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VALUE ADDED TAX AND HOUSEHOLD CONSUMPTION EXPENDITURE AMONG SELECTED ECOWAS COUNTRIES

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ABSTRACT

The study examined the impact of Value Added Tax (VAT) on household consumption expenditure (HCE) in the selected ECOWAS countries (Nigeria, Ghana, and Cote d'Ivoire). This study employed several panel estimation techniques such as the Pooled Mean Group (PMG), Mean Group (MG) and Dynamic Fixed Effect (DFE) to investigate the impact of value added tax on household consumption expenditure in Nigeria, Ghana, and Cote d'Ivoire. The operational variables for this research work were value added tax, house hold consumption expenditure and per capita income as well as the inflation rate for the period 1994 – 2023. Data used for analysis were extracted from World Bank Development Indicators. Results showed that. The long-run effect of VAT on HCE is negative but statistically insignificant, indicating that VAT does not have a significant impact on household consumption expenditure in the long run. The study also showed a significant bidirectional causal relationship between VAT and HCE. This indicates that changes in VAT not only influence household consumption but that household consumption patterns also affect VAT revenues. Consequently, the study recommended that sustainable per capita income growth should be promoted as a top priority, as higher income levels directly lead to increased household consumption. Moreover, VAT policies need to be carefully calibrated to balance the need for government revenue generation with the potential adverse effects on household consumption.

Keywords: Value Added Tax, Household Consumption Expenditure, Consumer Price Index, Per capita income

1. INTRODUCTION

Globally, household consumption expenditure has declined in recent times. Available records from the World Bank, (2022) development indicators showed that household consumption expenditure in West African countries has declined over the years. This decline in consumption expenditure could be as a result of variety of circumstances such as increase in VAT rates, changes in oil prices, inflation, dwindling economic performances among other reasons. In Nigeria, household expenditure was $334.27 billion as at 2019, this declined to $276.22 billion and $273.98 billion in 2020 and 2021 respectively. While in Ghana, household consumption expenditure was $40.2 billion in 2019, it declined to $39.27 billion in 2020 and increased to $46.4 billion in 2021. Furthermore, in Cote d'Ivoire, household consumption expenditure indicated a declining trend from $51.4 billion in 2019 to $49.15 billion in 2020 and increased to $54.4 billion in 2021.

In West African nations, government interventions have been necessary to some extent in order to support economic growth and development. This is due to the fact that the government typically provides necessities like healthcare facilities, water, energy, education, and security. Although improving citizens' social and economic well-being continues to be the major goal of governments in sub-Saharan Africa, it is debatable how effectively fiscal policies address concerns of consumption (Nyiputen & Abijia, 2022). Nevertheless, governments in West African nations have consistently raised money through tax in order to pay for the provision of goods and services to their populace (Abiola & Asiweh, 2012). One way to raise money is through the administration of Value Added Tax (VAT), which has been claimed to have an impact on citizens' consumption habits in West African nations (Adegbite, 2018; Kathure, 2017).

While household consumption expenditure has been on the decline in West African countries in recent times, the governments of the sub-region have designed and implemented a number of social intervention programmes to cushion the price effect of VAT and improve household consumption patterns in the sub-region. In Nigeria, government programmes designed to impact on household consumption expenditure include: N-Power (Nigeria), Conditional Cash Transfer (CCT), School Feeding Programs, Government Enterprise and Empowerment Program (GEEP) among others. In Ghana, similar programmes were used to serve the same purpose as those in Nigeria. Such programs include: Livelihood Employment against Poverty (LEAP), Capitation Grant, School Feeding program, National Entrepreneurship and Innovation Plan (NEIP) among others. In Cote d'Ivoire, International Fund for Agricultural Development (IFAD) loans was used to reduce poverty by promoting household food security in poor rural communities. It is worrisome, however, to note that, in spite of all these laudable programs, the level of household consumption expenditure has continued to decline among ECOWAS countries. It is on this note that studies concerning the effect of VAT on household consumption expenditure among ECOWAS countries has persisted.

