully Modified Least Squares (FMOLS) technique. The study adopted an ex-post facto research design for

the sample period 1970-2013 and found evidence in support of a negative significant relationship between capital flight and economic development in Cameroon over the period of the study.

Auzairy et al., (2016) analyzed the dynamic relationships of capital flight and macroeconomic fundamentals in Malaysia. They adopted the co-integration and vector auto-regression models for a sample period between 1992 and 2012 and found that that macroeconomic fundamentals and capital flight are associated in the long run, and that appreciation and depreciation of exchange rate play significant roles in determining the movement of capital flight and thus, depreciating currency would lead to greater capital flights. In addition, exchange rate would keep declining as more capital legally and illegally, leave the country.

Maana et al., (2015) modeled extreme volatility in the daily exchange rates of the Kenya shilling against the U.S. dollar, by employing the GARCH model for the sample period 1999 - 2013. The study found out that despite episodes of extreme volatility, the long-term stability of the exchange rate was maintained during the period. However, implementation of policies that will increase and sustain the level of foreign exchange inflows into the country is necessary to mitigate the vulnerability of the exchange rate to external and domestic shocks.

Egbe (2015) investigated the effect of capital flight on real exchange rate of the naira in Nigeria by employing ECM for the sample period 1981 to 2009. The study used the World Bank measurement and found that though there is a dynamic short-run behavior of exchange rate with respect to capital flight and the other variables, a long-run relationship does not exist. The study results also show capital flight from Nigeria does not have a dynamic impact on the real exchange rate, rather the exchange rate responds to the domestic price level.

Ellyne and Mbewe (2015) investigated capital flight and the role of the exchange rate in Nigeria, South Africa and Zambia. The study adopted an ex-post facto research design and the Granger's (1969) causality test to investigate the causal relation between capital flight and the exchange rate and the Johansen (1988) Method of Cointegration to determine the existence of a long-run relationship. VECM was

employed to determine the short-run dynamics, using three case studies from Nigeria, South Africa and Zambia for the period 1970 to 2010. The granger causality test results suggested that the direction of causality between capital flight and the real exchange rate only held in the period under analysis and therefore, it should not be assumed to hold in different time periods. Capital flight from Nigeria, South Africa and Zambia was motivated by portfolio considerations, capital flight from Nigeria and South Africa is driven by expected currency depreciation while capital flight from Zambia is driven by expected currency appreciation in the long run. Our other findings suggest that other macroeconomic policy errors in the form of inflation unpredictability and foreign direct investment also increase capital flight from Nigeria, South Africa and Zambia.

Uguru et al., (2014) investigated the relationship that exists between capital flight and exchange rate volatility in Nigeria. The study adopted an ex-post facto research design for the sample period between 1970 and 2007 and employed the parametric statistical techniques of OLS. To capture the relationship between capital flight and exchange rate in Nigeria, the empirical model that accommodates the capital flight and exchange rate nexus was specified. The coefficient of capital flight was positively signed and statistically very highly significant at 1%. The study found that every unit increase in capital flight lead to increase in exchange rate in Nigeria. This means that exchange rate is influenced by the volume of capital flight in Nigeria. Thus, a stable exchange rate regime should be established through a drastic reduction in capital flight and increase capital inflows in the form of foreign private investments.

Ndikumana et al., (2013) in their study on the estimates of capital flight for a sample of 39 African countries from the period 1970 to 2010 used the General Method of Moments (GMM) estimation techniques and Panel Fixed-Effects Regressions. They found that the macroeconomic environment, proxied by the GDP growth, had a negative and significant relationship with capital flight. The net credit to the private sector as a ratio to GDP, used as a proxy for financial development, is insignificant and thus exhibited no effect on capital flight. They found no significant relationship between the exchange rate and capital flight. Their results indicated that few variables are consistently significant for all 39 countries, which may be indicative of differing relationships or conditions across countries.

Sibanda et al., (2013) examined the impact of real exchange rates on economic growth in South Africa. They employed quarterly time series analysis for a sample period 1994 to 2010 and applied the Johansen co integration and VECM models. The study found that real exchange rate has a dampening long run impact on economic growth in South Africa, while undervaluation of the currency significantly hampers growth in the long run, whilst it significantly enhances economic growth in the short run. As such, the policy of depreciating exchange rates to achieve higher growth rates is only effective in the short run and unsustainable in the long run. Therefore, overvaluation and undervaluation of the currency should be avoided at all costs.

The empirical literature reviewed above showed that capital flight impacted adversely on the GDP growth rate. Therefore, the growth rate effect of capital outflow was significant. Further, capital flight had a negative effect on economic growth as well as on foreign exchange rate. However, this study diverged in the aspect of approach and concentrated on the magnitude of the effect of capital flight proxies on economic growth, as well as the mediating role of foreign exchange rate on the relationship between capital flight and economic growth.

2.5 Critique of the Existing Literature

A study by Muli and Ocharo (2018) on the relationship between external debt servicing and current account balance in Kenya as well as Mweni et.al., (2016) on the relationship between GDP and external debt in Kenya found that that policies on external debt management should be carefully designed not to weaken macroeconomic fundamentals because they take long time before fizzing out, and that there exists a negative relationship between GDP and external debt in Kenya respectively. Their choice of the model in using the Granger causality as well as time series was insufficient. More defined results on the extent and effect of the relationship would have been achieved if panel data model was applied. Further, the justification by Muli and Ocharo (2018) that there was insufficient theory that connects external debt and current account balance variables was not accurate. There are numerous models such as debt overhang theory that clearly demonstrates debt servicing.

A study by Adeniran et al., (2016) on the impact of external debt on economic growth in Nigeria found that external debt service payment negatively impacted the real GDP growth in Nigeria significantly. Their conclusion to discourage external debt entirely was inconsistent with their study as they also found out that *ceteris paribus*, external debt boosts economic growth.

An investigation by Saxena and Shanker (2016) on the relationship between external debt and capital flight in India showed that external debt for productive investment within reasonable levels enhanced economic growth, but beyond certain levels additional indebtedness reduced growth. The conclusions drawn in the study were based on earlier studies done by earlier scholars with little evidence that more current and suitable studies and events were used to investigate the relationship between external debt and capital flight. Further, the results would have been more explicit on the actual levels in which external debt negatively affected capital flight, given that a panel approach was used.

Spencer (2017) investigated the drivers of portfolio inflows and outflows for Jamaica. Although the findings showed that economic growth, foreign and domestic interest rates as well as the exchange rate were more influential in driving portfolio inflows, a more detailed analytical model to show the effect of the drivers would have added more value to the study as opposed to the use of structural vector auto-regression (SVAR) model. Wong (2010) in his study on the relationship between Malaysia's outward foreign direct investments and its home country economic growth used the multinational enterprises only to measure the outward foreign direct investments, which was not representative enough to measure the level of outward foreign direct investments as it may have been caused by other factors such as the state, individual investors, debt and illicit outflows.

Khan et al., (2015) investigated the impact of the corporate tax regime in the United States on the relation between the performance of U.S. corporations and the overall economy. Although the study found that the relatively higher corporate income tax rate and the accounting treatment of foreign earnings of U.S. corporations have contributed to growth in corporate profits not translating into overall economic

growth, the mixture of panel data longitudinal approach and cross-sectional approach was confusing. A study by Hattari and Rajan (2008) explored the trends and drivers of bilateral foreign direct investments flows in Hong Kong and found that distance is statistically significant and that a greater distance between home and host countries lowers outward foreign direct investments flows. As the study used a panel data approach, the results would have been more enhanced if the researcher analyzed the effects in this model.

Ameer and Xu (2017) investigated the long-run effect of inward and outward foreign direct investment on economic growth: evidence from 28 developing economies over time period 2005-2014 annually. The study employed the Ordinary Least Squares (OLS) and Generalized Method of Moments (GMM) on the basis of macroeconomics panel data in developing economies. Although their study found that there was a positive and significant impact of foreign direct investment outflows and inflows on economic growth in the long run among developing economies, the results would not be generalized in a single country as various countries are affected by varying macro-economic effects.

Several studies were done by Bredino et al., (2018), Ampah et al., (2018), Mugambi and Murunga (2017), Koskei (2017), Uguru (2016), Ngugi et al., (2016), Vukenkeng and Mukete (2016), Auzairy et al., (2016), Maana et al., (2015), Egbe (2015), Ellyne and Mbewe (2015), Bano and Tabbada (2015), Noman et al., (2015), Tiago and Caldeira (2015), Atobrah (2015), Aziz et al., (2014), Uguru et al., (2014), Ndikumana et al., (2013), Sibanda et al., (2013), Umoru (2013), Shabbir (2013), Uguru (2011), Ndikumana and Boyce (2011) and Graham et al., (2010). As the data in the above studies was longitudinal in nature, a more precise model such as panel data could have been used to measure the significant effects. As most of these studies measured various countries and firms, the generalized findings may not be individually applicable in specific countries, due to the dynamic nature of each country's economic variables. The researchers in some of the above studies would have arrived at a more accurate conclusion by using more recent information for the study. Further, more reliable results could be achieved if the researchers classified the countries into developing, developed or underdeveloped, and measured them separately, or have a separate measure of each country.

Studies done by Bachmann & Baumann (2016), Al-Basheer et al., (2016), Onder and Karal (2013) as well as Kayam and Hisarciklilar (2009) used a sample period of an average ten years. This sample period used was small and therefore generalizability of the results was constrained. Use of a longer period offers a wider spread of periods that had more shocks and thus the results would be more reliable in the long run. Thus, the use of the ten years average was too small for the results to be generalized that capital flight affect economic growth negatively in other countries. Further, in all these studies, the failure to account for the effects of structural breaks during the periods studied can lead to a bias in other studies, as each period is affected by varying factors.

From the empirical literature reviewed, most studies ignored the aspect of external debt repayments, outward foreign direct investment outflows, foreign financial assets traded as portfolio investments as well as profits repatriations which are the main source of flight capital in the modern-day financial economics. It was evident that the context of these studies largely dwelt on the domestic debt, the stock of outward foreign direct investments, multinational and transnational corporation profits, and very little of external debt repayments. These studies were outside the context of our study which sought to further explore the mediating role of foreign exchange rate on the relationship between capital flight and economic growth.

2.6 Research Gaps

A number of studies tested the role of capital flight and foreign exchange rate on economic growth. Ampah et al., (2018) in their study on capital flight and external debt investigated the relationship between capital flight and external debt in SSA. Adeniran et al., (2016) investigated the impact of external debt on economic growth in Nigeria. Egbe (2015) in his study on a dynamic analysis of the impact of capital flight on real exchange rate in Nigeria; Sibanda et al., (2013) examined the impact of real exchange rates on economic growth in South Africa; Uguru et al., (2014) investigated the relationship that exist between capital flight and exchange rate volatility in Nigeria. However, no study tested the role of foreign exchange rate on the relationship between capital flight and economic growth in Kenya.

A number of studies failed to explore the effect of capital flight on economic growth. Auzairy et al., (2016) explored the dynamic relationships of capital flight and macroeconomic fundamentals in Malaysia; Saxena and Shanker (2016) analyzed the dynamics of external debt and capital flight in India; Al-basheer et al., (2016) investigated the economic determinants of capital flight in Jordan; Bachmann and Baumann (2016) explored the repatriation incentive of the foreign dividend exemption system Japan, Tiago and Caldeira (2015) analyzed the effect of foreign portfolio capital flows on stock returns of Brazilian listed firms and Henry (2013) analyzed the impact of capital flight on investment and growth in Trinidad and Tobago, 1971-2008; Maski and Wahyudi (2012) assessed capital flight and its impact on economic growth in Indonesia and Han (2011) studied on Hong Kong capital flight: determinants and features.

Spencer (2017) investigated the drivers of portfolio inflows and outflows for Jamaica. Ndikumana (2013) investigated the capital flight and tax havens: impact on investment and growth in Africa; Gusarova (2009) measured the impact of capital flight on economic growth in 139 developing economies in the world; Ndikumana and Boyce, 2008) estimated capital flight from SSA countries: linkages with external borrowing and policy options; Ndikumana (2015) studied on capital flight from Africa and development inequality: Domestic and global dimensions and Ndikumana et al., (2015) studied on illicit flights and economic development in Africa.

Studies carried out in Kenya included: Koskei (2017) who investigated the effect of foreign portfolio equity outflows on stock returns of listed financial institutions in Kenya for the periods and variables used. Gachoki and Nyan'oro (2016) researched on the impact of capital flight on private investments in Kenya, Ngugi et al., (2016) investigated the effect of public debt on economic growth in Kenya, Maana et al., (2015) studied on modeling extreme volatility in the daily exchange rates of the Kenya shilling against the U.S. dollar, Mudida (2011) studied on the empirical aspects of capital flight in Kenya, 1970-2009, Zainab (2009) studied on the determinants of capital flights in Kenya (1987 - 2007), Kipyegon (2004) investigated the determinants of capital flights from Kenya and Ng'eno (2000) researched on the magnitude of capital flight in Kenya.

These studies show that limited attention has been paid to the effect of capital flight on economic growth as well as on the mediating role of foreign exchange rate in the relationship between capital flight and economic growth in Kenya. Earlier studies concentrated more on the determinants of capital flight with limited attention to economic growth. This study sought to find out the effect of capital flight on economic growth in Kenya for the period 1986 to 2016. The proxies for capital flight used in this study included external debt repayments, foreign portfolio investment outflows, outward foreign direct investment and profit repatriations. This study therefore fills in on the existing knowledge gap and adds value to existing literature by investigating the effect of capital flight on economic growth as well as the mediating role of foreign exchange rate on the relationship between capital flight and economic growth in Kenya.

2.7 Summary of the Literature Review

This chapter covered the theories, presentation of the variables, empirical review and a critique of relevant literature. The theoretical framework discussed the theories underpinning the phenomenon under study. The literature showed that the Kenya's economy suffered significant financial and non-financial damage due to the predatory capital flight tendencies which affect the foreign exchange rate and the general economic growth.

Empirical studies also showed that despite the managerial and regulatory policies and measures undertaken by the government to curb capital flight, the country still faced various challenges of external debt repayments, foreign portfolio investment outflows, outward foreign direct investments and profit repatriations. This chapter introduced the mediating role of foreign exchange rate on the relationship between capital flight and economic growth in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter described the research design and the methodology used in this study. It includes the research design, target population, sampling frame, sample size and sampling technique, data collection instruments, data collection procedures, data analysis and processing, the statistical models, the methods of estimation and hypothesis testing. This chapter also presents the model and estimation techniques used in the study to investigate the effect of capital flight on economic growth in Kenya as well as the mediating role of foreign exchange rate in the relationship between capital flight and economic growth in Kenya.

3.2 Research Design

This study adopted an ex-post facto research design, a form of descriptive research in which an independent variable has already occurred. The investigator starts with the observation of dependent variable then studies the independent variable in retrospect for possible relationship with and effects on the dependent variable over time (Uguru et al., 2014). This approach was justifiable given that the relationship between capital flight, exchange rate and economic growth is complex (Ellyne & Mbewe, 2015). Vukenkeng and Mukete (2016) in their study on capital flight and economic development in Cameroon used an ex-post facto research design. Further, Uguru et al., (2014) in their study on the relationship between capital flight and exchange rate volatility in Nigeria adopted an ex-post facto research design as well as Ellyne and Mbewe (2015) in their analysis of capital flight and the exchange rate role in Nigeria, South Africa and Zambia.

Further, this study adopted a positivist research philosophical paradigm characterized by a theoretical belief that the independent variable affects the level of the dependent variable, from empirically testable hypotheses (Cooper & Schindler, 2011). Positivists believe that a reality is stable and can be observed and described objectively without interfering with the phenomena being studied (Levin, 1988).

