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FISKALINĖS POLITIKOS POVEIKIS INVESTAVIMUI IR VARTOJIMO IŠLAIDOMS	IMPACT OF FISCAL POLICY ON INVESTMENT AND CONSUMPTION EXPENDITURE

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INTRODUCTION

Fiscal policy is the means by which the government of a country adjusts its level of spending to monitor and influence the nation's economy. It is used along with the monetary policy, which the central bank of that country uses to influence the money supply in the nation. These two policies are used to achieve macroeconomic goals in a nation. These goals include price stability, full employment, reduction of poverty levels, high and sustainable economic growth, favourable balance of payment, and reduction in a nation's debt.

Before the Great Depression of the 1930s, Globally, government intervention in economic activities was relatively minimal. In later decades, however, and especially in accordance with the Keynesian theory of aggregate demand, governments played a larger role in output and employment stabilization. In emerging nations, the government's engagement in the economy expanded in an effort to alleviate poverty and encourage economic growth. In addition, policies to increase investment, consumption and even production have become popular.

The Novelty and Relevance of this topic under examination cannot be overestimated. From a theoretical point of view, several authors have looked at this study and its related studies in other to arrive at a conclusion that could impact government policies and reduce the adverse effects of the fiscal policies on investment and consumption expenditure. Practically, government fiscal policies either gives room for foreign and local investors to invest heavily in the areas of infrastructure and provision of social amenities through cooperate social responsibility. It was observed that many of the past studies developed a single model to analyse the effects of fiscal policies on both investment and consumption expenditure. Nevertheless, I built two distinct models to assist in capturing the behaviours of the independent variables in relation to the effects of fiscal policy on investment and consumption expenditure. This led us to an observation that there is a positive and significant relationship between fiscal policies and both of Investment and consumption expenditures after employing different models and different explanatory variables holding each of Investment and consumption expenditure as a dependent variable.

Theoretical and Practical value of the study under examination are as follows; Theoretical part of the paper is performed by systematically identifying and comparing the series of scientific research articles and related studies that examine the impact of fiscal policies on investment and consumption expenditure (Omitogun and Ayinla, 2007; Agu, Okwor and Ugwunta, 2014; Cheng and Sun, 2013; Ajisafe and Folorunsho, 2015; Dornbusch

and Fischer, 1990; Medee and Nenbee, 2007; Claessens and Kose, 2013; Jalloh, 2002; Sineviciene and Vasiliauskaite, 2012; Alesina and Ardagna, 2010; Hermes and Lensink, 2001; *et al*.). Practical part is carried out to verify the causal direction between fiscal policy, investment and consumption expenditure by employing panel data analysis for west Africa. The yearly data for the period 2011 to 2020 are obtained from World bank.org. The research methodologies that are employed for the research analysis include: descriptive statistics, graphics analysis (tables and graphs), Granger causality test, and OLS regression. E-views as an econometrics package designed for statistical modelling in economics is used for data presentation and data analysis.

The rationale behind this paper is that government policies have adverse effects on investment and consumption expenditure in West Africa as most of these countries are far behind in terms of development and also in terms of attracting investors on the global space. Many empirical studies that are advanced in this area have been carried out to verify the role of fiscal policies in advanced countries. It is therefore deemed appropriate to evaluate the causal relationship between investment, consumption and Fiscal policies. This topic in African countries has not been evaluated comprehensively, thus the issue still attracts the authors to advance the knowledge in this area. Findings from this study could help to achieve a general consensus on the appearance and direction of this causal relationship and contribute to the better economic policy formulation in West Africa.

The Primary goal of this paper is to empirically investigate the impact of fiscal policy on investment and consumption expenditure in West Africa, as well as establish the nature and direction of causality among fiscal policy instruments, investment and consumption expenditures in West Africa. Also, one of the goals is to review literature of closely related studies and other past research work on this study, as well as a review of theories and methodologies to help develop and modify a research framework and methodology to be used in this study.

The 16 countries in western Africa were originally considered for this study, but due to so many limitations like data constraints, inaccurate data which might render the result of the study insignificant, some of the countries has to be ignored, while much attention was paid to the top players in the West African region. Therefore, the scope of the study considers the selected 5-member countries in West Africa, which was selected using convenient sampling technique and covers the period of 2011 - 2020. These 5-member countries selected include Nigeria, Ghana, Cote d'Ivoire, Senegal and Gambia. The selection of this West African countries hugely depended on the availability of data.

The level of exploration for this study is vast as we examined some of the related studies in the past and several authors who had contributed their parts in finding an accord between the government policies, investment and consumption expenditure, and many other related studies. Most of the related studies in this area either focus on the relationship between public policy and private investment (Blejer & Khan, 1984; Pfefferman and Mandarassy, 1993; Karago and Ozdemir, 2006; Vergara, 2004), private investment and growth (Guimaraes and Unteroberdoerster, 2006; Balls, 2005; Soli *et al*., 2008), as well as the relationship between public investment and private investment (Balassa, 1988; Greene and Villanueva, 1991; Erden and Hocokombe, 2005; Jalloh, 2002; Ouattara, 2004), while those that have beamed searchlight on fiscal policy and private investment (Hermes and Lensink, 2001; Alesina *et al*, 2002; Vergara, 2010; Forni *et al*, 2009; Soli *et al,* 2008) either only focused on public spending or did not capture recent events in the West African sub-region. This study attempts to explore this contentious area of economic research and add to the existing body of knowledge by extending the scope to include more recent data and also employ more than one variable (i.e., general gross government spending and revenue) to proxy for fiscal policy rather than government capital expenditure alone.

The research object for this study is the impact of Fiscal policy instruments on consumption and investment expenditure in West Africa, and the direction of the causality among fiscal policy, investment, and consumption expenditure

Research Objectives

  i. To evaluate the impact of fiscal policy instrument on consumption expenditure in West Africa.

 ii. To evaluate the impact of fiscal policy instruments on investment expenditure in West Africa.

iii. To examine the direction of causality among fiscal policy instruments, investment and consumption expenditure.

The paper is structured as follows: *Chapter 1* is introduction to the study which covers the goals of the study, the relevance of the paper, objectives of the study, Research hypotheses, scope, and organization of study. The literature review comprises the theoretical literature review, empirical literature and theoretical framework. *Chapter 2,* which is the methodology contains the study area, the method and sources of data and the method of data analysis. Similarly, *chapter 3* is result presentation and discussion which covers data presentation and analysis, interpretation of results and discussion of findings. Finally, *chapter 4* comprises the summary, conclusion, recommendation based on the findings of the study.

1. IMPACT OF FISCAL POLICY ON INVESTMENT AND CONSUMPTION EXPENDITURE

Widespread consensus persists that fiscal policy is an effective tool for boosting economic growth, redistributing income, and eliminating poverty (though the West African region experience is tending to suggest otherwise). In addition, due to the importance of fiscal policy in economic management, the economies of West African nations have yet to achieve sustainable development and growth. Studies by Agiobenebo (2003), Gbosi (2002), and Okowa (1997) reveal that the economies are still tethered to chronic unemployment, a rising rate of inflation, reliance on foreign technology, limited foreign exchange gains from crude oil, low private and international investment, and a number of other factors.

According to Iyoha (2002), fiscal policy entails changing government spending and tax revenues to influence economic activity. Afolabi (1999) defined fiscal policy as direct government policies including the manipulation of parameters that directly affect government revenue and expenditure. He said that taxation, planning, the government budget, and debt management are elements of fiscal policy. In fiscal policy, variables such as the total surplus or deficit are evaluated based on their impact on the national income, total employment, and the general price level. This definition presupposes that fiscal policy deals with how government generate revenue through taxation and other means and deciding on the level and pattern of expenditure for the purpose of influencing economic activities.

Given the importance of fiscal policy in Nigeria's macroeconomic management, and despite the introduction of numerous fiscal measures since 1986 in a number of prominent African nations such as Nigeria and Ghana, growth has not accelerated and poverty remains pervasive, particularly in the rural areas of the majority of West African nations.

1.1   Fiscal Policy

In economics, fiscal policy is the manipulation of the economy through government expenditure and revenue collection. It refers to the impact of the budget outcome on economic activity as a whole. Contrast fiscal policy with monetary policy, which aims to stabilize the economy by regulating interest rates and the money supply. Government spending and taxation are the two principal fiscal policy instruments (Chigbu and Njoku, 2013).

Taxation, the budget, and quotas are utilized to control government revenues and expenditures with the same macroeconomic objectives as monetary policy. Even if fiscal policy remains unchanged, tax revenue will increase when the economy expands, assuming

all other conditions remain unchanged. Assuming such spending is oriented toward the provision of fundamental infrastructures that complement private investment, the increase in tax revenue may lead to an increase in government spending, so promoting further expansion. Therefore, government can utilize fiscal policy to stimulate the economy by manipulating taxes and expenditures (Olanipekun and Benjamin, 2015).

According to Keynesian economics, when the government modifies its taxes and expenditure levels, it influences aggregate demand and economic activity. Fiscal policy is frequently employed to stabilize the economy during the business cycle.

Changes in the volume and content of taxation and government spending can influence, among other variables, the following macroeconomic factors in an economy:

- Aggregate demand and economic activity level.

- Savings and investment in the economy.

- Income distribution

There are three potential fiscal policy positions: neutral, expansionary, and contractionary.

A neutral fiscal strategy implies a balanced budget in which government spending and tax revenue are equal (G=T). Government expenditures are entirely financed by tax receipts, and the final budget outcome has no effect on economic activity.

A fiscal policy stance that is expansionary is characterized by a net increase in government spending (G>T) resulting from an increase in government spending, a decline in taxation revenue, or a combination of the two. This will result in a greater budget deficit or surplus, or a deficit if the government's budget was previously balanced. Typically, expansionary fiscal policy is accompanied by a budget deficit.

A contractionary fiscal policy stance (G<T) occurs when net government spending is reduced by increased tax revenue, decreased government spending, or a combination of the two. This would result in a smaller budget deficit or a larger budget surplus than when the government's budget was balanced. Typically, contractionary fiscal policy is accompanied by a budget surplus (Chigbu and Njoku, 2013).

However, these definitions might be misleading because cyclical fluctuations of the economy produce cyclical fluctuations of tax revenues and of some forms of government spending, hence modifying the deficit situation; these are not considered policy changes. For the sake of the definitions that came before, therefore, "government expenditure" and "tax revenue" are frequently replaced by "cyclically adjusted government spending" and "cyclically adjusted tax revenue," respectively. Thus, a government budget that remains

balanced throughout the business cycle is deemed to represent a neutral fiscal policy posture, for instance.

Tools of Fiscal Policy

The first tool is taxation; these includes income, capital gains from investments, property, sales or just about anything else. Taxes provide the major revenue source that funds the government. The downside of taxes is that whatever or whoever is taxed has less income to spend on themselves.

The second tool is government spending; these includes subsidies, transfer payments including welfare programs, public works, projects, and government salaries. Whoever receives the funds has more money to spend. That increases demand and economic growth.

How Fiscal Policy Works

John Maynard Keynes, a British economist, developed the theory that is used as the foundation for modern fiscal policy. This theory, which is also known as Keynesian economics, simply states that governments may impact levels of macroeconomic productivity by increasing or decreasing tax levels and public spending. Keynesian economics was developed by John Maynard Keynes. This impact, in turn, helps to reduce inflation (which is generally considered to be healthy when it is between 2% and 3%), boost employment, and keep the value of money in the economy stable.