According to Umar, Aliero, and Gatawa (2018), adjustments to the VAT rate may have an effect on the cost of products and services, which in turn may have an effect on household consumption patterns. As a result, Ugwa and Embula (2012) noted that inflation is an additional element that may have an impact on household consumption spending. Therefore, it is reasonable to assume that as VAT rises; the cost of products and services rises as well, causing inflation and a fall in a household's purchasing power, which in turn causes a decrease in consumption expenditure. However, the current study provides data to support these theories.

A number of empirical studies in existing literature such as Nyiputen and Abijia (2022); Bala and Sani (2020), Adegbite (2018); and Kathure (2017) did not shed light on the magnitude of impact of VAT on HCE. Furthermore, these studies are country level studies, and it is the desire of the current study to extend the investigation by studying beyond country-level to sub-regional studies. Studying different countries collectively has the following advantages over a country-level study: Firstly, a comparative study provides a platform for cross learning among countries under consideration. Best policies and development strategies can be learnt, shared and adopted for replication among the countries. This could inform policy decisions in these countries, allowing them to learn from each other's success. Secondly, studying a single country will be difficult to generalize on the findings of the study considering a diverse region like ECOWAS. By conducting a comparative study, one can see if the observed relationship between value added tax and household consumption expenditure hold true across different economic context within ECOWAS. This will strengthen the overall conclusion on the study. Thus, the current study seeks to conduct a comparative assessment of the impact of VAT on household consumption expenditure across West African countries to offer policy recommendation that will be viable for making a more effective fiscal policy for the ECOWAS. This study focuses on three ECOWAS countries- Nigeria, Ghana

and Cote d'Ivoire. The justification for selecting these countries is that, these three countries are the leading economies in West African sub-region with aggregate share of over 60 percent of the region's population. Furthermore, the three countries control over 80 percent of the 2022 estimated total West African regional GDP of approximately USD 724.7 billion (World Bank, 2022). The study seeks to achieve the following objectives, to:

i. Ascertain the extent to which VAT influences household consumption expenditure in the selected ECOWAS countries.
ii. Investigate the causality between VAT and household consumption expenditure in the selected ECOWAS countries.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Value Added Tax

Value added tax refers to the consumption tax imposed on goods and services at every level of the supply chain, from the point of production to the point of sale (Kagan, 2019). The amount of VAT that the customer must pay is based on the product's cost, less any previously taxed expenses of the components used to make it. This definition makes it apparent who is ultimately responsible for paying taxes, but it omits to mention whether taxes are being imposed to raise money or to deter consumption.

Value added tax is a consumption tax that is applied to a product at every stage of the supply chain, from the point of manufacture to the point of sale, according to Oseni (2017). This suggests that the amount of VAT paid by the customer is based on the purchase price of the goods, minus the cost of any already taxed supplies. VAT is a consumption tax since it is applied on goods and services that are sold to customers, much like a sales tax. VAT is a consumption tax that is assessed at every point in the consumption chain and is paid for by the final user of the good or service, according to Oghuma (2017). Its application modality entails a multi-step collection process. This implies that the customer and supplier, respectively, are responsible for paying and collecting VAT at each stage of the manufacturing or operating process.

Value added tax according to Omesi and Nzor (2015), is the goods and services tax (GST) applied to the value added that arises from each exchange. VAT is a tax that is gathered from the individual who is actually responsible for paying the tax in an indirect manner. In order to increase revenue generation, VAT is an indirect tax levied on products and services, according to Onwuchekwa, Suleiman, and Aruwa (2014). The authors claim that VAT will stop consumption from rising at the same rate as income. The variance in value added tax rates throughout West African nations is mirrored in the varying definitions of the tax by different authors. For instance, the current VAT rate in Nigeria is 7.5% while that of Ghana is 15% and 18% for Ivory Coast. This implies that the VAT revenue generated by these countries differs and it consequently exerts varying impact on the household consumption expenditure of citizens in these countries. However, for the purpose of this study, value added tax can be defined as consumption tax imposed for the purpose of raising revenue at every stage of transaction or production usually borne by the final consumer of such goods and services in form of higher prices.