3.3 Target Population

According to Cooper and Schindler (2008), population is referred to as the collection of elements about which a study used. The study focused on two local and five internationally licensed and recognized financial data collection agencies and institutions. Local institutions from where data was collected include the Kenya National Bureau of Statistics (KNBS), the principal agency of the Government for collecting, analyzing and disseminating statistical data in Kenya and the Central Bank of Kenya (CBK), charged with formulating monetary policies in Kenya. International institutions included the International Financial Statistics (IFS), International Monetary Fund (IMF), World Bank which collects data on development indicators compiled from officially recognized international sources, United Nations and African Development Indicator's (ADI). Annual Reports Data collected from these seven agencies on capital flight, foreign exchange rate and economic growth covered the period of 1986 to 2016.

Variables in this study have been tested before in the SSA but not independently tested on this relationship in Kenya. The study aims to test the effect of capital flight on economic growth in Kenya and the mediating role of foreign exchange rate in this relationship. Identifying this target population paved way for the sample size population of seven institutions intended to yield some knowledge about the population of concern, especially for the purposes of statistical inference.

3.4 Sampling Frame

Lavrakas (2008) defined a sampling frame as a list of the target population from which the sample is selected. In descriptive survey designs, a sampling frame usually consisted of a finite population. Two locally reputable government agencies: the Kenya National Bureau of Statistics (KNBS) and the Central Bank of Kenya (CBK) were selected due to them being the official custodians of data in Kenya. Consequently, globally recognized acclaimed financial institutions: International Financial Statistics (IFS), International Monetary Fund (IMF), World Development Indicators (WDI), United Nations Commodity Trade Statistics (UNCOMTRADE)

and African Development Indicator's (ADI), were selected for their consistent provision of reliable data used internationally to draw inferential analyses.

3.5 Sampling Technique and Sample Size

Lavrakas (2008) and Mugenda (2008) described a sample in a survey research context as a subset of subjects drawn from a larger population. This study employed purposive sampling to select secondary data in Kenya. The sample data covered a period of thirty years from 1986 -2016. Purposive sampling was used due to availability and reliability of data to measure the effect of capital flight on economic growth in Kenya for the period of study. This method was employed because it enabled the researcher to select samples that gave sufficient information about the dependent and independent variables (Kumekpor, 2002). The target population included a mix of both international and local data collection agencies as tabulated in Table 3.1 below.

Vukenkeng and Mukete (2016) in their study on capital flight and economic development in Cameroon used purposive sampling technique. Other studies that used purposive sampling technique in Kenya include Gachoki and Nyan'oro (2016) in their study on the impact of capital flight on private investments in Kenya and Maana et al., (2015) on modeling extreme volatility in the daily exchange rates of the Kenya shilling against the USD. The choice of this period was because it reflected a decent duration to interpret the relationship between Kenya's capital flight and economic growth. Further, the study was intended to evaluate capital flight both in the pre-debt crisis of heavy borrowing and in the period after, when Kenyan government made significant efforts in the late 1980s and after year 2000 to stimulate economic growth.

Table 3.1 Sample Sizes

Target Population	No of Agencies	Percentage	Proportion Taken
International Agencies	5	71	71
Local Agencies	2	29	29
Total	7	100	100

3.6 Data Collection Instruments

This study used secondary data drawn from the World Development Indicators, International Financial Statistics, United Nations Commodity Trade Statistics Database, International Monetary Fund, African Development Indicators online databases as well as local publications from the Central Bank of Kenya and Kenya National Bureau of Statistics. The data was used to investigate the effect of capital flight on economic growth in Kenya as well as the mediating effect of foreign exchange rate in this relationship.

3.7 Data Collection Procedures

Data was collected online from World Bank World Development Indicators, International Financial Statistics, United Nations Commodity Trade Statistics, International Monetary Fund, African Development Indicators databases as well as local publications from the Central Bank of Kenya and Kenya National Bureau of Statistics. Further, it involved a manual review of the available data sources from publications in Kenya's National Treasury library, Kenya National Bureau of Statistics library as well as the Central Bank of Kenya Library. Data collected for this study was in secondary form.

3.8 Data Analysis and Processing

Data processing entails editing, classification and tabulation of the raw data collected for analysis (Kothari, 2009). Secondary data collected may not answer the research questions and hypotheses unless it is analyzed and processed in a coherent and organized manner for inferences and meaning to be derived from it (Zikmund, Babin, Carr & Griffin, 2010). Statistical analyses cover a broad range of techniques, from simple procedures such as computing an average to complex and sophisticated methods which involves use of computer applications. Although some methods are computationally formidable, the underlying logic of statistical tests is relatively easy to grasp, and computers have eliminated the need for detailed mathematical operations (Damodar, Dawn & Sangeetha, 2013).

This study used panel data technique for a thirty-year period (1986 to 2016) to examine the effect of external debt repayments, foreign portfolio investment outflows,

outward foreign direct investments and profit repatriations on economic growth. Baron and Kenny (1986) model was used to detect the mediating effect on the relationship between capital flight and economic growth. Annual data covering the entire study period was collected and analyzed using the E-Views 7 statistical package.

3.8.1 Justification for use of Panel Data Approach

Panel data also referred to as pooled or combined data due to the existence of time series and cross section data elements in it. According to Damodar et al., (2013), panel data has numerous advantages including the fact that it relates to individuals such as firms over time, there is bound to be heterogeneity in these units. Panel data regression controls heterogeneity of cross-section units over time by allowing for individual specific variables (Baltagi, 2001). Secondly, by combining time series of cross section observations, panel data technique has a better comparison, and gives data that are more informative, more variability, with less collinearity among the variables (Gichamo, 2012).

Thirdly, by making data available for several units, panel data considers all cross-section units as heterogeneous and gives unbiased estimations of time invariant and state invariant variables which we observe or not. This minimizes biasness that might result if the study aggregate individuals into broad aggregates. These advantages enrich panel data empirical analysis in ways that may not be possible if only cross-section or time series data is used.

3.8.2 Justification for use of Baron and Kenny (1986) Model

The choice of Baron and Kenny (1986) model was motivated by previous studies in finance by Swamy and Dharani (2018) in their study on an alternate approach in exploring the causal link between financial development and economic growth—Evidence from advanced economies employed this model to investigate the mediation effect. Cheng and Yang (2018) also used this model in their study on enhancing performance of cross-border mergers and acquisitions in developed markets: The role of business ties and technological innovation capability. Also, Cho, Ke and Han (2017) in their empirical examination of the direct and indirect effects of geographic

diversification on stock market and financial performances of multinational corporations employed the Baron and Kenny (1986) model to establish the effect of mediation.

3.8.3 Descriptive Statistics

Univariate analyses were essential in determining the statistical properties of the model so as to select the proper functional form of the estimable model. Therefore, the study sought to determine the mean, maximum and minimum values, standard deviation, skewness, Kurtosis, Jarque-Bera, Probability, Sum, Sum Square of deviations of capital flight proxies, foreign exchange rate and economic growth over time as described in Table 4.1.

3.8.4 Correlation Analysis

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a model are highly correlated. Serial correlation is where the error term in a time series transfer from one period to another (Gujarat & Porter, 2009). A bi-variate analysis was conducted to test for highly correlated variables so as to avoid the problem of multicollinearity and serial correlation in the model, which is common in time series data as demonstrated in Table 4.2.

3.8.5 Operationalization of the Study Variables

This section presents the measurements that were used to operationalize the study variables.

Table 3.2 Operationalization of the Study Variables

Variable	Indicator	Measure	Empirical Studies
Economic Growth	Annual GDP growth rate	Annual Percentage Change in GDP	Bredino et al., (2018), Vukenkeng & Mukete (2016), Auzairy et al., (2016), Ndikumana et al., (2013)
External Debt Repayments	Annual External Debt Repayments	Annual Debt Repayments (Ksh)	Ampah et al., (2018), Ngugi et al., (2016), Adeniran et al., (2016), Al-Basheer et al., (2016), Saxena & Shanker (2016), Shabbir (2013), Ndikumana & Boyce (2011) and Aziz et al., (2014).
Foreign Portfolio Investment Outflows	Annual foreign Portfolio Investment Outflows	Foreign Portfolio Investment Outflows (Ksh)	Koskei (2017), Spencer (2017), Noman et al., (2015), Tiago & Caldeira (2015) and Atobrahh (2015),
Outward Foreign Direct Investments	Annual Foreign Direct Investments Outflow	Annual Outward Foreign Direct Investments (Ksh)	Bano & Tabbada (2015), Onder & Karal (2013), Umoru (2013), Al, Sadig (2013), Wong (2010), Kayam & Hisarciklilar (2009) and Hattari & Rajan (2008).
Profit Repatriations	Annual profits repatriated by Foreign Investors	Annual profits Repatriated (Ksh)	Uguru (2016), Bachmann & Baumann (2016), Khan et al., (2015), Uguru (2011) and Graham et al., (2010).
Foreign Exchange Rate	Annual Foreign Exchange rates Ksh/USD	Annual Foreign Exchange Rate (Ksh)	Maana et al., (2015), Egbe (2015), Ellyne & Mbewe (2015), Uguru et al., (2014), Sibanda et al., (2013)

3.8.6 Model Specification, Estimation and Rationale of Variables

This study adopted a panel data regression model using the Ordinary Least Squares (OLS) method where data included time series and cross-sectional data that was pooled into a panel data set and estimated using panel data regression. Regression analysis is a statistical tool for the investigation of relationships between variables. The investigator seeks to ascertain the causal effect of one variable upon another. A univariate analysis was conducted and the data converted to their natural logs to address the problem of large numbers and eliminate heteroscedasticity. Multiple regression analysis involves combining several predictor variables in a single regression equation. With multiple regression analysis, we assessed the effects of multiple predictor variables on the dependent variable.

3.8.7 Choice of Model: Testing for the Validity of the Fixed Effects Model

Panel data analysis has three independent approaches. Pooled panel assumes that there are no unique attributes of individuals within the measurement set and no universal effects across time. Fixed effects model assumes that there are unique attributes of individuals that are not the results of random variation and that do not vary across time. It assumes differences in intercepts across groups or time periods. Random effects model assumes there are unique time constant attributes of individuals that are the results of random variation and do not correlate with the individual regressors. This model is adequate if we want to draw inferences about the whole population.

The study employed the use of Hausman test to determine which model was appropriate for this study. The last two models were considered in this analysis since pooled regression model assumes that all the proxies of capital flight are the same which is not the case. The Pooled regression model assumes that the coefficients (including the intercepts) are the same for all the capital flight proxies. The fixed and random effects models cater for heterogeneity or individuality among the financial institutions by allowing each financial institution to have its own intercept value which is time invariant.

3.8.7.1 Hausman Test

A common assumption in panel data designs is that each entity has its own individual characteristics that may or may not influence the independent variables and there are two regression models designed to control individual effects (Park, 2008). The distinction between the two models is whether the unobserved individual effect is correlated with the independent variables in the model (Bruderl, 2005). Under fixed effect model the assumption is that the individual specific effect is correlated with the independent variable and therefore, the outcome variable (Y) is assumed to be influenced by explanatory variables which are not observable but correlated with the observed explanatory variables (Schmidheiny, 2013; Park, 2011)

Under FE models, it is assumed that specific characteristics do not change over time and therefore the entity's error term and the constant captures individual characteristics. Bruderl (2005) argued that fixed effect model was designed to remove the effect of those individual characteristics from the predictor(X) variables so that a researcher can assess the predictors' net effect on the Y variable. In contrast, it is assumed under the random effect model, the characteristics from individual entities, group or time-specific variations might be uncorrelated with the independent variables (Bruderl, 2005). The variation across entities is assumed to be random and uncorrelated with the independent variables included in the model.

The appropriate approach of choosing between fixed and random effect model is running a Hausman specification test to determine the more efficient model (Borenstein, Hedges, Higgins, & Rothstein, 2010). Under the test, the null hypothesis is that there is no significant correlation between the individual effects and the independent variables. A rejection of the null hypothesis confirms the argument in favor of the fixed effect against the random effect model. A Hausman test was carried out to determine whether to use the fixed effect or random effect model to address objectives of this study.

3.8.7.2 Baron and Kenny (1986) Model

To test whether foreign exchange rate mediates the relationship between capital flight and economic growth, the study applied the results of panel data and used the Baron and Kenny (1986) technique to estimate the mediation effect. A variable may be called a mediator “to the extent that it accounts for the relation between the predictor and the criterion” (Baron & Kenny, 1986). The two diagrams below capture the Baron’s Model. Path c in Figure 3.1 below is called the total effect, which is unmediated. X is the independent variable while Y is the dependent variable.

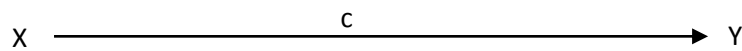


Figure 3.1 Baron and Kenny (1986) Model: Total Effect

The effect of X on Y may be mediated by a process or mediating variable M and the variable X may still affect Y. The mediated model is as per figure 3.2 below;

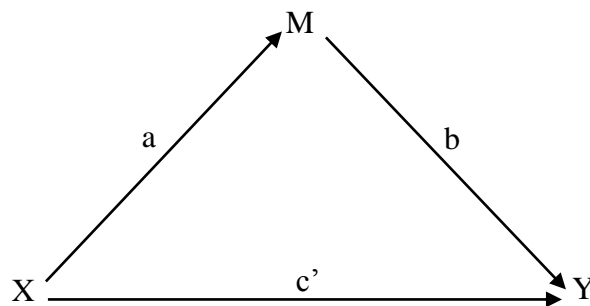


Figure 3.2 Baron and Kenny (1986) Model: Direct Effect

Baron and Kenny (1986) proposed a four-step approach in which several regression analyses were conducted and significance of the coefficients examined at each step. In step 1, Baron and Kenny proposed to conduct a simple regression analysis with X (capital flight) predicting Y (economic growth) to test the total effect described by path c alone, as per the below equation 3.8.1;

$$Y = \beta_0 + \beta_1 X + e \dots\dots\dots \text{(Equation 3.8.1)}$$

Step 2 conducted a simple regression analysis with X (capital flight) predicting M (foreign exchange rate) to test for path a, using the below equation 3.8.2;

$$M = \beta_0 + \beta_1 X + e \dots\dots\dots \text{(Equation 3.8.2)}$$

Step 3 conducted a simple regression analysis with M (foreign exchange rate) predicting Y (economic growth) to test the significance of path b alone, using the below equation 3.8.3;

$$Y = \beta_0 + \beta_1 M + e \dots\dots\dots \text{(Equation 3.8.3)}$$

Step 4 conducted a multiple regression analysis with X (capital flight) and M (foreign exchange rate) predicting Y (economic growth), to test the significance of path c' using equation 3.8.4. Path c' is called the direct effect. Complete mediation is the case in which variable X no longer affects Y after M has been controlled and so path c' is zero. Partial mediation is the case in which the path from X to Y is reduced in absolute size but is still different from zero when the mediator is introduced.

$$Y = \beta_0 + \beta_1 X + \beta_2 M + e \dots\dots\dots \text{(Equation 3.8.4)}$$

Where:

β are the intercepts

e is the model fit errors while

a, b, c and c' terms are the regression coefficients capturing the relationships between the three focal variables.

According to Baron and Kenny (1986), there will only exist a full mediating effect if the following four conditions are met. The first condition will be satisfied if the independent variable (capital flight) directly affects the mediator (foreign exchange rate). The second condition will be satisfied if the mediator (foreign exchange rate) affect the dependent variable (economic growth). The third condition will be satisfied when the independent variable (capital flight) directly affects the dependent variable (economic growth) once the mediator is deleted from the model.

Finally, full mediation will be supported if the direct path from the independent variable to the dependent variable becomes insignificant, when the paths to and from the mediator are once again included in the model. If all four of these steps are met, then the data are consistent with the hypothesis that variable M completely mediates the X-Y relationship, and if the first three steps are met but the Step 4 is not, then partial mediation is indicated.