Economic effects of Fiscal policy

Governments can influence the amount of aggregate demand in the economy through the use of fiscal policy in order to achieve economic goals such as price stability, full employment, and economic growth. According to Keynesian economics, the most effective strategy to promote aggregate demand is for the government to increase spending while simultaneously lowering tax rates. Once the economic expansion has begun, however, the government should reduce spending while simultaneously raising tax rates. Keynesians claimed that this strategy may be utilized in times of critical recession or lowly economic activity as a crucial instrument for laying the foundation for robust economic growth and moving toward full employment. Keynesians claimed that this strategy may be implemented during recessions or periods of low economic activity. When there is inflation, governments can utilize budget surpluses to achieve one of two things: first, they can use the surplus to cut down the rate of high economic growth; second, they can use the surplus to stabilize prices. According to the Keynesian hypothesis, cutting expenditure in the economy will result in lower levels of aggregate demand and a contraction of the economy, which will eventually lead to price stability (John, Olabisi and Dafe, 2013).

It is known as the Treasury View, and Keynesian economics does not subscribe to this line of thinking. Some classical and neoclassical economists say that crowding out fully nullifies any fiscal stimulus. The term "Treasury View" refers to the theoretical perspectives held by classical economists working in the British Treasury during the 1930s. These economists were opposed to Keynes' call for increased government spending. Some neoclassical economists, right up until the current day, keep bringing up the same overarching point of argument.

According to the conventional economic theory, an expansionary monetary policy also results in a reduction of net exports, which has a moderating impact on both the level of national output and income. When interest rates on government borrowing go up, it tends to entice investors from other countries to put their money there. This is due to the fact that bonds issued from a nation that is now engaging in expansionary fiscal policy now offer a higher rate of return than those issued from nations that are not. To put it another way, businesses who wish to finance projects are forced to compete with their respective governments for available cash, and as a result, they offer higher rates of return. To put it another way, businesses who want to finance projects have to compete with their respective governments for available cash, and as a result, they offer greater return rates. Foreign investors must acquire the local currency in order to purchase bonds issued by a certain nation. Therefore, when foreign capital flows into a country experiencing fiscal expansion, currency demand grows. This leads the currency to appreciate, lowering the price of imports and increasing the cost of exports to foreigners. As a result, exports decline and imports rise, diminishing demand from net exports. (Dornbusch and Fischer, 1990).

Some economists reject the discretionary use of fiscal stimulus because of the inside lag, which is nearly invariably long due to the extensive legislative work required. Moreover, the external lag between the time of implementation and the time when the majority of the stimulus's effects are felt could mean that the stimulus hits an economy that is already recovering, exacerbating the ensuing boom, rather than stimulating the economy when it is in need of stimulation.

Some economists are concerned about the potential inflationary impacts of a fiscal stimulus' increased demand. Theoretically, fiscal stimulus does not produce inflation when it employs otherwise idle resources. For instance, there is no inflationary effect when a fiscal stimulus employs a previously unemployed worker. If, however, the stimulus employs a worker who would have otherwise been unemployed, it increases labour demand while labour supply stays unchanged, resulting in wage inflation and, subsequently, price inflation.

The budget serves as the primary conduit for the implementation of fiscal policies. Consequently, the budget is more than a strategy for managing the government sector. The budget both reflects and defines a nation's economic life, and the most significant component of a public budget is its function as a tool for economic management (Omitogun and Ayinla, 2007). The purpose of fiscal policy is to stabilize the economy. Rises in government spending or tax cuts tend to push the economy out of a slump, whereas cutbacks in government spending or tax increases tend to slow a boom (Dornbusch and Fischer, 1990).

The fiscal deficit could be viewed from multiple perspectives. It is the difference between the government's total expenditures and its total revenue and non-debt capital receipts. It represents the entire amount of borrowed monies required to cover the government's expenditures (Wosewei, 2013). It could alternatively be described as the difference between total expenditures, net of payments and revenue and non-debt capital receipts. It also reflects the government's overall borrowing and the increase in its outstanding debt. Even though realized revenues are often above budgeted estimates, extra-budgetary expenditures have been rising so fast and result in fiscal deficit (Wosewei, 2013). Anyanwu (1997) demonstrates that budget deficits in developing nations, particularly in West Africa, are substantially influenced by the degree of political instability and public finance considerations, with elections having no obvious direct effect. Investigations suggest that Nigeria has been locked in the deficit trap since the global oil market collapsed in the early 1980s. Since then, there have been unsuccessful efforts to escape the deficit trap. Instead, the mechanism of deficit financing, involving rapid monetary expansion, exchange rate depreciation, and growing inflation, has been the primary factor (Wosewei, 2013).

Objectives of Fiscal policy

The Strategist (2013) identified the following as the primary objectives of fiscal policy:

Full employment: It is a very significant fiscal policy objective. Unemployment affects production and, thus, the rate of economic growth. It also presents numerous difficulties for the unemployed in their daily lives. Therefore, nations strive to eliminate unemployment and achieve full employment. Full employment refers to the economic state in which there is no involuntary unemployment. To accomplish this purpose, government typically:

   i.   Increase its spending.
  ii.   Lower the personal income taxes.
 iii.   Lower the business taxes, or,
  iv.   Increase government spending while simultaneously cutting taxation.

In practice, however, it is impossible to attain full employment. As the factor markets are not flawless, factor units may lose their jobs and may not acquire new positions quickly.

Price stability: Both rapid increases and decreases in the general level of prices are undesirable. This is because a sudden increase in costs renders many goods and services unaffordable. Therefore, price stability is desired. However, it should be highlighted that while the notion that the overall price level should be somewhat steady is widely accepted, it is difficult to determine which trends are most beneficial to the welfare of society. (Wosewei, 2013).

Economic growth: The expansion of the economy is another essential objective of fiscal policy. Using a higher rate of economic growth, the unemployment issue can also be resolved. However, it may provide some challenges to maintaining price stability. The industrialized nations, such as the United States, the United Kingdom, and Japan, pay close attention to the link between the actual growth rate and the potential growth rate permitted by the ratio of consumption to savings, technical considerations, and other factors. The less developed countries emphasize the increase in the potential growth rate as well as the relationship of the actual and potential growth rate. (Omitogun and Ayinla, 2007).

Resource allocation: Allocation of resources refers to the assignment of the available resources of an economy to the specified uses selected among a number of feasible and competing options. It answers the economic questions of what to create and how to produce. The fiscal policy should ensure optimal resource allocation. It must redirect resources from unproductive sectors to productive ones. It is the government's long-term objective. The government's emphasis on full employment, price stability, and economic growth should not eclipse the resource allocation objective. (Anyanwu, 1997).

Increase in Savings and Investment: This policy is also employed to raise the national savings rate. In developing nations, the wealthy spend a great deal of money on luxuries. The government can tax the poor class and provide them with life's needs at a reduced cost. By offering such incentives, savings and hence investment can be enhanced.

Equal Distribution of Wealth: Fiscal policy is quite effective for achieving equal distribution of wealth. When wealth is dispersed equitably across the various classes, their purchasing power rises, resulting in more employment and production.

Control Inflation: Fiscal policy is a very effective tool for limiting the rate of inflation. When expenditures on non-productive initiatives are cut or tax rates are raised, the purchasing power of the populace decreases.

Reduce Regional Disparity: Regional disparity exists in less-developed countries. There are more developed regions and less developed regions. In less-developed areas, the government provides infrastructure. In addition, the tax holiday incentive is offered in these locations, which are particularly important for boosting per capita income.

Check Rapid Consumption Increase: Growth Fiscal policy is also employed to check the rapid consumption growth. If the rate of consumption is high, then the rates of saving and investment are also low. Therefore, the economic state of a nation cannot improve without increased investment.

The Strategist (2013) stated that fiscal policy might be either expansionary or restricting. Expanding fiscal policy increases aggregate demand in the economy. It increases production and, consequently, employment. It eliminates the recessionary gap existing in the economy. It should be emphasized that a recessionary gap exists when a country's equilibrium real GDP is less than its potential real GDP. In this circumstance, unemployment exceeds the normal rate of unemployment. The contractionary fiscal policy reduces the economy's aggregate demand. It reduces the level of production, and consequently the level of employment. It reduces the level of production, and hence the level of employment. It eliminates the inflationary gap existing in the economy. It should be noted that an inflationary gap occurs when the equilibrium real GDP is greater than the potential real GDP. In this situation, unemployment is lower than the natural rate of unemployment.

1.2 Consumption

The three most important theories of consumption as postulated by John Maynard Keynes are as follow: The Absolute Income Theory of Consumption, The Relative Income Theory of Consumption and The Permanent Income Theory of Consumption.

Keynes listed various subjective and objective elements that influence an individual's and society's consumption. However, according to Keynes, the existing level of consumption dictates both an individual's and society's consumption. Because Keynes emphasized the absolute size of income as a predictor of consumption, his consumption theory is also known as absolute income theory. Furthermore, Keynes proposed a psychological law of consumption, which states that as income rises, so does consumption, but not by the same amount. To put it simply, the marginal propensity to consume is less than one. i.e., MPC < 1.

There have been major breakthroughs in this subject since Keynes proposed this theory of consumption, and various alternative models of consumer behaviour have been proposed.

These theories are extensively discussed as below.

The Absolute Income Theory

According to the absolute income hypothesis, males are disposed to increase their consumption as their income increases, but not by as much as their income increases. The fundamental concept of absolute income theory is that the individual consumer decides how much of his present income to dedicate to consuming based on the absolute level of that income. Other things being equal, an increase in his absolute income will result in a fall in the percentage of his income allocated to consuming. This hypothesis was possibly initially stated by Keynes in the General Theory. According to the absolute income hypothesis, these factors have led the short-run, non-proportional consumption function to shift upward in a manner that creates the illusion of proportionality, so concealing the underlying non-proportional relationship. It was highlighted that the relationship between income and consumption is non-proportional and is based on consumer habit persistence. The complete reaction of consumers to changes in income occurs gradually rather than immediately. Consumers are slow to respond to changes in income. It is believed that, unlike the Modigliani-Duesenberg hypothesis, the decline in the effect of past practices is continuous over time. According to absolute income theory, the aforementioned factors have caused the consumption function to shift upward by roughly the amount required to produce a proportional relationship between consumption and income over the long run, thereby preventing the appearance of what would otherwise be the non-proportional relationship that would be expected based solely on the income factor. (Ajisafe and Folorunsho 2015).

In the years after the publication of the General Theory, economists largely accepted the absolute income theory as essentially right, although its popularity was short-lived. Doubts regarding the absolute income hypothesis's sufficiency arose as a result of its seeming inability to reconcile budget statistics on saving with observed long-run trends. Kuznets' and Goldsmith's estimates of national saving and other aggregates revealed that the aggregate saving ratio had been nearly unchanged since the 1870s. Nonetheless, budget studies revealed that the saving ratio increased significantly with income level. Since incomes have risen dramatically since the 1870s by practically any measure, the aggregate saving ratio should have risen considerably over time, according to the absolute income hypothesis. Kuznets' data showed that between 1869 and 1929, the ratio of consumption to national income remained constant while income doubled.