2.1.2 Household Consumption Expenditure

Ajibola and Olowolaju (2017) defined household consumption expenditure as the total amount of goods and services that a household consumes during a specific period of time. It describes the

final purchases that members of a household make to satisfy their basic necessities, which include, but are not limited to, food, clothing, housing, services, transportation, health, and leisure. It can also mean the market worth of all goods and services, including household purchases of durable goods like electrical appliances, vehicles, washing machines, home computers, and printers. It includes imputed rent for owner-occupied homes but excludes purchases of real estate. It also entails paying taxes and fees to the government in order to acquire licences and permits. Here, household consumption expenditure includes the expenditures of non-profit institutions serving households, even when reported separately by the country (World Bank, 2022).

According to Schorfheide (2010), consumption expenditure is the total amount a household spends on products and services they intend to consume. He also argued that of all the fundamental categories of expenditure that lead to the creation of products and, consequently, the earning of revenue, consumer expenditure is by far the most important. Additionally, he expressed the opinion that, in any free-market economy, the quantity of disposable income that individuals have determines the overall amount of money they spend on personal consumption. According to Fasoranti (2009), consumption is correlated with the psychological law of Lord Maynard Keynes, which states that men are generally inclined to raise their consumption in proportion to their income growth, but not by as much. According to Tim (1996), it is the entire amount of goods and services that consumers in the economy want to acquire in order to consume them right now. According to Anyanwu (1995), consumption is the amount of money households spend on products and services including apparel, food, entertainment, medical care, and asset acquisition, among other things. The notion of consumption function, which illustrates the connection between consumption and disposable income, is derived from this formula. However, for the purpose of this study, consumption can be defined as the total money's worth of all goods and services consumed by all households within an economy at a given time to satisfy their daily needs. These needs may include food, clothing, housing, services, transport, health, leisure etc.

According to Idris and Sebastine, (2022) value added tax (VAT) has an impact on household consumption expenditure. This is because prices rise in response to government increases in VAT and fall in response to tax reductions on products and services. Households are able to purchase more or less goods for consumption in exchange. A rise in the value added tax rate may eventually result in lower household consumption. If this happens, a drop in household consumption would be expected as disposable income would decline.

Ikwuagwu, Ariwa, and Onyele (2017) looked into variables other than VAT that affected Nigerians' aggregate consumption expenditures. They discovered that the three main factors influencing aggregate consumption expenditure were income, interest rates, and inflation rates. The Autoregressive Distributed Lagged model (ARDL) is employed by the authors in their analysis to demonstrate that aggregate consumption expenditure is positively and significantly impacted by income. Additionally, it seemed that interest rates had a big impact on overall consumer spending. Additionally, their study demonstrated that consumption spending was strongly predicted by the rate of inflation. This and other publications make it clear that inflation and disposable income influence consumer spending in a major way, hence these factors must be taken into account in this study.

2.2 Theoretical Framework

This study adopted the Relative Income Hypothesis theory as the basis for this work.

The Relative Income Hypothesis (RIH) was formulated by James Duessenberry in 1949 during his seminal work. According to this theory, a person's attitude to saving and consumption was

determined more by his income with respect to other people's income in the same general vicinity than by the abstract standard of living (Duessenberry, 1949). Duesenberry in his relative income hypothesis rejected the fundamental assumption of consumption theory of Keynes. He challenged the assumption of the independence of individual's consumption and postulated interdependence in consumption behavior. He posited that consumption behavior is not independent but interdependent on the behavior of every other individual. He explained that people do not only derive satisfaction from consumption but also from how the consumption compares with that of others (Ahuja, 2013).

As such, the relative size of a household income to that of other households determines consumption level. The hypothesis is based on two relative aspects: a household's income position relative to its associates or group and a household's present income relative to its previous incomes. By this, he posited that households strive constantly toward a higher consumption level and emulate the consumption pattern of a neighbor (Ohale, 2002). If income of all individuals/household increases by the same percentage, then relative income would remain the same despite the increase in absolute income. Since the relative income remains the same, the same proportion of income would still be spent on consumption, APC will thus, remain the same. If income should fall, consumption expenditure does not fall much as households try to maintain previously attained consumption level which they are accustomed to. This is often called the "Ratchet Effect" (Ahuja, 2013).

