

**THE EFFECT OF FISCAL POLICY ON FINANCIAL PERFORMANCE
OF PENSION SCHEMES IN KENYA**

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DECLARATION

I, the undersigned, certify that the work submitted here is mine and has not been submitted for review other than at the University of Nairobi.

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DEDICATION

I would like to sincerely dedicate noble research work to by my dear family, for their love and unstinting support throughout the journey

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
BOP	Balance of payments
DB	Defined Benefit
EMH	Efficient Market Theory
NSSF	National Social Security Fund
NAV	Net Assets Value
PAYG	Pay As You Go
RBA	Retirement Benefit Authority
ROA	Return on Assets
SPSS	Statistical Package for Social Sciences
VIF	Variance Inflation Factors

ABSTRACT

The number of people participating in pension schemes, as well as the value of their holdings, has increased dramatically in recent decades. There are now around 1200 registered schemes, with over 1.7 million participants. The industry's asset base has expanded both quantitatively and relative to GDP. The schemes provide investment policies to RBA as guided by the investment guidelines in terms of providing limits to the varying assets classes. The macroeconomic environment in which the retirement benefits schemes operates and the two macroeconomic policies, namely monetary and fiscal impact the performance of the investments of the pension schemes. The study's goal is to evaluate the impact of budgetary allocations on the sustainability of Kenya's pension programs. The main purpose of this study was to evaluate the effect of macroeconomic factors on the sustainability of Kenya's pension systems. A descriptive survey approach was used for this study. All 81 pension programs in Kenya were accounted for in the study. Secondary data sources included the RBA, Kenya Revenue Authority, corporate financial statements, and the Kenya National Bureau of Statistics (KNBS) for the monthly period spanning 2017-2021. The financial accounts of pension systems in Kenya were analyzed to collect data on the dependent variable, financial performance. The Kenya National Bureau of Statistics provided information on the country's trade surplus, public debt, and government spending; the financial statements of individual businesses provided information on operating expenses and liquidity; and the Kenya Revenue Authority provided information on taxation. Using SPSS version 20, both descriptive and inferential statistics were used to the gathered quantitative data for analysis. According to the findings of this research, the success of pension programs in Kenya is closely tied to the government's budgetary stance. R Square for the independent variables of the research (Kenya's trade balance, government spending, government debt, taxes, operational expenses, and pension scheme liquidity) was 0.645, suggesting that these factors explain 64.5% of the variation in performance. The overall significance of the regression analysis indicates that the investigated business characteristics considerably impact the financial performance behavior of pension funds. More research on the factors that affect the financial success of pension plans throughout the country is required.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Fiscal policy is one of the factors that affect the economic conditions in Kenya. According to Afonso and Sousa (2011), fiscal policy is used to control the revenue and the expenditure of the economy. John Maynard Keynes, a British economist, came up with a theory that explains fiscal policy. It explains that the economy's employment, inflation, and overall cash flow are all affected by changes in taxation and government spending. Masika (2010) posits that the Pension Schemes Investments has a number of advantages which include creating job opportunities, providing housing structures to households, reducing poverty levels and improving income distribution in the economy.

This study will be based on two theories namely; the Wagner's law of increased government activities and Musgrave Rostov's theory. The Wagner hypothesis seeks to come up with either a direct association with regard to government spending and performance in the economy but it also determines whether there exists an indirect cause effect relationship occasioned through spending by the government to the growth of the economy. The Musgrave theory opines that expenditure by the government, particularly on human capital and physical infrastructure, can promote growth even though the foundation of financing of such expenditures can translate to derailed growth of the economy. Musgrave and Musgrave (1989) opine, "The growth retardation is experienced because of disincentive effects associated with taxation".

Another instrument of fiscal policy is government expenditure. The economy and the quantity of new employment produced are both affected by government expenditure. An illustration of this is the construction of the standard gauge railway by the government. The funds allocated to the project by the government were used to hire individuals thus providing jobs to the jobless and therefore injecting money into the economy. According to Larch and Nogueira, (2019), increased government expenditure lowers unemployment and increases the growth of the economy. Both lowering taxes and boosting government spending are effective methods of stimulating the economy, but only if the government is

careful to avoid running a deficit—a scenario in which it spends more than it takes in via taxation and thereby loses money over time. When the government runs at a deficit, it must borrow money to cover its expenses (Heyne et al., 2018).

This research will concentrate on the various pension options available in Kenya. According to the statistics provided by the Retirement Benefits Authority (2020), more than 3000 registered and unregistered pension schemes in Kenya possessed a total of approximately Sh700 billion in assets between them. The amount of money that was contributed to the economy by these pension plans was equal to 51.4% of the total GDP (Forbes, 2020). According to the numbers provided by RBA 2020, the return on investments generated by pension plans ranged anywhere from 6.7% to 15%, with an average return of 10.67%. A percentage representation of the mean value was 7.87 percent. Private pension funds only saw a 16.33% return on their investments. Investment data compiled by the RBA shows that 62.3% of Kenyan pension plans will underperform the market in 2019 and 2020.

1.1.1 Fiscal Policy

This involves influencing the economy through the use of the revenue collected by the government and its expenditure. Mainstays of fiscal policymaking include taxes, government expenditure, and taxation. Full employment, stable prices, and fast economic development are all goals that may be achieved via government use of fiscal policy to influence aggregate demand. According to Funke and Nsouli (2003), the economics put forward by Keynesian indicate that aggregate demand can be increased by increasing expenditure by the government and lowering the tax rates, and once the economic boom has occurred, the government expenditure can be lowered and taxes increased. Fiscal policy in the past has been viewed as a tool for managing demand. The meaning of this as posited by Steven, 2003 is that government expenditure ,the budget balance and tax rate can be influenced to help in smoothening the volatile nature of the national output especially when the economy is in recession, for example due to an external shock. One of the key instruments of fiscal policy is taxation. An increase or a decrease in tax, affects

the amount of money consumers have for their spending and thus influencing the economy as a whole. Consumers have more money when the level of taxation reduces and thus their level of spending goes up. When consumers spend more, businesses gain more revenues and thus they are able to grow and employ more people. Heyne et al., (2002) points out that reduction in taxes is a measure of fiscal policy aimed at encouraging the growth of the economy.

Another instrument of fiscal policy is government expenditure. The level of government spending influences economic activities and job creation. An illustration of this is the construction of the standard gauge railway by the government. The funds allocated to the project by the government were used to hire individuals thus providing jobs to the jobless and therefore injecting money into the economy. According to Larch and Nogueira, (2009), increased government expenditure lowers unemployment and increases the growth of the economy. To avoid running a deficit—that is, a scenario in which the government spends more than it receives in taxes—the government must strike a balance between the money it earns from taxes and the money it uses for expenditures. The government's debt levels rise whenever it runs deficit budgets.

Fiscal policy refers to the government's management of the economy via the management of taxes and government expenditures. The government's fiscal policy is primarily influenced by taxation and expenditure. In an effort to maintain price stability, maximize employment, and stimulate growth, governments may use fiscal policy to influence aggregate demand. The present research will analyze the effectiveness of various fiscal strategies based on the balance of payments, government expenditures, foreign debt, and taxes.

1.1.2 Financial Performance

Cheong (2007) argues that financial performance is a subjective indicator of a company's success, and offers as an example a pension plan that uses assets outside its main manner of business to generate profits. Financial reports of pension schemes may provide users of

a firm's financial statements, as well as present and former employees, with essential information regarding the financial performance of the pension schemes (Brady, 2009). The company's financial performance may be a key factor in determining the net income, and it is also an essential factor in establishing the company's exposure to financial risk. Pension Schemes performance can also be measured by using its aggregate return, which is the entirety of the adjustment in reserve's net assets value (NAV), its profits and its capital increases dispersals over a given period. Since the 1980s, pension plans have been shifting away from a Defined Benefit (DB) scheme and toward a variety of arrangements of course of action in which pension is supported up by assets, either in individual records or in aggregate schemes, as detailed in the book by Hinz, Rudolph, Antolin, and Yermo (2010).

The value added by fund managers and the success or failure of an investment plan may be gauged in part by looking at how well the funds are doing against certain benchmarks. The rationale for calculating the performance is to be able to establish the value added either knowingly or unknowingly by the managers during their allocation decisions. The success of performance is achieved when managers add value through prudent asset allocation techniques. Because managers have a hard time adding value, it shouldn't come as a surprise that most benefit plans have performed similarly to their peers, as predicted by Efficient Market Hypothesis (EMH) (Walker and Iglesias, 2010). They likewise show that in circumstances where budgetary markets don't display solid frame EMH qualities, finance managers can include value (Walker & Iglesias, 2010).

Profitability ratios (including return on equity and return on assets) can be used to evaluate the efficiency of a pension plan by comparing its earnings to some sort of benchmark, such as its asset value, revenue, or capital. Return on Equity (ROE) is a metric used to evaluate a company's profitability relative to the money its shareholders have put in, while Return on Assets (ROA) is a metric used to evaluate a company's performance relative to the money it has invested in its assets. With a myriad of

measurements of pension schemes performances proposed, the present study shall focus on investment performance particularly ROA.

1.1.3 Fiscal Policy and Financial Performance

According to Chirchir (2007), there are two primary motivations for governments to regulate the pension funds business. These motivations are as follows: One of them is consumer protection, which means providing a set of guidelines that may assist avoid the excesses and failures that can occur in a market if it is allowed to function totally according to its own dictates. The second reason is to ensure that the pensions business continues to function normally; in other words, pensions are a public benefit that necessitates a more complex system of regulation and oversight. As indicated by the number of nations that have adopted legislation limiting the investment of pension funds, the practice of placing quantitative constraints on investments is a phenomena that occurs on a worldwide scale. There are a few different ways quantitative restrictions might be applied to investment vehicles. It might be a limitation on the structure of the sector that only allows certain institutions to engage in the fund management business. For instance, as a direct consequence of pension reform in Chile, a brand-new industry has emerged to handle the management of retirement savings. Performance limits on funds might also have a role. Here, pension funds must guarantee an agreed-upon rate of return on investment. The returns are determined by looking at the industry's typical performance as a whole. This is the situation in Chile as well as Germany. Last but not least, it can be via laws that establish restrictions on the proportion of financial assets that pension plans are allowed to hold. In most cases, these include placing restrictions, known as ceilings (maximums) or floors (minimums), on the amount of money that may be invested in certain assets (Chirchir 2007).

Various nations have instituted varying levels of pension laws in their own systems. The majority of nations begin with strong laws, but as time passes and the business develops, they loosen those regulations. Chile is used as an example in Srinivas and Yermo's (1999) research. Chile is constantly revoking and decreasing some of the quantitative limitations

on the investment of pension funds, after having such laws in place for 18 years and deeming them excessive. This comes after Chile had excessive laws on the investment of pension funds. A pension fund may invest no more than 40% of its assets in stocks, 20% of its assets in commercial paper, 50% of its assets in government securities, 5% of its assets in self-investments, and 12% of its assets in investments outside of the country. In Argentina, it is required that 98% of pension funds be invested in Argentinean companies and securities. According to the Pension Fund Act of 1956, section 19 and Regulation 28, pension funds in South Africa are required to make investments that are within the permissible limitations. There are no predetermined requirements regarding the investments that must be made by pension funds in the United States, which has the biggest and most well-established pension sector in the world. After passing through a phase in which investments were prohibited, it is now a completely liberalized industry that is entirely dependent on the "prudent man rule." The administration of pensions in the United Kingdom (UK) is strictly controlled in every way, with the exception of investments, which are left unchecked. After a period during which investments were limited, they, too, adhere to the notion of the wise man rule.

1.1.4 Pension Schemes in Kenya

The Retirement Benefit Authority (RBA) is in charge of regulating the industry of pension funds. RBA was founded when a particular act of the Parliament known as the Retirement Benefit Act was passed. The Civil Service Pension Scheme, the National Social Security fund, Occupational Retirement Schemes, and Individual Retirement Schemes are the four main categories that the RBA uses to classify the sector as a whole. The Government Service Pension Scheme and the National Social Security fund are both established as a direct consequence of Acts of Parliament; their respective memberships are comprised of all civil employees, teachers, and workers in the formal sector of the economy employed in firms. The latter are regulated by the Trust Deeds, and its members include those working in the formal sector for firms that have schemes, as well as people in the informal sector who join willingly (The Retirement Benefits Act Chapter 197 of the Laws of Kenya).