Relative Income Hypothesis

An answer to this apparent inconsistency is provided by the relative income hypothesis, which seems to have been first propounded by Dorothy Brady and Rose

Friedman. Its underlying assumption is that saving rate depends not on the level of income but on the relative position of the individual on the income scale. As such relative-income hypothesis implies the assumption that spending is related to a family's relative position in the income distribution of approximately similar families. Much additional theoretical and empirical support of this hypothesis was provided by the work of Modigliani and of James S. Duesenberry, carried out at about the same time. The relative income hypothesis is conceived by Duesenberry and helps to explain the differences found between consumption function derived from data of families classified by groups and those derived from overall totals (time series). Duesenberry contended that, at any given moment in time, consumption is not particularly sensitive to current income. People spend in a manner consistent with their relative income position. With incomes rising or falling over the course of years, their spending patterns change if their relative position changes. James Tobin shows that other factors could cause the effects that Duesenberry explained by means of relative incomes. (Agu, Okwor and Ugwunta, 2014).

Duesenberry develops the proposition that the ratio of income consumed by an individual does not depend on his absolute income, instead it depends upon his relative income upon this percentile position in the total income distribution. During any given period, a person will consume a smaller percentage of his income as his absolute income increases if his percentile position in income distribution improves and vice versa.

Thus, the relative income theory argues that the fraction of a family's income spent on consumption depends on the level of its income relative to the income of neighbouring family's and not on the absolute level of the family's income. If a family's income increases but its relative position on the income scale remains unchanged because the incomes of other families have also risen at the same rate, its division of income between C and S will remain unchanged. According to the relative income theory, each family, in deciding on the fraction of its income to be spent, is uninfluenced by the fact that it is twice as well off in absolute terms and is influenced only by the fact that it is no better off at all in relative terms.

The Permanent Income Hypothesis

It is a theory that attempts to explain away apparent inconsistencies of empirical data on the relationship of saving to income. Data for a single year shows that, as income rises, savings account for an increasing share of income, while data for a long period of years shows that, even though total income rises over the years, total savings account for a fairly stable share of total income. Milton Friedman states that this does not occur because of changes in consumption habits at every income level but because a study of measured income

and consumption involves inaccurate concepts of what these habits really are. The best-known exposition of the Permanent Income Hypothesis (PIH) is developed by Professor Milton Friedman, formerly of the University of Chicago. He says permanent income is roughly akin to lifetime income, based on the real and financial wealth at the disposal of the individual plus the value of one's human capital in the form of inherent and acquired skills and training. The average expected return on the sum of all such wealth at the disposition of an individual would be his permanent income. But measured income is different from permanent income according to Friedman.

Over a lifetime measured income ought to coincide with permanent income, but in any one-year measured income as a result to cyclical fluctuations and because of other random changes may depart from permanent income (Alesina & Ardagna, 2010).

But the best way to measure permanent income, according to this hypothesis, is through a weighted average of past and present measured income, with less weight being given to measured income that lies farther in the past. In any year the difference between the measured income and permanent income is transitory income. It may be positive or negative, but over an individual's lifetime it is essentially zero.

This theory like the relative income theory, holds that the basic relationship between consumption and income is proportional, but the relationship here is between permanent consumption and permanent income. Thus, quite a different approach to the role of income in the theory of consumer spending has been developed by Milton Friedman. The main point of departure is the rejection of the concept of current income and its replacement by what he calls permanent income (Alesina & Ardagna, 2010).

A family's permanent income in any given year is calculated not by its actual income for that year, but by the predicted income to be received over a lengthy period of time, spanning multiple future years. "Permanent income is to be defined as the mean income viewed as permanent by the consumer unit in question, which in turn depends on its foresight," Friedman writes. One this interpretation of permanent income, a family's measured, observed, or real income in any given year may be greater or lesser than its permanent income.

Friedman separates a family's annual income into two categories: permanent income and transitory income. The sum of positive and negative transitory income components determines whether the measured (real) income is greater or less than the permanent income. For example, if a worker receives a one-time bonus and does not anticipate to receive it again, this income element is positive transitory income, and it raises his real (measured)

income over his permanent income. If, on the other hand, he suffers an unexpected loss (for example, due to a plant closure), this income element (loss) is viewed as negative transitory income and has the consequence of reducing his real (measured) income below his permanent income (Alesina & Ardagna, 2010).

These unanticipated additions and subtractions from a family's income are expected to cannel out over a longer period relevant to permanent income, although they can be found in any shorter period. Friedman splits measured (actual) consumption into permanent and transient components in the same way. A good acquired because of an appealing price decrease or a routine purchase postponed due to the goods' unavailability are both examples of positive and negative transitory consumption. The actual (measured) consumption of a family during any given period may be greater or lesser than its permanent consumption. The following is a summary of the argument:

$Ym = Yp + Yt$

$Cm = Cp + Ct$

Where m, p and t represent measured, permanent, and transitory components. Further, the consumption function is held to be proportional $Cp = kYp$, where k is the factor of proportionality and depends on interest rate (i), the ratio of non-human to total wealth (w) and a variable (u) which mainly reflects age and tastes. Thus, $k = f$ (i, w, u). These factors, and hence k, are independent of the level of permanent income.

Thus, we find, that according to permanent income theory (PIT), the level of consumption is not determined by absolute or relative income level but by the level of permanent income with the average propensity to consume (APC) out of permanent income, remaining constant as permanent income increases and the APC out of current income declining as current income increases above the permanent income in the short run. Although PIT appears to be like relative income theory (RIT), there is significant difference. The PIT argues that permanent consumption is proportional to permanent income, while the RIT argues that in the long-run, current consumption is proportional to current income. The measure of income determined as an average of current, past, and future incomes is called permanent income. As such, it is the assumption that consumption expenditures are tied in proportional fashion to permanent income and, thus, do not fluctuate measured (or observed) income fluctuates. (Alesina & Ardagna, 2010).

Again, the transitory consumption is not related to transitory income in the PIH. When a household has a transitory decline in income its consumption expenditure does not decline too. Similarly, when a household's income rises temporarily, its consumption

expenditures do not rise. Unexpected fluctuations in income, according to PIH supporters, do not result in changes in consumption, but rather in comparable changes in sales.

In other words, the marginal propensity to spend (MPC) from transitory or windfall income is zero, and the marginal propensity to save (MPS) is one. As a result, if present consumption is unconnected to transitory income, the consumption-income connection in the near run is non-proportional. The PIH concludes that the long-run consumption-income relationship is proportionate because the proper consumption function ties permanent consumption to permanent income. Permanent income changes cause proportionate changes in permanent consumption (Alesina & Ardagna, 2010).

1.3   Investment

John Maynard Keynes and Irvin Fisher, both argued that investments are made until the present value of expected future revenues, at the margin, is equal to the opportunity cost of capital. This means that investments are made until the net present value is equal to zero. An investment is expected to generate a stream of future cash flows, c(t). Since investment, I, represent an outline at time 0, this can be expressed as a negative cash flow. (Hermes and Lensink, 2001).

For the sake of this study, the investment theories to be considered for this study are Tobin's Theory of Investment and the Jorgensons' Neoclassical Theory of Investment, and they are as discussed below.

Tobin's Theory of Investment

James Tobin, a Nobel laureate economist, has suggested the q theory of investment, which relates a company's investment decisions to stock market volatility. When a company finances its investment capital by issuing shares on the stock market, the share prices reflect the company's investment decisions.

Firm's investment decisions depend on the following ratio, called Tobin's q:

q = Market Value of Capital Stock/Replacement Cost of Capital

In the numerator, the market value of a company's capital stock is the worth of its capital as assessed by the stock market. In the denominator, the replacement cost of the firm's capital is the real cost of purchasing existing capital stock at the current market price. Thus, Tobin's q theory explains net investment by correlating the market value of a firm's financial assets (the market value of its shares) to its real capital's replacement cost (shares).

According to Tobin, the net investment would depend on whether q is more than or less than 1 (q>1 or q<1). If q is more than 1, the market value of the firm's shares on the stock market exceeds the cost to replace its real capital, machinery, etc.

The firm can buy more capital and issue additional shares in the stock market. In this way, by selling new shares, the firm can earn profit and finance new investment. Conversely, if q<1, the market value of its shares is less than its replacement cost and the firm will not replace capital (machinery) as it wears out. (Soli *et al,* 2008).

The demand for capital is primarily determined by two things. First, the wealth of the population. The greater a person's level of wealth, the more shares they desire in their wealth portfolio. The real return on other assets, such as government bonds and real estate, is the second factor to consider. A decline in the real interest rate on government bonds would encourage individuals to invest in stocks over other kinds of wealth. This would increase capital's demand and raise its market value above its replacement cost. (Vergara, 2010).

Implication

The consequences of Tobin's q theory of investment are significant. Tobin's q ratio provides corporations with an incentive to invest based on the stock market. It represents not just the present profitability of capital, but also its anticipated future profitability. Investment is expected to be higher in the future when the value of q is larger than 1.

Tobin's q theory of investment induces firms to undertake net investment even when q is less than 1 in the present. They may adopt such economic policies which bring future profitability by raising the market value of their shares.

Jorgensons' Neoclassical Theory of Investment

Jorgenson has created a neoclassical investing theory. His investment philosophy is predicated on the determination of the optimal capital stock. His investment formula was derived from the firm's profit maximization philosophy..

Jorgenson's theory is based on the following assumptions:

   i.   The firm operates under perfect competition.
   ii. There is no uncertainty.
   iii. There are no adjustment costs.
   iv. In an economy where the prices of labour and capital are entirely flexible, there is full employment.
   v.   There is a perfect financial market, so the company can borrow or lend at a specified interest rate.
   vi. The production function relates labour and capital inputs to output.

vii. Capital and labour are homogenous inputs that produce a homogenous result.

viii. Inputs are utilized until their MPPs are equivalent to their actual unit costs.

ix. There are diminishing returns to scale.

x. There exists "putty-putty" capital, which is quickly and cost-free adapted to a different technology, even after an investment has been made.

xi. The entire capital stock is utilized.

xii. Changes in current prices always result in corresponding changes in future prices, all else being equal.

xiii. The cost of fixed assets equals the discounted value of rental fees.

xiv. In connection to all future values, the company optimizes the present value of its current and future profits with complete foresight.

The Jorgenson's Model

Jorgenson bases his investing theory on the notion that a company optimizes its present worth. To describe the firm's present value, he considers a manufacturing process with a single output (Q), a single variable input (L), and a single capital input (I-investment in durable products), with p, w, and q reflecting their respective values.

R (t) =p (t) Q (t) – w (t) L (t) – q(t) I(t)

I describes the flow of net receipts at time t. (t)

Where Q represents output and p represents its price; L represents the flow of labor services and w represents the wage rate; I represent investment and q represents the price of capital goods.

The model of Jorgenson is predicated on the assumption that there are no adjustment costs, therefore the firm does not benefit from delaying the acquisition of capital. Second, it results from the assumption that capital is homogeneous and can be purchased, sold, or rented in a completely competitive market. Assuming there are no adjustment costs, no uncertainty, and perfect competition, as Jorgenson does, the firm's capital stock will always be optimized. The question of adjusting to a discrete change in the interest rate does not therefore arise. Instead, Jorgenson approaches this issue as a comparison between two optimal capital accumulation routes under two distinct interest rates.

Jorgenson assumes that any changes in the interest rate are precisely offset by changes in the price of investment products, so that the own-interest rate on investment goods remains constant (Joseph, Tochi-Nze and Ekundayo, 2019).