2.3 Empirical Review

A study on the effect of Value Added Tax on Private Consumption Expenditure on Manufactured Goods in Nigeria was conducted by Nyiputen and Abiajia (2022). The study looked at how VAT affected Nigerian private consumption expenditure on manufactured products using secondary data from1990 to 2021. The study made use of variables that affect private consumption spending on manufactured products in Nigeria, including value added tax, per capita income, real GDP, consumer price index, and private domestic credit. Autoregressive Distributed Lag (ARDL) technique was used to examine long-run and short-run relationship that existed between the variables. The results show that while real GDP and private domestic credit (PDC) have the opposite effects, value added tax (VAT), consumer price index (PCI), per capita income (PCI), and infrastructure (INFR) all positively and significantly impact private consumption expenditure (PCE) of manufactured goods in Nigeria over the short and long terms. But the only factor that significantly affects PCE is PDC. The study comes to the conclusion that value added tax; per capita income, infrastructure, and the consumer price index are the main factors impacting private consumption spending of manufactured goods in Nigeria. The focus of this study is country specific and limited to Nigeria, hence, the need for further research to consider other West African countries, such as Ghana, Cote d'iviore among others.

Idris and Sebastine (2022) used time series data spanning the years 1985 to 2020 to investigate the empirical link between household consumption and indirect tax in Nigeria. It particularly looks at the long- and short-term relationships between household consumption and indirect tax. The study used cointegration estimation and ordinary least square estimation techniques to determine the link between household consumption and indirect tax. According to the study, value added tax and household consumption have a positive but negligible association. The study also showed that while inflation rate has a negative influence on household consumption, personal income tax has a negative impact. Value added tax was statistically insignificant; inflation rate was statistically significant while personal income tax exhibited a statistically significant probability value. The study recommends that a more anti-inflationary policy should be formulated and regulated to check the effect of inflation on consumption. While the approach of this investigation is plausible, the

focus of this study is country specific and limited to Nigeria, hence, need for further research to consider other West African countries, such as Ghana, Cote d'iviore among others.

Azer and Tengiz (2022) carried out a study to examine the effect of these macroeconomic variables on household consumption in Georgia using the ARDL technique. The yearly aggregate data utilized in this analysis spans the period from 1983 to 2018. The study found a long-run negative relation between household final consumption expenditure and gross domestic saving in the long run. The study showed positive and significant long-run relationships between GDP per capita and household consumption and a significant and negative relationship between savings and household consumption both in the short and long run. The focus of this study is country specific and limited to Georgia, and hence different from the ongoing study.

Gidigbi, Ademola and Andezetso (2021) conducted research on the effect of indirect taxation on household consumption in Nigeria, using secondary data from 1981 to 2017.The study used value-added tax, exchange rate, per capita income, interest rate, inflation rate, and custom and excise duty as independent variables and household consumption as the dependent variable. Autoregressive Distributed Lag (ARDL) was used to examine long-run and short-run relationship dynamics that existed between the variables. The result revealed that value-added tax, interest rate and two- period lagged interest rate have a positive and significant impact on household consumption. In the same vein, past custom and excise duty had a positive and significant impact on real household consumption at 5 percent level of significance. The Error Correction Model (ECM) coefficient revealed that any deviation in the model will be corrected approximately in 11 months period and statistically significant at one per cent significance level. The study recommend that tax administrative loopholes should be plugged for tax revenue to contribute immensely to the development of the economy since value added tax and lagged of custom and excise duty had a significant impact on household consumption, and the government should ensure that inflation is managed and kept at its minimum so as to increase household consumption. Moreover, the scope of the study is limited to Nigeria and cannot be relied upon for policy decision.

Bala and Sani (2020) estimated the effect of Value Added Tax (VAT) on consumption in Nigeria using annual data from 1994 to 2018.The variables captured in the model include consumption, VAT, interest rate and inflation rate. This study further employed Autoregressive Distributed Lag approach in estimating the relationship among the variables. The study revealed that VAT has a positive and statistically significant impact on consumption in Nigeria. Therefore, this study recommends the needs for government to be reviewing the VAT rate from time to time in order to serve as a technique for controlling and checkmating the level of consumption in Nigeria. The scope of this study is limited to Nigeria and does not consider other West African countries.