As stated in the Pensions Act, the RBA in Kenya is in charge of ensuring that the retirement benefit system operates as intended. The Pension Act contains laws that govern the doling out of pensions and gratuities, as well as their regulation. The Act is an extremely important piece of legislation since it outlines the methodology that is used to compute gratuities. There are a total of 1232 pension plans that are registered with the RBA in Kenya (RBA, 2018). The RBA classifies plan contributions as either defined contributions, hybrid contributions, or defined benefit contributions. The term "defined contribution plan" is used in the context of retirement savings to describe a program in which each member pays a predetermined dollar amount or percentage of salary each year. It is the overall amount of contributions made throughout the accumulation period that ultimately determines the benefits, as required by the plan's design. Since the advantages cannot be predicted in advance. A defined benefit plan is a kind of scheme in which the benefits are set in advance in accordance with the regulations of the scheme. Another kind of plan is the hybrid plan, which incorporates elements of both defined contribution plans and defined benefit plans. The RBA also classifies payments as pension or provident funds, depending on their ultimate destination. When a member leaves a pension plan or passes away, the provident fund may provide a one-time payment to the member or to the person's dependents. Upon reaching retirement age, participants in pension plans get a commuted lump payment, with the remainder of their benefit being paid in periodic form (RBA, 2018).

Kenya's pension system is divided into several subsets, including the National Social Security Fund (NSSF), the Public Service Employees and Armed Forces Schemes, the Occupational Schemes (a total of 1194), and the Individual Schemes (a total of 34). Employers are required to enroll their employees in the NSSF and contribute on their behalf because it is a mandatory program. It is set up as a defined contribution plan, with payments being made on a monthly basis by both the company and the worker. The current structure of the NSSF has the employee contributing 6% of their pensionable wage and the employer contributing an additional 6% up to a maximum of Kes 2160.

(NSSF, 2019). The NSSF must then provide a one-time cash payment to the beneficiaries upon the beneficiary's retirement, early disability, or death.

Those who work for the government or in the armed forces. To participate in Schemes, employees need to set aside 2% of their salary each pay period. The program is sponsored via a method known as pay as you go, or PAYG, and the expenditures that are spent by the program are covered by the government. The distribution of lump sums to members upon their retirement constitutes the majority of the scheme's costs. Occupational schemes are defined as programs that are voluntarily implemented by businesses in order to improve the health and welfare of their workforce. Employers are not required to establish an extra retirement plan for their workers, but if they do so voluntarily, they are compelled to conform with the retirement benefits laws and norms in place in their respective jurisdictions (Suleman, 2018). Employers establish an acceptable amount to collect from employees' paychecks, and then they match that amount when submitting it to the pension plan. However, there are no minimum contribution levels required for the occupational program. The RBA is in charge of regulating the plans, and among of the concerns it addresses include the minimum age required to retire, the vesting process, portability, and access to pension funds. Individuals are able to establish their own personal pension plans, which may then be combined in the event that one of the plans requires a new administrator. Institutional investors make this possibility possible. In order to broaden access to pensions, the government of Kenya has been pushing for the expansion of programs like this. Because of this, in the previous decade they went from having 17 members to having 34 members.

1.2 Research Problem

The economic environment that pension schemes operate is primarily defined by both monetary and fiscal policies that definitely impact on performance. Despite this, it is essential to have a thorough understanding of the broader economic context in which the retirement benefit programs are implemented (Akpo 2015). More and more people now choose asset-based pensions over defined benefit (DB) schemes. This shift took place

over an extended period of time. Governments have responded to the potential negative effects of an aging population by expanding the range of retirement income options accessible to citizens.. Among the most consequential results is the trend toward asset-backed pension schemes. As a consequence, retirees' future earnings are more tied to the success of these assets, putting them at the mercy of the vagaries of the investment market in determining the full extent of their retirement plan benefits (Hinz, 2010).

Due to the value that they bring in, pension systems are an essential part of Kenya's economy. In addition to this, their rate of expansion is accelerating not just in Kenya but also everywhere else throughout the globe. The fact that a significant portion of Kenya's population is aware of the need of setting money aside for old age contributes to the country's growing demand for pension programs. According to the data provided by the Retirements Benefits Authority, the retirement plan business had tremendous expansion at a compound annual growth rate of 14.3 percent during the years of 2008 and 2018. Thanks to this improvement, business has been able to develop rapidly. Growth in the industry has been linked to several factors, including a rise in the rate at which idle capital is turned into profit, a rise in the number of people involved, and a rise in the average amount of money each person invests in the industry. In addition, as of the end of September 2018, the total assets owned by pension schemes in Kenya amounted to 1.2 trillion Kenyan shillings, which is an increase from 1.08 trillion Kenyan shillings in 2018 (Wafubwa, 2019). Despite the progress, the penetration rate in Kenya is still low at 15% for adult members, suggesting that pension plans are having problems. As of 2013, 254 separate pension plans were found to have excess cash of more than 5%. This indicates that the groups were determined to have illegally retained funds (Omwenga, 2013). This research tries to bridge that knowledge gap by examining the relationship between the density of contributions and the returns on pension plans.

In order to keep track of and exert some control over an economy, governments often alter the amounts of expenditure and taxation that they impose. There have been a number of research conducted on fiscal policy and the influence that it has on private

investments in general; however, none of these studies have specifically focused on pension investment. • Alesina et al. (2002) conducted an analysis of the impact of fiscal policy on investment utilizing a group of OECD nations as participants in the study. In particular, they looked at how the various forms of fiscal policy influence profitability and, as a consequence, investment. Akpo et al. (2015) conducted research to investigate the effect that monetary policy has on investment spending. In order to evaluate the effect that fiscal policy has on investment, a multiple regression model was constructed in the research. This model included government spending, gross domestic product, and corporate income tax as its three independent variables. Afonso and Jalles (2011) conducted an analysis to determine the extent to which certain budgetary components are relevant to private and governmental investment. The findings indicated that total government expenditures and public investment had a positive impact on the level of private investment that was generated, while government spending on wages and government consumption spending had a negative impact on the level of private investment that was generated.

Njuguna (2011) looked at the local influences on corporate governance in Kenya's pension funds. Retirement system leadership, member age, and pension governance were the most influential elements, according to his research. Ngetich (2012) studied the elements that influence the growth of private pension plans in Kenya. Researchers discovered that fund governance significantly affected the growth of pension and profit sharing programs. Retirement benefit scheme governance efficacy in Kenya was studied by Shikhule et al. (2012), who found that member knowledge of the trustee's covenants, member access to relevant information, and member involvement in scheme governance were the most important aspects.

Numerous studies have been undertaken on the effectiveness of pension schemes, but none of them have attempted to prove the impact that fiscal policies have on the profitability of pension funds. As a result, it is clear that there is a knowledge gap on the subject, which is what inspired the current research. In light of these considerations, the current research endeavored to provide a solution to the question, "What are the

consequences of fiscal policy on the financial performance of pension systems in Kenya?"

1.3 Research Objective

The study's overarching goal is to analyze how government spending decisions affect the profitability of pension programs in Kenya.

Some particular aims of the research include:

- i. To estimate the impact of Kenya's current account deficit on the overall financial performance of pension systems in the country
- ii. To assess the influence that governmental spending has had on the economic results of pension programs in Kenya
- iii. To determine whether or not the presence of foreign debt has an impact on the economic viability of pension plans in Kenya.

- iv. To determine the effect that taxes has on the economic efficiency of pension programs in Kenya

1.4 Value of the Study

The results from this study may be utilized by the government and any other entity involved in formulating policies on Pension Schemes Investments. Since the government monitors the industry's performance, the findings from this study will be critical. Further, the research will provide insight on how monetary policy affects pension plan investment growth.

Researchers, students, and academics will look to this study's findings as guides as they pursue future projects with comparable aims. The study will also help researchers and academics find new areas to investigate by pointing out specific areas and topics that need further study and by describing the empirical investigations that have been conducted to far to identify research gaps. This will be accomplished via the citing of

related topics that require further studies. The research will make a significant contribution to the expansion of the pension schemes' investments.

Investors in Pension Schemes will find this study's results very useful, since they provide important information on the impact of fiscal policy on the Pension Schemes Investments business and highlight other important links that need further investigation. This study is also significant to the potential consumers of the Pension Schemes Investments. Buyers could gain from understanding and acquiring strategic practices which is helpful to the various investors when deciding what particular investment is suitable to undertake.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to conduct a literature review on the theoretical underpinnings of this research. Additionally, prior empirical investigations that have been carried out in the past on this study subject and related fields are described here as well. Other portions of this chapter contain a conceptual framework displaying the link between research variables, a literature review summary, and the drivers of performance of pension systems.

2.2 Theoretical Framework

The theoretical framework serves as a basis for comprehending the theoretically predicted relationship between the research variables, which in this case are monetary policy and pension plan performance. The Wagner's law of rising government operations and the Musgrave Rostov's theory are going to be examined in this particular research project.

2.2.1 The Wagner's Law of Increased Government Activities

Adolph Wagner, who lived from 1835 to 1917, was the brains behind Wagner's Act, a law that increased government expenditures. Wagner developed his "law of growing public expenditures," which states that "increased government expenditure on economic management and oversight is a natural response to growing responsibilities," through an examination of monetary trends and the expansion of the public sector. Wagner (1883) predicts rising political pressure for social progress and a greater need for public services as a result of the development of contemporary industrial society.

Throughout the process of urbanization and industrialization, products and services have been the primary drivers of the public sector's growth rate to the former, which is why

Wagner's (1883) rule focuses such emphasis on this link. Because of this, government operations are expanding, and they are now supplementing the work of the private sector.

Taking all this into account, Wagner's rule states that the size and importance of the government's involvement in an industrializing nation's economy grows steadily over time. There is a growing need for the state to spend more on social activities, administrative and protective measures, and welfare services. Wagner (1883) argued that the state's social functions have grown through time from a sociopolitical perspective. Some examples of this expansion include retirement insurance, relief for natural disasters (whether internal or foreign), and environmental protection initiatives. On the economic front, it is distinguished by developments in science and technology, which have led to a surge in governmental investments in scientific research and development, as well as in a variety of investment projects. In Wagner's view, states voluntarily incur the debt of the federal government to cushion the blow of calamities. The cost of servicing this debt rises as a direct consequence of this growth in the national debt and interest rates.

Wagner came up with his theory after doing research on nations that were through the process of industrialization at the tail end of the 19th century. It is not possible to bring all of his ideas into the 20th century, or even the 21st century (Likierman 1988). Numerous nations throughout the world are now undergoing post-industrialization at the present time. The era of computers and worldwide networks brought about and continues to bring about significant technological advancements; however, rather than leading to an increase in governmental spending, it is reasonable to argue that these advancements tend to lead to a reduction in the number of employees and administrative work required in the public sector.

2.2.2 Musgrave Rostov's Theory

When national incomes are large, as they usually are in developed nations, Musgrave (1969) argues that the development of the public sector slows down because people's basic needs are supplied. Musgrave (1969) believes that people have less of a need for government services when their income is low because they are using that money to meet

their most basic need. Demand for public sector services like healthcare, education, and transportation, however, starts to climb beyond these low income levels, compelling government to boost spending on them.

The expansion of government operations, according to Musgrave (1969), has occurred concurrently with the expansion of the economy. Given this connection, expansion of the public sector has outpaced the expansion of the economy. In light of this, it may be deduced that all configurations of government, irrespective of the nature of their objectives (peaceful or war) and the scope of their operations, exhibit the same pattern of rising public expenditures. When it comes to maintaining order and law in large metropolitan centers, security is a need. When the government takes on certain responsibilities, it must pay certain fees, which results in an increase in the amount of money that must be spent by the general public. According to Musgrave and Musgrave's (1989) theory, as countries make progress toward industrialization, a greater proportion of the national economy is contributed by the public sector.

Therefore, the theory postulates that there will be greater development when there is a rise in government spending, and that there will be an increase in development when governments raise their recurrent expenditures. However, it is also important to recognize that a rise in recurrent spending does not always correlate to significant economic development. This is something that should be kept in mind. When compared with recurring expenditures made by the government, the impact that the expansion of the economy has on the government's decision to spend money on capital investments is, as a result, far more significant. Theorists have cast doubt on this strategy by putting an emphasis on a "bottom-up" development paradigm. This model proposes that national self-sufficiency is achieved through decentralized efforts, with no need for heavy industry in cities. To make matters worse, the theory presumes that every country wants to progress along the same lines, ultimately aiming for high levels of mass consumption. This is done without taking into account the different values and standards of progress

that exist in different societies. High levels of mass consumption are seen as the ultimate goal of development in this theory, which also assumes that all nations share this goal.

2.3 Determinants of Financial Performance of Pension Schemes

Assumptions about the effects of various economic factors on pension plan performance are reviewed here. Fiscal policy, interest rates, inflation, the unemployment rate, and currency exchange rates are discussed.

2.3.1 Fiscal Policy

Four components of fiscal policy and how they are expected to affect performance of pension schemes are discussed here. The components are; government expenditure, taxation, balance of payment and government external borrowing. Government expenditure: The primary problem faced by national governments around the globe is to steadily improve the standard of living of their constituents via the formulation and execution of suitable economic policies and programs (Keynes, 1953).