In addition, he believes that changes in the time path of interest rates have no effect on the time path of forward or discounted capital goods prices. This criterion states that the

demand for investment products in two distinct circumstances is a diminishing function of the interest rate.

Jorgenson reaches the conclusion that the demand for investment products is dependent on the interest rate by analyzing two different and continuous routes of capital accumulation based on the interest rate's temporal path.

Jorgenson's neoclassical theory of investment has been criticized on the following grounds:

i. Jorgenson's investment function is derived from such assumptions that do not specify how the real capital stock changes to the optimal capital stock.

ii. Jorgenson's theory is predicated on the premise of full employment in an economy with completely flexible labour and capital prices, allowing producers and consumers to anticipate changes in demand, supplies, and goods prices. However, this is not the case due to large time lags for capital goods orders to be completed, which frequently leads to a fall in investment demand and the resulting idle capacity and labour unemployment in both the consumer and capital goods industries.

iii. Jorgenson's analysis is predicated on fully predictable quantities and pricing. However, foresight is never flawless. In addition, Jorgenson provides no mechanism for the establishment of these expectations other than the assumption that changes in present prices result in proportional changes in future prices. Furthermore, he provides no information regarding the anticipated future sales quantities**.**

iv. Jorgenson's classical production function connects current investment with future outputs, and perfect foresight provides the precise quantity of current expenditure required to generate the expected amount of commodities. Again, foresight is not perfect and current capital investments may not be fully exploited in the future. Rather, there may be a capital shortage in the future.

   In summary, we can conclude that the theoretical review helped us to work out a framework to be used in this study. Consumption theories, investment theories reviewed showed that consumption and investment expenditures have so many factors that influence their behaviours. Theories of consumption reviewed is to help us get the framework for the various forms of income both to the government and individual households.

Furthermore, fiscal policy and its objectives were examined, and it was discovered that governments utilize fiscal policy to influence the amount of aggregate demand in the economy in order to attain the economic goals of price stability, full employment, and economic growth.

1.4 Empirical Evidence of Impact of Fiscal Policy on Investment and Consumption Expenditure.

The literature provides broad empirical studies of a relation between fiscal policy and investment and consumption expenditure in West Africa by using a wide variety of indicators and various types of econometric approaches covering mainly different data as regards countries and time periods.

Awode (2019) investigated whether fiscal policy had a crowding-in or crowding-out effect on private investment in Nigeria between 1987 and 2015. The analysis utilized secondary time series data obtained from the CBN statistical bulletin and 2015 World Development Indicators. The acquired data were analysed using Autoregressive Distributed Lag, and inferences were derived at a significance level of 5%. The results indicated that inflation, capital expenditure, indirect tax, and non-tax revenue had positive and substantial effects on private investment in Nigeria over the study period, whereas domestic lending to the private sector had a negative and significant influence. The study concluded that capital spending and private investment have a crowding-in relationship, whereas indirect tax revenue has a significant and non-distorting link with private investment. Therefore, the report proposed increasing public investment in capital projects and generally making the tax structure more favourable to private sector investment.

Through the use of annual data from 1993 to 2014, Joseph, Tochi-Nze, and Ekundayo (2019) examined the connection between fiscal policy and private investment in five West African countries. Using the ordinary least square approach of the fixed impact model for panel data, the results revealed a strong crowding-in effect between government capital spending and tax revenue, whereas non-tax revenue demonstrated a crowding-out effect. Recurrent expenditure and external debt also exhibited crowding out effects, but these were negligible. In addition, the acceleration effect of output growth was found to be negligible across all countries over the period. The report recommended that these nations make concentrated efforts to direct funding towards capital projects and reorganize their tax structures in order to reduce the detrimental effects of public debt on private investment.

When referring to the Economic Community of West African States (ECOWAS), Keho (2019) evaluated the impact of government spending on household consumption. We employ the Common Correlated Effect Mean Group (CCEMG) estimator as a modelling technique, which considers both parameter variability and cross-sectional dependence. The study provides evidence in the form of whole-panel and country-level analysis. According to the panel estimates, government consumption has a negative influence on private

consumption on average, showing that government and private consumption are substitutes. However, country-level data show significant variability in the degree of substitutability among countries. Specifically, they find crowding-out effects in six nations, crowding-in effects in one country, and no significant effect in five countries. As a result, in ECOWAS countries, government spending is not an effective tool for boosting aggregate demand and economic growth.

Canh and Phong (2018) used data from 22 economic sectors in Vietnam over 27 years (1990-2016) and the PVAR model coupled with GMM to analyse the impact of state spending on private investment and GDP growth. State sector investments (which include public and state-owned enterprise investments for production and commercial operations) were found to provide stronger growth impacts in the short term, whereas public and state sector investments contributed positively to economic growth over the long term. Public investment supports private investment and FDI over the long term, and this support is cyclical, meaning it affects the total stock of private capital. Meanwhile, state-sector investment has led to a decline in private capital stock and has crowded out domestic private and foreign direct investment. Increases in public debt are an inevitable consequence of both direct and indirect government spending. We have some policy suggestions to improve the effectiveness of public and state sector investment based on these findings. Meanwhile, state-sector investment has decreased the private capital stock in the short term, crowds out domestic private and FDI investments in the short term, and in the long term. Both public investment and state sector investment has the effect of increasing public debt in the long term. Based on these results we have some policy recommendations to increase the efficiency of public investment and state sector investment.

Omojolaibi, Okenesi, and Mesagan (2016) examined the nexus between fiscal policy in Sierra Leone, Senegal, Nigeria, Ivory Coast and Nigeria using the panel data technique from 1993 to 2014. The study revealed the existence of crowding-in-effect of tax revenue and government capital expenditure as well as the crowding-out effect of non-tax revenue.

Hoang Phong (2014) used the autoregressive distributed lag model (ARDL) to examine the effects of public investment on Vietnam's economic growth for the period 1988-2012. The result indicated that the effect of public investment on economic growth in the short term is not statistically significant, but it promotes long-run growth. However, these empirical studies in Vietnam are limited in data sources, and the authors used public investment, including investment from state-owned enterprises (SOEs) for production and business activities.

Oyeleke and Ajilore (2014) evaluated the government's compliance with intertemporal government budget limitations by analysing the Nigerian government's fiscal policies from 1980 to 2010. Using the error correction method of analysis, the study found that Nigeria's fiscal strategy was only marginally sustainable. This report advises that the government increase its tax revenue and other sources of income while limiting its expenditures to growth-enhancing programs.

Agu, Okwo, Ugwunta, and Idike (2014) analysed the effect of various fiscal policy components on the Nigerian economy between 1961 and 2010. Utilizing descriptive statistics, the contribution of government fiscal policy on economic growth was demonstrated. After confirming data stationarity, the link between economic growth and government expenditure components was determined using an OLS with several forms. Total government expenditures have tended to expand with government revenue, with expenditures reaching their peak faster than revenue. Investment expenditures were significantly lower than recurrent expenditures, indicating the country's weak economic growth. Consequently, there is evidence of a positive association between government spending on economic services and economic expansion. An increase in the budgetary allocation for economic services will improve economic stability.

Using time series data, Malik (2013) studied the linear and nonlinear influence of fiscal policy factors on private investment in Pakistan from 1972 to 2009. As the impact of fiscal policy variables in aggregate form and disaggregate form do not correspond, the results reveal clearly that it is preferable to analyse distinct elements of fiscal policy rather than fiscal policy variables in aggregate form. Various types of expenditures and earnings have distinct effects on private investment. Second, in the majority of instances, a nonlinear relationship occurs, indicating the importance of a particular threshold level for the various fiscal policy instruments to boost private investment.

Haque (2013) examined the nexus between private-public investments in Bangladesh using the error correction model. The study revealed that public investments, as well as private investment, boost the growth and advancement of the economy.

Isaac and Samuel (2012) examined the impact of fiscal policy on investment and economic growth in Kenya using time series data from 1973 to 2009. Due to its versatility, they utilized the two-stage instrumental variable estimation method to conduct the regression analysis. The results demonstrate that fiscal policy influences investment, and investment plays a significant role in determining Kenya's economic growth. They recommend adapting the following three measures: a revaluation of government spending to eventually make it

complementary to investment, a greater allocation of credit to the private sector, and the formulation of appropriate policies to address the current high domestic public debt and budget deficit.

Sineviciene and Vasiliauskaite (2012) analysed the connection between fiscal policy and private investment in Estonia, Latvia, and Lithuania. The study revealed that the present taxes on income, wealth, and private investment had the strongest link with respect to tax revenue. The strongest relationship between public and private investment was discovered through an analysis of fiscal policy indicators' interactions with private investment from the government expenditure side, leading researchers to argue that fiscal policy indicators explain private investment volatility in the Baltic States.

Hadiwibowo (2010) empirically reviewed the effect of fiscal policy on economic advancement and investment in Indonesia using the vector error correction method from 1969 to 2008. The findings from the study showed that fiscal policy determinants such as government current expenditure and revenue are negatively related to investment. The result also showed that government current expenditure is positively and significantly related to investment.

State expenditure shocks have a beneficial influence on private investment, according to a study by Marratin and Salotti (2010) on the connection between fiscal policy and private investment in fourteen EU nations. The study indicated that public expenditure connected to compensation had a considerably greater stimulating effect than government investment, which has no influence on private investment. Traum and Yang (2010) discovered a weak correlation between governmental debt, real interest rate, and private investment. They observed that, in the short run, the government's debt level as a percentage of GDP might either encourage or discourage private investment. If the lowering of distortionary taxes is to blame, private investment will be crowded out, but if government consumption spending and transfer payments are to blame, private investment will be crowded in. Another study by Kiptui (2005) demonstrated that budget deficits have a significant delayed effect on private investment in Kenya, showing that the effects of fiscal discipline may not be realized immediately.

Bukhari, Ali and Saddaqat (2007) used the ARDL technique to empirically assess the nexus between public-private investments in the Asia economies from 1971 to 2000. The study showed that the redistribution of public investment has a significant and positive influence on the advancement of the economy. And that public consumption, private

investment as well as a public investment have long term influences on the advancement of economic growth.

Chigbu and Njoku (2013) identified policy that contributed effectively to the level of economic growth in Nigeria. Unit root test cointegration, VAR model and graph were some of the econometrics techniques used for data estimation and were found to be unstable over the years of the study which indicated no long run relationship. However, the study further revealed that fiscal policy measures are more effective in gearing economic growth in Nigeria.

2. METHODOLOGY OF IMPACT OF FISCAL POLICY ON INVESTMENT AND CONSUMPTION EXPENDITURE

This part of the research study presents the details of the research method to be employed in this study. It contains the theoretical frameworks for our specific objectives, hypothesis statement, the model specifications, Data description and the measurement of variables, method of data analysis and sources of data.

2.1 Theoretical framework

This research study employed 2 different theoretical frameworks to help us achieve our specific objectives. The first theoretical framework would help us to determine the impact of fiscal policy on investment expenditure, the second framework would help us to determine the impact of fiscal policy on consumption expenditure.

The research methodologies that are employed for this research analysis include: descriptive statistics, correlation, Granger causality test, and OLS regression. The study will be investigated using these methodologies. These methods are most appropriate because they will help us to determine the direction of causality of both the dependent and independent variables, describes the behaviours of the variables and most importantly we would be able to determine the relationships that exist among the variables.