Otemu (2020) studied the effect of value-added tax on government incomes and household consumption patterns in Nigeria. Quarterly time-series data of value-added tax, government incomes and consumption patterns were obtained from the Central Bank of Nigeria statistical bulletin during the period 2000-2018. Ordinary least square (OLS) estimation technique was adopted in the analysis of data and findings revealed that while value-added tax contributes significantly to government revenue, largely; value-added tax moderates consumption patterns in Nigeria. In view of the findings, the study recommended among others that the government via its regulatory agencies should inject some fairness in the tax system in the area of consumption tax so that the burden of income tax would lessen on those with a low-income level. Moreover, the regulatory agency charged with the sole tasks of collecting value-added tax should further be strengthened to enforce compliance by taxpayers. The scope of this study is limited to Nigeria and does not consider other West African countries.

Omodero (2020) investigated the consequences of Indirect Taxation on Consumption in Nigeria using secondary data that covers the period from 2005 to 2019. The study used both Value Added Tax (VAT) and Custom and Excise Duties (CED) to determine their effects on consumption using least squares technique. The results indicated that VAT insignificantly but positively influences consumption, while CED has a considerable auspicious influence on use. This result shows that VAT imposition on merchandises and services is discouraging the absorption of specific foodstuffs and services and allowing the operation of informal economic activities to thrive in Nigeria. However, CED charges do not reduce the use of certain illegal products purposely taxed to discourage their consumption. This study recommends a reduction in the prices of food items and services to enable consumers to increase their patronage, while the products that attract CED but are harmful should be banned entirely. Thus, offenders should be allowed to face the wrath of the law. The scope of this study is limited to Nigeria and does not consider other West African countries.

Adegbite (2018) investigated the effects of Value added tax on household consumption expenditure in Nigeria from 1994 to 2016. Multiple regression analysis technique was used to measure the effects of independent variables on dependent variable while Units root test, Johansen co-integration, Vector Error-Correction Model, and Granger causality tests were employed to determine the long run relationship and causality links among the variables. Results showed that Disposable income (DPDY) has positive significant impact on Household consumption Expenditure. DPDY granger causes HCEXP. HCEXP also granger causes DPDY. VAT has negative significant effect on HCEXP.VAT does not granger- causes HCEXP but HCEXP granger- cause VAT. Interest rate has negative insignificant effect on HCEXP; Interest rates does not granger – cause HCEXP and HCEXP does not granger- cause Interest rates. In conclusion, value added tax had negative significant effect on household consumption expenditure in Nigeria both in the short run and long run. Value added tax affected the prices of goods and services which invariably affected consumption of households. Unidirectional causality existed between Value added tax and household consumption expenditure in Nigeria. The study therefore recommended that government should effectively use its tax system to cushion the negative effects of this tax on household by investing in the provision of infrastructure and public goods and services. The approach of this study is plausible; the scope is country specific and limited to Nigeria, neglecting other ECOWAS countries.

Idoko (2018) conducted research to examine the effect of consumption tax on standard of living of households in Nigeria. The study utilized household standard of living proxy or measured by Household Consumption Expenditure (HCE) and consumption tax proxy by Value Added Tax (VAT), excise tax (EXT), and personal income tax (INT). The study was anchored on the Keynesian theory of consumption and the benefit-received theory of taxation. The technique of estimation employed in the study was Error Correction Mechanism to examine the effect of consumption tax on household standard of living in Nigeria. The result shows that value added tax (VAT), personal income tax (INT) and excise tax (EXT) had negative effects on household standard of living in Nigeria. This implies that as these variables increase, the standard of living of households fall. Based on this, recommendation such as tax administrators should ensure that revenue accruing from consumption taxes such as value added tax, personal income tax and excise tax are streamlined to increase household consumption expenditure in order to induce household consumption behaviour in different part of the country among others were made. However, the period of study is not indicated to know the depth of the study.

Kathure (2017) investigated the impact of VAT on household final consumption expenditure in Kenya using quarterly time series data from 1990 to 2014. The study employed Vector Error Correction (VEC) technique to investigate the dynamic response of household final consumption

Expenditure growth in Kenya due to shocks in growth of VAT revenue, growth of disposable Income and growth of inflation rate. Granger causality employed to examine the relationship between value added tax revenue and household final consumption expenditure in Kenya. The study found that value added tax revenue growth moderately affects household final consumption expenditure growth in Kenya. The study also revealed that increasing VAT revenue growth curtailed household final consumption expenditure growth in the short run but stimulated household final consumption expenditure growth before stabilizing it in the long-run. These effects were statistically significant. Additionally, growth in household final consumption expenditure and growth in value added tax revenue do not granger cause each other. The study concluded that the government should look for other ways of raising VAT revenue instead of increasing the tax base. The approach of this study is plausible; but the scope is country specific and limited to Kenya, different from the ongoing investigation