Taxation: Taxes may have a beneficial influence on economic development, but only if they provide the appropriate incentives (variable across economic activity) for optimal resource allocation. Furthermore, a government's tax system should be designed to maximize positive externalities and minimize negative externalities, such as pollution and corrupt activities, in order to increase the standard of living for its population.

Government external debt: A country's overall economic development, which in turn influences the myriad of subfields that comprise the economy, is seen to benefit from a healthy level of government foreign debt, according to economic theory. However, this is only achievable up to a certain degree; if that threshold is exceeded, the repercussions of this phenomenon become detrimental to an economy. Balance of payments: The balance of payments (BOP) is another name for the trade balance between two countries. It is a representation of all of the dividends, product sales, and interest payments made and received between the two countries. The current account of a country is considered to be

in the red when imports exceed exports. That a nation needs more foreign currency than it is able to earn from the sales of its exports is indicative of a trade imbalance (Higgins & Klitgaard, 1998).

2.3.2 Operating Costs

Occupational pension trustees are responsible for paying administrative and investment charges. These costs may be broken down into two categories. Administrative expenses consist of any fees paid to any third parties involved in the management or custody of the money (Oluoch,2013). In order to accumulate wealth, it was necessary to make financial investments. Service providers, such as fund administrators, fund managers, and fund stewards, are the ones who are accountable for this task (Nyakundi, 2014).

The RBA levy, audit fees, actuarial fees, and trustees' salaries are some of the other expenses associated with investments. A major share of these expenditures was attributable to costs that were intended to benefit members of the organization, and not third parties. According to a research that was conducted by Mutuku in 2014, high administrative expenses were shown to be connected to poorer investment returns as well as lower annual rates of return for members. According to Mutuku, the payments made by members of occupational pension plans were used to finance the costs of the schemes (2014). In order for occupational pension plans to be successful, efforts must be taken to successfully keep operational expenditures under control.

2.3.3 Liquidity

When trying to ascertain a company's level of liquidity, we look at all of the money that the organization has but which does not generate interest. According to Annort, Bernstein, and Hall's (1991) findings, establishments are required to address the huge cash reserves that they maintain. An organization's obligations can't be compared to its cash on hand because of the added risk that comes with sitting on large amounts of cash. To remain competitive with the income they get from the stock market and the sale of government assets, banks may reduce their interest rates if economic interest rates fall. The inverse relationship between the two components would make this the case. This

might lead to the pension fund falling short of its financial commitments and the high standards set for it. Financial experts warn against being in a position of having significant amounts of cash on hand since doing so often leads in relatively poor profits. On the other hand, fund managers need access to liquid assets in order to respond quickly to market opportunities. The company must have a backup plan to ensure it can meet its short-term obligations in the event of an unforeseen calamity, such as the death of a beneficiary who leaves dependents. This plan should be in place. In contemporary cash management, holding on to unneeded money is viewed as a waste of resources, thus organizations need to avoid doing so if they want their finances to be as efficient as possible, as suggested by Hall (2000).

2.4 Empirical Review

The term "fiscal policy" refers to a scenario in which the government modifies the amounts of expenditure and taxation that it imposes in order to monitor and impact the economy of a country. Despite having a significant influence on the economy, pension investment has received little attention in the many studies that have been conducted on the topic of fiscal policy and its effect on private investments in general. A surplus or deficit, depending on the government's spending and tax policies, implies the public sector either helps fund investment or "crowds out" private investment.

2.4.1 Global Studies

In light of the global COVID-19 epidemic, Gourinchas et al. (2021) examine the effects of fiscal policy at the firm, sector, national, and global levels. They discovered that SMEs failed at a greater rate when government support was lacking, and that poorly targeted fiscal policy benefited businesses that did not need it. They also found that the government's spending was misdirected, benefiting companies that had no real need for the extra money. By reducing the percentage of sectors that are experiencing demand constraints, fiscal policy helped preserve employment throughout the world and lower the severity of the economic crisis by 8%.

Hlavac (2016) conducted research on Czech investment funds with the purpose of determining the strategies used by these funds for making investments as well as the effect such strategies have on the funds' overall financial performance. In all, 76 different investment funds operating in the Czech Republic were taken into consideration for this study. A total of ten investment managers were each asked questions in an in-person interview that was guided by an interview guide. The secondary statistics for the year 2012 were generated by utilizing information gathered from the annual reports of a variety of different investment funds in order to gather the data. Using the descriptive statistics applied to each, we were able to classify them as either active or passive investors. Several elements of investment strategy, such as leverage, liquidity, investment age, and investment size, are positively correlated with return on investment. Chi-square analysis suggests that companies with plenty of cash on hand perform better than those with fewer liquid assets. While pension plans were considered, the study's major emphasis was on Czech investment funds.

According to the findings of a research that was conducted by Boon, Briere, and Rigot (2017), the distribution of hazardous assets is affected by regulatory factors as well as aspects of pension plans in the United States of America, Canada, and the Netherlands. For the purpose of the study, we chose 600 different pension plans from 1992 to 2011. Stocks, risky fixed-income investments, and alternative investments were the three categories that were used to organize all of the risky assets. Each potentially hazardous asset category was evaluated based on its share of the total assets held by the pension fund. According to the findings of this piece of study, the size and liquidity of pension plans had an effect on investment in risky assets. Asset allocation was heavily influenced by the mark-to-market requirement and risk-based capital requirements, rather than the plan's size or liquidity. However, there was not enough information to establish a definitive connection between the characteristics of a pension fund and the performance of its investments.

Mercer (2018) carried out a study project with the purpose of investigating the growth of the economic landscape of occupational retirement benefits in Australia. The technique of ordinary least squares was applied, and the sample for the research consisted of 102 different benefit plans. According to the findings, the expansion of the financial standing of Australian workplace retirement plans can be attributed in significant part to the investment strategy, the contributions made by members, and the regulatory environment. It has been shown that these three factors significantly predict the expansion of pension benefits provided by employers. The results indicate that pension funds' current investment strategies have the ability to improve the funds' financial efficiency in addition to generating high returns. The research concluded that members' contributions had a major role in the monetary rise of retirement benefits. The research suggests that better investment of assets and pensioner payments will increase returns for the elderly. However, the analysis failed to find evidence that fund features were a factor in the financial success of pension plans.

Tijjani (2014) looked into the financial stability of pension fund administrators in Nigeria. This research found that the age, size, net income, and shareholder contribution of a company were all positively correlated with the number of directors on their board. Private Foundation Accounts (PFAs) should have their long-term financial stability assured and closely monitored, the report suggests. The review concluded with the recommendation that the Pension Fund Administrators be immediately reevaluated for any potential weaknesses and that more efforts be made to increase contributions. The study, on the other hand, was centered on the financial viability, which is unique from the financial performance.

According to the work that they have done on the subject, Abels and Guven (2016) performed an investigation into how the financial returns of registered individual retirement plans in Ghana are affected by market volatility, risk management laws, and effective governance. As part of their inquiry, they carried out a survey that was more descriptive. To get things rolling, we chose 30 different pension plans at random as our

base of operations. Because of the relatively small population, the study had to rely on the census for its data. The research included data obtained from primary as well as secondary sources. The quality of governance has a significant impact, as shown by the data, on the financial returns generated by individual pension plans. It would be beneficial for Ghanaian individual pension plans to have stronger policy and regulatory basis. The results of a study into the effect of operating costs on pension funds' bottom lines were inconclusive.

2.4.2 Local Studies

According to Wekhanya (2021), the RBA has been at the forefront of pension reforms in an effort to enhance the overall quality of the pension industry. The study's goal was to examine how recent RBA actions have affected the financial performance of pension providers in Kenya. Methods from the field of descriptive research were used here. All all, 518 pension plans predating the RBA Act of 2007 were singled out. Fifty pension plans were selected at random for this analysis. The research used both primary and secondary sources in its examination of the data. Fifty middle-level managers from RBA-approved pension companies were surveyed through online questionnaires to compile the primary data.

According to research by Ichingwa and Mbithi (2017), the level of total contributions to pension systems in Kenya significantly affects the plans' ability to generate revenue. Participants in this research all had occupational pension plans registered with the Retirement Benefits Authority, which by the end of 2016 is expected to total 818 in Kenya. There are now over a thousand recognized Occupational Retirement Benefits Plans in the United States. Statistical methods, including inferential and descriptive statistics, were used while reviewing secondary data. The research concluded that the overall amount contributed significantly impacted the financial health of pension systems. The researchers suggested that in order for Kenyan pension plans to improve their financial performance, they should increase their spending in systems that attract new members and, as a result, boost total contributions. The financial success of the firm over the long term may not be accurately reflected by the data from 2016.

Research by Were, Iravo, and Wanjala in 2017 examined how well pension plans actually did financially. The level of financial success served as the dependent variable, while the independent variables included liquidity, firm size, retained earnings, and leverage. The Retirement Benefits Authority in Kenya has approved 818 distinct Occupational Pension Systems as of the end of 2016. Given the demographic diversity of the area, 261 pension plans were randomly selected to serve as a cross-sectional sample. Utilizing financial parameters allowed for the assessment of not only productivity and profitability, but also liquidity and the performance of fixed assets. Even if the correlation between liquidity and financial success was not statistically significant, the data showed that it is helpful to the business. In the study, the research period lasted for one year, which may or may not have been sufficient for reaching definitive findings.

By examining the asset allocation and returns of Kenyan registered occupational pension systems, Namusonge, Sakwa, and Gathogo (2017) provide valuable insight into the state of this sector in Kenya. Conclusions drawn from this study indicate that occupational pension plans' long-term financial viability is significantly influenced by their asset allocation. The asset allocation of pension funds has been demonstrated to account for 66.1% of the variation in those funds' returns. This analysis greatly benefited earlier research on the asset allocation and financial performance of Kenyan pension systems, some of which is mentioned here.

The term "fiscal policy" refers to a scenario in which the government modifies the amounts of expenditure and taxation that it imposes in order to monitor and impact the economy of a country. While pension investment is a major economic factor, it has not been the focus of any of the many studies that have been conducted on the topic of fiscal policy and its influence on private investments in general. Whether the government helps fund investment or "crowds out" private investment depends on the balance between spending and tax policy, which in turn determines the budget surplus or deficit.

Njuru (2012) conducted research in Kenya between the years 1964 and 2010 to determine how fiscal policy affected private investment. Data collected on a semi-annual basis were used in the research, along with a modified version of the flexible accelerator model, a vector auto-regression modeling approach, and an error correction model. The findings of the research showed that the formulation and execution of fiscal policy are important factors to consider when looking at private investment levels in Kenya. It was discovered that variables such as taxes, government expenditures, the servicing of government debt, and fiscal reforms could either encourage or discourage private investment in the short run and in the long run, respectively. In addition, the study came to the conclusion that monetary and fiscal reforms are of the utmost importance in reshaping an economy whose performance has been unsatisfactory. According to the findings of the study, appropriate actions should be taken during the process of developing a framework for fiscal policy in order to ensure that the expansion of private investment is taken into account while simultaneously achieving other goals set by the government.

Omojolaibi et al. (2016) investigated the relationship between monetary policy and private investment in five different West African nations using yearly data spanning the years 1993 to 2014. The research used a Fixed Impact Model for Panel Data ordinary least square technique, and the findings demonstrated the presence of a large crowding in effect between government capital spending and tax income, whilst the crowding out effect was shown by non-tax revenue. Additionally, both recurrent spending and foreign debt revealed crowding out effects; however, these impacts were minor. Over the course of the time period, it was discovered that the accelerator impact of production growth was not substantial in any of the nations. According to the findings of the research, these nations need to make deliberate efforts to direct money into investment projects and also reorganize their tax systems in order to mitigate the detrimental impact that public debt may have on private investment.