In principle, mediation is believed to exist if first, path a in equation 3.8.2 is significant, that is, there is evidence of a linear relationship between the independent variable (X) and mediating variable (M). Second, the regression coefficient in path c in equation 3.8.1 is significant, that is, there is a linear relationship between the independent variable (X) and dependent variable (Y). Finally, path b in equation 3.8.3 is significant, indicating that the mediator (M) helps predict the dependent variable (Y) and also path c', the effect of the independent variable (X) directly on the dependent variable (Y) becomes significantly smaller in size relative to path c as per equation 3.8.4.

This model has previously been applied in the finance studies. Swamy and Dharani (2018) in their study on an alternate approach in exploring the causal link between financial development and economic growth—Evidence from advanced economies employed this model to investigate the mediation effect. Cheng and Yang (2018) also used this model in their study on enhancing performance of cross-border mergers and acquisitions in developed markets: The role of business ties and technological innovation capability. Also, Cho, Ke and Han (2017) in their empirical examination of the direct and indirect effects of geographic diversification on stock market and financial performances of multinational corporations employed the Baron and Kenny (1986) model to establish the effect of mediation.

3.8.8 Research Equations

3.8.8.1 Effect of Capital Flight on Economic Growth in Kenya

The study hypotheses were measured using one panel data regression equation with economic growth (EG) as the dependent variable and external debt repayments (EDR), outward foreign direct investments (OFDI), foreign portfolio investment

outflows (FPIO) and profit repatriations (PR) as independent variables. The hypotheses were tested using the following regression model;

$$EG_{it} = \alpha + \beta_1EDR_{it} + \beta_2OFDI_{it} + \beta_3FPIO_{it} + \beta_4PR_{it} + \mu_{it} \dots\dots\dots \text{(Equation 3.10)}$$

Where;

EG_{it} = Economic Growth at time t

EDR_{it} = External Debt Repayment at time t

$OFDI_{it}$ = Outward Foreign Direct Investments at time t

$FPIO_{it}$ = Foreign Portfolio Investment Outflow at time t

PR_{it} = Profit Repatriations at time t

α = is the intercept

β_i = Is the parameter of explanatory variables of EDR, OFDI, FPIO and PR

μ_i = Is the disturbance term

The equation log transformed was as follows;

$$LnEG_{it} = \alpha + \beta_1LnEDR_{it} + \beta_2LnOFDI_{it} + \beta_3LnFPIO_{it} + \beta_4LnPR_{it} + \mu_{it} \dots\dots\dots \text{(Equation 3.11)}$$

Where;

Ln = the natural logs of the variables

3.8.8.2 Mediating Effect of Foreign Exchange Rate in the Relationship between Capital Flight and Economic Growth in Kenya

Foreign exchange rate (FER) was the mediating variable in the study. The mediating hypotheses were measured using four panel data equations. The hypotheses were tested using the following regression model;

Step 1: Effect of capital flight on economic growth

$$EG_{it} = \alpha + \beta_1EDR_{it} + \beta_2OFDI_{it} + \beta_3FPIO_{it} + \beta_4PR_{it} + \beta_4FER_{it} + \mu_{it} \dots\dots\dots \text{(Equation 3.12)}$$

Step 2: Effect of capital flight on foreign exchange rate

$$FER_{it} = \alpha + \beta_1EDR_{it} + \beta_2OFDI_{it} + \beta_3FPIO_{it} + \beta_4PR_{it} + \mu_{it} \dots\dots\dots \text{(Equation 3.13)}$$

Step 3: Effect of foreign exchange rate on economic growth

$$EG_{it} = \alpha + \beta_1 FER_{it} + \mu_{it} \dots \dots \dots \text{(Equation 3.14)}$$

Step 4: Effect of Capital Flight on economic growth

$$EG_{it} = \alpha + \beta_1 EDR_{it} + \beta_2 FPIO_{it} + \beta_3 OFDI_{it} + \beta_4 PR_{it} + \mu_{it} \dots \dots \dots \text{(Equation 3.15)}$$

Where;

EG_{it} = Economic Growth at time t,

EDR_{it} = External Debt Repayment at time t,

$OFDI_{it}$ = Outward Foreign Direct Investments at time t,

$FPIO_{it}$ = Foreign Portfolio Investment Outflow at time t,

PR_{it} = Profit Repatriations at time t,

FER_{it} = Foreign Exchange Rate at time t,

α = was the intercept,

β_i = was the parameter of explanatory variables of EDR, OFDI, FPIO, PR and FER d

μ_i = was the disturbance term

3.8.9 Unit Root Tests

To avoid inappropriate model specification and increase the confidence of the results, time series properties of the data were investigated. Applications of panel unit root tests have become common in financial and empirical economics, though there exist challenges as to how best the results can be interpreted (Pesaran, 2011). By definition a series is stationary if it has a constant mean and a constant finite variance. On the contrary, a non-stationary series contains a clear time trend and has a variance that is not constant overtime. If a series is non-stationary, it will display a high degree of persistence.

Though the Pooled Mean Group Estimation renders (panel) unit-root tests of the variables under study needless as long as they are I (0) and I (1), the study performed these tests nevertheless to ensure that no variable exceeded the I (1) order of integration, which would result in inconsistent estimations (Asteriou and Monastiriotis 2004). To do this, we applied four panel unit root tests: Levin, Lin and Chu, Im, Pesaran and Shin W-stat, Augmented Dickey-Fuller test and PP - Fisher

Chi-square. These tests were founded on the assumption that all series were non-stationary under the null hypothesis but accounted for heterogeneity in the autoregressive coefficient, which was assumed to change freely among the states under study.

Levin Lin and Chu t statistic were used to interpret the results for this study since it covered the most general specification for all the pooled variables with the inclusion of a constant, a trend and a lag (Mathiyazhagan 2005). The results were presented in section 4.4 of this study. In particular, Westerlund and Breitung (2009) demonstrated that the local power of the Levin, Lin and Chu (2002) test is greater than that of the Im, Pesaran and Shin (2003) test.

3.8.9.1 Levin, Lin and Chu t*

Levin, Lin and Chu assume that the three models below produce the stochastic term Y_{it}

Model 1 $Y_{it} = \rho I y I_{s,t-1} + \epsilon_{I,t}$ (Equation 3.17)

Model 2 $Y_{it} = \alpha_i + \rho I y I_{s,t-1} + \epsilon_{I,t}$ (Equation 3.18)

Model 3 $Y_{it} = \alpha_i + \alpha_{it} + \rho I y I_{s,t-1} + \epsilon_{I,t}$ (Equation 3.19)

The null and alternative hypothesis for model 1 may be written as $H_0 \rho = 1$ and $H_0 \rho < 1$. The null hypothesis was that the panel data contained a unit root while the alternate hypothesis the panel was stationary. The assumption for model 2 and 3 was that $\alpha_i = 0$, the error term was distributed independently across individuals and was stationary for each individual. The results were presented in section 4.4 of this study.

3.8.9.2 Im, Pesaran and Shin W-stat

Im, Pesaran and Shin proposes a test for the presence of unit roots in panels that combines information from the time series dimension with that from the cross-section dimension, such that fewer time observations were required for the test to have power. Since the IPS test was found to have superior test power by researchers in economics to analyze long-run relationships in panel data, we employed this procedure in this

study (Wooldridge, 2014). IPS begins from specifying a separate ADF regression for each cross-section with individual effects and no time trend.

$$\Delta y_{it} = \alpha_i + \rho_i y_{i,t-1} + \sum_{j=1}^{p_i} \beta_{ij} \Delta y_{i,t-j} + \varepsilon_{it} \dots\dots\dots \text{(Equation 3.20)}$$

Where $i = 1, \dots, N$ and
 $t = 1, \dots, T$

IPS used separate unit root tests for the N cross-section units. Their test was based on the Augmented Dickey-fuller (ADF) statistics averaged across groups. After estimating the separate ADF regressions, the average of the t -statistics for p_1 from the individual ADF regressions, $t_{iT_1}(p_i)$:

$$\bar{t}_{NT} = \frac{1}{N} \sum_{i=1}^N t_{iT}(p_i \beta_i) \dots\dots\dots \text{(Equation 3.21)}$$

The t -bar shows that the standardized t -bar statistic converged to the standard normal distribution as N and $T \rightarrow \infty$. IPS (1997) showed that t -bar test had better performance when N and T were small. They proposed a cross-sectionally demeaned version of both test to be used in the case where the errors in different regressions contained a common time-specific component. Bangake and Eggohi (2008) used the IPS method to verify that all variables are integrated to the same order. According to the test of Im et al., (1997) that performed the Monte-Carlo simulations to equate the test that they suggested (IPS), and the Levin-Lin test, with the hypothesis of no cross-sectional correlation in panels, they showed that the IPS test was more powerful than the LL test. The results were presented in section 4.4 of this study.

3.8.9.3 Augmented Dickey-Fuller test

The stochastic process is stationary if the joint probability distribution remains unchanged, after taking any sequence in the process and moving it ahead h time periods. More formally we say that the process is covariance stationary if the expected value of the process is constant around its mean, if the variance is constant and if, for any t and $h \leq 1$ $cov(y_t, y_{t+h})$ depends only on h but not on t . It follows that if the

covariance is dependent only on h , then so is the correlation between y_t and y_{t+h} . Neither the expected value nor the variance can be dependent on time, which means we must be particularly careful when dealing with trending time series.

A covariance stationary process is weakly dependent if the correlation moves toward zero as h approaches infinity, $corr(y_t, y_{t+h}) \rightarrow 0$ as $h \rightarrow \infty$ (Wooldridge, 2014). In the ADF test the null hypothesis was that there is a unit root or the time series is non-stationary, and the alternative hypothesis was that the time-series is stationary and weakly dependent (Stock and Watson, 2012). The ADF test can be defined as:

$$\Delta Y_t = Y_0 + \alpha t + \Phi Y_{t-1} + \sum \Phi_i Y_{t-i} + \varepsilon_t \dots\dots\dots \text{(Equation 3.22)}$$

$$\Delta Y_t = Y_t - Y_{t-1} \dots\dots\dots \text{(Equation 3.23)}$$

Where:

- | | | | |
|---------|---------------------|-------------------|------------------------------|
| $Y_t =$ | Dependent variable. | $Y_0 =$ | Constant term. |
| $t =$ | Trend Variable. | $\varepsilon_t =$ | Stochastic disturbance term. |

Hypotheses used to test series:

$$H_0 = \Phi = 0 \text{ (} Y_t \text{ is non-stationery)}$$

$$H_1 = \Phi \neq 0 \text{ (} Y_t \text{ is not non-stationery)}$$

The results were presented in section 4.4 of this study.

3.8.9.4 PP - Fisher Chi-square

The test proposed non-parametric transformation of t- statistics from original Dickey Fuller regressions. Thus, under null hypothesis unit root, the transformed statistics had DF distribution. The test regression for the PP test was:

$$Y_{it} = \alpha_i + \rho I y I_{t-1} + \varepsilon_{I,t} \dots\dots\dots \text{(Equation 3.24)}$$

$t = 1, 2, \dots, T$, where $\varepsilon_{I,t} = 1$ or 0 may be heteroscedastic.

One advantage of the PP tests over the ADF tests is that the PP tests are robust to general forms of heteroscedasticity in the error term ε_I . Also, it does not need to

specify a lag length for the test regression. If the individual unit root tests are Augmented Dickey-Fuller tests (ADF) then the combined test performed was referred to as Fisher-ADF test. If instead the individual tests were Phillips-Perron test of unit root (PP), then the combine test perform is referred to as Fisher-PP test in E-Views (Hossain 2014).

$$Y_{it} = \alpha_i + \sum_{j=1}^J \beta_j Y_{i,t-j} + \sum_{k=1}^K \gamma_k X_{i,t-k} + U_{it} \dots\dots\dots \text{(Equation 3.25)}$$

$$1 - \rho I y_{I,t-1} + \varepsilon_{I,t} \text{ (3.7)}$$

The advantage of the Fisher-Type unit root test is that it can be applied in almost every set of data (Durnel 2012). The results were presented in section 4.4 of this study.

3.8.10 Granger Causality

The granger causality is a statistical hypothesis that is used in ascertaining whether or not a time series data is important in evaluating another. This was used to test the hypothesis that showed the relationship between capital flight and economic growth (Olawale & Ifedayo, 2015). Pair wise Granger Causality tests were conducted to see whether there exists a unidirectional, bidirectional or no causal relationship between the proxies of capital flight and economic growth. Granger causality tests were conducted by regressing each variable on lagged values of itself and the other variable. The granger causality model was specified as below and results presented in Table 4.6:

$$Y_t = \beta_0 + \sum_{j=1}^J \beta_j Y_{t-j} + \sum_{k=1}^K \gamma_k X_{t-k} + U_t \dots\dots\dots \text{(Equation 3.26)}$$

The probability value of the F-test was employed to examine the null hypothesis. What was most critical was the choice of lags J and K, because insufficient lags yield auto correlated errors and incorrect test statistics and too many lags reduce the power of the test. To determine the causal relationship, the reverse model was estimated.

$$X_t = \beta_0 + \sum_{j=1}^J \beta_j Y_{t-j} + \sum_{k=1}^K \gamma_k Y_{t-k} + U_t \dots\dots\dots \text{(Equation 3.27)}$$

The results were presented in Table 4.6.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This study investigated the effect of capital flight on economic growth in Kenya. Specifically, the study investigated the effect that external debt repayment, outward foreign direct investments, foreign portfolio investment outflows and profit repatriations have on economic growth as indicated by the GDP. Further, the study assessed the mediating role of foreign exchange rate in the relationship between capital flight and economic growth. Further, this chapter contained the details of data collected, presentation of data analysis, interpretation and discussion of findings. Data presentation was organized based on the specific objectives of the study. In general, analyses were conducted using the panel data approach and the mediation effect was tested using the Baron and Kenny model.

4.2 Descriptive Statistics of the Study Variables

The data was converted to their natural logs to address the problem of large values and eliminate heteroscedasticity. Table 4.1 below shows the descriptive summary statistics for the key variables used in this study. Gross domestic product (GDP) was the proxy for economic growth, external debt repayment was proxied by EDR, foreign portfolio investment outflow was proxied by FPIO, outward foreign direct investments were proxied by OFDI, profits repatriation were proxied by PR and the foreign exchange rate by FER which represented external vulnerability.

The results of Table 4.1 below depicted that the economic growth stood at an average mean of 1.164, for the period 1986 to 2016. This positive value of GDP indicated that economic growth was positive in Kenya. The Maximum value of GDP was observed at 2.128 while minimum value was observed at -1.461. The difference between the maximum and the minimum values, informed the range of data. The standard deviation for GDP was 0.854. This demonstrated that the GDP was stable and did not deviate too much from the mean.

The mean value of external debt repayments was 24.182 for the same period. The positive value showed that the outflows in terms of external debt repayments were high. Standard deviation for external debt repayments was 0.460. Table 4.1 indicated that the average value of foreign portfolio investments outflows, outward foreign direct investment and profit repatriations were 20.076, 23.861 and 20.819 respectively. Their positive values of mean also showed that foreign portfolio investments outflows, outward foreign direct investment and profit repatriations were prevalent in Kenya. Standard deviation for FPIO was 2.034473, OFDI stood at 2.383 while that of PR was 1.516. FER had a mean of 4.008 and a standard deviation of 0.524. This showed that foreign exchange rate did not have high volatilities in the period of study.

Table 4.1 Descriptive Statistics

	LN_GDP	LN_EDR	LN_FPIO	LN_OFDI	LN_PR	LN_FER
Mean	1.165	24.181	20.076	23.861	20.819	4.008
Median	1.434	24.364	21.120	24.151	21.138	4.237
Maximum	2.129	25.447	23.725	28.022	25.319	4.487
Minimum	-1.461	23.120	16.085	16.132	17.910	2.787
Std. Dev.	0.854	0.460	2.0345	2.383	1.516	0.524
Skewness	-1.614	-0.866	-0.645	-0.804	0.185	-1.491
Kurtosis	4.999	3.616	2.223	3.613	2.947	3.677
Jarque-Bera	68.465	16.048	10.770	14.054	0.666	44.413
Probability	0.000	0.0003	0.0046	0.0009	0.717	0.000
Sum	132.778	2756.720	2288.714	2720.187	2373.33	456.931
Sum Sq. Dev	82.425	23.941	467.716	641.720	259.55	31.019
Observations	114	114	114	114	114	114

Notations:

LN - represented the Natural Log of:

GDP - Gross Domestic Product
 EDR - External Debt Repayments
 FPIO - Foreign Portfolio Investment Outflows
 OFDI - Outward Foreign Direct Investments
 PR - Profit Repatriations and
 FER - Foreign Exchange Rate.