Onyinyechi, Ihendinihi, Ekwe and Azubuike (2016) empirically examined the impact of fiscal policy on the economy of Nigeria between 1994 and 2014. Multiple regression of ordinary least square estimation was the tool used to analyze the data in this study. In the model, real GDP (as dependent variable) was regressed on capital expenditure, recurrent expenditure, tax revenue and external debts. The study revealed that there exists no significant relationship between capital expenditure, recurrent expenditure, tax revenue and the real GDP representing the economy. However, the study found a significant negative relationship existing between external debts and the real GDP. This supports the Keynesian view of government active intervention in the economy using appropriate various policy instruments. The study therefore recommends that: Government should use fiscal policy to complement the adoption of effective monetary policy and maintain the rule of law to promote stability in the Nigerian economy. The scope of the study is limited to Nigeria, hence, the need for further research to consider other West African countries, such as Ghana, Cote d'Iviore among others.

From the reviewed empirical literature, there exist conflicting results among researchers on the effects of VAT on HCE. Many studies such as Niputen and Abijia (2022); Gidigbi, Ademola and Andezetso (2021); Bala and Sani (2020); and Omodero (2020), found a positive and significant influence of VAT, on household consumption expenditure while other empirical studies such as Azer and Tengiz (2022); and Adegbite (2018) have a negative result of VAT on HCE. In addition, these studies did not shed light on the magnitude of impact of VAT on HCE especially among ECOWAS countries. These are key issues that this paper seeks to address. It is against this background that this research is designed to investigate the effect of Value Added Tax (VAT) on household consumption expenditure among selected ECOWAS countries.

3. METHODOLOGY

3.1 Data and Sources

The data used for this study were sourced from World Bank (2023) development indicators. Data was sought for the following variables: value added tax and household consumption spending from 1994 to 2023.To ensure comparability the study considers all monetary values in US dollar terms. The ECOWAS Countries considered in the study are Nigeria, Ghana, and Cote d' Iviore.

3.2 Model Specification

Following the theoretical postulation by the Relative Income Hypothesis and the Sacrifice theory of Taxation, this study will adapt its model from the background information provided and incorporated other variables into the model based on the previous studies of Onyinyechi, Ihendinihi, Ekwe and Azubuike (2016).

The mathematical model shown by the above study is specified as follows:

RGDP = f (CExp, RExp, TaxRev, ExtD) …… (1)

Where;

RGDP = Real Gross Domestic Products

C Exp = Capital Expenditure

R Exp =Recurrent Expenditure

Tax Rev = Tax Revenue

ExtD = External Debt

Therefore, in line with this explanation, the model is specified to capture the relationship between value added tax and household consumption expenditure. The functional form of the model is stated:

$HCE = f(VAT, PCI, INF)$ …… (2)

Where,

HCE = Household consumption expenditure

VAT = value added tax

PCI = Per Capita income

INF = Inflation rate

There is need to observe the inflation rate because we observe from past scholarly works that inflation may influence how household expenditure is made thus, affecting the apriori expectation of the effect of VAT on household consumption expenditure. Specifically, to achieve the objective of this study and based on the property of the linearity of variables, the functional relationship is modeled in a linear equation as follows:

$HCE_{it} = \beta_0 + \beta_1 VAT_{it} + \beta_2 PCI_{it} + \beta_3 INF_{it} + U_{it}$…… (3)

Where:
U_{it} is the error term which denotes other variables that are not specified in the model;
i represent the number of countries and t is the number of years.
The error term was decomposed as $U_{it} = H_{it} + E_{it}$. Where:
E_{it} is the standard disturbance term, which varies across years and countries, while
H_{it} is a set of group specific effects, which refer to each country in the model.