Selection of Variables

Variables were considered and selected as a result of the theoretical and empirical review of literature. The theoretical reviews enabled us to formulate the theoretical framework for the study. The variables were considered and chosen as they represent the near perfect elements that explain the behaviours of the dependent variables.

The first theoretical framework follows the framework of Bahmani-Oskooee (1999) and Ahmed and Miller (2000) to estimate the impact of fiscal variables on investment expenditure. We test the long-run equilibrium relationship among investment (inv), economic growth (gdp), lending interest rate (intr), and fiscal variables. The fiscal variables included in this analysis are government expenditure (gexp) and government revenue (rev). The relationship can be stated as follow:

inv = f (gdp, gexp, rev, intr) ……………………………………. (1)

We can thus use this framework to look at how fiscal policy impact investment expenditure.

The second theoretical framework follows the basic simple consumption equation as postulated in Keynes' Absolute Income Hypothesis (1936).

The equation is stated as follows; C= f (disposable income proxy by GDP per capita), thus some variables like, government revenue, tax on goods and services and inflation rate were included to capture the extent of the impact of fiscal policy on consumption expenditure. The relationship can be stated as follows: cons= f (gni p.c, rev, infrt, cpi) ……………..(2)

2.2 Model Specifications

The models are specified based on the theoretical framework adopted and individually specific objectives of the study.

To capture the extent of the impact of fiscal policy on investment, a simple structural model is estimated which includes variables such as Investment expenditure, gross domestic product (income), government capital expenditure, government revenue and interest rate. The model is specified in its general form as stated in equation (1);

Inv = f (GDP, gexp, rev, intr)

Mathematically, the above model can be expressed in its functional form as follow;

$$\mathbf{Inv_{it} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 gdp_{it} + \boldsymbol{\beta}_2 gexp_{it} + \boldsymbol{\beta}_3 rev_{it} + \boldsymbol{\beta}_4 intr_{it} + \boldsymbol{\mu}_{it}} \text{-------------------------- (3)}$$

Where; β = Parameter of the Model

Inv = Investment expenditure

gdp = Gross domestic product

gexp = Government expenditure

rev = Government revenue

Intr = The annual lending interest rate

μ = Error term

i = individual group

t = Number of periods

To capture the extent of the impact of fiscal policy on consumption expenditure, a simple structural model is estimated which includes variables such as consumption expenditure, disposable income, corporate tax, interest rate and exchange rate. The model is specified in its general form as stated in equation (2);

cons= f (GDP p.c, rev, tax, infr)

Mathematically, the above model can be expressed in its functional form as follow;

$$\mathbf{cons_{it} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_1 gni\,p.c_{it} + \boldsymbol{\beta}_2 rev_{it} + \boldsymbol{\beta}_3 cpi_{it} + \boldsymbol{\beta}_4 infr_{it} + \boldsymbol{\mu}_{it}} \text{------------------------------(4)}$$

Where; β = Parameter of the Model

cons = Consumption expenditure

GDP p.c = GDP per capita to proxy Disposable income

rev = Government revenue

cpi = consumer price index

Info = Inflation rate

µ = Error term

i = individual group

t = Number of periods.

Data description and Measurement of variables

Dependent variables:

Investment expenditure: Land improvements (fences, ditches, drains, etc.); purchases of plant, machinery, and equipment; construction of roads, railways, and similar structures; construction of schools, offices, hospitals, private residential dwellings, commercial and industrial buildings; all of these are included in Gross fixed capital formation. Capital formation includes net acquisitions of valuables according to the 1993 SNA. All numbers are expressed in today's U.S. dollar values.

Consumption expenditure: Total consumption represents the sum of individual and government spending. Data are in current U.S dollars. It is measured in $ millions.

Independent variables:

Gross domestic products: Gross domestic product (GDP) represents the value of all final goods and services generated within a nation's borders, before the addition of any taxes on those goods and services and the subtraction of any subsidies on those goods and services. It is computed without regard for depreciation of manufactured assets or depletion and deterioration of natural resources. Data are in constant 2017 international dollars. The GDP for the West African countries is measured in $ millions.

Government Revenue: This is the sum of taxes, grants and other revenues, it includes grants from other foreign governments, international organizations, and other government units; interest; dividends; rent; requited, nonrepayable receipts for public purposes (such as fines, administrative fees, and entrepreneurial income from government owner-ship of property); and voluntary, unrequited, nonrepayable receipts other than grants. Data are in current U.S dollars and measured in $ millions.

Government expenditure: The total amount spent by all levels of government, all households, and all individuals is known as the gross national expenditure. Data are in current U.S. dollars. It is measured in $ millions.

GNI per capita: GNI per capita is calculated by dividing gross national income by the midyear population. To calculate gross national income (GNI; formerly GDP), add up the value produced by domestic producers, add in any taxes on products (net of subsidies) that

were not factored into the cost of production, and add in any net export earnings or import earnings from primary sources. Data are in constant 2017 international $. The GNI per capita it is used to proxy the income of the general populace.

Consumer Price Index: The consumer price index (CPI) measures changes in the average consumer's cost of acquiring a basket of goods and services, which may be set or modified on a regular basis, such as annually. Most often, the Laspeyres formula is employed. Data are measured yearly and represent period averages.

Inflation rate: The annual inflation rate is calculated using the consumer price index, which measures the percentage (%) change in the known cost to the average consumer of purchasing a basket of goods and services that may be fixed or adjusted at predetermined intervals, such as yearly. The Laspeyres formula is commonly used and is measured on a yearly basis.

Interest rate: This is defined as the rate at which commercial banks lend money to businesses for both short- and long-term financing. This rate is typically variable based on borrower creditworthiness and the purpose of the loan. However, the circumstances associated to these rates vary each country, making international comparisons difficult.

2.3 Estimation Techniques

This study is segmented into two sections, first; data diagnosis and preliminary test, such as descriptive statistics, trend analysis and stationary test were conducted to make sure all the Fiscal variables, investment and consumption expenditure are stationary.

Secondly, the ordinary least square regression technique was used to estimate the specific and individual relationship between fiscal policy and other key selected variables for the study.

The OLS technique of analysis will be an efficient tool of analysis for numerical estimation of the coefficient of the model of the research. The ordinary least square multiple regression shows the relationship between independent variables on how it affects the dependent variable that is specified above (Gujarati, 2004). The method of least square has some very important statistical properties that have made it one of the most powerful and popular method of regression analysis (Gujarati, 2004).

OLS estimates the parameters of the two variables regression model (dependent and explanatory variables). It estimates the intercept and slope of the coefficient in such a way to minimize the sum of the squares of the deviation between the actual and estimated value.

Sources of data: World Bank, Development Research Group. The data gotten is based specifically on primary household survey data gathered from government statistical agencies and World Bank national offices.

Research Period: The research study spanned for a period of 10 years, from 2011-2020, using panel data from the 5 West African countries that were investigated.

Hypothesis

The hypotheses formulated was adopted and modified from the work of Joseph, Tochi-Nze and Ekundayo (2019). The hypotheses were formulated to help us predict our potential research findings in the study. They are the tentative statements in the form of answers to our research questions that have not been tested.

To facilitate this study, the following hypothesis developed to be tested are as follows:

H_{01} There is no causality among fiscal policy, consumption, and investment expenditure.

H_{11} There is causality among fiscal policy, consumption, and investment expenditure.

H_{02} Fiscal policy has no positive impact on investment and consumption expenditure.

H_{12} Fiscal policy have a positive impact on investment and consumption expenditure.

Descriptive Statistics

The study will employ the use of descriptive statistics to explore the central tendency and dispersion among the variables; mean, standard deviation, kurtosis, skewness and jaque-bera to know the statistical properties of the variables.

i.   Kurtosis

In probability theory and statistics, kurtosis (Greek: *kyrtos or kurtos*, meaning curled, arching) refers to any measure of the tailness of the probability distribution of a real-valued random variable. Kurtosis indicates whether the data are skewed or flat relative to a normal distribution. That is, data set those with a high kurtosis have a pronounced peak close to the mean (positive kurtosis), decline rather rapidly, and have heavy tails. Data set with low kurtosis tend to have In lieu of a sharp peak, a flat top close to the mean (negative) kurtosis. Kurtosis can be defined as a measure of the relative peakedness of its frequency curve. Various frequency curves can be divided into three categories depending upon the shape of their peak. The three shapes are termed as Leptokurtic, Mesokurtic and Platykurtic (James, 1997).

ii.   Skewness

The asymmetry of a distribution is the definition of its skewness. In a symmetrical distribution, the Mean, Median, and Mode are all equal, and the ordinate at the mean divides the distribution into two equal portions, one of which is the mirror image of the other. In

relation to a normal distribution, kurtosis reveals whether the data are skewed or flat. Skewness describes the degree of asymmetry of a distribution around its mean. A distribution with a positive skewness has an asymmetric tail that extends toward higher positive values. Negative skewness denotes a distribution with an asymmetric tail that extends to more negative values.

iii. Jarque-Bera

In statistics, the Jarque-Bera test determines if sample data have skewness and kurtosis that are compatible with a normal distribution. It is used to examine the distribution's normalcy. The test is given the names of Carlos Jarque and Anil K. Bera.

iv. Standard Deviation

The standard deviation (SD), denoted by the Greek letter sigma, is a statistic that quantifies the amount of variation or dispersion in a set of data values. When the standard deviation of the data is close to 0, it means that the data point is extremely close to the set's mean (also known as the expected value), whereas a standard deviation close to one indicates that the data points span a larger range of values.

Diagnostic Checks

Diagnostic checks were further applied and appropriate lags levels were determined to ensure a better model.

i) Serial correlation

The classical linear regression model assumes that serial correlation does not exist among the disturbance terms. In order to find out where the error terms are correlated in the regression.

ii) Normality test

This test was run to see if the error term had a normal distribution with a constant variance and no discernible mean, this test was performed. The traditional linear regression model relies on this assumption. It will be determined if the time series variable is normally distributed by using the Jarque-Bera test. To perform this analysis, we will add the dependent variables' lag values to the equation.

3. DATA ANALYSIS AND DISCUSION OF FINDINGS

This chapter presents the data analysis, result interpretation of empirical findings on the research topic Impact of Fiscal Policy on Investment and Consumption Expenditure. We present and interpret the results of the line graphs and descriptive statistics of the series. Unit root test results, regression results, and discussion of findings are also presented. The data were analyzed using Econometrics software (E-views 10.0).

3.1   Descriptive Statistics of Data

Table (1a): Summary of Descriptive Statistics for Impact of Fiscal Policy on Investment Expenditure

See table on annex 2

Source: Author's computation.

Table (1a) gives the summary of the descriptive statistics of the variables. The descriptive statistics examine the trend (nature and pattern) of the selected variables for the period under review. Out of the 50 observations (Cross section of variables among five African countries for ten years 2011-2020), Investment Expenditure (INV) has an average total of $21,720.42 million. Government Expenditure (GEXP) shows an average of $113,837.7 million in the last 10 years across the five countries in consideration. It has a maximum and minimum growth of $513,957 million and $1388 million respectively. Gross Domestic Products (GDP) shows an average of $131641.9 million.

Also, Interest rate (INTR) shows an average rate of 11.44% and a maximum growth rate of 29%. Finally, the statistics on Revenue (REV) shows an average of $720,819.1 million.