4.3 Correlation of the Study Variables

The correlation coefficient results were summarized in Table 4.2. The data was converted to their natural logs to address the problem of large values and eliminate heteroscedasticity. It was then subjected to correlation analysis to test for highly correlated variables so as to avoid the problem of multi-collinearity in the model.

	LN_GDP	LN_EDR	LN_FPIO	LN_OFDI	LN_PR	LN_FER
LN_GDP	1.000					
LN_EDR	-0.258	1.000				
LN_FPIO	-0.213	0.676	1.000			
LN_OFDI	-0.063	0.174	0.273	1.000		
LN_PR	-0.209	0.514	0.737	0.240	1.000	
LN_FER	-0.264	0.821	0.784	0.268	0.708	1.000

Table 4.2 Correlation Coefficients Results

The correlation coefficient of LN_EDR was -0.258. This signified a weak negative correlation between external debt repayment and economic growth. Foreign portfolio investment outflows also had a weak negative correlation with economic growth because LN_FPIO had a correlation coefficient of -0.213.

The correlation coefficients of LN_OFDI were -0.063 signifying a weak negative correlation between outward foreign direct investments and economic growth. LN_PR and LN_FER had correlation coefficients of -0.209 and -0.264 respectively signifying weak negative correlations between profit repatriations and foreign exchange rate on economic growth.

4.4 Unit Root Test of the Study Variables

Unit root test were conducted to ensure that the series were stationary and check the problem of having a spurious regression. A variable can only be said to be stationary when it has no unit root which is denoted in literature as $I(0)$. A non-stationary variable can have one or more-unit root and it is denoted by $I(d)$, d is the number of unit root that the variable possesses and by implication, the number of unit roots that the variable must be differenced to make it stationary (Olawale & Ifedayo, 2015)

Unit Root Tests at Intercept and Level I (0)

LN_GDP

The natural log of GDP was found to be stationary at intercept and level $I(0)$ because the Levin, Lin & Chu t^* statistic had a probability value of 0.049 which is significant at 5% level of significance. Therefore, we reject the null hypothesis that LN_GDP has a unit root.

Table 4.3.1 Panel Unit Root Test - Gross Domestic Products - Level I (0)

Panel unit root test: Summary

Series: LN_GDP

Sample: 1986 2016

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t^*	-1.65525	0.0489	7	162
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.92518	0.0017	7	162
ADF - Fisher Chi-square	38.2013	0.0005	7	162
PP - Fisher Chi-square	72.5620	0.0000	7	180

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

LN_EDR

The Levin, Lin & Chu t^* statistic for LN_EDR was 0.085 with an insignificant probability value of 0.534. Therefore, we accept the null hypothesis that LN_EDR has a unit root.

Table 4.3.2 Panel Unit Root Test - External Debt Repayments - Level I (0)

Panel unit root test: Summary

Series: LN_EDR

Date: 04/11/18 Time: 10:46

Sample: 1986 2016

Exogenous variables: Individual effects

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t^*	0.08531	0.5340	7	202
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	0.36374	0.6420	7	202
ADF - Fisher Chi-square	8.08116	0.8851	7	202
PP - Fisher Chi-square	8.43347	0.8655	7	209

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

LN_FPIO

The natural log of LN_FPIO was found to be stationary at intercept and level I (0) because the Levin, Lin & Chu t^* statistic had a probability value of 0.004 which is significant at 1% level of significance. Therefore, we reject the null hypothesis that LN_FPIO has a unit root.

Table 4.3.3 Panel Unit Root Test - Foreign Portfolio Investment Outflows - Level I (0)

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-2.65454	0.0040	5	100
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-0.70412	0.2407	5	100
ADF - Fisher Chi-square	10.1642	0.4262	5	100
PP - Fisher Chi-square	2.74535	0.9868	5	115

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

LN_OFDI

The Levin, Lin & Chu t* statistic for LN_OFDI had a probability value of 0.038 which was significant at 5% level of significance. Therefore, we rejected the null hypothesis that LN_OFDI had a unit root.

Table 4.3.4 Panel Unit Root Test - Outward Foreign Direct Investments - Level I (0)

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.77107	0.0383	7	195
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-0.73632	0.2308	7	195
ADF - Fisher Chi-square	15.0226	0.3766	7	195
PP - Fisher Chi-square	29.4056	0.0092	7	202

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

LN_PR

The natural log of LN_PR was found to be stationary at intercept and level I (0) because the Levin, Lin & Chu t* had a probability value of 0.037 which was significant at 5% level of significance. Therefore, we rejected the null hypothesis that LN_PR had a unit root.

Table 4.3.5 Panel Unit Root Test - Profit Repatriations - Level I (0)

Panel unit root test: Summary

Series: LN_PR

Date: 04/11/18 Time: 10:59

Sample: 1986 2016

Exogenous variables: Individual effects

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.78828	0.0369	7	152
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	1.29988	0.9032	7	152
ADF - Fisher Chi-square	4.72102	0.9893	7	152
PP - Fisher Chi-square	4.21524	0.9940	7	169

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

LN_FER

The probability value for the Levin, Lin & Chu t* statistic for LN_FER was 0.0000 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that LN_FER had a unit root.

Table 4.3.6 Panel Unit Root Test - Foreign Exchange Rate - Level I (0)

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-6.04556	0.0000	7	203
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-3.35563	0.0004	7	203
ADF - Fisher Chi-square	33.7261	0.0023	7	203
PP - Fisher Chi-square	27.0833	0.0188	7	210

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Unit Root Tests at First difference I (1)

The natural log of external debt repayments was found not to be stationary at Intercept and level I (0) therefore all the variables were iterated to their first difference I (1) to maintain uniformity.

Notations:

D refers to the first difference of the natural log of:

DGDP- the first difference of the natural log of Gross Domestic Product

DEDR - the first difference of the natural log of External Debt Repayments

DOFDI – the first difference of the natural log of Outward Foreign Direct Investments

DFPIO – the first difference of the natural log of Foreign Portfolio Investment Outflows

DPR – the first difference of the natural log of Profits Repatriation and

DFER - the first difference of the natural log of Foreign Exchange Rate

DGDP

The natural log of GDP was found to be stationary at first difference I (1) because the Levin, Lin & Chu t* statistic had a probability value of 0.0000 which is significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_GDP had a unit root.

Table 4.3.7 Panel Unit Root Test - Gross Domestic Product First Difference

Panel unit root test: Summary

Series: DGDP

Date: 04/11/18 Time: 11:16

Sample: 1986 2016

Exogenous variables: Individual effects

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-7.01502	0.0000	7	145
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-7.17185	0.0000	7	145
ADF - Fisher Chi-square	84.9702	0.0000	7	145
PP - Fisher Chi-square	135.604	0.0000	7	162

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

DEDR

The probability value of the Levin, Lin & Chu t* statistic for the first difference of LN_EDR was 0.0006 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_EDR had a unit root.

Table 4.3.8 Panel Unit Root Test - External Debt Repayments First Difference

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-3.24052	0.0006	7	195
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.38808	0.0000	7	195
ADF - Fisher Chi-square	54.9081	0.0000	7	195
PP - Fisher Chi-square	157.727	0.0000	7	202

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

DFPIO

The first difference of LN_FPIO was found to be stationary at first difference I (1) because the Levin, Lin & Chu t* statistic had a probability value of 0.009 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_FPIO had a unit root.

Table 4.3.9 Panel Unit Root Test – FPIO First Difference

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-2.37945	0.0087	5	90
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.62246	0.0000	5	90
ADF - Fisher Chi-square	39.4519	0.0000	5	90
PP - Fisher Chi-square	47.6629	0.0000	5	100

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

DOFDI

The probability value of the Levin, Lin & Chu t^* statistic for the first difference of LN_OFDI was 0.0000 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_OFDI had a unit root.

Table 4.3.10 Panel Unit Root Test – OFDI First Difference

Panel unit root test: Summary

Series: DOFDI

Date: 04/11/18 Time: 11:20

Sample: 1986 2016

Exogenous variables: Individual effects

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t^*	-8.90245	0.0000	7	188
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-9.44441	0.0000	7	188
ADF - Fisher Chi-square	102.746	0.0000	7	188
PP - Fisher Chi-square	208.199	0.0000	7	195

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

DPR

The first difference of LN_PR was found to be stationary at first difference and level I (1) because the Levin, Lin & Chu t^* had a probability value of 0.0000 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_PR had a unit root.

Table 4.3.11 Panel Unit Root Test – PR First Difference

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-9.29958	0.0000	7	135
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-8.11737	0.0000	7	135
ADF - Fisher Chi-square	83.5397	0.0000	7	135
PP - Fisher Chi-square	134.641	0.0000	7	152

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

DFER

The probability value of the Levin, Lin & Chu t* statistic for the first difference of LN_FER was 0.0000 which was significant at 1% level of significance. Therefore, we rejected the null hypothesis that the first difference of LN_FER had a unit root.

Table 4.3.12 Panel Unit Root Test – FER First Difference

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.53128	0.0000	7	196
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.87261	0.0000	7	196
ADF - Fisher Chi-square	49.0349	0.0000	7	196
PP - Fisher Chi-square	93.9583	0.0000	7	203

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

4.5 Regression Results

As mentioned previously in Chapter three, there are three approaches to Panel data: Pooled, Fixed and Random effects model. This study employed the use of the Hausman test to determine the most suitable model.

4.5.1 The Hausman Test to Identify the Suitable Model

Table 4.4.1 shows the results from the Hausman test. The alternative hypothesis of this test was rejected, so the estimation of the panel model through fixed-effects was inconsistent. The Chi-square test statistic was 0.158 with an insignificant probability value of 0.997. This therefore meant that the null hypothesis was rejected in favor of the Random effects model. Therefore, we accepted the Random effects model as suitable for this study.

Table 4.4.1 Hausman Test – Effect of Capital Flight on Economic Growth

Correlated Random Effects - Hausman Test

Equation: EQ03

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.158373	4	0.9970

** WARNING: estimated cross-section random effects variance is zero.

4.5.2 Random Effects Estimation Output and Hypotheses Testing of the Study Variables

4.5.2.1 The Effect of External Debt Repayments on Economic Growth

The first specific objective of this study was to investigate the effect of external debt repayments on economic growth in Kenya. The hypothesis tested for this specific objective was:

H₀₁: There was no significant relationship between external debt repayments and economic growth in Kenya.

Results of Table 4.4.2 shows that the coefficient of DEDR was -0.233 with an insignificant probability value of 0.760. This signified that there was a negative relationship between external debt repayments and economic growth but the effects were insignificant. We therefore accepted the null hypothesis that there was no significant relationship between external debt repayments and economic growth in Kenya. This meant that external debt repayments did not significantly affect economic growth in the period of the study in Kenya.

The findings of this study confirm the joint report by the International Monetary Fund and the International Development Association who found that Kenya continued to face low risk of external debt distress and that external debt under the baseline and standard stress tests scenarios showed that external debt remained within sustainable bounds (IMF, 2016). Various external debt stress tests by IMF and the World Bank indicated that the sustainability of the country's public debt was vulnerable to shocks in real GDP. They identified that sharp depreciation of the Kenya shilling was the most serious threat to the sustainability of public debt. Further, IMF and IDA projected that investment in infrastructure was critical to raise growth and export potential, both of which will support Kenya's external debt sustainability and are in line with the country's Vision 2030 strategy (Ndungu & Okara, 2017).

The results of this study are similar to the finding of Muli and Ocharo (2018) who analyzed the relationship between external debt servicing and current account balance in Kenya. They found a negative relationship between external debt servicing and the current account balance in Kenya over the period of study. This study also agreed

with the findings of Mugambi and Murunga (2017) who investigated the effect of external debt service on foreign direct investments in Kenya. Their study demonstrated that external debt service had a negative impact on country's foreign direct investments. They concluded that the government should seek to lower the level of external debt service so as to attract foreign direct investment. This will eventually result in a more reduced budget deficit and avoid debt overhang challenges.

Mweni et al., (2016) in their study on time series analysis of the relationship between GDP growth rate and external debt in Kenya revealed the existence of a negative relationship between GDP growth and external debt, implying that an increase in GDP growth leads to a reduction in the level of external debt stocks. They concluded that there was no statistically significant relationship between GDP growth and external debt during the period of study. This study was also in line with the study done by Ngugi et al., (2016) in their investigation on the effect of public debt on economic growth in Kenya for the period 1980 to 2013. Their study demonstrated the existence of a negative relationship between public debt and economic growth in Kenya in that in the long run the increased level of external debt will cause debt overhang problem since the total debt service affected the Real GDP negatively.

Muigai, Muhanji and Nasieku (2016) in their study on the relationship between debt financing and financial soundness of non-financial companies listed in Nairobi Securities Exchange demonstrated that the coefficient of total debt was negative and significant at 5% level of significance. The finding signified that during the period of analysis, increasing total debt component within the capital structure led to a decline in financial soundness of non-financial firms listed in NSE.

Emanating from the analyses, external debt repayments had no statistically significant relationship with economic growth in Kenya. This is consistent with the debt overhang theory which maintains that the debt repayments value increase with stock of debt up to a certain threshold beyond which more debt decreases the return on investments and lower economic growth. Further, debt overhang occurs if the aggregate stock of external debt in a country exceeds a country's repayment capacity.

As such, resources expected to develop the economy are indirectly taxed away by foreign creditors in form of debt service payments. This view assume that all developing countries operate on a budget deficit and they have only one option to bridge the deficit, to borrow externally, having exhausted the domestic options.

4.5.2.2 The Effect of Foreign Portfolio Investment Outflows on Economic Growth

The second objective of this study was to explore the effect of foreign portfolio investment outflows on economic growth in Kenya. The hypothesis to test for this specific objective was:

H₀₂: There was no significant relationship between foreign portfolio investment outflows and economic growth in Kenya.

The results in Table 4.4.2 indicated that DFPIO had a coefficient of 0.031 with an insignificant probability value of 0.782. This demonstrated that there exists a positive relationship between foreign portfolio investments outflows and economic growth but the effects were insignificant. We therefore accepted the null hypothesis that there was no significant relationship between foreign portfolio investments outflows and economic growth in Kenya. This demonstrated that the more foreign portfolio investments outflows Kenya has, the better the economy, and thus, foreign portfolio investments outflows spurs the potential for economic growth. Further, the results demonstrate that the benefits currently accrued from foreign portfolio investment outflows are minimal. Thus, if Kenya would have more foreign portfolio investment outflows, it could spur the economic growth and accelerate the achievement of its vision 2030 economic pillar of an annual 10% GDP growth.

This study agreed with the findings of Spencer (2017) who investigated the drivers of portfolio inflows and outflows for Jamaica and found a positive relationship in that the fiscal balance, domestic inflation and foreign interest rates were found to have a stronger impact on portfolio outflows for Jamaica. Noman *et al.*, (2015) in their study on the portfolio investment outflow and the complementary role of direct investments for 45 developing countries showed that there existed both statistically and economically significant relationship between the two types of outflows. Tiago and

Caldeira (2015) analyzed the effect of foreign portfolio capital flows on stock returns of Brazilian listed firms and concluded that foreign portfolio capital outflows are more associated to increases than to decreases in returns.