3.3 Method of Data Analysis

The method of data analysis in this study involved the use of several panel estimation techniques, including the Pooled Mean Group (PMG), Mean Group (MG), and Dynamic Fixed Effects (DFE) estimators. Each of these methods has its strengths and limitations in capturing the dynamic relationships among variables in heterogeneous panels. The Hausman test was employed to determine the most efficient estimator for the dataset. Based on the test results, the PMG estimator was found to be the most appropriate, as it combines both long-run equilibrium relationships and short-run dynamics while allowing for heterogeneity across countries. Unlike the MG estimator, which estimates separate long-run relationships for each cross-sectional unit, the PMG imposes

common long-run coefficients across all units but allows for differences in short-run dynamics. The DFE, on the other hand, assumes both long-run and short-run homogeneity across units, which may not be suitable in panels with heterogeneous data. The Hausman test indicated that the PMG estimator provides more efficient and consistent estimates for the data used in this study.

Additionally, the study employed the Augmented Mean Group (AMG) estimator as an alternative to the Pesaran (2006) Common Correlated Effects Mean Group (CCEMG) estimator. The AMG method was particularly suited for the analysis as it addresses unobservable common. Traditional panel approaches often treat these unobservable factors as nuisance terms, but in cross-country empirical studies, they hold substantive significance. The AMG approach is particularly useful in panels with nonstationary variables and multifactor error structures, as shown in Monte Carlo simulations by Bond and Eberhardt (2009). These simulations demonstrated that AMG performs comparably to CCEMG in terms of bias and root mean square error (RMSE), particularly when dealing with panels that exhibit cointegration or multifactor error terms. This makes AMG a robust alternative in empirical growth studies, as it effectively captures the common dynamic process across groups while allowing for heterogeneity in the long-run and short-run relationships.

4. RESULTS AND DISCUSSION

Table 1: Descriptive Statistics

Variable	HCE ($ Billion)	VAT ($ Billion)	PCI ($)	INF (%)
All				
Obs	90	90	90	90
Mean	83.60	227.00	1777.57	13.45
Std. Dev.	109.00	485.00	478.58	13.57
Côte d'Ivoire				
Obs	30	30	30	30
Mean	24.50	668.00	1832.86	3.70
Std. Dev.	13.10	647.00	294.26	5.05
Ghana				
Obs	30	30	30	30
Mean	26.90	8.08	1411.36	19.99
Std. Dev.	20.60	9.57	402.93	13.52
Nigeria				
Obs	30	30	30	30
Mean	199.00	4.62	2088.50	16.64
Std. Dev.	121.00	0.84	460.52	14.28

Source: Extracts from STATA Output

For the overall data, the descriptive statistics in Table 1 shows that for the combined dataset of 90 observations across all three countries, the average Household Consumption Expenditure (HCE) stands at $83.60 billion, with a standard deviation of $109 billion. This wide variability suggests that household spending on consumption differs greatly between countries. Given the substantial standard deviation of 109, some countries in the sample are likely to have much higher household consumption expenditure than others, indicating significant economic diversity in terms of consumer spending capacity. The average VAT collection across the three countries is $227 billion, but the standard deviation of $485 billion suggests even greater variability. This reflects major differences in tax revenue generated from VAT, which could be due to variations in economic

structure, tax policies, or levels of economic development among the countries. A high standard deviation of 485 in VAT points to the presence of outliers, where one or more countries could be generating significantly higher VAT revenue compared to others, possibly indicating more strong domestic markets or more effective tax systems.

The Per Capita Income (PCI) for the combined group averages $1,777.57, with a standard deviation of $478.58. This relatively moderate variation indicates that, while income levels vary across the countries, the differences are less extreme compared to household consumption expenditure and VAT. The standard deviation suggests some degree of inequality in income distribution, but the variations are within a narrower range, potentially reflecting relatively similar income levels across these economies. Inflation rate (INF) also shows an average of 13.45% with a standard deviation of 13.57%, indicating that inflation is highly variable across the countries. This high variability reflects the economic instability in some countries, where inflation rates could fluctuate sharply due to factors such as currency depreciation, changes in global commodity prices, or differing monetary policies.