Table (1b): Summary of Descriptive Statistics for Impact of Fiscal Policy on Consumption Expenditure

See table on annex 2

Source: Author's computation

Table (1b) gives the summary of the statistics of the variables for the Impact of Fiscal Policy on Consumption Expenditure. The descriptive statistics examine the trend (nature and pattern) of the selected variables for the period under review. Out of the 50 observations (Cross section of variables among five African countries for ten years 2011-2020), Consumption Expenditure (CONS) has an average total of $91,837.76 million. Consumer Price Index (CPI) shows an average of 144.99 % in the last 10 years across the five countries in consideration. Gross National Income Per Capita (GNI-PC) shows an average growth of

$458,097.4 million. Also, Inflation rate (INFR) shows an average growth rate of 6.83%. Finally, the statistics on Revenue (REV) shows an average of $720,819.1 million.

3.2   Econometric Analysis of Data

The results of econometric analysis of the data in line with the research objectives of this study are presented and discussed in this section. The econometric analysis techniques applied are unit root test, co-integration test, heteroscedasticity test, normality test and Granger causality test to examine the fitness and accuracy of the data and technique employed.

Table (2a): Granger Causality Tests for the Impact of fiscal policy on Investment Expenditure

See table on annex 2

Source: Author's computation

Decision rule: reject H0 if p-value <0.05.

The results obtained from the table 2a indicate that Government Expenditure does not granger cause Investment Expenditure at 5% as the p-value >0.05, we accept the null hypothesis that Government Expenditure does not granger cause Investment Expenditure. Also, the result shows that Investment Expenditure granger causes Government Expenditure at 5% level of significance, thus we reject the null hypothesis as p-value <0.05. Further, the result indicates that Gross Domestic Product granger causes Investment Expenditure at 5% level of significance, while Investment Expenditure also granger cause Gross Domestic Product. Also, the results obtained indicate that Interest rate does not granger cause Investment Expenditure at 5% as the p-value <0.05, we reject the null hypothesis that Interest rate does not granger cause Investment Expenditure. It can also be seen that Investment Expenditure granger cause Interest rate.

Also, the result shows that Revenue granger does not causes Investment expenditure at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Investment Expenditure also does not granger cause Revenue as the value of p.0.05.

Furthermore, Gross Domestic Product granger causes Government Expenditure as p value <0.05, but Government Expenditure does not granger causes Gross Domestic Product at 5% level of significance and thus, we accept the null hypothesis p>0.05. Also, the results indicated that Interest rate granger cause Government Expenditure at 5% as the p-value >0.05, we reject the null hypothesis that Interest rate does not granger cause Government Expenditure. It can also be seen that Government Expenditure does not granger cause Interest rate as p<0.05.

Also, the result shows that Revenue does not granger causes Government expenditure at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Government Expenditure also does not granger cause Revenue as the value of p>0.05. The results also showed that Interest rate does not granger cause Gross Domestic Product at 5% as the p-value >0.05, we accept the null hypothesis that Interest rate does not granger cause Gross Domestic Product. It can also be seen that Gross Domestic Product granger cause Interest rate as p<0.05. Thus, we reject the null hypothesis.

Furthermore, the result showed that Revenue does not granger causes Gross Domestic Product at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Gross Domestic Product also does not granger cause Revenue as the value of p>0.05. Finally, the result shows that Revenue does not granger causes Interest rate at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Interest rate also does not granger cause Revenue as the value of p>0.05.

Table (2b): Granger Causality Tests for the Impact of fiscal policy on Consumption Expenditure.

See table on annex 2

Source: Author's computation

Decision rule: reject H0 if p-value <0.05.

The results obtained from the table 2b indicate that Consumer price Index does not granger cause Consumption Expenditure at 5% as the p-value >0.05, we accept the null hypothesis that Consumer Price Index does not granger cause Consumption Expenditure. Also, the result shows that Consumption Expenditure granger causes Consumer Price Index at 5% level of significance, thus we reject the null hypothesis as p-value <0.05. Further, the result indicates that Gross National Income Per Capita granger causes Consumption Expenditure at 5% level of significance, while Consumption Expenditure also granger cause Gross National Income Per Capita. Also, the results obtained indicate that Inflation rate granger cause Consumption expenditure at 5% as the p-value <0.05, we reject the null hypothesis that Inflation rate does not granger cause Consumption Expenditure. It can also be seen that Consumption Expenditure does not granger cause Inflation rate as p>0.05.

Also, the result shows that Revenue granger does not causes Consumption Expenditure at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Consumption expenditure also does not granger cause Revenue as the value of p >0.05.

Further, the result indicates that Gross National Income Per Capita granger causes Consumer Price Index at 5% level of significance, while Consumer Price Index also granger cause Gross National Income Per Capita as p>0.05. Also, the results obtained indicate that Inflation rate does not granger cause Gross National Income Per Capita at 5% as the p-value >0.05, we accept the null hypothesis that Inflation rate does not granger cause Gross National Income Per Capita. It can also be seen that Gross National Income Per Capita does not granger cause Inflation rate.

Also, the result shows that Revenue granger does not causes Gross National Income Per Capita at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Gross National Income Per Capita also does not granger cause Revenue as the value of p >0.05.

Finally, the result shows that Revenue does not granger causes Inflation rate at 5% level of significance as p>0.05, thus we accept the null hypothesis as p-value >0.05. Inflation rate also does not granger cause Revenue as the value of p>0.05. Thus, we accept the null hypothesis that Inflation rate does not granger cause Revenue.

3.3 Panel Regression Analysis

Table (3a): Panel Regression analysis for the Impact of fiscal policy on investment expenditure

See table on annex 2

Source: Author's computation.

Note: The fixed effects model was used as the actual values of our variables were estimated, we also believe that the explanatory variables have a fixed relationship with the dependent variable. As they either have a positive impact on the dependent variables or negative impacts on the dependent variable. The houseman test was employed to test for the model that's best fit for the estimation and the fixed effect model showed the best fit as it has a higher value for R^2 and adjusted R^2, thus it means the fixed effect model gives the best as the higher value of R^2 and adjusted R^2 means that the explanatory variables capture the variations and behaviours of the dependent variable.

The impact of fiscal policy on investment spending is analysed in Table 3a. The result reveals that the R^2 is approximately 96% while the adjusted R^2 is approximately 94%. This implies that the variation in the dependent variable is explained by the independent variables by 96% while the remaining 4% is captured by the error term. In other words, the independent variables account for approximately 96% of the variations in the dependent

variable, and that the estimated model is a good fit and could be used to draw a meaningful inference about the Impact of fiscal policy on investment expenditure.

However, the adjusted R^2 equally measures the goodness of fit of the regression line but with some degree of freedom. The absolute value of the adjusted R^2 will always be less than or equal to that of R^2.

This result further reveals that the probability of F-statistics is statistically significant at $P<5\%$ which shows that the model is well stated and can be estimated. The value of the Durbin-Watson stats (0.70) indicates that the result is free from the problem of first order serial correlation.

Specifically, the result shows that the coefficient of correlation (-0.057415) of Gross Domestic Product is negatively signed and statistically insignificant at 5% level of significance. This means that there is a negative relationship between GDP and Investment Expenditure (INV). This implies that a million dollar increase in the GDP of the selected African nations, will lead to a decrease in Investment expenditure by about 0.057 million dollars. Also, the result reveals that the coefficient of correlation of Government Expenditure (0.356417) is positively signed and statistically significant at 5% level of significance. This means that there is a positive and significant relationship between Government expenditure and Investment expenditure. It means that a million dollar increase in Government expenditure of the selected African countries will increase Investment Expenditure by about 0.356 million dollars.

Furthermore, the result shows that the coefficient of correlation of Interest rate (-2390.926) is negatively signed and statistically significant at 5% level of significance. It implies that there exists a negative and significant relationship between the Interest rate and Investment expenditure. This means that a 1% decrease in the Interest rate would increase the Investment Expenditure by about 2390.9 million dollars.

Also, the result reveals that the coefficient of correlation of Revenue (-0.002742) is negatively signed and statistically insignificant. This means that there is a negative and insignificant relationship between Revenue and Investment Expenditure.

Finally, the Constant C shows that if all the explanatory variables are equal to zero, then Investment Expenditure will be equal to the coefficient of the constant C (18036.45). This means that if all the explanatory variables equals to zero, then Investment expenditure equals to 18,036.45 million dollars in value.

Table (3b): Panel Regression analysis for the Impact of fiscal policy on Consumption Expenditure.

See table on annex 2

Source: Author's computation.

Note: The fixed effects model was used as the actual values of our variables were estimated, we also believe that the explanatory variables have a fixed relationship with the dependent variable. As they either have a positive impact on the dependent variables or negative impacts on the dependent variable. The houseman test was employed to test for the model that's best fit for the estimation and the fixed effect model showed the best fit as it has a higher value for R^2 and adjusted R^2, thus it means the fixed effect model gives the best as the higher value of R^2 and adjusted R^2 means that the explanatory variables capture the variations and behaviours of the dependent variable.

Result in the table (3b) is the examination of the Impact of fiscal policy on Consumption expenditure. The result reveals that the R^2 is approximately 98% while the adjusted R^2 is approximately 98%. This implies that the variation in the dependent variable is explained by the independent variables by 98% while the remaining 2% is captured by the error term. In other words, the independent variables account for approximately 98% of the variations in the dependent variable, and that the estimated model is a good fit and could be used to draw a meaningful inference about the Impact of fiscal policy on investment expenditure.

However, the adjusted R^2 equally measures the goodness of fit of the regression line but with some degree of freedom. The absolute value of the adjusted R^2 will always be less than or equal to that of R^2.

This result further reveals that the probability of F-statistics is statistically significant at P<5% which shows that the model is well stated and can be estimated. The value of the Durbin-Watson stats (1.11) indicates that the result is free from the problem of first order serial correlation.

Specifically, the result shows that the coefficient of correlation (-55.21172) of Consumer Price Index is negatively signed and statistically insignificant at 5% level of significance. This means that there is a negative relationship between CPI and Consumption Expenditure (CONS). This implies that a 1% decrease in the CPI of the selected African countries, will lead to an increase in Consumption expenditure by about 55.2 million dollars. Also, the result reveals that the coefficient of correlation of Gross National Income Per Capita (-0.002105) is negatively signed and statistically insignificant at 5% level of significance. This means that there is a negative and insignificant relationship between Gross

national income Per capita and consumption expenditure. It means that a million dollar increase in GNI Per Capita of the selected African countries will lead to a reduction in Consumption Expenditure by about 0.0021 million dollars. Furthermore, the result shows that the coefficient of correlation of Inflation rate (-971.4355) is negatively signed and statistically significant at 10% level of significance. It implies that there exists a negative and significant relationship between the Inflation rate and Consumption expenditure. This means that a 1% decrease in the Inflation rate would increase the Consumption Expenditure by about 971.44 million dollars. Also, the result reveals that the coefficient of correlation of Revenue (0.006011) is positively signed and statistically significant. This means that there is a positive and significant relationship between Revenue and Consumption Expenditure. This indicates that a million dollar increase in Revenue will lead to an increase in Consumption expenditure by about that 0.0060 million dollars.

Finally, the Constant C shows that if all the explanatory variables are equal to zero, then Consumption Expenditure will be equal to the coefficient of the constant C (103112.9). This means that if all the explanatory variables are equal to zero, then Consumption expenditure equals to 103112.9 million dollars in value.

3.4 Discussion of Findings

The discussion of findings is done in line with the objectives of the study.