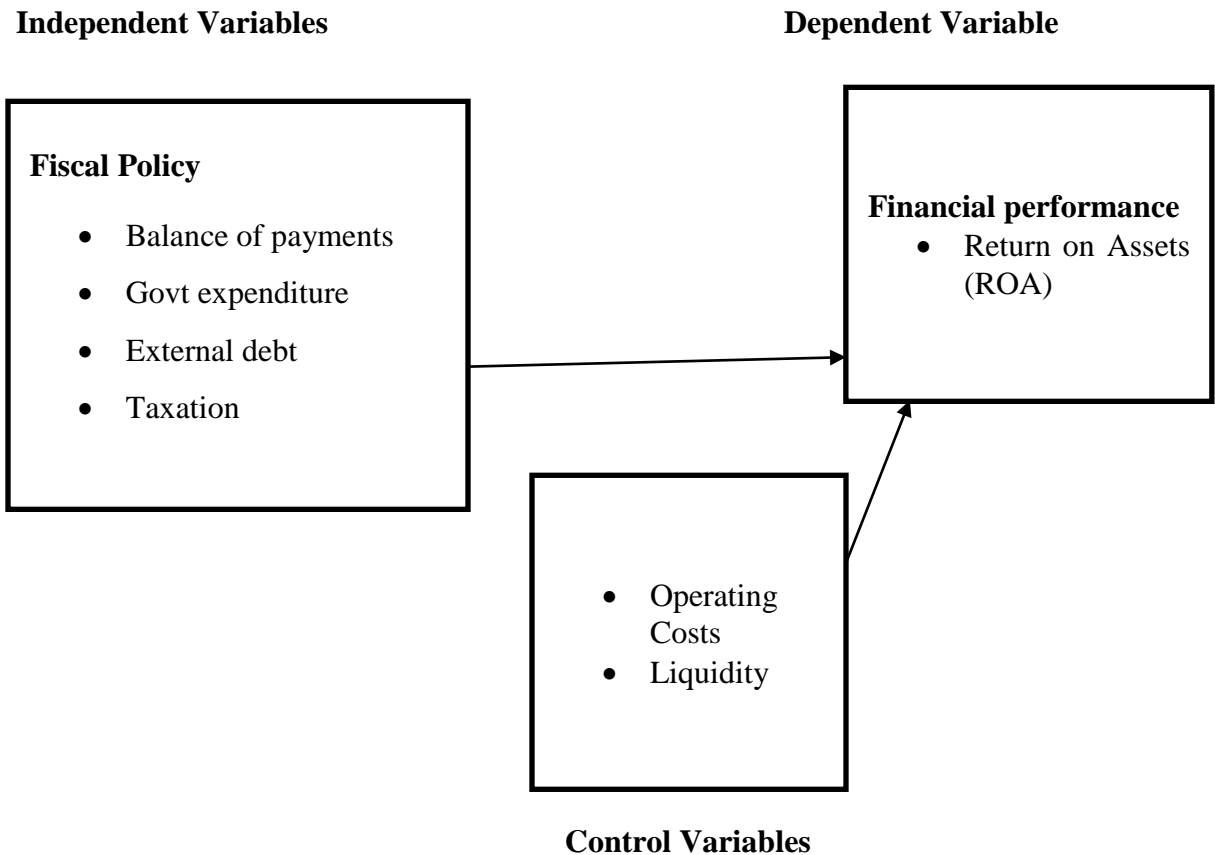
Ngetich (2012) investigated the growth of private pension plans in Kenya to identify the causes for their success. The study's results suggest that fund governance plays a crucial

role in the development of pension systems. This indicates that improvements in the governance of pension funds led to improvements in the growth of individual pension plans. Njuguna (2010) carried a research with the purpose of determining how to enhance the effectiveness of pension schemes in Kenya. The size of the pension fund was shown to be a significant factor in determining the effectiveness of pension plans' usage of financial resources. Individuals believe these smaller schemes are more cost-effective than their bigger counterparts, which is supported by the empirical data. Despite this, it became glaringly obvious that pension plans' operating effectiveness was not much affected by the amount of their pension funds.

2.5 Conceptual Framework

This anticipated connection between the variables of the research is represented in the conceptual model that was built below. The elements that are being described here are the performance of pension plans and the fiscal policies.

Figure 2.1: The Conceptual Model



2.6 Summary of the Literature Review

A number of theoretical frameworks aim at explaining the relationship between fiscal policy and the growth of different sectors. The Wagner's law of increased government activities and Musgrave Rostov's theory are the theories elaborated in this theoretical framework. The section has also discussed a few of the important factors affecting real estate growth. This research fills a need in the existing literature by examining how Kenya's budgetary decisions affect the viability of the country's retirement programs. With that in mind, the study's overall purpose is to address the following question: What effect does government expenditure have on the returns of Kenya's pension plans?

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

A study methodology was required in order to provide an overview of how the research was carried out in order to establish the impact that Kenya's fiscal policy has had on the performance of pension systems in the country. This chapter is broken down into four parts: the study design, the data collecting, the diagnostic tests, and the data analysis.

3.2 Research Design

Descriptive research methods were used in this investigation. Since the researcher's focus in this study was on the present, a descriptive methodology was used (Khan, 2008). It is suitable for this kind of study since the researcher has some background knowledge of the phenomena being studied but is still intrigued to learn more about the connections between the variables.

Another step toward addressing the research question is a detailed description of the study variables, which is why descriptive research is conducted (Cooper & Schindler, 2008).

3.3 Population and Sample

A whole group of people, events, or objects that are the subject of research is referred to as a population, as defined by Sekaran and Bougie (2011). A researcher will choose a target population when he or she intends to generalize the findings of a study to a certain group of people. The study looked at all 81 pension plans now available in Kenya. The research was carried out between the years 2017 and 2021.

3.4 Data Collection

Secondary data sources included the RBA, the Kenya Revenue Authority, corporate financial statements, and the KNBS, with coverage spanning monthly time intervals from 2017 through 2021. Kenyan pension plans' financial statements were mined for information on the dependent variable, financial performance. The KNBS provided information on the country's trade surplus, government debt, and government spending;

the financial statements of individual businesses were consulted for information on operating expenses and liquidity; and the Kenya Revenue Authority was contacted for tax information.

3.5 Diagnostic Tests

Scatterplot testing or analysis of variance using the F-statistic was used to determine linearity. Because of the run sequence diagram, we were able to pinpoint the exact moment the system sat still. A "normality test" is a statistical procedure used to verify that the residual values of the response variable follow a normal distribution around the mean. This result was obtained using either the Shapiro-walk or Kolmogorov-Smirnov tests. Autocorrelation is the method of measuring the similarity between a time series and a value that has been appended to the series at regular intervals. The Durbin-Watson statistic will be used in the analysis of the results (Khan, 2008).

When there is a linear connection that is almost precise or exact between two or more of the independent variables, this is considered to be an example of multicollinearity. This was examined using the determinant of the correlation matrices, which has a value that may range anywhere from 0 to 1. The determinant is one if the independent variables are completely unrelated, zero if they are perfectly linearly correlated, and the closer it comes to zero, the stronger the multicollinearity. A Variance Inflation Factors (VIF) and Tolerance Level Test was also performed to indicate the level of multicollinearity (Burns & Burns, 2008).

3.6 Data Analysis

A system was developed to make the most effective use of the information gathered from the various sources. SPSS version 22 was used for the analysis. Both descriptive and regression analyses were developed. We calculated the minimum, maximum, mean, standard deviation, skewness, and kurtosis for each variable as part of the descriptive statistics approach. The inferential statistics were generated by a combination of correlation and regression analysis. Regression analysis, as contrast to correlation analysis, is used to determine causality by examining the relationship between independent and dependent variables in a study. The multivariate regression analysis

findings were utilized to evaluate the correlation between pension system performance in Kenya and the country's external public debt, public expenditure, taxes, operational costs, and liquidity.

3.6.1 Analytical Model

The study estimated the following multiple linear regression model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon \text{ Where:}$$

Y = Financial Performance (Return on Assets, measured by net income/ Total Assets)

α = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = are the slope of the regression

β_0 = Constant Term

X_1 = Balance of payments as measured by the percentage change in current account deficit per year

X_2 = Government expenditure per year as measured by natural logarithm of total government expenditure

X_3 = External government debt per year as measured by natural logarithm of external government debt

X_4 = Taxation per year as measured by natural logarithm of taxation collected on a quarterly basis

X_5 = Operating costs as assessed via the ratio of total operating expenses to income

X_6 = Liquidity as given by the cash ratio

ε = Error term

3.6.2 Tests of Significance

Parametric tests, including the F-test in Analysis of Variance (ANOVA) and the t-test, were used to analyze the significance of differences in mean ratios between the groups. The significance of the overall model was determined by using the F-test derived from ANOVA, and the significance of the individual variables was determined using t-tests.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF FINDINGS

4.1 Introduction

In this chapter, the study provided descriptive analysis and inferential analysis. The descriptive statistics not only assist in providing a description of the variables that are being considered but also offer information that is specific to each relevant variable. Statistics such as the t-test, the inferential statistics, the Pearson correlation, and the panel data regression analysis were also utilized. The Pearson correlation measures the degree of association between the variables that are being considered, whereas the regression estimates the relationship between Kenya's fiscal policy and the financial performance of pension schemes.

4.2 Descriptive Statistics

The research examined the impact of Kenya's fiscal policy on the efficiency of the country's pension systems by examining such independent variables as the country's trade surplus or deficit, its debt load, the level of taxes collected, the efficiency of its operations, and its level of liquid assets. The economic results were the metric that was measured. Table 4.1 displays their calculated average, standard deviation, minimum, and maximum.

4.2.1 Tax Descriptive Statistics

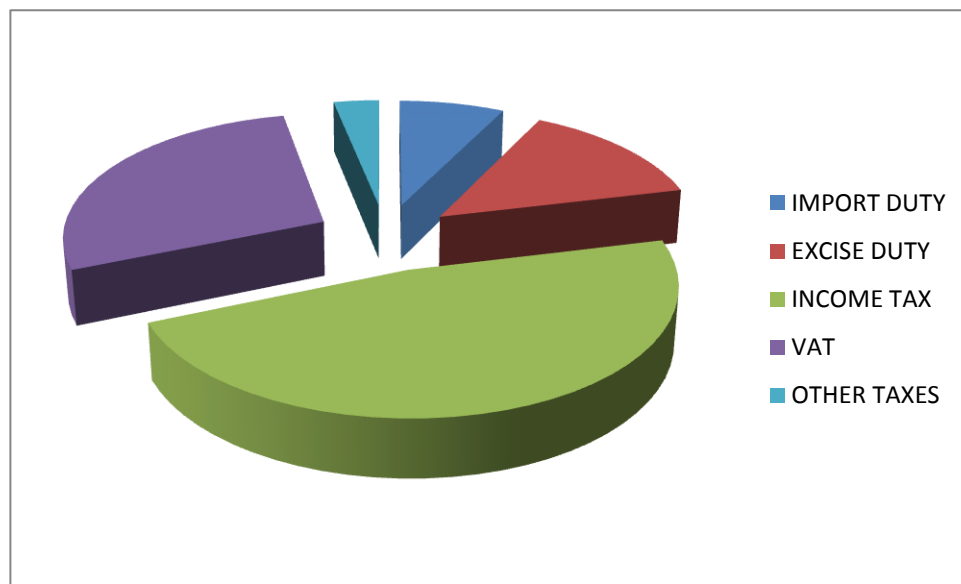
Table 4.1 Descriptive Statistics Taxation

	N	Minimum	Maximum	Mean	Std. Deviation
IDUTY	60	6683	108375	52532.12	31473.914
EDUTY	60	15054	216325	106633.63	62115.889

ITAX	60	42989	706936	342278.85	207065.936
VAT	60	26185	413186	205513.93	119057.055
OTAX	60	3118	55249	24931.43	14575.339
Valid N (listwise)	60				

From the above table 4.1, there are various types of taxes which form part of government revenue these are import duty, export duty, income tax, VAT and other taxes. Income tax had the highest mean of Kshs 342278.85 million followed by VAT with a mean of Kshs 205513.93 million. The least was other taxes with a mean of Kshs 24931.43 million.

Figure 4.1: Types of Taxes



From the above figure 4.1 there is an indication that the highest percentage of tax revenue between the periods 2017 to 2021 was income tax which constitutes 48%, followed VAT, import duty, excise duty and lastly other taxes.

4.2.2 Government Debt Statistics

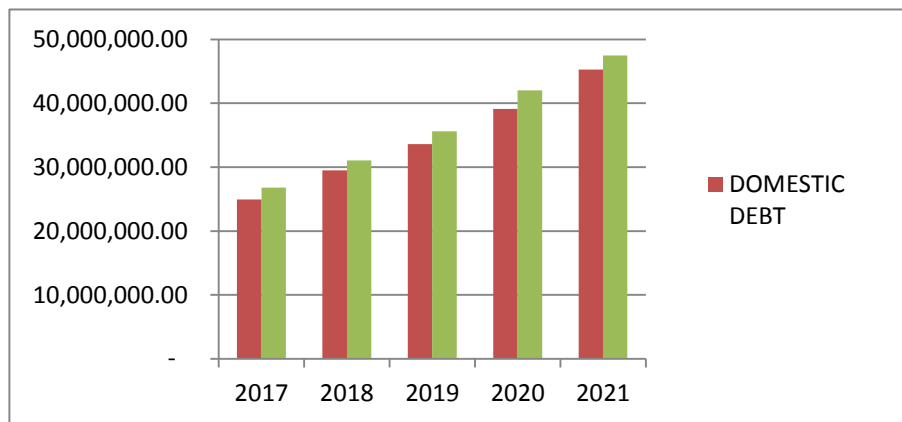
Table 4.2: Government Debt Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
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DDEBT	60	1,894,067.70	4,032,368.18	2,873,994.81	615,067.70
EDEBT	60	1,992,795.15	4,174,371.53	3,049,181.55	645,411.83
TDEBT	60	3,886,890.14	8,206,739.71	5,923,176.36	1,258,234.12
Valid N (listwise)	60				

The mean of domestic debt was Kshs 2,873, 994.81 million, foreign debt was Kshs 3,049,181.55 million and the total debt had a mean of Kshs 5,592,176.36 million while the standard deviations were Kshs 615,067.70 million, Kshs 645,411.83 and Kshs 1,258,234.12 respectively. The domestic debt had a maximum of Kshs 4,032,368.18 and a minimum of Kshs 1,894,067.70 million. While foreign debt and total debt had minimums and maximums of Kshs 1,992,795.15 million , Kshs 4,174,371.53 million and Kshs 3,886,890.14 million and Kshs 8,206,739.71 million respectively.