The results of this study contradicted with the findings of Koskei (2017) who investigated the effect of foreign portfolio equity outflows on stock returns of listed financial institutions in Kenya. The results indicated a negative coefficient which was insignificant. This demonstrated that foreign portfolio equity outflows did not have an effect on stock returns of listed financial institutions in Kenya. The study recommended implementation of policies that would curb foreign portfolio outflows in financial institutions and minimize reversals of foreign portfolio investments.

4.5.2.3 The Effect of Outward Foreign Direct Investments on Economic Growth

The third objective of this study was to explore the effect of outward foreign direct investments on economic growth in Kenya. The hypothesis to test for this specific objective was:

H₀₃: There was no significant relationship between outward foreign direct investment outflows and economic growth in Kenya.

Results in Table 4.4.2 demonstrate that the coefficient of DOFDI was found to be -0.137 with an insignificant probability value of 0.186. This signified that there was a negative relationship between outward foreign direct investment and economic growth but the effects were insignificant. This meant that outward foreign direct investment affects our economy negatively but the effects are minimal. There is need to reduce the outward foreign direct investment as they have the potential to affect the economic growth negatively, if uncontrolled.

The above results demonstrate that Kenya's outward foreign direct investments hampers economic growth, though the effect is not significant. As demonstrated by the results, the magnitude of this effect is minimal and has the potential to shift the effect from insignificant to significant if uncontrolled. Even though the variable outward foreign direct investments appear to be individually statistically insignificant, the results of this study agree to the IDP theory that if the home country uses outward

foreign direct investments as a substitute for its local investments, the increase in its outward foreign direct investments may reduce economic growth of the home country. As such, governments can influence a country's stage of economic growth by regulating its outward foreign direct investments.

The findings of this study show that Kenya stands at stage three of the IDP stages of a developing economy where a country attracts significant foreign direct investments and equally generates outward foreign direct investments based on its innovations and international specialization. To illustrate, the Investment Development Path theory shows that there is a negative relationship between outward foreign direct investment and the economic growth, and the more the outward foreign direct investment, the less significant its effect is on economic growth.

The findings demonstrate a negative relationship between outward foreign direct investment and economic growth in that a slight increase of outward foreign direct investments would affect the country's economic growth negatively. This could be as a result of a country's concentration on non-return-oriented investments, which don't generate income that can yield capital formation to be accumulated and used by the country for future viable investments. This demonstrates that Kenya is increasing its spending for the production of products that does not generate new added value factors to its capital, as the increase of investments in these categories would affect the country's economic growth negatively.

This study was consistent with the findings of Al-Sadig (2013) who examined the effects of outward foreign direct investments on domestic investment using data from 121 developing home countries over the period 1990–2010, where Kenya was included in the sample. The results demonstrated that there existed a negative relationship between outward foreign direct investments and the rate of domestic investment where a 1% increase in outward foreign direct investments led to a reduction of about 29% in domestic investment.

4.5.2.4 The Effect of Profits Repatriations on Economic Growth

The fourth objective of this study was to establish the effect of profit repatriations on economic growth in Kenya. The hypothesis to test for this specific objective was;

H₀₄: There was no significant relationship between profit repatriations and economic growth in Kenya.

The results in Table 4.4.2 show that DPR had a coefficient of -0.477 with a significant probability value of 0.003 which was significant at 1% level of significance. This indicated that when profit repatriations reduce by 0.48% each year, Kenya achieves a 1% economic growth, in the same year. Thus, we failed to reject our null hypothesis that there existed a negative relationship between profit repatriations and economic growth. The investment diversion theory postulates that due to macroeconomic uncertainties in developing countries and the simultaneous existence of better investment opportunities in advanced countries, investors from lowly developed countries chose to invest their earned profits in more advanced countries which are considered less risky. This has not been the case for Kenya during the period of study since profit repatriations have reduced leading to economic growth. This demonstrates that profits made by multinational corporations are largely re-invested into the economy. If the government created an enabling investment environment, profit repatriations would decrease and economic growth achieved.

This conclusion is in line with previous empirical studies, including the work of Kolapo and Ojo (2012) who observed that the real exchange rate was significant in demonstrating the repatriation of profits legally and illegally from the country. They noted that the exchange rate determined the foreign currency equivalence of the capital displaced from the country and also the eroded amount of financial resources moved out of the country. They concluded that foreign direct investments contributed greatly to economic growth but capital flight would certainly set-in, in the event of repatriation of profits, and have a negative influence on gross domestic product and the economy at large.

4.5.2.5 The Effect of Capital Flight on Economic Growth

This step involved answering the study's general objective which was to investigate the effect of capital flight on economic growth in Kenya. All the proxies of capital flight were aggregated in the constant C in Table 4.4.2. The results indicated that the coefficient of C was 0.102 with an insignificant probability value of 0.459. This signified a positive relationship between capital flight and economic growth, though the effect was insignificant. Therefore, all the proxies of capital flight aggregated in the constant C did not significantly affect economic growth during the period of study.

The model's R-squared was 11.8% which showed that capital flight explained the changes in economic growth by approximately 11.8%. The adjusted R-Squared was 0.079 which has a difference of 4% with R-Squared which is within the acceptable range for a stable model. This showed that the model was stable. The probability F-Statistic had a probability value of 0.0222 which was less than 0.05 and significant at 5% level of significance. This added to the stability of the model. Durbin-Watson Statistic was 2.799 which were within the acceptable range. This meant that there was no serial correlation in the model.

Table 4.4.2 Panel Estimation Equation - Effect of Capital Flight on Economic Growth.

Dependent Variable: DGDP

Method: Panel EGLS (Cross-section random effects)

Sample (adjusted): 1987 2011

Periods included: 19

Cross-sections included: 7

Total panel (unbalanced) observations: 95

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEDR	-0.232676	0.760260	-0.306048	0.7603
DFPIO	0.030977	0.111522	0.277765	0.7818
DOFDI	-0.137457	0.103050	-1.333882	0.1856
DPR	-0.476714	0.157727	-3.022400	0.0033
C	0.101830	0.136805	0.744348	0.4586
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			1.219697	1.0000
Weighted Statistics				
R-squared	0.117978	Mean dependent var		-0.029432
Adjusted R-squared	0.078777	S.D. dependent var		1.228845
S.E. of regression	1.179450	Sum squared resid		125.1992
F-statistic	3.009576	Durbin-Watson stat		2.799268
Prob(F-statistic)	0.022209			
Unweighted Statistics				
R-squared	0.117978	Mean dependent var		-0.029432
Sum squared resid	125.1992	Durbin-Watson stat		2.799268

4.6 The Mediating Effect of Foreign Exchange Rate on the Relationship between Capital Flight and Economic Growth.

The Fifth objective of this study was to assess the mediating effect of foreign exchange rate on the relationship between capital flight and economic growth in Kenya. As specified in chapter three, the Baron and Kenny (1986) model was employed to test for the mediating relationship. The hypothesis to test for this specific objective was:

H₀₅: Foreign exchange rate does not mediate on the relationship between capital flight and economic growth in Kenya.

In step 1, Baron and Kenny (1986) model was applied for a regression analysis with X (capital flight) predicting Y (economic growth), to test the total effect described by path c alone. The Hausman test was conducted to establish which model was suitable. The Chi-square test statistic was found to be 0.134 with an insignificant probability value of 0.9997. This meant that the null hypothesis was rejected in favor of the Random effects model. Therefore, we accepted the Random effects model as suitable for this study.

Table 4.5.1 Hausman Test for Path c Results

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

	Chi-Sq.		
Test Summary	Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.134400	5	0.9997

** WARNING: estimated cross-section random effects variance is zero.

The coefficient of path c' in equation 4.11 as well as in Table 4.5.2 below was 0.141 with an insignificant probability value of 0.363. Therefore, all the proxies of capital flight, while controlling for foreign exchange rate in the constant C did not significantly affect economic growth during the period of study. The below equation was generated;

$$EG_{it} = 0.14 - 0.15EDR_{it} + 0.02FPPIO_{it} - 0.14OFDI_{it} - 0.47PR_{it} - 1.05FER_{it} + \mu_{it}$$

..... (Equation 4.11)

Table 4.5.2 Panel Estimation Model for Path c Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEDR	-0.147082	0.778727	-0.188874	0.8506
DFPIO	0.015415	0.115411	0.133565	0.8940
DOFDI	-0.143997	0.104149	-1.382601	0.1702
DPR	-0.474706	0.158439	-2.996143	0.0035
DFER	-1.051428	1.882607	-0.558496	0.5779
C	0.141351	0.154540	0.914657	0.3628

Effects Specification			
		S.D.	Rho
Cross-section random		0.000000	0.0000
Idiosyncratic random		1.224890	1.0000

Weighted Statistics			
R-squared	0.121275	Mean dependent var	-0.029432
Adjusted R-squared	0.071909	S.D. dependent var	1.228845
S.E. of regression	1.183839	Sum squared resid	124.7312
F-statistic	2.456627	Durbin-Watson stat	2.790822
Prob(F-statistic)	0.039187		

Unweighted Statistics			
R-squared	0.121275	Mean dependent var	-0.029432
Sum squared resid	124.7312	Durbin-Watson stat	2.790822

In step 2, to establish which model was suitable, the Hausman test was conducted. The Chi-square test statistic was found to be 1.681 with an insignificant probability value of 0.794. This therefore meant that the null hypothesis was rejected in favor of the Random effects model. Therefore, we accepted the Random effects model as suitable for this study.

Table 4.5.3 Hausman Test for Path a Results

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.680741	4	0.7942

** WARNING: estimated cross-section random effects variance is zero.

We conducted a regression analysis with X (capital flight) predicting M (foreign exchange rate) to test for path a. The coefficient of C was 0.039 with a significant probability value of 0.0000 which was significant at 1% level of significance. Therefore, path a was significant meaning that capital flight affected foreign exchange rate. Therefore, all the proxies of capital flight aggregated in the constant C significantly affected foreign exchange rate. The below equation was generated;

$$FER_{it} = 0.04 + 0.06EDR_{it} - 0.02FPIO_{it} - 0.01OFDI_{it} + 0.0000964PR_{it} + \mu_{it}$$

..... (Equation 4.12)

Table 4.5.4 Panel Estimation Model for Path a Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DEDR	0.056427	0.037635	1.499304	0.1372
DFPIO	-0.015046	0.006385	-2.356358	0.0206
DOFDI	-0.006350	0.005898	-1.076708	0.2844
DPR	9.64E-05	0.008422	0.011445	0.9909
C	0.039428	0.007671	5.139707	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			0.069883	1.0000
Weighted Statistics				
R-squared	0.120651	Mean dependent var		0.036540
Adjusted R-squared	0.082419	S.D. dependent var		0.071348
S.E. of regression	0.068344	Sum squared resid		0.429728
F-statistic	3.155716	Durbin-Watson stat		1.778785
Prob(F-statistic)	0.017687			
Unweighted Statistics				
R-squared	0.120651	Mean dependent var		0.036540
Sum squared resid	0.429728	Durbin-Watson stat		1.778785

In step 3, The Hausman test was conducted to determine the suitable model. The Chi-square test statistic was 0.0558 with an insignificant probability value of 0.813. This therefore means that the null hypothesis was rejected in favor of the Random effects model. Therefore, we accepted the Random effects model as suitable for this study.

Table 4.5.5 Hausman Test for Path b Results

Correlated Random Effects - Hausman Test

Equation: EQ04

Test cross-section random effects

Test Summary	Chi-Sq.		
	Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.055829	1	0.8132

** WARNING: estimated cross-section random effects variance is zero.

We conducted a regression analysis with M (foreign exchange rate) predicting Y (economic growth) to test the significance of path b alone. The coefficient of DFER was -2.785 with a significant probability value of 0.015 which was significant at 5% level of significance. This meant that foreign exchange rate significantly affected economic growth therefore path b was significant. The below equation was generated;

$$EG_{it} = 0.107 - 2.785FER_{it} + \mu_{it} \dots\dots\dots \text{(Equation 4.13)}$$

Table 4.5.6 Panel Estimation Model for Path b Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DFER	-2.785141	1.138824	-2.445629	0.0154
C	0.106665	0.091330	1.167909	0.2444
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			1.071518	1.0000
Weighted Statistics				
R-squared	0.033542	Mean dependent var		-0.001679
Adjusted R-squared	0.028113	S.D. dependent var		1.069465
S.E. of regression	1.054325	Sum squared resid		197.8651
F-statistic	6.177758	Durbin-Watson stat		3.026745
Prob(F-statistic)	0.013859			
Unweighted Statistics				
R-squared	0.033542	Mean dependent var		-0.001679
Sum squared resid	197.8651	Durbin-Watson stat		3.026745

To test whether FER mediates the relationship between capital flight and economic growth, four conditions must be upheld. The first condition is satisfied if the independent variable (capital flight) directly affects the mediator (foreign exchange rate). In step 2 under equation 4.12, it was established that capital flight significantly affects foreign exchange rate. Therefore, the first condition according to Baron and Kenny (1986) model was met.

The second condition is satisfied if the mediator (foreign exchange rate) affect the dependent variable (economic growth). In step 3 under equation 4.13, it was established that foreign exchange rate significantly affects economic growth rate. Therefore, the second condition was met. The third condition is satisfied when the

independent variable (capital flight) directly affects the dependent variable (economic growth), once the mediator is deleted from the model. In equation 4.10, it was established that capital flight through the gradient C was not significant. Therefore, the third condition was not met.

The findings of this study demonstrated that only two of the four conditions as per the Baron and Kenny's (1986) specifications were met. For this reason, we could not proceed to step 4 according to Baron and Kenny (1986) model specifications to test either full or partial mediation. We therefore concluded that foreign exchange rate did not partially or fully mediate in this relationship during the period of study.

4.7 Pairwise Granger Causality

A unidirectional causal relationship was established running from external debt repayments to economic growth with a probability value of 0.0223 which was significant at 5% level of significance as seen in Table 4.6. No causal relationship was established running from gross domestic product to external debt repayments. This implied that a change in external debt repayments affected Gross domestic product, but the change in Gross domestic product did not significantly affect the external debt repayment.

The Granger causality probability value from GDP to FPIO was 0.0226 which is significant at 5% level of significance. This indicated a unidirectional causal relationship from GDP to FPIO. There was no causal relationship established running from foreign portfolio investments outflows to gross domestic product, signifying that a change in GDP affected the foreign portfolio investment outflows, but the change in foreign portfolio investment outflows did not significantly affect the gross domestic product.

No causal relationship was established between gross domestic product and outward foreign direct investments. This signified that gross domestic product and outward foreign direct investments did not affect each other. A unidirectional causal relationship was also established between profit repatriations and gross domestic product. Profit repatriations were found to Granger cause gross domestic product with a significant probability value of 0.0012 which is significant at 1% level of

significance. This implied that a change in profit repatriations affected the Gross domestic product, but the change in Gross domestic product did not significantly affect the profit repatriations. No causal relationship was established between gross domestic product and foreign exchange rate. This signified that gross domestic product and foreign exchange rate did not affect each other.

The implication is that external debt repayments and profit repatriations can granger cause economic growth in Kenya, but economic growth does not granger cause external debt repayments and profit repatriations. In the same vein, Gross domestic product can granger cause foreign portfolio investment outflows but foreign portfolio investment outflows do not granger cause economic growth. Further, outward foreign direct investments and foreign exchange rate does not granger cause economic growth, nor economic growth granger cause outward foreign direct investments or foreign exchange rate in Kenya, as there exists no causality among the variables.