Objective 1:   To evaluate the impact of fiscal policy instrument on consumption expenditure in West Africa.

The result shown in table (3a) that Consumer Price Index, Gross National Income Per Capita and Inflation rate all have a negative relationship and a significant impact on Consumption expenditure. An increase in the above-mentioned variables brings about a decrease in Consumption expenditure. As Consumer price index, gross national income per capita and inflation rate increases, the total consumption expenditure of the West African countries will decrease, there will be need for urgent attention to be paid on how to regulate and put inflationary measures in place, this will also regulate the consumer price index and in return will lead to an increase in consumption expenditure.

A similar view of a negative and significant relationship between Inflation rate and consumption expenditure was expressed by Omitogun and Ayinla, (2007).

Objective 2: To evaluate the impact of fiscal policy instruments on investment expenditure in West Africa.

The result as shown in table (3b) that Gross Domestic Product and Revenue have a negative relationship but an insignificant impact on Investment expenditure. An increase in

the above-mentioned variables brings about a decrease in Investment expenditure. Government Expenditure expressed a positive and significant relationship with Investment Expenditure. This implies that when government expenditure increases, it will lead to a corresponding increase in Investment expenditure. Thus, the level of investment in the West African countries increase as government spend more on creating a befitting attractive economy to attract investors into the West African economies. Also, Increase in government spending will pull out the countries from recession as a result of more investment opportunities being created. This view was also expressed in the works of Dornbusch and Fischer, (1990).

Furthermore, Interest rate showed a negative but significant effect on Investment expenditure. This expression means that interest rate has an adverse effect on investment expenditure, the higher the interest rate, the more investors will distort from investing in the West African economy. The Government needs to put the rate of Interest rate under control to attract investors into the West African economies.

Similar view of a negative and significant relationship between Interest rate and Investment expenditure was expressed by Ajisafe and Folorunsho, (2015).

Objective 3: To examine the direction of causality among fiscal policy instruments, investment and consumption expenditure.

The results showed that Government expenditure does not have direct causality with Investment expenditure, while Investment expenditure have direct causality with Government expenditure. The result also indicated that Gross domestic product has a direct effect on investment expenditure so as Investment expenditure on Government expenditure. It was observed that Interest rate have no direct relationship with Investment expenditure, but investment expenditure has a direct causal effect on Interest rate. A similar view was expressed in the work of Joseph, Tochi-Nze and Ekundayo (2019).

Furthermore, revenue has no direct causality with investment expenditure which is the same as investment expenditure on revenue.

The results gotten from table (3b) showed that Consumption expenditure has a direct causal relationship with Consumer Price Index, but consumer price index have no direct causal effect on consumption expenditure. We could also see that Gross national income per capita has a direct causal effect on consumption expenditure and the same is the result for the consumption expenditure on gross national income per capita.

Inflation rate was seen to have no direct causality with consumption expenditure likewise consumption expenditure has no causal relationship with inflation rate.

Finally, Revenue has no direct causality with consumption expenditure as well as consumption expenditure which also have no causal relationship with revenue.

4. CONCLUSIONS AND RECOMMENDATIONS

Summary

    This Thesis was undertaken to examine the impact of Fiscal Policy on Investment and Consumption Expenditure in West Africa. The focus of the research was to ascertain if Investment and Consumption spending are significantly affected by Fiscal policy.

    In the empirical exercise, the literature reviewed provided broad empirical studies of a relation between fiscal policy and investment & consumption expenditure in West Africa by using a wide variety of indicators and various types of econometric approaches covering mainly different data as regards countries and time periods.

The study result reveals that there is a positive and significant relationship between Government expenditure and Investment expenditure, and also some of the explanatory variables were found to have a negative and insignificant effect on investment expenditure. Interest rate was discovered to exhibit a negative but significant effect on Investment expenditure.

The study also revealed a negative and insignificant relationship between Consumer Price Index, gross national income per capita and Consumption expenditure. Inflation rate was found to be negatively and significantly related to Consumption expenditure. This study further revealed a positive and significant relationship between revenue and consumption expenditure.

Conclusion

Based on the findings discussed above from the study, we arrive at the following conclusion:

    i.   Fiscal policies have a direct and indirect impact on Investment and Consumption expenditure as a result of irregular and unbalanced government policies in the West African region.

    ii.   Also, the negative and significant relationship is indicated between Inflation rate and consumption expenditure. This implies that inflationary pressures have to be curtailed by the government through favourable fiscal policies. This is in line with the conclusion of Omitogun & Ayinla, (2007).

    iii.   The study demonstrated a negative impact between Interest rate and Investment Expenditure representing the negative effects high interest rates has on the attraction of investment opportunities like FDI into the West African region.

    iv.   And finally, it is concluded that there is a statistically significant and positive relationship between Government expenditure and Investment expenditure.

The overall significance for the analysis of the impact of Fiscal policy on Investment expenditure using the R^2 value of 0.963261 shows that approximately 96% variation in the dependent variable has been explain while 4% of the variation in the dependent variable is

explained by other variables which for one major reason or the other are not included in the model.

Also, the overall significance for the analysis of the impact of Fiscal policy on Consumption expenditure using the R^2 value of 0.984239 shows that approximately 98% variation in the dependent variable has been explain while 2% of the variation in the dependent variable is explained by other variables which for one reason or the other are not included in the model as specified and analysed.

Furthermore, to conclude on this study, we accept the hypothesis $H1_1$ that there is causality among fiscal policy, consumption, and investment expenditure and also accept the hypothesis $H1_2$ that Fiscal policy have positive impact on investment and consumption expenditure. In the same instance, there is no much evidence to reject the null hypotheses $H0_1$ and $H0_2$, thus we fail to reject the null hypotheses.

Recommendations

Based on the findings from this study, the following recommendations are put forward:

i. Government of the West African region can come together to develop a common policy that will help curtain and put Inflation rate in a single digit value and its barest minimum value to avoid all the challenges caused by the inflationary pressures in the West African economies. Inflation rate was found to exhibit a negative and significant relationship with consumption expenditure.

ii. Government should increase its spending on projects that can foster and attract investment opportunities both private and public investment. Government spending was found to have a positive and significant impact on Investment expenditure.

iii. Government should curtail and regulate interest rate to its barest minimum because, based on the findings, interest rate was found to have a negative relationship though significant impact on Investment expenditure. This negative relationship may be as a result of outrageous rates of interest to potential investors who might be discouraged from investing in the economy. So there is a need for the government to properly address the issue in other to enhance and attract investors into the West African economies.

iv. Moreover, the anticipated positive impacts of government policies have been minimal in West Africa. Therefore, there is an urgent need to revamp and develop good policies through adequate budgetary allocation to sectors that can attract

v.   investment opportunities, like Government spending on attractive projects, Creation and development of basic social amenities like good road network, good seaports, airports, railways and consistent electricity.

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IMPACT OF FISCAL POLICY ON INVESTMENT AND CONSUMPTION EXPENDITURE

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SUMMARY

56 puslapiai, 7 lentelės, 61 nuoroda,

Pagrindinis šio magistro darbo tikslas - nustatyti priežastinio ryšio tarp fiskalinės politikos priemonių, investicijų ir vartojimo išlaidų Vakarų Afrikoje pobūdį ir kryptį, taip pat fiskalinės politikos įtaką šioms išlaidų kategorijoms.

Magistro darbą sudaro trys pagrindinės dalys: literatūros analizė, tyrimo metodologija, tyrimo analizė ir jos rezultatai, išvados ir rekomendacijos.

Literatūros analizėje apžvelgiama investicijų ir vartojimo išlaidų teorijų raida ir jų reikšmė, pristatoma, kaip veikia fiskalinė politika, kokie jos tikslai, parodoma fiskalinės politikos svarba, taip pat nurodoma, kaip ji toliau veikia investicijas ir vartojimo išlaidas Vakarų Afrikoje.

Atlikęs literatūros analizę, autorius atliko fiskalinės politikos poveikio investicijoms ir vartojimo išlaidoms Vakarų Afrikoje tyrimą, naudodamas penkias (5) Vakarų Afrikos šalis iš 16 Vakarų Afrikos šalių dėl tokių apribojimų kaip duomenų trūkumas, netikslūs duomenys. Šios penkios Vakarų Afrikos šalys buvo atrinktos taikant patogios atrankos metodą ir apima 2011-2020 m. laikotarpį. Tyrimo rezultatai buvo statistiškai apdoroti naudojant statistinės analizės įrankį "E-views". Tyrime nurodytas daugialypės regresijos modelis, o šiame darbe taikytas vertinimo metodas - paprastųjų mažiausiųjų kvadratų (OLS) metodas. Tyrimo rezultatai buvo palyginti su susijusiais tyrimais, atliktais kituose Afrikos regionuose.

Tyrimas atskleidė, kad egzistuoja teigiamas ir reikšmingas ryšys tarp fiskalinės politikos ir investicinių išlaidų. Šis tyrimas taip pat atskleidė teigiamą ir reikšmingą ryšį tarp valdžios sektoriaus pajamų ir vartojimo išlaidų. Nustatyta, kad palūkanų norma daro neigiamą, bet reikšmingą poveikį Investicijų išlaidoms. Tyrimas taip pat atskleidė neigiamą ir nereikšmingą ryšį tarp vartotojų kainų indekso, bendrųjų nacionalinių pajamų vienam gyventojui ir vartojimo išlaidų.

Išvadose ir rekomendacijose apibendrinama pagrindinė literatūros analizės koncepcija ir atlikto tyrimo rezultatai. Autorius mano, kad tyrimo rezultatai galėtų suteikti naudingų gairių Vakarų Afrikos šalių vyriausybėms, kaip vyriausybė galėtų naudoti ekspansinę fiskalinę politiką, kad paskatintų investicijų didėjimą Vakarų Afrikoje, o vyriausybės išlaidos turėtų būti nukreiptos į kapitalo projektus ir socialinį bendrąjį kapitalą, kuris skatintų investicijas, pavyzdžiui, nuolatinį elektros energijos tiekimą ir gerus kelių tinklus. Taip pat rekomenduojama, kad vyriausybė formuotų politiką, kuri padėtų sumažinti infliacijos lygį iki vienženklio skaičiaus, taip pat reguliuoti palūkanų normą iki minimumo.