Figure 4.2 Government Debt Statistics



There is an indication that the amount of debt has been increasing steadily from 2017 to 2021. In 2017 the amount of domestic debt was kshs 1,894,094.99 million and it has increased to Kshs 4,032,368.18 million. Foreign debt has also increased from 2017 to 2021 of Kshs 1,992,795.15 to Kshs 4,174,371.53. The total amount of at the end of 2021 was Kshs 8,206,739.71.

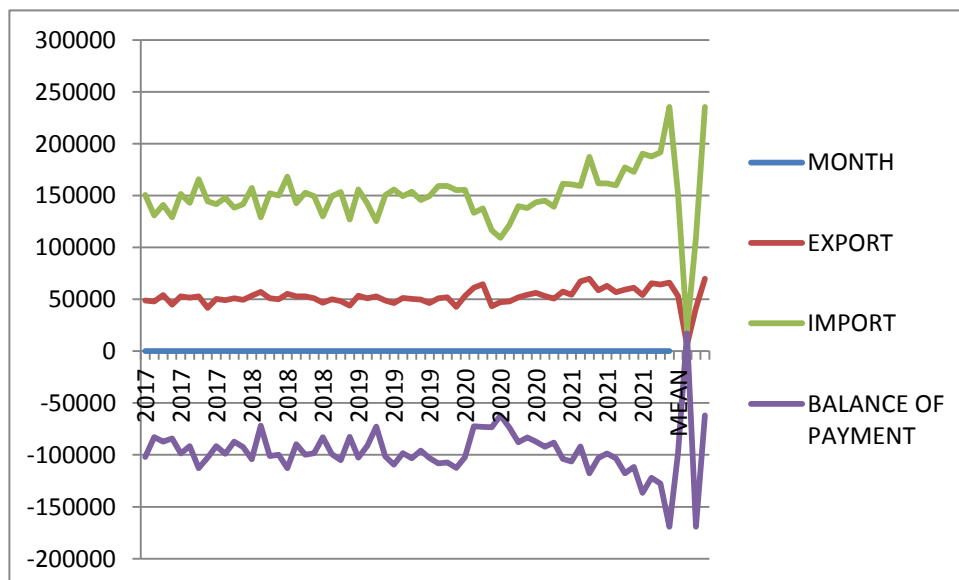
4.2.3 Balance of payments

Table 4.3 Balance of payments

	N	Minimum	Maximum	Mean	Std. Deviation
EXPORT	60	41,664.27	69,682.60	53,058.05	6,235.96
IMPORT	60	109,250.08	235,279.23	151,209.23	20,225.19
BOP	60	-169,237.27	-62,065.07	-98,151.17	17,174.91
Valid N (listwise)	60				

From the above table 4.3, the mean of exports was Kshs 53,058.05 million with a standard deviation of Kshs 6,235.96. The mean of Imports was Kshs 151,209.23 with a standard deviation of Kshs 20,225.19, while the mean of balance of payment was negative Kshs 98,151.17 with a standard deviation of Kshs 17,174.91. From the above results there is an indication that the balance of payment is negative that is there are more imports than exports. The maximum and minimum for exports was Kshs 69,682.60 million and Kshs 41,664.27 million respectively. The maximum for imports and balance of payment was Kshs 235,279.23 million and negative Kshs 62,065.07 respectively. The minimum for imports and balance of payments were Kshs 109,250.08 million and Kshs negative Kshs 169,237.27 respectively.

Figure 4.3 Balance of Payment



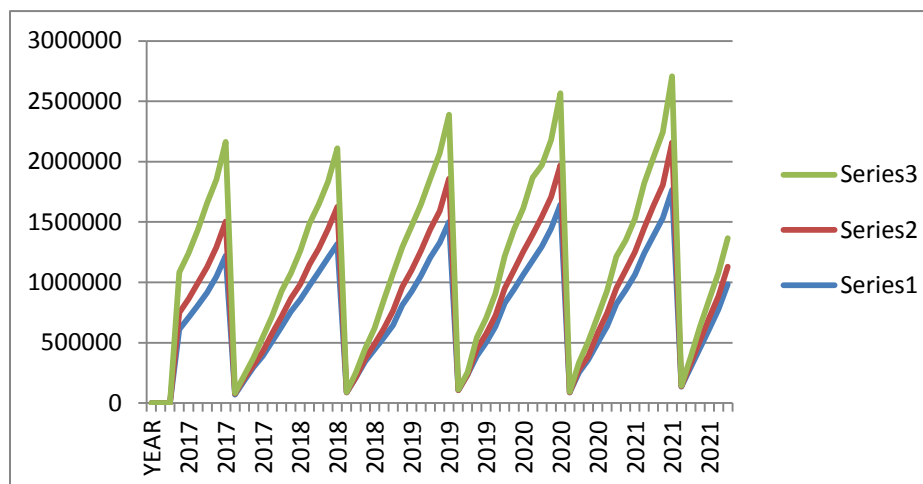
From 4.3 above there is an indication that the exports, imports and balance of payment has been stable from 2017 up to 2021 expect there was a steady decline towards the end of 2021.

Table 4.4 Government Expenditure

	N	Minimum	Maximum	Mean	Std. Deviation
REXP	60	69,488.06	1,766,956.85	780,596.73	438,345.62
COTR	60	0.00	390,809.46	138,041.94	101,237.34
DEXP	60	2,203.70	660,000.90	266,640.46	177,567.86
TEXP	60	84,030.16	2,706,297.55	1,185,279.12	704,794.00
Valid N (listwise)	60				

From the above table 4.4, the mean of recurrent expenditure was Kshs 780,596.73 million with a standard deviation of Kshs 438,345.62. The mean of county transfers was Kshs 138,041.94 with a standard deviation of Kshs 101,237.34 million. The mean of development expenditure was Kshs 266,640.46 million with a standard deviation of Kshs 177,567.86, while the mean of total expenditure was Kshs 1,185,279.12 million with a standard deviation of Kshs 704,794.00. From the above results there is an indication that the highest government expenditure is on recurrent expenses.

Figure 4.4 Government Expenditure



From 4.4 above there is an indication that government expenditure has been increasing steadily over the years from 2017 to 2021.

4.3 Diagnostics Tests Results

A correlation analysis was performed to assess the strength of connections between the variables. Financial performance of pension plans in Kenya were also evaluated using regression to see how fiscal policy affected them. The t-test was used to check for a statistically significant connection between government spending and economic growth.

4.3.1 Serial Correlation Test

The results of the Breusch-Godfrey serial correlation test are included. Table 4.5 shows that the absence of serial correlation is rejected as a null hypothesis, with p-values below 0.05 at the 95% confidence level.

Table 4.5: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	65.2587	Prob. F(1,39)	0.0000
Obs*R-squared	31.4815	Prob. Chi-Square	0.0000

4.3.2 Heteroskedasticity Test

The Breusch-Pagan-Godfrey heteroskedasticity test was carried out and the results indicated that the data was homoscedastic with p-values of less than 0.05 (at 95% level of significance) as per Table 4.6

Table 4.6: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.865918	Prob.	0.4587
Obs*R-squared	5.940515	Prob. Chi-Square	0.4342
Scaled explained SS	4.131756	Prob. Chi-Square	0.6540

4.4 Pearson's Correlation Coefficient Analysis

The research examined and assessed the extent to which taxes, the balance of payment, government debt, and government spending would rise, reduce, or not influence the

financial performance of pension businesses in Kenya. Correlation coefficients for all variables in this analysis are shown in Table 4.7.

Table 4.7: Pearson Product Correlation Coefficients

		BOP	GEXP	GDEBT	TAX	OPS	ROA
BOP	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	60					
GEXP	Pearson Correlation	-0.565**	1				
	Sig. (2-tailed)	.000					
	N	60	60				
GDEBT	Pearson Correlation	-0.614**	0.757**	1			
	Sig. (2-tailed)	.000	.000				
	N	60	60	60			
TAX	Pearson Correlation	0.615**	0.674	.893**	1		
	Sig. (2-tailed)	.000	.000	.001			
	N	60	60	60	60		
OPS	Pearson Correlation	0.364**	.244**	.571**	.689*	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	60	60	60	60	60	
ROA	Pearson Correlation	-0.482**	-0.355	.658**	.726**	.723	1
	Sig. (2-tailed)	.000	.005	.001	.001	.004	
	N	60	60	60	60	60	60

** . Correlation is substantial at the 0.01 level (2-tailed).

Table 4.7 shows that at 0.01 confidence interval there is a strong, significant and positive correlations between fiscal policy and financial performance: GDEBT (R = 0.658), TAX (R = 0.726) and OPS (R= 0.723), and Taxation returns (R= 0.726). Significant and negative correlations were also established between ROA and BOP(R = - 0.482) and GEXP (R = -0.355).

4.5 Regression Analysis

To examine the connection between Kenya's pension funds' financial success and the country's fiscal policies, this research used a panel data regression analysis. The analysis

adopted the SPSS to measure the extents of the research’s multiple regressions. The research measured the independent variables and the dependent variable using data collection form.

$$ROA = \alpha + \beta_1 (BOP) + \beta_2 (GEXP) + \beta_3 (GDEBT) + \beta_4 (TAX) + \beta_5 (OPS) + \beta_6 (LID) + \varepsilon$$

Coefficient of determination and analysis of variance were also generated from the regression analysis (ANOVA). The analysis of variance revealed whether or not the dependent and independent variables varied significantly in mean, while the coefficient of determination revealed the strength of the link. At a 95% level of certainty, an ANOVA was performed.

4.5.1 Model Summary

Model summaries often provide a high-level overview of the data used in a regression model. Table 4.8 shows the results;

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645 ^a	.473	.292	1.13415

Based on the model summary data in Table 4.8, we can infer that fiscal policy has a significant impact on the success of Kenya's pension programs. The independent factors of the research, which included Kenya's trade balance, government spending, government debt, taxes, operations expenses, and pension scheme liquidity, explained 64.5% of the variance in performance.

Table 4.9: Regression results

Model		Unstandardized coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Constant	0.634	0.125	0.314	15.63	0.005
	BOP	-0.655	0.234	0.034	12.15	0.000
	GEXP	-0.237	0.165	0.135	9.25	0.002
	GDEBT	0.664	0.142	0.146	8.64	0.003
	TAX	0.425	0.118	0.186	5.15	0.000
	OPS	-0.263	0.035	0.274	3.16	0.002
	LID	0.421	0.015	0.115	1.15	0.001

What values are included into the model depend on the Beta coefficients. An very high number indicates that a single unit change in this predictor variable has a substantial impact on the criteria. The Regression coefficient value of BOP was- 0.655, GEXP was - 0.237, GDEBT was 0.664, TAX was 0.425, OPS was -0.263 and LID was 0.421. The p-values were less than .05.

Regression analysis is performed using of an econometric model below.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where:

Y = Financial Performance (ROA)

α = y intercept of the regression equation.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = are the slope of the regression

β_0 = Constant Term

X_1 = Balance of payments (BOP)

X_2 = Government expenditure (GEXP)

X_3 = External government debt (GDEBT)

X_4 = Taxation (TAX)

X_5 = Operating costs (OPS)

X_6 = Liquidity (LID)

ε = Error term

Therefore:

$$Y = 0.634 - 0.655X_1 - 0.237X_2 + 0.664X_3 + 0.425X_4 + 0.263X_5 + 0.421X_6 + \varepsilon$$

4.5.2 Analysis of Variance

The study performed a scrutiny of Variance, so as to measure the influence of fiscal policy on financial performance on pension schemes in Kenya.

Table 4.10: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	102.035	6	48.148	15.224	.000 ^a
	Residual	54.126	53	1.214		
	Total	156.161	59			

a. Predictors: (Constant), BOP, GEXP, GDEBT, TAX, OPS, LID

a. Dependent Variable: ROA

The

Analysis of Variance (ANOVA) reveals the influence of fiscal policy on financial performance of pension schemes in Kenya. The level of significant as pointed out by the P values (0.000) i.e. below 0.05 and F value (15.224).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the debates, findings, and suggestions that were taken from the results collected in the chapter before this one as well as the examination of the literature. This debate analyzes the impact that Kenya's fiscal strategy has had on the financial performance of the country's various pension programs. This section also provides pension schemes, funds, and other organizations of a similar sort with suggestions that might be made as a result of the results.