Table 4.6 Pairwise Granger Causality

Null Hypothesis:	Obs	F-Statistic	Prob.	Decision	Causality type
DEDR does not Granger Cause DGDP	144	3.91125	0.0223	Reject H_0	Unidirectional
DGDP does not Granger Cause DEDR		0.62200	0.5384	DNR H_0	Unidirectional
DFPIO does not Granger Cause DGDP	85	1.10223	0.3371	DNR H_0	Unidirectional
DGDP does not Granger Cause DFPIO		3.97639	0.0226	Reject H_0	Unidirectional
DOFDI does not Granger Cause DGDP	142	0.31627	0.7294	DNR H_0	No Causality
DGDP does not Granger Cause DOFDI		0.70201	0.4974	DNR H_0	No Causality
DPR does not Granger Cause DGDP	105	7.19917	0.0012	Reject H_0	Unidirectional
DGDP does not Granger Cause DPR		0.52056	0.5958	DNR H_0	Unidirectional
DFER does not Granger Cause DGDP	145	2.06401	0.1308	DNR H_0	No Causality
DGDP does not Granger Cause DFER		1.85325	0.1606	DNR H_0	No Causality

Alpha (α) = **0.05**

Decision rule: **reject H_0 if P-value < 0.05**

Key: **DNR = Do not reject;**

4.8 Summary of Hypothesis Testing Results

Table 4.7 below shows a summary of the results after testing for the five hypotheses.

Table 4.7 Hypothesis Testing Results

Hypotheses	Coefficient	Probability Value	Results	Conclusion
H ₀₁ : There is a negative relationship between external debt repayments and economic growth in Kenya.	-0.232676	0.7603	Negative and statistically insignificant	Failed to reject H ₀₁
H ₀₂ : There is a negative relationship between foreign portfolio investment outflows and economic growth in Kenya.	0.030977	0.7818	Positive and statistically insignificant	Reject H ₀₂
H ₀₃ : There is a negative relationship between outward foreign direct investment and economic growth in Kenya.	-0.137457	0.1856	Negative and statistically insignificant	Failed to reject H ₀₃
H ₀₄ : There is a negative relationship between profit repatriations and economic growth in Kenya.	-0.476714	0.0033	Negative and statistically significant	Failed to reject H ₀₄

Hypotheses	Results	Conclusion
H ₀₅ : Foreign exchange rate does not mediate on the relationship between capital flight and economic growth.	See Baron and Kenny (1986) steps and conditions below	Failed to reject H ₀₅
Baron and Kenny (1986) Model		
Baron and Kenny (1986) steps	Result	Baron and Kenny (1986) Conditions
Step 1: Capital flight predicting economic growth	Capital flight does not predict economic growth	Condition three was not met
Step 2: Capital flight predicting foreign exchange rate	Capital flight predicts foreign exchange rate	Condition one was met
Step 3: foreign exchange rate predicting economic growth	Foreign exchange rate predicts economic growth	Condition two was met
Step 4: Introduction of foreign exchange rate back to the model in step one.	Could not proceed to step four as only two of the three conditions were met.	No mediation was established

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study investigated the effects of capital flight on economic growth in Kenya and presents a summary of the findings, conclusions and gives recommendations on areas of further research. Finally, it outlines the contributions as well as the areas of further studies.

5.2 Summary of Findings

Capital flight was estimated using external debt repayments, foreign portfolio investment outflows, outward foreign direct investments and profit repatriations as independent variables against gross domestic product as the dependent variable. Foreign exchange rate as a variable was tested to investigate if it mediated in the relationship between capital flight and economic growth in Kenya. The findings on external debt repayments, outward foreign direct investments, foreign portfolio investment outflows, profit repatriations, capital flight as well as on the mediating role of foreign exchange rate in the relationship between capital flight and economic growth are presented in section 5.2.1 to section 5.2.5.

5.2.1 Effect of External Debt Repayments on Economic Growth in Kenya.

This study established that there was a negative relationship between external debt repayments and economic growth but the effects were insignificant during the period of study. This signifies that external debt repayments have not slowed Kenya's economic growth during this period of study. As such, Kenya is comfortably servicing its debts without putting the economy in jeopardy as the stock of debt is not so high to hamper economic growth in Kenya. However, as much as the government is determined to boost economic growth under the Big Four Agenda, there is need to control the level of external debts in the economy. This is because increased external debt repayments would potentially translate the insignificant effect to a significant level and jeopardize economic growth if the right maximum allowable levels of external debts are not addressed conclusively.

5.2.2 Effect of Foreign Portfolio Investment Outflows on Economic Growth in Kenya.

Foreign portfolio investments outflows were found to have a positive relationship with economic growth but the effects were insignificant during the period of study. The results demonstrated that Kenya's economy would benefit more if foreign portfolio investments outflows were on the rise. Thus, this study found that foreign portfolio investments outflows spur the potential for economic growth. The government should therefore seek to make Kenya's foreign market investments robust through implementation of the Sustainable Development Goals as well as Africa's Agenda 2063. This would integrate the domestic capital markets with the global capital market and make Kenya edge closer towards the realisation of the annual 10% GDP growth rate as entrenched in the economic pillar of Kenya's Vision 2030 development framework.

5.2.3 Effect of Outward Foreign Direct Investment on Economic Growth in Kenya.

The study demonstrated that outward foreign direct investments had a negative relationship with economic growth but the effects were also insignificant. Thus, although outward foreign direct investments had a negative effect on economic growth, the effect was insignificant. If they continue unabated, they have the potential to significantly affect economic growth in Kenya negatively. The study found the need to reduce outward foreign direct investment in the country. Thus, a reduction in outward foreign direct investments will alleviate this risk of decreased economic growth as Kenya weighs other investment options abroad.

5.2.4 Effect of Profit Repatriations on Economic Growth in Kenya.

Profit repatriations were found to have a negative relationship with economic growth in Kenya during the period of study. The results of this study demonstrated that profit repatriations had reduced 0.48% resulting in a 1% rise in economic growth during the period of study. Thus, the government should seek ways in which the profits generated in-country is invested locally. This is because a 0.48% decrease in profits repatriated would translate to a 1% economic growth in Kenya. The government

should ensure that profit repatriations are kept at the lowest as it's a significant component of economic growth in Kenya.

5.2.5 Effect of Capital Flight on Economic Growth in Kenya.

This study established a positive relationship between capital flight and economic growth, though the effect was insignificant during the study period. All the proxies of capital flight aggregated in the constant C jointly did not significantly affect economic growth during the period of study. This demonstrated the need for the government to take a keen look on capital flights debate in Kenya. If uncontrolled, its increase would transform this relationship from positive to negative and the effect from insignificant to being significant and put the economy in jeopardy.

The findings of this study demonstrated that not all forms of capital flight are bad for economic growth. At times, capital flight boosts economic growth. The results of this study showed that external debt repayment; outward foreign direct investment and profit repatriations negatively affected economic growth in Kenya during the period of study. However, portfolio investment outflows had a positive relationship that demonstrated a boost in economic growth in the period of study. Therefore, the policy makers should be keen to apply the right mix of capital flight proxies that would significantly spur economic growth in Kenya.

5.2.6 Mediating Effect of Foreign Exchange Rate on the Relationship between Capital Flights and Economic Growth in Kenya

Although the study demonstrated that foreign exchange rate did not mediate in the relationship between capital flight and economic growth, the findings demonstrated that foreign exchange rate was a significant factor that affects the rate of economic growth as well as the level of capital flight in Kenya. Therefore, the government needs to have a key interest on the foreign exchange volatilities as foreign exchange rate is a key factor that determines the rate of economic growth in Kenya. Further, capital flight had a positive and significant relationship with foreign exchange rate. This means that exchange rate was influenced by the volume of capital flight in Kenya. Thus, the level of capital flight in the country would determine the volatility of foreign exchange rate in Kenya.

5.3 Conclusions

While there are a considerable number of empirical studies on the impact of capital flight on economic growth in developing countries in Sub Saharan Africa, this study explored the effect of capital flight on economic growth in Kenya. Dynamic panel estimation results demonstrated that all the proxies of capital flight: external debt repayments, foreign portfolio investment outflows, outward foreign direct investment and profit repatriations jointly did not significantly affect economic growth as measured by the gross domestic product during the period of study. However, profit repatriations individually had a significant coefficient indicating a negative relationship with economic growth and that during the period of study, profit repatriations reduced resulting in economic growth.

5.3.1 Effect of External Debt Repayments on Economic Growth in Kenya.

Our results concluded that there was a negative relationship between external debt repayments and economic growth in Kenya but the effects were insignificant. This confirmed the debt overhang theory which shows that debt repayments value increases with the stock of debt up to a certain threshold beyond which more debt decreases return on investments and lower economic growth. Therefore, debt repayments were found to negatively affect economic growth in Kenya. In the case of Kenya, the negative effect has not slowed down Kenya's economic growth. However, increased borrowing may cause the effect to turn significant and may lead to the government's inability to finance its future debt obligations when they fall due.

The findings of this study confirm the Debt Sustainability Analysis (DSA) conducted jointly by the government of Kenya, IMF and World Bank in March 2016. They found that Kenya faces a low risk of debt distress. The standard stress tests scenarios show that debt remained within sustainable bounds (IMF, 2016). The NPV of public and publicly guaranteed (PPG) external debt to GDP ratio stood at 24.8 per cent in June 2017 well below the 50% threshold. The NPV of external debt to exports and revenue ratio was 138.8% and 118.6% respectively, which was within the indicative thresholds of 200% and 300%. During the same period, the PV of total public debt as a share of GDP stood at 48.5%, also below the thresholds of 74%. This demonstrated

that Kenya's debt in NPV terms was below all the above thresholds and thus, debt sustainability has been maintained (Ndungu & Okara, 2017).

The findings of this study demonstrated that if borrowed funds are not utilized efficiently, the benefits that were to be derived from that debt and utilized in debt repayments will not be realized. This would take a toll on the country's economic growth and ultimately put the economy in jeopardy. The resultant effect will be that increased external borrowing fails to transform into increased economic growth. This explains that if borrowed funds were diverted to other uses, it would not translate to economic development. If this remains unchecked, it will continue to cause a substantial amount of capital flight, a scenario that will further affect the foreign exchange rate and finally decrease the economic growth significantly.

5.3.2 Effect of Foreign Portfolio Investments Outflows on Economic Growth in Kenya.

Foreign portfolio investments outflows were found to have a positive relationship with economic growth in Kenya, but the effect was insignificant. This demonstrates that an increase in foreign portfolio investments would spur economic growth. As such, a country that supports foreign portfolio investments is subject to have a positive economic growth. The findings support the portfolio management theory which demonstrates that the contribution made by an invested financial security to the entire investor's or country's portfolio is a more important consideration in a country's decision-making process than the risk thereof, which is a direct reflection of the investment host country's economic status. When investors earn higher returns, the government equally increases its revenue through taxation, which is a positive contribution to its GDP. This demonstrates that it is not a securities own risk that is important to an investor, but rather the actual contribution that the security makes to the variance of a Kenya's entire investment portfolio.

The findings on the foreign portfolio investment outflows are a clear demonstration that not all forms of capital flight are bad to the economy. In specific instances, capital flight boosts the economic growth of a country. It is common for developing and emerging economies to experience a level of capital flight as long as their

economies are not completely open and receives some inflows of foreign direct investments. Thus, Kenya could reap more by having the right mix of capital inflows and outflows, by deliberately increasing its foreign portfolio investments outflows. This would result to a positive significant effect on economic growth. As established by this study foreign portfolio investment outflows spur the potential for economic growth in Kenya. Thus, the government should seek to make the Kenya's capital market investments robust by integrating the capital markets with the global financial market as per Africa's Agenda 2063, and make Kenya edge closer towards realisation of the annual 10% GDP growth rate as entrenched in the economic pillar of Kenya's vision 2030 development framework.

5.3.3 Effect of Outward Foreign Direct Investment on Economic Growth in Kenya.

The study found that there was a negative relationship between outward foreign direct investment and economic growth but the effects were insignificant. This meant that outward foreign direct investment had a negative relationship with economic growth but the effects were insignificant. This confirms the Investment Development Cycle or Path (IDP) theory which shows the existence of a negative relationship between outward foreign direct investment and economic growth. Outward foreign direct investment increases with increased economic growth and ultimately, the resultant loss of domestic savings hampers economic growth in Kenya. As such, the government should review the demerits experienced by outward foreign direct investors to leverage on the benefits that accrue to investment diversification such as more ownership advantage on economies of scale in production as well as locational advantage which goes to boost a country's economic growth.

Further, the findings agree to the five stages of development as outlined by the IDP theory that Kenya is in stage three for a developing economy where it generates outward foreign direct investments based on its innovations and international specialization and its net investment position remains negative. If the government controls outward foreign direct investments, Kenya would move to stage four in the investment development cycle where diversification and innovations would offer home country financial institutions more liquidity to lend to foreign investors, thus

boosting a country's economic growth. Further, this would increase the country's foreign reserves that would potentially strengthen the foreign exchange rate and contribute to a positive economic growth. Conversely, if uncontrolled, it could impact significant negative effects on economic growth.

5.3.4 Effect of Profit Repatriations on Economic Growth in Kenya.

The results of this study demonstrate that profit repatriations had a negative relationship with economic growth, the magnitude of which a slight repatriation of 0.48% each year results to a 1% reduction in economic growth in the same year, and equally a 0.48% reduction in profit repatriations resulted in a 1% growth in Kenya's GDP. The results of this study were consistent with the investment diversion theory which postulates that due to the macroeconomic and political uncertainties in developing countries and the simultaneous existence of more profitable investment opportunities in most of the advanced countries, investors from lowly developed countries would hedge by choosing to invest their earned profits in more advanced countries which are considered less risky. This erodes the savings, decreases a country's capital as well as its investment fund and ultimately affect the foreign exchange rate and economic growth. This is because the repatriated profits are not immediately available for investment in the host country and thus, would have a significant negative effect on economic growth in Kenya.

The findings of this study indicate that profit repatriation was an important and significant component of economic growth in Kenya. The significant coefficient of profit repatriations indicates that profit repatriations have been on the decline in Kenya during the period of study. Kenya should seek appropriate policies that maintain this trend of reducing the profit repatriations by creating a good investment climate for both domestic and international investors. Currently, Kenya has a generally positive investment climate that has made it attractive to international firms seeking a location for their regional or pan-African operations. The World Bank Group's Doing Business 2017 report ranked Kenya as the third most reformed country with the country moving up 21 places to 92 of the 190 economies reviewed on business regulatory reforms, following a similar move up in the rankings from the previous year. Kenya's improvement was credited to reforms in areas which included:

starting a business, access to electricity, registering property, protecting minority investors and resolving insolvency (Pemberton, 2017). If the investment climate is favorable, there will be less desire for international investors to repatriate their profits and instead increase their investment levels in-country.

5.3.5 Effect of Capital Flight on Economic Growth in Kenya.

All the proxies of capital flight aggregated in the constant C did not significantly affect economic growth in Kenya during the period of study. Thus, capital flight was found to have affected economic growth, though the effect was not significant. The results of this study confirm the Purchasing Power Parity (PPP) theory which postulates that investors engage in capital flight transactions to take a hedge on the risk of loss of purchasing power. This affects the gross domestic product negatively and decreases a country's economic growth. This study demonstrated that capital flight affected Kenya's economic growth during the period of study, though the effect was insignificant. Thus, if uncontrolled, it could impact significant negative effects on economic growth.

The government should make a deliberate attempt to identify the right mix of capital flight proxies: external debt repayments, foreign portfolio investment outflows, outward foreign direct investments, profit repatriations as well as the foreign exchange rate, to boost economic growth in the country. The results of this study demonstrated that not all forms of capital flight are bad for the economy. At times, capital flight boosts economic growth. It is for this reason that an equilibrium position needs to be identified on the optimum level of capital flight that would yield a positive economic growth in the country. The results of this study demonstrated that external debt repayment; outward foreign direct investment and profit repatriations negatively affected economic growth in Kenya during the period of study. However, portfolio investment outflows had a positive relationship that demonstrated a boost in economic growth in the period of study. The identification of the mix of capital flight that would yield economic growth and generate foreign exchange in return will make Kenya stay on the path to the attainment of its Vision 2030's economic framework and achieve its short-term goals under the Big Four Agenda framework.