ANNEXES
Annex 1: Data Collected for Analysis

YEAR	COUNTRY	CONS	GNI p.c	REV	CPI	INFR	INV	GDP	GEXP	INTR
2011	NIG	302125	366260.40	990	107.566	9.778458	66259	404993	368384	5.7
2012	NIG	304381	411849.16	4013	110.84	9.947637	68137	455501	372519	6.2
2013	NIG	407183	448256.95	5760	124.3822	4.964746	75815	508692	482999	11.2
2014	NIG	427567	493915.37	66312	134.9246	4.662623	86389	546676	513957	11.4
2015	NIG	411397	511620.40	52823	145.8029	2.863665	75406	486803	486803	13.6
2016	NIG	351720	539740.74	42838	158.9389	9.54367	62181	404650	413901	6.7
2017	NIG	317619	583554.50	38837	183.8531	11.11892	58144	375746	375763	5.8
2018	NIG	326491	628624.85	41540	214.2321	10.22849	78698	397190	405190	6.1
2019	NIG	359240	700978.05	43958	240.1429	10.38478	113893	448120	473134	4.5
2020	NIG	338667	720988.40	54039	267.5115	7.849142	127089	432293	465756	5.4
2011	GHA	39184	2282.86	26945	108.7285	13.91482	4711	85797	44223	8.9
2012	GHA	39406	2750.00	39641	120.8912	15.20528	6648	98315	46409	10.1
2013	GHA	53466	4547.91	41511	134.9946	54.01291	15102	140882	69028	12.4
2014	GHA	43922	5524.13	51639	155.9047	23.93996	14475	151592	58821	12.9
2015	GHA	40030	6391.84	90544	182.6424	13.25296	13346	144983	53782	13.3
2016	GHA	44807	7407.46	17298	214.5219	15.74862	13943	142202	59248	13.04
2017	GHA	49654	8579.80	79495	241.0624	10.67731	11408	148982	62094	14.1
2018	GHA	52762	9900.13	88298	259.8864	10.56848	14266	162018	68005	12.1
2019	GHA	56215	11239.52	94752	278.4517	8.481073	12326	175642	69653	11.5
2020	GHA	57642	12745.64	10451	305.9831	7.112454	12370	178429	71001	11.5
2011	CIV	28459	547366.38	1765580	104.9124	4.912434	6548	36693	34548	4.9
2012	CIV	29000	614327.05	1309250	106.281	1.304511	6212	36302	36424	4.9
2013	CIV	32977	667740.54	1968230	109.0243	2.58117	8864	42760	42773	5.1
2014	CIV	36508	751159.01	2246230	109.5135	0.448682	10977	35363	47556	5.3
2015	CIV	34140	1140552.88	2439937	110.8841	1.2515	10839	45814	44900	5.03
2016	CIV	36732	1166359.97	3027100	111.6859	0.723178	10322	47964	47161	5.3
2017	CIV	40537	1189280.39	3287603	112.452	0.685881	10380	51588	50917	5.3
2018	CIV	46161	1236535.98	3584711	112.8561	0.359409	11463	58011	58467	5.2

2019	CIV	46123	1298098.99	3792159	111.607	-1.10686	12355	58539	57865	5.3
2020	CIV	47104	1297694.23	4127136	114.3135	2.425007	13764	61348	60681	5.14
2011	SEN	16739	633900.22	414727	103.4032	3.403228	3743	17814	20481	6.8
2012	SEN	16319	661321.88	338389	104.8697	1.418229	3656	17660	20667	3.5
2013	SEN	17378	666389.71	245195	105.6146	0.710245	4194	18918	21931	1.3
2014	SEN	17620	676451.68	343928	104.4631	-1.09026	4648	19797	22744	1.7
2015	SEN	15450	704953.51	487478	104.6043	0.135212	4091	17774	20042	4.1
2016	SEN	16303	732849.95	495526	105.4802	0.837285	4555	19040	21132	6.95
2017	SEN	17643	768568.72	847115	106.8706	1.318153	5422	20996	23903	4.2
2018	SEN	19243	788825.18	874173	107.3632	0.460986	6547	23116	26790	4.3
2019	SEN	19175	814388.32	1657669	109.2513	1.758565	6744	23306	26618	4.5
2020	SEN	20796	826599.22	1847224	112.0344	2.547435	6801	24644	28314	5.3
2011	GAM	1341	24173.08	2651	104.7959	4.795883	181	1409	1523	28
2012	GAM	1233	24719.04	2812	109.2542	4.254322	295	1415	1528	28
2013	GAM	1304	24645.58	3342	115.4808	5.69913	202	1375	1506	28
2014	GAM	1183	23535.07	4047	122.3496	5.947999	204	1229	1388	28.5
2015	GAM	1240	23734.04	5130	130.6797	6.808455	280	1378	1520	28
2016	GAM	1297	23599.47	5411	140.1263	7.228793	369	1484	1667	28
2017	GAM	1412	24025.49	5386	151.3843	8.03419	345	1504	1758	29
2018	GAM	1592	25045.48	6365	161.256	6.520968	348	1670	1941	28
2019	GAM	1716	25841.31	6479	172.7304	7.115676	447	1812	2163	28
2020	GAM	1685	25030.98	8286	182.9756	5.931276	619	1868	2305	28

Source: Author's computation.

Annex 2: List of tables

Table 1a

Descriptive statistics for Impact of Fiscal policies on Investment Expenditure

SERIES OF STATISTICS	INV	GEXP	GDP	INTR	REV
Mean	21720.42	113837.7	131641.9	11.44120	720819.1
Median	9593.000	45654.50	46889.00	6.750000	60175.50
Maximum	127089.0	513957.0	546676.0	29.00000	4127136.0
Minimum	181.0000	1388.000	1229.000	1.300000	990.0000
Std. Dev.	31871.91	165674.0	168413.4	9.026584	1165897.0
Skewness	1.813990	1.512049	1.272467	1.080165	1.628347
Kurtosis	5.179513	3.505239	3.096552	2.639105	4.393200
Jarque-Bera	37.31774	19.58424	13.51253	9.994322	26.13972
Probability	0.000000	0.000056	0.001164	0.006757	0.000002
Sum	1086021.	5691883.	6582097.	572.0600	36040953
Sum Sq. Dev.	4.98E+10	1.34E+12	1.39E+12	3992.482	6.66E+13
Observations	50	50	50	50	50

Source: Author's computation

Table 1b

Descriptive Statistics for Impact of Fiscal Policy on Consumption Expenditure

SERIES OF STATISTICS	CONS	CPI	GNI-PC	INFR	REV
Mean	91837.76	144.9920	458097.4	6.832000	720819.1
Median	36620.00	114.9000	525680.6	5.300000	60175.50
Maximum	427567.0	305.9000	1298099.0	54.10000	4127136.
Minimum	1183.000	103.4000	2282.900	-1.100000	990.0000
Std. Dev.	135232.3	53.87254	417908.5	8.531106	1165897.
Skewness	1.523968	1.475748	0.366100	3.607877	1.628347
Kurtosis	3.558107	4.095964	2.031312	20.12818	4.393200
Jarque-Bera	20.00292	20.65098	3.071820	719.6699	26.13972
Probability	0.000045	0.000033	0.215260	0.000000	0.000002
Sum	4591888.	7249.600	22904872	341.6000	36040953
Sum Sq. Dev.	8.96E+11	142210.3	8.56E+12	3566.209	6.66E+13
Observations	50	50	50	50	50

Source: Author's computation

Table 2a

Granger Causality Tests for the Impact of fiscal policy on Investment Expenditure

Pairwise Granger Causality Tests at 5% level of significance

Sample: 2011 2020

Lags: 3

Null Hypothesis:	Obs	F-Statistic	Prob.
GEXP does not Granger Cause INV	35	14.9855	5.E-06
INV does not Granger Cause GEXP		7.48122	0.0008
GDP does not Granger Cause INV	35	1.03353	0.3929
INV does not Granger Cause GDP		3.49979	0.0284
INTR does not Granger Cause INV	35	4.83172	0.0078
INV does not Granger Cause INTR		3.78377	0.0214
REV does not Granger Cause INV	35	0.00637	0.9993
INV does not Granger Cause REV		0.21419	0.8857
GDP does not Granger Cause GEXP	35	4.92760	0.0071
GEXP does not Granger Cause GDP		22.1784	1.E-07
INTR does not Granger Cause GEXP	35	0.22050	0.8813
GEXP does not Granger Cause INTR		4.04458	0.0165
REV does not Granger Cause GEXP	35	0.12566	0.9441
GEXP does not Granger Cause REV		0.22087	0.8811
INTR does not Granger Cause GDP	35	1.30980	0.2908
GDP does not Granger Cause INTR		6.27654	0.0021
REV does not Granger Cause GDP	35	0.52251	0.6703
GDP does not Granger Cause REV		0.42835	0.7343
REV does not Granger Cause INTR	35	0.20107	0.8948
INTR does not Granger Cause REV		1.00907	0.4034

Source: Author's computation.

Table 2b

Granger Causality Tests for the Impact of fiscal policy on Consumption Expenditure.

Pairwise Granger Causality Tests at 5% level of significance.

Sample: 2011 2020

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
CPI does not Granger Cause CONS	40	0.16441	0.8490
CONS does not Granger Cause CPI		6.75272	0.0033
GNI_P_C does not Granger Cause CONS	40	0.07192	0.9307
CONS does not Granger Cause GNI_P_C		0.04620	0.9549
INFR does not Granger Cause CONS	40	0.13667	0.8727
CONS does not Granger Cause I NFR		0.24888	0.7810
REV does not Granger Cause CONS	40	0.00731	0.9927
CONS does not Granger Cause REV		0.36979	0.6935
GNI_P_C does not Granger Cause CPI	40	0.41888	0.6610
CPI does not Granger Cause GNI_P_C		0.04521	0.9558
INFR does not Granger Cause CPI	40	4.60913	0.0167
CPI does not Granger Cause INFR		1.13967	0.3315
REV does not Granger Cause CPI	40	0.81140	0.4524
CPI does not Granger Cause REV		1.49731	0.2377
INFR does not Granger Cause GNI_P_C	40	0.04962	0.9517
GNI_P_C does not Granger Cause INFR		1.20190	0.3127
REV does not Granger Cause GNI_P_C	40	0.39648	0.6757
GNI_P_C does not Granger Cause REV		2.47231	0.0990
REV does not Granger Cause INFR	40	0.49974	0.6110
INFR does not Granger Cause REV		0.59874	0.5550

Source: Author's computation

Table 3a

Panel Regression analysis for the Impact of fiscal policy on investment expenditure

Dependent Variable: INV

Method: Panel Least Squares

Sample: 2011 2020

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Period weights (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	-0.057415	0.076661	-0.748952	0.4594
GEXP	0.356417	0.079296	4.494755	0.0001
INTR	-2390.926	976.7344	-2.447878	0.0200
REV	-0.002742	0.003431	-0.799059	0.4301
C	18036.45	7300.060	2.470726	0.0190

Effects Specification

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared	0.963261	Mean dependent var	21720.42
Adjusted R-squared	0.943744	S.D. dependent var	31871.91
S.E. of regression	7559.507	Akaike info criterion	20.97271
Sum squared resid	1.83E+09	Schwarz criterion	21.66104
Log likelihood	-506.3178	Hannan-Quinn criter.	21.23483
F-statistic	49.35379	Durbin-Watson stat	0.704967
Prob(F-statistic)	0.000000		

Source: Author's computation.

Table 3b

Panel Regression analysis for the Impact of fiscal policy on Consumption Expenditure.

Dependent Variable: CONS

Method: Panel Least Squares

Sample: 2011 2020

Periods included: 10

Cross-sections included: 5

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	-55.21172	192.9507	-0.286144	0.7766
GNI_P_C	-0.002105	0.043749	-0.048117	0.9619
INFR	-971.4355	583.9075	-1.663680	0.1059
REV	0.006011	0.017487	0.343755	0.0733
C	103112.9	35419.54	2.911188	0.0065

Effects Specification

Cross-section fixed (dummy variables)

Period fixed (dummy variables)

R-squared	0.984239	Mean dependent var	91837.76
Adjusted R-squared	0.975867	S.D. dependent var	135232.3
S.E. of regression	21008.26	Akaike info criterion	23.01693
Sum squared resid	1.41E+10	Schwarz criterion	23.70526
Log likelihood	-557.4233	Hannan-Quinn criter.	23.27905
F-statistic	117.5516	Durbin-Watson stat	1.119149
Prob(F-statistic)	0.000000		

Source: Author's computation.