5.2 Discussions

None of the independent factors had a statistically significant effect on the dependent variable (ROA), as shown by p-values greater than 0.05 when analyzing at the 95% confidence level. This suggests that the investigation did not discover a substantial association between the pension funds' return on assets and the government's budgetary strategy. There was a statistically significant relationship between the coefficient and the balance of payment percentage variable. This demonstrated that the percentage of amount of payment that was owed was a factor that impacted return on asset. It was also found that the coefficient of government spending was not statistically significant, which indicates that spending does have an impact on return on assets. The coefficient of government debt was found to be positive and had a value of 0.664 for its corresponding coefficient. At a positive significant level of 0.425, the link between tax revenue and financial performance was favorable. There was an inversely proportional relationship between the expenses of operations and the return on assets.

These findings are consistent with the theoretical assumption that was presented by Musgrave (1969), who argues that there is a functional link between the economic conditions and the expansion of activities. The effectiveness of pension companies is directly related to the fiscal and monetary policies in effect.

5.3 Conclusion

From the study results there is an indication that financial performance of pension funds are dependent upon fiscal policy like balance of payment, government debt, government expenditure and taxation. The Government has continued to pursue prudent fiscal policies over the years, focusing strongly on revenue collection underpinned by deepening tax administration reforms and modernization. Efforts to contain growth of total expenditures continue through shifting of resources from recurrent to capital expenditures. The government implements the Medium Term Expenditure Framework (MTEF) in the budget process and manages expenditures through the Integrated Financial Management System (IFMIS). This therefore provides an opportunity to fund managers to predict the trend of the fiscal policy in the medium term, hence guiding their investment decisions.

When the balance of payment is high and is in deficit then there is high domestic borrowing leading to high interest rates. This leads to pension schemes investing more on both government securities and quoted equities. Therefore the positive relationship between deficit and quoted equity can only be explained by pension scheme diversification on investment portfolios. This implies that fund managers can base their investment decision on quoted equity when they predict the deficit trend in every fiscal policy regime.

The whole of the regression analysis was found to be statistically significant, showing that the business characteristics that were investigated considerably affect the manner in which the pension funds perform financially. There is an immediate need for a deeper understanding of how varying firm characteristics impact the financial outcomes of pension funds throughout the country. This study's findings are consistent with those of (Lungu, 2009), who found that pension funds' returns are influenced by monetary and fiscal policy.

5.4 Recommendations

Proposals for financial performance improvement, adjustments and growth of the retirement benefits and pensions industry in Kenya must necessarily take into account the

major drivers identified in the study findings. The study recommends that since membership age has been found to positively influence profitability in the pension schemes surveyed, there is need for the industry players to lobby for attractive policies to encouraged younger individuals and corporations join various schemes.

The same applies to individual schemes. This is also likely to increase the fund size and therefore asset base and returns. In this context, the question of coercion has to be taken into consideration. The implementation of mandatory payments to occupational retirement benefits arrangements, together with the provision of an opt-out provision for participation in individual retirement benefit schemes, will prove to be the most efficient method for raising the level of coverage available. Defined contribution (DC) pension plans should be favored as a means to mitigate poor financial performance because they involve members more in decision making and place the burden of investment risk on the members rather than the sponsor, thereby encouraging members to take all necessary precautions to avoid loss.

5.5 Limitations of the Study

There were probably a lot of roadblocks that had to be overcome over the course of the inquiry. Since it seemed that some respondents were hiding critical information that was vital to the success of the study's goals, maintaining the privacy of the data was a major challenge. However, the researcher underlined to the subjects that the study's only purpose was to teach them something new. A letter of introduction from the university was also sent to each participant to further reassure them that the study was being performed for purely academic objectives.

Because the research was only conducted over a span of five years, from 2017 to 2022, its results may not be generalizable to other periods of time, and its scope is thus restricted to those five years. Due to the fact that the situation may have changed throughout the course of the country's history, drawing conclusions about the situation based only on the five years that were investigated may not be viable. Moreover, the study model's linkages have been portrayed as strong or weak, without accounting for the features that bend the relative strengths. This motivates the researcher to propose doing a

causality investigation to identify the mechanisms at play in the reported correlational strengths and weaknesses. In spite of the fact that the secondary data could be checked, the level of accuracy that could be achieved was restricted. There is a lack of informational efficiency in the Kenya pension fund market, which means that the prices of assets do not represent all of the information that is currently accessible. This is one of the limitations that affects the quality of the data acquired for this research.

5.6 Suggestions for further studies

The time component of the research has the potential to be strengthened if it is prolonged so that it covers a greater span of time. A further study might be conducted on the same subject, but with data spanning a greater amount of time than was done before. The reasoning for this is that results generated from data gathered over a longer time period will be more reliable and accurate than those acquired from the data utilized in this study. It's conceivable that a greater level of objectivity will emerge depending on the sample period, but that can be resolved by looking over a longer period of time.

There are gaps in the literature assessing the effect of fiscal policy on the financial results of pension funds. One potential area of research is whether or not pension funds in Kenya are the same entities year after year that beta their benchmark indices. The issue of whether or not the money is stable will be answered if this is true. Research on the relationship between the credentials and experience of fund managers and the rate of return is another topic that has received little attention. Unlike passive investments such as bonds, the management of a mutual fund makes all of the investment decisions for the fund. Despite the fact that this element is underappreciated, it still has the potential to play a role in the returns that mutual funds generate.

Finding out if unit trusts in Kenya are underperforming the market can also be accomplished through research that compares the fund's performance to established benchmarks. This is not the case, however, for Kenya's financial markets. It is true that efficient markets should not differentiate between active and passive investment strategies, but this is not the case in the Kenyan capital markets. It is suggested that a study be done contrasting the returns generated by individual investors versus

institutional investors like pension funds. When compared to individual investors, institutional investors might potentially experience higher returns owing to economies of scale; the elements that influence this difference in returns should be investigated in more depth.

Considering Kenya's prominence within the East African community, it's possible that the scope of the study could be expanded to include other pension funds located within the East African community. Because of this, the researchers will be able to provide findings that are relevant and useful in the context in which they are being used. All of East Africa's pension funds may be included in a single study if one so chooses. This kind of study would provide useful information for creating pension fund administration strategies that improve financial outcomes.

REFERENCES

- Afonso, A. & Sousa, R. M. (2011). What are the effects of fiscal policy on asset markets? *Economic Modeling*, 28(4), 1871-1890.
- Afonso A.& Jalles T.J. (2011), “How Does Fiscal Policy Affect Investment? Evidence from a Large Panel” *International Journal of Finance and Economics*, Vol. 20, No. 4, pp. 310-327.
- Athanasoglou. P., Brissimis, S., & Delis, M, (2005). Bank-specific, industry-specific and macroeconomics deterrents of bank profitability, *Bank of Greece*, No. 25.
- Akpo, T. (2015). Analysis of the impact of fiscal policy on investment in Nigeria”, *International Journal of Economics, Commerce and Management*, Vol. III, Issue 5, pp 450-469.
- Barro, R.J. (1974). Are government bonds net wealth? *Journal of Political Economy*. 82, 1095-1117
- Barro, R.J. (1979). On the determination of public debt, *Journal of Political Economy*. 87 (1), 940-971
- Bioreri, D. (2015). *The effect of macro-economic variables on the performance of real estate industry in Kenya*. Unpublished Research Project, 2015-2016.
- Blanchard, O. (2009). *Macroeconomics*. 5th ed. New Jersey: Pearson Education Inc.
- Blostrom, M and Kokko, A. (1998). Multinational Corporations and Spillovers. *Journal of Economic Surveys*, 247-277.
- Boon, L., Briere, M., & Rigot, S. (2017). *Regulation and pension fund risk-taking*. Available at SSRN: <https://ssrn.com/abstract=2475820>
- Brunner, G., Hinz, R. & Rocha, R. (2008). Risk Based Supervision of Pension Schemes: A Review of International Experience and Preliminary Assessment of the First Outcomes. World Bank. Policy Research Working Paper 4491.
- Chandra, R. (2008). *Investment Analysis 3/E*. New York, NY: Tata McGraw-Hill Education.
- Cooper, R., & Schindler, S. (2008). *Business research methods*. New York: Mc Grawhill
- Cytonn Investment Real Estate Report (2017). *Third quarter*.
- Cytonn Investment Real Estate Report. (2018). *First quarter*

- Gazi, S., Uddin, W. & Mahmudul, A. (2009). Relationship between Interest Rate and Stock Price: Empirical Evidence from Developed and Developing Countries, *International Journal of Business and Management*, 4(3),43-51
- Gourinchas P., Kalemli-Ozcan S., Penciakova V., & Nick S. (2021). Fiscal Policy in the Age of COVID. Does it “get in all of the Cracks?” CEPR Discussion Paper DP16576
- HassConsult (2018). *The Hass composite index: Measurements and methodology*. Hass Website
- He, C., & Zhu, Y. (2010). Real Estate FDI in Chinese Cities: local market conditions and regional institutions. *Eurasian Geography and Economics*, 51 (3), 360-384.
- Heyne, P. T., Boettke, P. J. & Prychitko, D. L. (2002). *The Economic Way of Thinking* (10th ed). Prentice Hall: Lariman publishers.
- Hlavac, J. (2011). Financial performance of the Czech private pension scheme: Its current position and the comparison with other CEE countries. (9/2011).
- Ichingwa, B. I., & Mbithi, S. M. (2017.). Effect of total contribution on financial performance of pension schemes in Kenya: a survey of pension schemes in Kenya. *International Journal of Finance and Accounting*, 2(6), 11-19.
- Kenyan Economic Report. (2015). *Creating an Enabling Environment for Stimulating Investment for Competitive*.
- Keynes, J.M. (1936). *The General Theory of Employment, Interest, and Money*, London: Macmillan.
- Khan, J. A. (2008). *Research Methodology*. New Delhi. APH Publishing Corporation
- Knack, S., & Keefer, P. (1995). Institutions and Economic Performance. *Economic and Politics*, 2(2), 24-31
- Knight Frank Economic Report (2016). *Annual Report*.
- Larch, M., & Nogueira, M. (2019). Fiscal Policy Making in the European Union - An Assessment of Current Practice and Challenges. London: Routledge.
- Lee, U. (1997). Stock market and macroeconomic policies: new evidence from Pacific Basin countries, *Multinational Finance Journal* 1(2), 273-289.

- Li, L. (2016). *Prices and Bubbles: Factors Affecting the Chinese Real Estate Market. Master Program in International Economics with a focus on China*, Lund University, Sweden.
- Liargovas, P. & Skandalis K. (2008). *Factors affecting firm's financial performance. The case of Greece*, Athens. University of Peloponnese Press.
- Loyford, M. M., & Moronge, M. (2014). Effects of economic factors on performance of Real Estate in Kenya. *European Journal of Business Management*, 1(11), 181-200.
- Makena, J.S. (2012). *Determinants of Residential Real Estate Prices in Nairobi*. Unpublished MBA Project. University of Nairobi.
- Masika, A. M. (2010). *Factors Influencing Real Estate Property Prices. A Survey of Real Estates in Meru Municipality*, Kenya. Kenya Methodist University, Meru.
- Mercer. (2018). *Melbourne Mercer Global Pension Index. Australian Centre for Financial Studies, Melbourne.*
<https://www.globalpensionindex.com/wpcontent/uploads/MMGPI2018-Report.pdf>
- Mishkin, F.S. & Eakins S. (2009). *Financial Markets and Institutions* (6thed.). Pearson Prentice Hall.
- Mishkin, R. J. (2004). From efficient markets theory to behavioral finance. *The Journal of Economic Perspectives*, 17(1), 83-104.
- Muchoki, D.N. (2013). *Investigation into the Challenges Facing Real Estate Development in Kenya (A Case Study of Kenol Town, Murang'a County)*. Unpublished MBA Project. University of Nairobi.
- Musgrave, R.A. & Musgrave, P.B. (1984). *Public Finance in Theory and Practice*, 5th edition. New Delhi: McGraw-Hill Book Company.
- Muthee, K. M. (2012). *Relationship between economic growth and real estate prices in Kenya*. Unpublished MBA Project, University of Nairobi.
- Namusonge, G. S., Sakwa, W. W., & Gathogo, G. M. (2017). Impact of Asset Mix on Financial Performance of Registered Occupational Pension Schemes. *International Journal of Innovative Research and Development*, 6(8).