5.3.6 Mediating Effect of Foreign Exchange Rate on the Relationship between Capital Flights and Economic Growth in Kenya

Foreign exchange rate was found not to mediate in the relationship between capital flight and economic growth in Kenya. However, it was found to be a key element and a determining factor on how capital flight may affect economic growth in Kenya. The findings of this study demonstrate that the transactions of a country in form of capital outflows directly and indirectly determine its foreign exchange rates and ultimately its economic growth. This means that foreign exchange rate is influenced by the volume of capital flight in Kenya and as the purchasing power parity doctrine in respect to disturbances to equilibrium, there exists an automatic self-correcting mechanism that keeps the actual exchange rate hovering close to its equilibrium level. Thus, the National Treasury should put more effort in the management of capital flight as it is a significant component in Kenya's foreign exchange rate stability as well as economic growth. It is evident that capital flight triggers foreign exchange rate volatility and thus, its management needs to take the center stage of the National Treasury's debate on economic growth.

5.4 Managerial and Policy Recommendations

Financial globalization cannot be avoided by emerging economies. As such, it must be managed so that its harmful side will be minimized and controlled. The major significance of this study is that: governments, other regulatory bodies, agencies, commissions and the public understand the nexus between capital flight and economic growth as well as the role of foreign exchange rate in this relationship. Based on the results obtained and the test of the hypotheses, the following recommendations were proposed to address capital flights in Kenya.

5.4.1 Managerial Recommendations.

The results demonstrate the need for a capital flight policy to be entrenched in the management of economic growth strategy by the National Treasury in Kenya. The government should take a deliberate move to ensure that there is adequate internal capacity both in the National Treasury and the Central Bank of Kenya, specifically to manage the equilibrium points on the amount of capital flight that is healthy to leave the country and yield a positive economic growth. The findings of this study

demonstrate that not all forms of capital flight are bad for the economy and as such, its management is critical to enhancing economic growth in Kenya.

The study recommends that external debt should be carefully managed and the evaluation of debt to specific projects be re-evaluated to establish a strict approach to how public investments are selected and included in public investment's plan. This will create a public investments appraisal and risk analysis culture where the NPV must be higher than the debt repayment amounts for external debt to be approved. Further, this should be coupled with strict monitoring of the execution of public debt-funded projects to enhance accountability and transparency. Ultimately, external debt stock as well as its repayments would decrease; thereby decreasing capital flight and economic growth will be achieved.

It was established that Kenya has the potential of growing its economy through foreign portfolio investment outflows. If well regulated, foreign portfolio investment outflows have the potential to increase the gross domestic product in Kenya. As such, there is need for the government to continuously engage their global trade partners for better trade agreements and enhancement of a good investment climate abroad for its local investors. In Kenya, there are no restrictions on profit repatriation. Companies have the discretion to choose to pay excess profit as dividends, invest or repatriate as long as they subject the dividend payments as well as the repatriated amounts to the relevant taxes available in Kenya under the transfer pricing guidelines. The government should re-evaluate the management of profit repatriations to ensure that it does not jeopardize economic growth.

The study recommends the need to monitor capital flight through close collaboration with international financial institutions such as the World Bank, IMF and United Nations to develop an appropriate strategy to track and curb capital flight in the country. Finally, the study recommend that the Central Bank of Kenya continue with its current exchange rate regime as the benefits has been realized and demonstrated through the lack of mediation effect of foreign exchange rate on the relationship between capital flight and economic growth in Kenya. The results of this study found

that the current foreign exchange policy has created a stable economic environment in the country and thus should be maintained or improved.

5.4.2 Policy Recommendations

The results of this study have clear policy implications. It has been established in this study that the capital flight proxies jointly did not significantly affect economic growth in Kenya during the period of study. Thus, capital flight was found to have affected economic growth, though the effect was not significant. Therefore, there is need for a policy review in the below subsection 5.4.2.1 to 5.4.2.6 to establish independent thresholds that each proxy of capital flight should achieve to attain an optimum level of capital flight that would spur economic growth in Kenya.

5.4.2.1 Recommendations on the Effect of External Debt Repayments on Economic Growth

The findings imply that the current debt policy in Kenya is well structured as the country's debt service has not compromised economic growth. This study recommends that Kenya sticks to its current external debt policy and continue to abide by the international standards on borrowing, which sets the debt sustainability framework indicators and thresholds at 50% of the present value of debt to gross domestic product. This is a strong assessment of institutional strength and quality of Kenya's policies in the economy. The results further show the need to design and implement debt policies that will yield long-term benefits to Kenya. However, the new policies must be accompanied by measures to prevent a new cycle of external borrowing that would yield additional capital flight through increased external debt repayments. This will require substantial reforms on the part of both the National Treasury and the lenders, to promote responsible lending and accountable debt.

In their objectives to reduce the external debt, the National Treasury should strengthen the existing private-public partnerships (PPP) policy and allow private investors to implement and manage public infrastructure to complement external borrowings. To reap maximum benefits of this policy, it should be designed in line with the Resource Mobilization Strategy (RMS) under Africa's Agenda 2063, which seeks to develop policy, legal, regulatory and institutional frameworks for the private

sector development and industry/issue-specific enabling conditions such as the PPP, in a bid to create alternative forms of financing of public investment projects, while at the same time decrease the levels of external debt repayments. This will enable the government to achieve its Big Four Agenda and achieve its Vision 2030 without a ballooning external debt.

Further, this study informs the government on the need to design a policy to ensure that the government guarantees that any external loans acquired are invested into productive public projects that give high returns on investment enough to service the debt thereof and reduce the chance of falling into a debt crisis. This is in line with Africa's Agenda 2063 Resource Mobilization Strategy specifically on the facilitation measures for access to finance where each African country, in the first ten years since year 2013, was challenged to set up relevant project development funds, viability gap funds as well as capitalization funds to address demand side readiness at the national, regional and continental level. This will be backed by the proposed African Investment Bank, African Monetary Fund and the African Central Bank, whose implementation is already running behind schedule. These institutions are expected to strengthen individual Africa's country's policy space in the global trade negotiations by strongly emphasizing the need for investment in positive NPV returns projects.

For transparency purposes, the government should enact a strict policy that ensures full disclosure of all external debts resource allocation to various public projects by adopting Africa's 2063 Agenda eight which requires that all Member States adhere to new areas of statistical development such as big data, data revolution, and Statistical Data and Metadata eXchange (SDMX). The success of this digital data would restrict external borrowing tendencies of different levels of government and agencies to only the positive NPV return oriented investments as the public would not only be able to judge the utilization of funds, but also have a voice in the priority planning of their country's external debt.

5.4.2.2 Recommendations on the Effect of Foreign Portfolio Investment Outflow on Economic Growth

The results of this study inform the government of the need to boost foreign portfolio investments. The government should enact policies that give foreign portfolio

investors incentives to encourage them to invest in the offshore market, up to an allowable limit that optimizes the country's economic growth and foreign portfolio investments outflows. To achieve this, the policy must well be guided by statistical data. Further, the government should design a policy that will propel the economy to link its financial markets globally to create more low risk investment opportunities and guarantee the safety of investors' funds. The government should therefore seek to make the Kenya's foreign market investments robust by implementing Africa's Agenda 2063 on opening up trade partnerships with the global market through the Sustainable Development Goals. This would integrate the domestic capital markets with the global capital market and make Kenya edge closer towards the realization of the annual 10% GDP growth rate under the Vision 2030 framework.

5.4.2.3 Recommendations on the Effect of Outward Foreign Direct Investments on Economic Growth

The findings acknowledge the need for the amendment of the Kenya Investment Act of 2004 which currently deals with foreign investment inflows, to accommodate outward foreign direct investments. Kenya has not had a policy to govern outward foreign direct investments over the years. The new investment policy drafted in June 2017 largely details inward foreign direct investments as well as the domestic investments and has not been enacted into law. This study recommends an enhancement of the Kenya Investment Policy to include strategies that will promote outward foreign direct investments which are missing in the Kenya Investment Act of 2004 as well as the new draft report of 2017. The study further recommends an overhaul of the Kenya Investment Policy, to set parameters that would achieve equilibrium on how much outward foreign direct investment both to financial and non-financial assets that a country should allow to optimize its economic growth.

In the same breath, this study recommends that the National Treasury of Kenya, which is mandated to formulate, implement and monitor macro-economic policies, to enact policies that ensures all local investors wishing to or are investing abroad are recognized by being registered members of an accredited centralized investment body (National Council of Law Reporting, 2010, the Public Management Act 2012 and the Executive Order No.2/2013). This investment should be made to strengthen preventive measure of increased unplanned outward foreign direct investments,

enhance surveillance detection of new unapproved outward foreign direct investments and institute recovery procedures for non-approved investments. Notably, keeping accurate digital data for all such outward foreign direct investors through a registered professional governing body would harness and strengthen the digital technologies for financial inclusion in Kenya, and efficiently regulate the number and levels of outward foreign direct investments in the country.

The creation of outward foreign direct investor's data would also contribute to the realization of Africa 2063 Agenda and the 17th Sustainable Development Goal which seeks to strengthen means of implementation and revitalize the global partnership for sustainable development by creating a sustainable, world-class technology hub to create the foundation for a knowledge-based economy. This is also well reflected in the Big Four Agenda as well as the Kenya Vision 2030 which recognizes the central role played by the global trade to Kenya. To achieve this, the National Treasury should also implement Africa's Agenda 8 which requires that all Member States adhere to new areas of statistical development such as big data, data revolution, and Statistical Data and Metadata eXchange (SDMX). The success of this digital data will be key in the implementation of the outward foreign direct investments policy and ensure tight controls by the proposed governing professional body as well as the government in its dual role of regulating outward foreign direct investments as well as effecting knowledge-based policies through these structures. Further, this regulation would ensure that investors adhere to business ethics as those who don't play by the rules would automatically risk de-registration.

5.4.2.4 Recommendations on the Effects of Profit Repatriations on Economic Growth

The findings of this study show that the government should design a profit repatriation policy. In Kenya, there is no elaborate policy on profit repatriation. Companies have the discretion to choose to pay excess profit as dividends, as long as they subject the dividend payments to a withholding tax at a rate of 10%. Currently, Kenya guarantees capital repatriation and remittance of dividends and interest to foreign investors, who are free to convert and repatriate profits (KenInvest, 2018). As profits are repatriated largely through dividends, interest or royalties' payments, this study recommends a strict policy that will place a limit on the percentage of locally

earned profits that a Multinational Corporations is allowed to repatriate and invest the rest locally.

To achieve this, a data-based plan as envisioned in Africa's 2063 Agenda is imminent in keeping track of the number of Multinational Corporations' available in country, their revenue base, source of funds, amounts of their repatriated incomes and their audited financial statements. Further, the government will be able to identify the common type of repatriation such as royalty payments, dividends and shared cost services that form the main avenues for repatriation of profits. This would go a long way in tightening and strengthening its transfer policy guidelines and achieve a positive economic growth. This data would also assist the government in making informed policy decisions on how to control the repatriation of profits and achieve the Vision 2030's economic pillar of a 10% GDP growth. Further, policy-makers will be able to draft an elaborate and data-based profit repatriation policy and have it enacted into law to avoid loss of tax from foreign transactions of Multinational Corporations', boost the tax revenue, control the foreign exchange rate volatility and boost economic growth in Kenya.

5.4.2.5 Recommendations on the Effects of Capital Flight on Economic Growth

The study recommends the establishment of a capital flight mix policy in Kenya, which clearly shows the acceptable and allowable mix of capital flight proxies: external debt repayments, foreign portfolio investment outflows, outward foreign direct investments, profit repatriations and foreign exchange rate that stimulates economic growth in the modern globalized economy. A policy that demonstrates the optimal mix of capital flight proxies would yield a positive economic growth and generate foreign exchange in return. This will put Kenya on the path to the attainment of its Vision 2030's economic framework. In particular, the proposed capital flight mix policy should demonstrate the optimal ratio of external debt repayments to GDP, the upper and lower limits on foreign portfolio investment outflows, outward foreign direct investments, profit repatriations as well as foreign exchange rate in relation to GDP that accelerates economic growth. Such clear and stable policies reduce uncertainty over the effect on the real GDP growth and foreign exchange rate stability, which will positively contribute to managing capital flight.

5.4.2.6 Recommendations on the Mediating Role of Foreign Exchange Rate on the Relationship between Capital Flight on Economic Growth

The findings of this study reveal the need for policy makers to shift focus from the generic means of boosting economic growth, such as financing the country's investment priorities through external debt to public-private partnership investments that would yield a dual success through contribution to the country's foreign exchange and a source of funds to promote the Big Four Agenda and boost economic growth. It is evident that capital flight triggers foreign exchange rate volatility which plays a key role on the economic growth of a country. Thus, capital flight and foreign exchange management ought to take the center stage of the National Treasury's debate to spur economic growth. As such, the design of a new policy that focuses on regulating the foreign exchange rate, by identifying the optimal mix of the forms of capital flight that would stimulate economic growth is imminent. To achieve this, the adoption of Africa's 2063 Agenda eight on adherence to new guidelines of statistical data revolution is a relevant and key resource to economic growth.

5.5 Contributions of this Study

This study has brought to the fore front the effect of capital flight on economic growth in Kenya, in the era of increased financial globalization. The study established that there was a positive relationship between capital flight and economic growth, though the effect was insignificant. This study calls for increased attention and deliberate effort by the government to put more effort into measuring capital flight in the country. Empirically, there are studies done on the determinants of capital flight on the economic growth as well as investments in Kenya and others on the effects of capital flight on economic growth in the Sub-Saharan Africa and the Northern-African region, but there was the need to investigate further on the effect of capital flight on economic growth in Kenya, as well as the mediating role of foreign exchange in this relationship, as Kenya moves towards a more globalized economy.

The distinguishing feature of this study from other literature on the Sub-Saharan Africa region is that the study covered periods before, during and after the financial crises in 2008. Additionally, the empirical literature on Sub Saharan Africa by Ndikumana (2015), Fofack & Ndikumana (2014), Ndikumana & Boyce (2011) and Ndikumana et al., (2015) concentrated more on the determinants of capital flight, and

did not concentrate keenly on their effect on economic growth in their respective countries. This study adds to the finance literature by the adoption of the effect of capital flight on economic growth and the mediating role of foreign exchange rate in this relationship. The study also provides a new contribution to existing literature by focusing on the effect of capital flight on foreign exchange rate, which has been the most important source of poor economic growth in the SSA countries.

This study extends the borderline of existing knowledge in the areas of capital flight, economic growth and foreign exchange rate. It also fills pertinent gaps in existing literature by linking capital flight and economic growth with foreign exchange rate mediating in this relationship. This study therefore has added value to the body of knowledge by demonstrating that not all forms of capital flight negatively affect economic growth. In specific instances, capital flight positively affects economic growth.

5.6 Areas for Further Studies

The findings of this study set a ground for further research in several areas. First, the model's R-squared was 11.8% which demonstrated that the four proxies of capital flight explained the changes in economic growth by up to 11.8% in Kenya during the period of study. Channels of capital flight are multiple and one study is not enough to capture all the channels used to legally and illegally push investment capital out of the country. As such, more vigorous academic inquiry is invited to make more informed conclusions on the effect of capital flight on economic growth, as well as prescribe measures to curb foreign exchange rate appreciation and depreciations and economic growth in Kenya. Further, more studies need to be undertaken with researchers extending the scope to more sub-variables to make more informed conclusions.

Secondly, the findings of this study demonstrated that capital flight did not lead to a decline of economic growth in Kenya. This demonstrated that at times, capital flight boosts economic growth. The findings of this study invite more academic studies that can contribute to the establishment of an accurate mix of capital flight proxies that are critical to accelerate economic growth in Kenya.

Thirdly, the findings of this study showed that foreign exchange rate did not mediate in this relationship, yet foreign exchange rate was found to be a significant component

of capital flight in Kenya during the period of study. These findings set a ground for more studies to make more informed conclusions on the mediating role of foreign exchange rate in the relationship between capital flight and economic growth in Kenya.