- Ngigi, R. W. (2000). *The impact of fiscal and monetary policies on stock market performance in Kenya: an empirical analysis*. Unpublished MBA Project, University of Nairobi.
- Nzalu, F.M. (2012). *An Assessment of the Factors Affecting the Growth in Real Estate Investment in Kenya*, Unpublished MBA Project, University of Nairobi.
- Sharma, G. D., Singh, S., & Gurvinder, S. (2011). *Impact of Macroeconomic Variables on Economic Performance: An Empirical Study of India and Sri Lanka*. Rochester, New York
- Shiblee, L. (2009). *The Impact of Inflation, GDP, Unemployment, and Money Supply on Stock Prices*. Arab Bank – Syria
- Shostak, F. (1997). In defence of Fundamental Analysis: A critique of the efficient market hypothesis. *The Review of Austrian Economics Rev Austrian Econ*, 10(2), 12-19.
- Steven, M. S. (2003). *Economics: Principles in action*. Pearson Prentice Hall: Upper Saddle River.
- Suheyli, R. (2015). Determinants of Insurance Companies Profitability in Ethiopia. *Unpublished Msc. Thesis*. Addis Ababa University, Ethiopia
- Tijjani, M. (2014). *Determinants of financial sustainability of pension fund administrators in Nigeria*. Lagos: Ahmadu Bello University.
- Tobin, J. (1958). Liquidity preference as behavior towards risk, *The Review of Economic Studies*, 25, 65-86.
- Hinz, R., Rudolph, H., Antolin, P. & Yermo, J. (2010). *Evaluating the Financial Performance of Pension Funds*. *Directions in Development and Finance*, World Bank. World Bank. <https://openknowledge.worldbank.org/handle/10986/2405> License: CC BY 3.0 IGO.”
- Wagner, R. (2007). *Fiscal Sociology and the theory of Public Finance: An Explanatory Essay*. Cheltenham: Edward Elgar Publishing.
- Wiśniewski R. (2011). Modeling of residential property prices index using committees of artificial neural networks for PIGS, the European-G8, and Poland. *Economic Modelling* (sent to the publisher).
- Wekhanya L.A (2021). Impact of Retirement Benefits Authority Reforms on Financial Performance of Pension Firms in Kenya. *Unpublished MBA project University of Nairobi 2021*

APPENDICES

APPENDIX I: DATA COLLECTION SHEET

	Balance of payments	Government expenditure	External government debt	Taxation	Operating costs	Liquidity
2017						
2018						
2019						
2020						
2021						

APPENDIX II: LIST OF PENSION SCHEMES

1. Alexander Forbes (Vuna Pension Plan)
2. Amana Personal Pension Plan
3. Amana Umbrella Pension Scheme
4. APA Life
5. APA Life Umbrella Retirement Fund
6. Apollo Insurance Co. Ltd. Individual Pension Arrangement
7. Blue MSMEs Jua Kali Individual Retirement Benefits Scheme (Mbao Pension Plan)
8. Blue shield Personal Pension Plan
9. Britam Pension Scheme
10. British American Insurance Umbrella Retirement Fund
11. British American Personal Pension Plan
12. British American Provident Fund
13. CFC Life Assurance Ltd Umbrella Fund
14. CFC Life Individual pension Pension plan
15. Chancery Personal Pension Plan
16. CIC (Jipange Personal Pension Plan)
17. CIC Pension Plan
18. CIC Umbrella Retirement Benefits Scheme
19. CICAM Umbrella Retirement Fund
20. Company Individual Retirement Benefits Scheme
21. Co-op Trust Individual Retirement Benefits Scheme
22. County Pension Fund
23. CPF Individual Pension Scheme
24. Cytonn Personal Retirement Benefits Scheme
25. Dry Associates Personal Provident Plan
26. Eagle Africa Maisha Milele Pension Plan
27. Enwealth Diaspora & Expatriates Retirement Fund
28. Enwealth Personal Pension Scheme

29. Enwealth Umbrella Fund
30. Fahari Retirement Plan
31. Fusion Umbrella Retirement Benefits Scheme
32. GA Life Personal Pension Plan
33. GA Umbrella Fund
34. Gencap Individual Pension Plan
35. ICEA Lion Individual Retirement Benefits Scheme
36. ICEALION Guaranteed Personal Fund
37. ICEALION Umbrella Retirement Benefits Scheme
38. In wealth Personal Pension Scheme
39. Intime Personal Pension Plan
40. Jubilee Insurance Company Ltd Personal Pension Plan
41. Kenindia Assurance Company Personal Pension Plan
42. Kenindia Umbrella Provident Fund
43. Kenya Orient Umbrella Pension Fund
44. Kenyan Alliance Insurance
45. Kenyan Alliance Insurance Co.Ltd. Individual Retirement Benefits Scheme
46. Kivuli Umbrella Fund
47. Lapfund Pension Scheme
48. Madison Insurance Personal Pension Plan
49. Madison Umbrella Retirement Benefits Scheme
50. Mafao Fund
51. Mercantile Personal Provident Fund Scheme
52. Minet Individual Pension Plan
53. Minet Kenya Umbrella Retirement Fund
54. Mwavuli Pension Fund
55. NCBA Individual Pension Plan
56. Ngao Umbrella Pension Scheme
57. Octagon Personal Pension Scheme
58. Octagon Umbrella Retirement Benefits Scheme

59. Old Mutual Individual Retirement Benefits Scheme
60. Old Mutual Umbrella Retirement Benefits Scheme
61. Pan Africa Life Personal Pension Plan
62. Pioneer Assurance Company Personal Pension
63. Pioneer Umbrella Retirement Fund
64. Sanlam Umbrella Retirement Fund
65. Suluhu Umbrella Scheme
66. Takaful Umbrella Fund
67. The Heritage All Company Individual Retirement Benefits Scheme
68. The Jubilee Insurance Umbrella Scheme
69. The Monarch Personal Pension Plan
70. UAP Individual Pension Plan
71. Zimele Personal Pension Plan
72. Absa Asset Management Limited.
73. Britam Asset Management Kenya Limited
74. CIC Asset Management Limited
75. Co-op Trust Investment Services Limited
76. ICEA Lion Life Assurance
77. Madison Investment Managers Limited
78. Nabo Capital Limited
79. Old Mutual Investment Group Limited
80. Sanlam Investment East Africa Limited
81. Zimele Asset Management Company Limited

APPENDIX III: TAXATION

		IMPORT	EXCISE	INCOME	VAT	OTHER	TOTAL
YEAR	MONTH	DUTY	DUTY	TAX		TAXES	TAX
							REVENUE
		SHS M	SHS M	SHS M	SHS M	SHS M	SHS M
2017	JAN	50,841.52	95,811.63	330,139.60	190,043.66	19,403.28	686,239.69
2017	FEB	58,615.39	109,381.19	364,994.08	217,776.70	22,381.90	773,149.26
2017	MAR	65,804.00	121,568.00	412,034.00	246,084.00	25,118.91	870,608.88
2017	APR	72,638.00	134,666.00	482,910.00	274,169.00	27,613.71	991,996.20
2017	MAY	81,319.00	149,102.00	547,507.00	305,994.00	30,553.97	1,114,477.06
2017	JUN	89,943.00	165,474.00	625,050.00	339,034.00	33,961.29	1,253,462.72
2017	JUL	6,624.00	13,248.00	37,256.00	27,199.00	3,456.52	87,783.34
2017	AUG	13,196.00	27,163.00	81,718.00	58,888.00	6,801.16	187,765.67
2017	SEP	20,974.02	40,328.01	157,245.35	86,381.64	12,487.23	317,416.26
2017	OCT	27,600.58	47,824.45	202,707.16	111,987.92	15,090.93	405,211.04
2017	NOV	40,873.87	62,635.27	245,488.49	141,632.51	18,070.28	508,700.42
2017	DEC	47,530.09	75,181.78	319,672.40	167,298.73	20,684.77	630,367.76
2018	JAN	58,181.17	92,484.76	377,219.09	203,206.59	24,123.83	755,215.44
2018	FEB	64,929.02	104,706.34	409,145.24	230,545.42	26,693.42	836,019.44
2018	MAR	72,871.80	117,481.10	460,769.05	258,547.99	29,679.08	939,349.02
2018	APR	80,419.60	132,194.82	521,794.73	289,816.50	32,573.42	1,056,799.05
2018	MAY	89,169.00	146,330.00	576,431.00	322,619.00	35,722.00	1,170,271.00
2018	JUN	99,214.64	162,483.84	640,593.35	356,855.92	52,544.53	1,311,692.29
2018	JUL	8,299.47	15,926.33	41,767.33	29,938.05	2,851.73	98,782.92
2018	AUG	18,175.29	29,284.38	89,560.42	61,801.53	6,313.06	205,134.67
2018	SEP	25,760.00	42,794.94	159,111.93	92,640.15	9,030.36	329,337.39
2018	OCT	36,065.65	57,723.99	207,365.43	126,600.98	12,180.14	439,936.20
2018	NOV	44,789.97	75,580.15	255,084.63	165,202.67	15,108.29	555,765.71
2018	DEC	51,700.53	91,722.60	325,542.98	193,850.87	17,938.83	680,755.82
2019	JAN	61,152.30	110,267.21	380,397.70	232,443.62	21,111.56	805,372.39
2019	FEB	69,878.85	125,589.56	413,265.04	266,930.24	24,235.65	899,899.33
2019	MAR	78,822.39	142,176.47	470,096.90	300,146.28	27,270.74	1,018,512.77
2019	APR	86,713.27	158,215.31	545,054.29	334,976.24	30,356.90	1,155,316.00
2019	MAY	97,254.24	178,437.09	605,288.27	374,348.21	33,927.62	1,289,255.43
2019	JUN	107701.8254	196588.3191	685389.32	413186.114	37347.1475	1440212.73
2019	JUL	7548.54244	16332.53713	45844.813	34260.9243	3117.87762	107104.695
2019	AUG	16184.87055	31622.55188	95220.906	68882.2704	6987.44507	218898.044
2019	SEP	25729.00653	49724.62306	180720.61	105779.252	9498.32009	371451.809
2019	OCT	34223.82587	67636.30604	241041.92	140451.342	13889.9178	497243.315
2019	NOV	42860.32338	85839.67432	525276.9	178096.852	18481.3815	610555.129

2019	DEC	51551.24179	103376.5257	367428.8	211544.035	22748.2086	756648.81
2020	JAN	61780.12032	123635.8985	416731.41	245673.504	26717.9854	874538.922
2020	FEB	69754.35019	140036.1116	456389.84	275438.732	30446.9143	972065.944
2020	MAR	76931.09663	159490.8323	519713.8	305657.446	34452.1003	1096245.28
2020	APR	83099.56697	171019.3675	591244.4	332238.943	36953.7901	1214556.07
2020	MAY	89247.52209	182082.298	638961.59	354433.232	39534.8604	1304259.51
2020	JUN	98022.23644	195269.8252	706936.33	383713.189	43565.9863	1427507.57
2020	JUL	6683.232462	15053.82399	42988.553	26185.4646	3515.21897	94426.2928
2020	AUG	14350.76039	30997.93639	80632.663	53574.9175	7690.07162	187246.349
2020	SEP	23167.28665	47353.82876	151247.84	83062.409	11942.7986	316774.16
2020	OCT	32069.85956	64454.46191	198206.83	114144.822	16415.9471	425291.921
2020	NOV	40658.45766	83485.40029	234072.85	144756.777	20541.6806	523515.168
2020	DEC	51799.20389	102779.3917	309238.56	179072.518	25803.3211	668692.999
2021	JAN	59921.31284	123051.7661	350582.73	215787.102	29926.9041	779269.811
2021	FEB	69449.32909	144351.7415	398371.1	253257.219	34918.9984	900348.389
2021	MAR	80135.26173	162057.0677	455286.67	292229.141	40778.586	1030486.73
2021	APR	89066.20585	180647.1203	542106.35	330642.768	45710.7498	1188173.2
2021	MAY	97724.62576	197061.7648	597548.68	368273.991	49867.9794	1310477.04
2021	JUN	108375.1652	216324.9168	694052.52	410758.397	55248.6842	1484759.69
2021	JUL	7647.32829	16566.55682	55001.247	38101.0672	4371.64713	121687.846
2021	AUG	16837.17027	37027.67601	104859.21	78375.257	9775.7669	246875.084
2021	SEP	27067.51672	58428.18876	195471.58	120378.387	15020.0105	416365.681
2021	OCT	35889.85872	78774.40097	253235.05	159671.148	20186.1624	547756.625
2021	NOV	46237.53285	100895.9322	310524.55	203917.937	25705.7405	687281.69
2021	DEC	56781.13397	123675.6623	406316.58	249386.699	31712.0768	867872.151

APPENDIX IV: GOVERNMENT EXPENDITURE

YEAR	MONTH	RECURRENT EXPENDITURE SHS M	COUNTY TRANSFER SHS M	DEVELOPMENT EXPENDITURE SHS M	TOTAL EXPENDITURE SHS M
2017	JAN	610,170.12	139,309.49	333,425.71	1,082,905.32
2017	FEB	709,001.23	152,669.15	379,645.43	1,241,315.80
2017	MAR	808,508.00	185,231.18	441,360.14	1,435,099.32
2017	APR	916,337.80	210,183.27	530,711.28	1,657,232.35
2017	MAY	1,047,401.09	245,501.35	559,397.12	1,852,299.55
2017	JUN	1,219,012.45	284,708.46	660,000.90	2,163,721.81
2017	JUL	69,488.06	8,793.58	5,748.51	84,030.16
2017	AUG	187,396.42	17,901.08	24,275.43	229,572.92
2017	SEP	297,207.61	20,434.08	57,713.23	375,354.92
2017	OCT	391,176.74	35,371.29	121,796.38	548,344.41
2017	NOV	510,226.29	65,452.70	143,302.51	718,981.50
2017	DEC	634,516.61	84,670.93	209,797.72	928,985.25
2018	JAN	759,671.31	107,516.24	209,851.17	1,077,038.72
2018	FEB	856,497.99	126,943.93	277,073.94	1,260,515.87
2018	MAR	973,059.34	174,517.77	341,079.36	1,488,656.48
2018	APR	1,087,685.37	193,060.77	366,067.30	1,646,813.43
2018	MAY	1,203,083.00	239,787.59	392,982.33	1,835,852.92
2018	JUN	1,319,585.84	306,200.00	485,673.05	2,111,458.89
2018	JUL	89,472.50	0	2,203.70	91,676.20
2018	AUG	212,828.36	4,031.94	36,083.00	252,943.30
2018	SEP	345,373.24	23,532.37	83,554.65	452,460.26
2018	OCT	444,865.14	44,704.47	130,301.04	619,870.64
2018	NOV	542,667.07	74,491.27	234,868.88	852,027.23
2018	DEC	643,904.69	119,674.39	311,881.76	1,075,460.83
2019	JAN	812,798.22	150,258.12	328,606.66	1,291,662.99
2019	FEB	924,314.45	177,310.95	364,473.94	1,466,099.34
2019	MAR	1,053,842.93	205,630.10	384,915.87	1,644,388.90
2019	APR	1,203,186.44	234,285.21	419,126.89	1,856,598.54
2019	MAY	1,329,046.48	263,350.60	477,427.07	2,069,824.16
2019	JUN	1500001.585	360331.818	529195.339	2389528.741
2019	JUL	108242.5099	0	4732.147533	112974.6574
2019	AUG	237849.6108	0	17036.41813	254886.0289
2019	SEP	391183.2651	57542.0912	95900.48225	544625.8385
2019	OCT	503263.3782	69431.1164	129883.9989	702578.4935
2019	NOV	635695.2192	87705.711	183616.8231	907017.7533
2019	DEC	827746.8353	122208.691	268145.1917	1218100.718

2020	JAN	941231.4444	160472.327	335160.3168	1436864.088
2020	FEB	1064930.905	188941.359	360573.3728	1614445.636
2020	MAR	1181497.297	214784.818	471960.0487	1868242.164
2020	APR	1297294.716	246871.315	426550.3477	1970716.379
2020	MAY	1445432.829	263090.408	470374.7649	2178898.002
2020	JUN	1645221.779	325278.058	594943.6658	2565443.502
2020	JUL	88715.38581	908.004124	4583.721283	94207.11122
2020	AUG	251627.486	28021.5948	54222.44987	333871.5307
2020	SEP	359490.6294	28838.873	122057.2755	510386.7779
2020	OCT	502541.5221	81896.0416	137306.8633	721744.427
2020	NOV	637793.2417	108035.713	185611.922	931440.8768
2020	DEC	823375.8308	128690.835	262777.5617	1214844.227
2021	JAN	935903.3194	164402.445	246798.4006	1347104.165
2021	FEB	1064734.393	186868.355	275516.4321	1527119.18
2021	MAR	1240863.75	209870.646	369948.0256	1820682.422
2021	APR	1387140.238	249046.123	399474.9417	2035661.303
2021	MAY	1531787.829	273527.457	436793.4418	2242108.728
2021	JUN	1766956.846	390809.459	548531.2469	2706297.552
2021	JUL	137454.5024	967.406058	6252.014114	144673.9226
2021	AUG	295278.0544	31462.4205	52459.21585	379199.6908
2021	SEP	453660.0187	61050	116952.0037	631662.0224
2021	OCT	613630.1329	92500	150064.776	856194.909
2021	NOV	777726.8344	108457.802	192970.6268	1079155.263
2021	DEC	985207.3956	144983.319	234688.5728	1364879.287

APPENDIX V: BALANCE OF PAYMENT

YEAR	MONTH	EXPORT	IMPORT	BALANCE OF PAYMENT
		SHS M	SHS M	SHS M
2017	JAN	48,834.00	150,734.13	-101,900.13
2017	FEB	47,956.64	130,840.52	-82,883.88
2017	MAR	54,051.51	141,129.27	-87,077.76
2017	APR	44,811.95	129,061.41	-84,249.46
2017	MAY	52,670.10	151,422.18	-98,752.08
2017	JUN	51,573.93	143,013.54	-91,439.61
2017	JUL	52,921.29	165,573.49	-112,652.20
2017	AUG	41,664.27	144,290.78	-102,626.51
2017	SEP	50,375.88	141,786.92	-91,411.04
2017	OCT	49,085.43	147,856.57	-98,771.14
2017	NOV	50,874.65	138,150.71	-87,276.06
2017	DEC	49,308.85	141,763.04	-92,454.19
2018	JAN	53,448.13	157,516.94	-104,068.81
2018	FEB	57,271.15	128,943.27	-71,672.12
2018	MAR	50,994.13	152,038.51	-101,044.38
2018	APR	50,047.68	150,002.08	-99,954.40
2018	MAY	55,314.34	168,020.10	-112,705.76
2018	JUN	52,919.25	142,525.50	-89,606.25
2018	JUL	52,885.55	152,647.89	-99,762.34
2018	AUG	50,986.90	149,306.97	-98,320.07
2018	SEP	46,777.02	129,796.06	-83,019.04
2018	OCT	49,959.78	149,246.19	-99,286.41
2018	NOV	48,315.57	153,491.79	-105,176.22
2018	DEC	44,009.13	126,686.03	-82,676.90
2019	JAN	53,290.34	155,919.71	-102,629.37
2019	FEB	50,920.01	142,268.55	-91,348.54
2019	MAR	52,661.10	125,251.46	-72,590.36
2019	APR	48,812.50	150,152.21	-101,339.71
2019	MAY	46,466.51	155,836.62	-109,370.11
2019	JUN	51,188.42	149,439.25	-98,250.83
2019	JUL	50,224.24	153,590.23	-103,365.99
2019	AUG	49,649.92	145,504.24	-95,854.32
2019	SEP	46,489.29	149,374.73	-102,885.44
2019	OCT	51,093.48	159,175.40	-108,081.92
2019	NOV	51,815.58	159,187.99	-107,372.41
2019	DEC	42,767.89	155,261.49	-112,493.60

2020	JAN	53,126.22	155,430.90	-102,304.68
2020	FEB	61,038.38	133,463.88	-72,425.50
2020	MAR	64,455.39	137,560.56	-73,105.17
2020	APR	43,192.68	116,422.78	-73,230.10
2020	MAY	47,185.01	109,250.08	-62,065.07
2020	JUN	48,004.85	121,570.43	-73,565.58
2020	JUL	51,966.71	139,762.95	-87,796.24
2020	AUG	54,488.71	137,789.16	-83,300.45
2020	SEP	56,172.95	143,336.89	-87,163.94
2020	OCT	53,110.84	145,164.16	-92,053.32
2020	NOV	50,788.78	139,039.63	-88,250.85
2020	DEC	57,511.45	161,455.92	-103,944.47
2021	JAN	54,313.63	160,717.15	-106,403.52
2021	FEB	67,403.54	159,333.53	-91,929.99
2021	MAR	69,682.60	187,428.50	-117,745.90
2021	APR	58,794.26	161,689.32	-102,895.06
2021	MAY	63,107.88	161,690.48	-98,582.60
2021	JUN	56,688.54	159,949.38	-103,260.84
2021	JUL	59,246.66	177,077.48	-117,830.82
2021	AUG	61,173.17	172,708.06	-111,534.89
2021	SEP	53,957.95	190,429.21	-136,471.26
2021	OCT	65,399.88	187,496.16	-122,096.28
2021	NOV	64,194.83	191,701.92	-127,507.09
2021	DEC	66,041.96	235,279.23	-169,237.27

APPENDIX VI: GOVERNMENT DEBT

YEAR	MONTH	DOMESTIC DEBT	EXTERNL DEBT	TOTAL
		SHS M	SHS M	SHS M
2017	JAN	1,894,094.99	1,992,795.15	3,886,890.14
2017	FEB	1,901,820.24	1,993,173.80	3,894,994.04
2017	MAR	1,944,953.40	2,159,068.94	4,104,022.34
2017	APR	1,979,865.65	2,167,254.83	4,147,120.48
2017	MAY	2,045,471.63	2,187,224.33	4,232,695.96
2017	JUN	2,111,710.44	2,294,153.00	4,405,863.44
2017	JUL	2,123,788.59	2,305,538.33	4,429,326.92
2017	AUG	2,135,933.94	2,309,775.39	4,445,709.33
2017	SEP	2,172,835.14	2,310,198.99	4,483,034.13
2017	OCT	2,188,509.46	2,353,124.93	4,541,634.39
2017	NOV	2,228,429.02	2,357,226.48	4,585,655.50
2017	DEC	2,220,345.35	2,349,284.44	4,569,629.79
2018	JAN	2,247,295.02	2,377,522.47	4,624,817.49
2018	FEB	2,338,213.71	2,563,074.05	4,901,287.76
2018	MAR	2,371,650.53	2,512,430.94	4,884,081.46
2018	APR	2,415,234.64	2,562,178.53	4,977,413.17
2018	MAY	2,447,575.21	2,573,126.23	5,020,701.44
2018	JUN	2,478,835.09	2,568,398.70	5,047,233.79
2018	JUL	2,513,046.50	2,601,071.15	5,114,117.65
2018	AUG	2,493,706.78	2,611,403.10	5,105,109.88
2018	SEP	2,540,833.73	2,605,334.58	5,146,168.32
2018	OCT	2,535,751.88	2,654,689.44	5,190,441.33
2018	NOV	2,563,418.63	2,709,008.39	5,272,427.03
2018	DEC	2,548,768.78	2,723,734.27	5,272,503.04
2019	JAN	2,604,189.40	2,729,478.57	5,333,667.97
2019	FEB	2,690,972.03	2,707,287.17	5,398,259.20
2019	MAR	2,702,933.27	2,721,597.46	5,424,530.74
2019	APR	2,740,905.64	2,842,481.02	5,583,386.66
2019	MAY	2,772,613.71	2,834,844.04	5,607,457.75
2019	JUN	2,785,483.13	3,023,139.47	5,808,622.60
2019	JUL	2,843,666.89	3,160,057.46	6,003,724.35
2019	AUG	2,875,502.65	3,133,543.34	6,009,045.99
2019	SEP	2,851,639.21	3,111,767.28	5,963,406.49
2019	OCT	2,897,141.36	3,127,601.25	6,024,742.62
2019	NOV	2,917,362.28	3,114,959.69	6,032,321.98
2019	DEC	2,942,103.54	3,106,822.96	6,048,926.50

2020	JAN	3,003,700.30	3,112,897.95	6,116,598.25
2020	FEB	3,040,964.55	3,117,038.57	6,158,003.12
2020	MAR	3,070,189.37	3,212,634.23	6,282,823.60
2020	APR	3,119,415.80	3,317,330.98	6,436,746.77
2020	MAY	3,153,143.94	3,496,428.84	6,649,572.77
2020	JUN	3,178,421.28	3,515,812.00	6,694,233.28
2020	JUL	3,273,551.44	3,638,506.49	6,912,057.93
2020	AUG	3,402,500.73	3,666,321.29	7,068,822.02
2020	SEP	3,457,106.50	3,663,491.22	7,120,597.72
2020	OCT	3,457,644.63	3,705,644.24	7,163,288.87
2020	NOV	3,482,653.56	3,771,808.47	7,254,462.03
2020	DEC	3,488,541.18	3,793,285.24	7,281,826.42
2021	JAN	3,532,561.52	3,819,699.66	7,352,261.18
2021	FEB	3,531,182.93	3,814,288.77	7,345,471.70
2021	MAR	3,569,840.57	3,769,866.74	7,339,707.31
2021	APR	3,632,914.80	3,778,131.44	7,411,046.24
2021	MAY	3,686,891.72	3,799,018.81	7,485,910.53
2021	JUN	3,697,093.18	3,999,542.00	7,696,635.18
2021	JUL	3,792,146.89	4,020,629.30	7,812,776.19
2021	AUG	3,864,875.78	4,054,862.85	7,919,738.63
2021	SEP	3,937,777.45	4,062,504.78	8,000,282.23
2021	OCT	3,959,523.30	4,083,124.54	8,042,647.84
2021	NOV	4,008,077.30	4,109,282.85	8,117,360.15
2021	DEC	4,032,368.18	4,174,371.53	8,206,739.71