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APPENDICES

APPENDIX I

LETTER OF INTRODUCTION

To.....

Dear Sir/Madam,

RE: COLLECTION OF SECONDARY RESEARCH DATA

My name is Joseph Macheru a PhD student in Finance at Jomo Kenyatta University of Agriculture and Technology. Currently, I am carrying out a research entitled "*Effects of capital flight on economic growth in Kenya*". I am in the process of gathering relevant data for this study. Your organization has been identified as one of the respondents in this study.

I therefore kindly request you to take some time to assist me with the requisitioned data. I wish to assure you that the data requested will be treated with confidentiality and will be used solely for academic purpose of this study.

I thank you in advance for your time and response. It will be appreciated if you can avail the data at the earliest to enable early finalization of the study.

Yours Sincerely,

Joseph Macheru

APPENDIX II
LETTER OF AUTHORIZATION

The Manager

.....

NAIROBI

Dear Sir/Madam,

RE: ACADEMIC RESEARCH

I am a student at Jomo Kenyatta University of Agriculture & Technology (JKUAT) pursuing PhD in Finance. I am required to undertake a thesis entitled “*The effect of capital flight on economic growth in Kenya*” in partial fulfillment for the award of the doctoral degree. I am kindly requesting for your assistance in making my research a success by granting permission to collect relevant data of your organization from your heads of research, finance and risk departments. I want to assure your office that all the data collected will be treated with utmost confidentiality and will be used exclusively for the purposes of this academic research.

I am looking forward to your kind consideration.

Joseph Macheru

APPENDIX III

INSTITUTIONS WITH THE REQUIRED DATA

1. Kenya National Bureau of Statistics (KNBS)
2. International Financial Statistics (IFS)
3. Central Bank of Kenya (CBK)
4. International Monetary Fund (IMF)
5. World Development Indicators (WDI)
6. United Nations Commodity Trade Statistics (UNCOMTRADE)
7. African Development Indicator's (ADI) Annual Reports

Source: World Bank and International Monetary Fund

APPENDIX IV

EXTERNAL DEBT REPAYMENTS DATA IN MILLIONS OF KSH.

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOMTRADE	ADI
1986	25,831	10,990	25,831	10,990	10,990	10,990	10,990
1987	28,386	11,376	28,386	11,376	11,376	11,376	11,376
1988	36,882	13,091	36,882	13,091	13,091	13,091	13,091
1989	37,304	14,583	37,304	14,583	14,583	14,583	14,583
1990	61,425	18,123	61,425	18,123	18,123	18,123	18,123
1991	59,890	19,788	59,890	19,788	19,788	19,788	19,788
1992	47,342	21,593	47,342	21,593	21,593	21,593	21,593
1993	30,685	36,656	28,490	36,656	36,656	36,656	36,656
1994	28,369	49,398	86,941	49,398	49,398	49,398	49,398
1995	29,877	46,515	74,002	46,515	46,515	46,515	46,515
1996	26,460	47,846	86,124	47,846	47,846	47,846	47,846
1997	29,150	38,573	78,479	38,573	38,573	38,573	38,573
1998	31,215	40,004	29,969	40,004	40,004	40,004	40,004
1999	33,980	48,849	31,965	48,849	48,849	48,849	48,849
2000	16,048	45,163	34,365	45,163	45,163	45,163	45,163
2001	29,261	38,141	29,261	38,141	38,141	38,141	38,141
2002	31,234	41,868	31,234	41,868	41,868	41,868	41,868
2003	26,735	44,136	26,735	44,136	44,136	44,136	44,136
2004	15,922	28,376	26,278	28,376	28,376	28,376	28,376
2005	17,009	40,852	14,971	40,852	40,852	40,852	40,852
2006	17,894	31,069	12,875	31,069	31,069	31,069	31,069
2007	23,832	30,750	18,317	30,750	30,750	30,750	30,750
2008	23,871	28,582	21,776	28,582	28,582	28,582	28,582
2009	24,317	30,063	21,645	30,063	30,063	30,063	30,063
2010	32,635	31,825	23,611	31,825	31,825	31,825	31,825
2011	35,706	38,858	28,055	38,858	38,858	38,858	38,858
2012	45,143	49,791	31,305	49,791	49,791	49,791	49,791
2013	98,014	55,182	35,044	55,182	55,182	55,182	55,182
2014	112,688	108,455	41,400	108,455	108,455	108,455	108,455
2015	66,143	71,533	113,544	71,533	71,533	71,533	71,533
2016	-	106,533	78,583	106,533	106,533	106,533	106,533

APPENDIX V

FOREIGN PORTFOLIO INVESTMENT OUTFLOW DATA IN MILLIONS OF KSH.

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOMTRADE	ADI
1986	446	10	446	10	10	10	10
1987	500	14	500	14	14	14	14
1988	542	10	542	10	10	10	10
1989	485	20	485	20	20	20	20
1990	688	32	688	32	32	32	32
1991	509	5	509	5	5	5	5
1992	345	7	345	7	7	7	7
1993	375	1,096	375	1,096	1,096	1,096	1,096
1994	662	111	662	111	111	111	111
1995	840	375	840	375	375	375	375
1996	307	2,862	307	2,862	2,862	2,862	2,862
1997	431	5,250	431	5,250	5,250	5,250	5,250
1998	2,007	2,302	2,007	2,302	2,302	2,302	2,302
1999	80	1,487	80	1,487	1,487	1,487	1,487
2000	560	1,096	560	1,096	1,096	1,096	1,096
2001	1,096	111	1,096	111	111	111	111
2002	111	375	111	375	375	375	375
2003	375	2,862	375	2,862	2,862	2,862	2,862
2004	2,862	5,250	2,862	5,250	5,250	5,250	5,250
2005	5,250	2,302	5,250	2,302	2,302	2,302	2,302
2006	2,302	1,487	2,302	1,487	1,487	1,487	1,487
2007	1,487	1,665	1,487	1,665	1,665	1,665	1,665
2008	1,665	1,805	1,665	1,805	1,805	1,805	1,805
2009	1,805	1,616	1,805	1,616	1,616	1,616	1,616
2010	1,616	2,294	1,616	2,294	2,294	2,294	2,294
2011	2,294	152	2,294	152	152	152	152
2012	5,094	18,402	5,094	18,402	18,402	18,402	18,402
2013	1,149	23,296	1,149	23,296	23,296	23,296	23,296
2014	20,120	326,794	20,120	326,794	326,794	326,794	326,794
2015	6,622	15,223	6,622	15,223	15,223	15,223	15,223
2016	8,400	38,889	8,400	38,889	38,889	38,889	38,889

APPENDIX VI

OUTWARD FOREIGN DIRECT INVESTMENT DATA IN MILLIONS OF KSH.

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOMTRADE	ADI
1986	12,283	-	96,757	7,115	96,757	80	96,757
1987	10,253	-	565,595	4,753	565,595	506	565,595
1988	7,001	-	44,620	5,558	44,620	39	44,620
1989	7,224	-	30,821	7,310	30,821	28	30,821
1990	11,055	-	14,219	6,630	14,219	10	14,219
1991	9,068	-	11,436	5,339	11,436	6	11,436
1992	9,141	-	12,712	6,315	12,712	3	12,712
1993	27,755	3,789	100,627	34,527	100,627	1,258	100,627
1994	24,587	3,738	36,798	28,227	36,798	166	36,798
1995	28,371	6,479	242,777	25,683	242,777	1,054	242,777
1996	31,532	12,416	56,274	47,267	56,274	3,015	56,274
1997	620	11,557	99,228	44,499	99,228	5,376	99,228
1998	342	7,858	180,657	47,103	180,657	2,302	180,657
1999	701	12,162	396,243	57,816	396,243	1,488	396,243
2000	839	3,785	11,897	71,245	11,897	1,097	11,897
2001	881	3,736	11,855	83,473	11,855	112	11,855
2002	571	6,475	133,344	82,842	133,344	959	133,344
2003	679	12,408	43,658	113,821	43,658	3,020	43,658
2004	1,715	11,541	79,780	116,809	79,780	5,600	79,780
2005	68	7,825	142,139	153,056	142,139	3,034	142,139
2006	1,319	12,145	260,350	167,207	260,350	3,214	260,350
2007	10,119	10,559	321,219	225,831	321,219	4,091	321,219
2008	12,463	6,565	346,673	222,698	346,673	4,833	346,673
2009	37,489	20,192	365,104	448,838	365,104	2,193	365,104
2010	71,733	19,073	24,110	459,891	24,110	3,609	24,110
2011	128,054	20,873	1,478,238	515,802	1,478,238	2,012	1,478,238
2012	13,802	19,909	560,109	490,707	560,109	31,446	560,109
2013	15,916	13,670	924,848	502,002	924,848	35,180	924,848
2014	26,537	24,256	511,551	512,309	511,551	329,242	511,551
2015	47,008	25,899	311,506	572,713	311,506	19,620	311,506
2016	-	20,894	410,388	592,317	410,388	45,578	410,388

APPENDIX VII

PROFIT REPATRIATIONS DATA IN MILLIONS OF KSH.

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOMTRADE	ADI
1986	239	108	239	108	108	108	108
1987	279	150	279	150	150	150	150
1988	328	136	328	136	136	136	136
1989	375	60	375	60	60	60	60
1990	515	165	515	165	165	165	165
1991	636	106	636	106	106	106	106
1992	627	238	627	238	238	238	238
1993	1,219	-	1,219	-	-	-	-
1994	1,154	400	1,154	400	400	400	400
1995	992	450	992	450	450	450	450
1996	792	500	792	500	500	500	500
1997	14,973	2,698	14,973	2,698	2,698	2,698	2,698
1998	12,958	4,263	12,958	4,263	4,263	4,263	4,263
1999	13,425	1,831	13,425	1,831	1,831	1,831	1,831
2000	13,566	-	13,566	-	-	-	-
2001	14,381	400	14,381	400	400	400	400
2002	15,016	450	15,016	450	450	450	450
2003	12,325	500	12,325	500	500	500	500
2004	26,892	2,694	26,892	2,694	2,694	2,694	2,694
2005	18,758	4,262	18,758	4,262	4,262	7,050	4,262
2006	15,673	1,831	15,673	1,831	1,831	3,254	1,831
2007	23,241	1,102	23,241	1,102	1,102	2,688	1,102
2008	21,408	4,462	21,408	4,462	4,462	6,428	4,462
2009	22,831	4,703	22,831	4,703	4,703	6,349	4,703
2010	26,549	1,514	26,549	1,514	1,514	2,923	1,514
2011	40,021	2,296	40,021	2,296	2,296	3,617	2,296
2012	59,325	-	59,325	-	1,226	2,645	-
2013	84,404	-	84,404	-	1,395	6,677	-
2014	99,109	3,456	99,109	3,456	15,031	12,968	3,456
2015	86,344	1,124	86,344	1,124	18,345	13,599	1,124
2016	87,123	4,322	87,123	4,322	-	-	4,322

APPENDIX VIII

GROSS DOMESTIC PRODUCT DATA

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOMTRADE	ADI
1986	7.00	7.00	7.00	6.98	7.18	7.18	7.18
1987	6.00	6.00	6.00	5.81	5.94	5.94	5.94
1988	6.00	6.00	6.00	6.09	6.20	6.20	6.20
1989	1.50	1.50	5.00	4.55	4.69	4.69	4.69
1990	0.80	0.80	4.00	4.13	4.19	4.19	4.19
1991	(1.20)	(1.20)	1.00	1.34	1.44	1.44	1.44
1992	(2.30)	(2.30)	(1.00)	(1.08)	(0.80)	(0.80)	(0.80)
1993	(2.70)	(2.70)	-	(0.10)	0.35	0.35	0.35
1994	3.00	3.00	3.00	2.70	2.63	2.63	2.63
1995	4.80	4.80	4.00	4.40	4.41	4.41	4.41
1996	4.60	4.60	4.00	4.20	4.15	4.15	4.15
1997	2.40	2.40	-	2.10	0.47	0.47	0.47
1998	1.80	1.80	3.00	1.60	3.29	3.29	3.29
1999	1.40	1.40	2.00	1.30	2.31	2.31	2.31
2000	0.60	0.60	-	(0.20)	0.60	0.60	0.60
2001	4.40	4.40	3.00	1.10	3.78	3.78	3.78
2002	0.50	0.50	-	0.48	0.55	0.55	0.55
2003	2.90	2.90	2.00	2.95	2.93	2.93	2.93
2004	5.10	5.10	5.00	4.64	5.10	5.10	5.10
2005	5.70	5.70	5.00	5.67	5.91	5.91	5.91
2006	6.10	6.10	6.00	5.85	6.47	6.47	6.47
2007	7.10	7.10	6.00	6.85	6.85	6.85	6.85
2008	1.70	1.70	-	0.23	0.23	0.23	0.23
2009	2.60	2.60	3.00	2.70	3.31	3.31	3.31
2010	5.80	5.80	8.00	5.80	8.40	8.40	8.40
2011	4.40	4.40	6.00	4.40	6.11	6.11	6.11
2012	4.60	4.60	4.00	4.60	4.56	4.55	4.56
2013	5.30	5.30	5.00	5.70	5.88	5.69	5.88
2014	6.00	6.00	5.00	5.30	5.35	5.33	5.35
2015	5.90	5.90	5.00	5.60	5.71	5.65	5.71
2016	6.00	6.00	6.00	6.00	5.85	5.90	5.85

APPENDIX IX

FOREIGN EXCHANGE RATE DATA (USD V/S KSH)

YEAR	KNBS	IFS	CBK	IMF	WDI	UNCOM	ADI
1986	16.22	16.26	16.23	16.24	16.27	16.25	16.24
1987	16.45	16.49	16.45	16.47	16.50	16.48	16.47
1988	17.74	17.78	17.75	17.76	17.79	17.77	17.77
1989	20.57	20.61	20.57	20.59	20.62	20.60	20.60
1990	22.91	22.96	22.91	22.94	22.97	22.94	22.94
1991	27.50	27.56	27.51	27.54	27.58	27.54	27.54
1992	32.21	32.28	32.22	32.25	32.30	32.26	32.25
1993	58.00	58.12	58.00	58.06	58.15	58.08	58.07
1994	56.05	56.16	56.05	56.11	56.19	56.12	56.11
1995	51.42	51.53	51.43	51.48	51.56	51.50	51.49
1996	57.11	57.23	57.11	57.17	57.26	57.19	57.18
1997	58.73	58.93	58.82	58.79	58.88	58.81	58.80
1998	60.36	60.50	60.38	60.43	60.52	60.45	60.43
1999	70.32	70.47	70.33	70.40	70.50	70.42	70.41
2000	76.17	76.33	76.18	76.25	76.37	76.27	76.26
2001	78.56	78.72	78.56	78.64	78.76	78.67	78.65
2002	78.74	78.89	78.73	78.83	78.95	78.85	78.84
2003	75.93	76.08	75.93	76.01	76.13	76.03	76.02
2004	79.17	79.33	79.17	79.25	79.37	79.28	79.26
2005	75.55	75.70	75.55	75.63	75.74	75.65	75.64
2006	72.10	72.24	72.10	72.17	72.28	72.19	72.18
2007	67.31	67.45	67.32	67.38	67.49	67.41	67.39
2008	69.17	69.32	69.19	69.24	69.35	69.27	69.25
2009	77.35	77.51	77.35	77.43	77.55	77.45	77.44
2010	79.23	79.39	79.23	79.31	79.43	79.34	79.32
2011	88.81	88.99	88.81	88.90	89.03	88.93	88.91
2012	84.53	84.70	84.53	84.61	84.74	84.64	84.63
2013	86.12	86.30	86.12	86.21	86.34	86.23	86.22
2014	87.92	88.10	87.92	88.01	88.14	88.04	88.02
2015	98.18	98.38	98.18	98.28	98.42	98.31	98.29
2016	101.50	101.71	101.50	101.61	101.76	101.64	101.62