For Côte d'Ivoire, HCE averages $24.50 billion, with a standard deviation of $13.10 billion. This relatively low standard deviation compared to the overall dataset indicates more stable household consumption expenditure in Côte d'Ivoire. The lower average HCE, compared to the combined dataset, suggests that household spending in Côte d'Ivoire is on the lower end, possibly reflecting lower income levels and purchasing power among households. In terms of VAT, Côte d'Ivoire shows a mean of $668 billion, with a standard deviation of $647 billion. The high standard deviation points to substantial fluctuations in VAT collections, possibly due to changes in economic activity, tax reforms or compliance issues over time. PCI in Côte d'Ivoire averages $1,832.86, with a standard deviation of $294.26, indicating relatively stable income levels across the country. The lower variability in PCI suggests that income distribution is more even in Côte d'Ivoire, with fewer extremes in wealth or poverty compared to other countries in the sample. INF is low in Côte d'Ivoire, with an average of 3.70% and a standard deviation of 5.05%. This suggests that inflation has been relatively stable, reflecting effective inflation control policies or less economic volatility compared to the other countries. The low inflation rate also indicates that the cost of living has remained manageable, with less pressure on household consumption and purchasing power.

In Ghana, HCE averages $26.90 billion, with a standard deviation of $20.60 billion, indicating moderate variability in household consumption expenditure. The higher mean HCE compared to Côte d'Ivoire suggests that household spending in Ghana is higher, potentially reflecting greater economic activity or higher disposable income. However, the higher standard deviation indicates that household consumption has fluctuated more significantly over time, possibly due to economic instability or changes in household wealth. VAT in Ghana is notably lower, with a mean of $8.08 billion and a standard deviation of $9.57 billion. The low average VAT collection suggests that Ghana generates less tax revenue from VAT, possibly due to a smaller domestic market, lower consumption levels, or a less efficient tax system. PCI in Ghana is also lower, averaging $1,411.36, with a standard deviation of $402.93. This suggests that income levels in Ghana are lower compared to the overall sample, with moderate variability indicating some inequality in income distribution. Inflation in Ghana is also significantly higher, with an average of 19.99% and a standard deviation of 13.52%. This indicates that Ghana has experienced high and volatile inflation, which could erode household purchasing power and affect consumption patterns.

Nigeria exhibits the highest average HCE, at $199 billion, with a standard deviation of $121 billion. This indicates that household consumption expenditure in Nigeria is substantially higher than in the other two countries, possibly due to the larger population and higher economic activity. Despite

the high household consumption expenditure, VAT in Nigeria is relatively low, with a mean of $4.62 billion and a standard deviation of $0.84 billion. The low VAT collection suggests that Nigeria may have lower tax rates or a less effective tax system compared to Côte d'Ivoire and Ghana. PCI in Nigeria is also the highest among the three countries, averaging $2,088.50, with a standard deviation of $460.52. This suggests that income levels in Nigeria are higher, although there is still some degree of variability, reflecting income inequality. Inflation in Nigeria averages 16.64%, with a standard deviation of 14.28%, indicating high inflation and significant volatility.

From the results, there is a significant economic disparity across Côte d'Ivoire, Ghana, and Nigeria in terms of household consumption, tax revenues, income levels, and inflation. While Nigeria shows the highest household consumption expenditure and per capita income, it also faces significant inflation volatility, which could undermine economic stability. Ghana, on the other hand, struggles with high inflation and low VAT collections, while Côte d'Ivoire demonstrates more stability in terms of inflation and income, despite some variability in VAT.

4.2 Panel Unit Root Test

Table 2: Panel Unit Root Test Results

S/N	lnHCE	lnVAT	lnPCI	INF
Harris-Tzavalis (rho)	0.1029***b	0.3728***b	0.4394***b	0.5329***a
Breitung (lambda)	-1.5476*b	-2.7758***b	-3.3867***b	-2.036**b
	-3.2704***b	1.2915	-1.1516	-12.2165***a
Im-Pesaran-Shin (Z-t-tilde-bar)	-5.0556***b	-0.2762	-2.9688***b	-4.1775***a
ADF Fisher (Modified inv. chi-squared Pm)	1.3301*b	1.8568*a	-0.7028	1.3607*b
Pesaran CD Test [t-bar test]	-4.088***b	-0.865	-2.491*b	-4.921***b
Hadri (2000) Lagrange Multiplier Stationarity test (z)	-0.7208b	1.8027*b	4.0095 ***	-0.2275b
Remarks	Stationarity (mixed)	Stationarity (mixed)	Stationarity (at first difference)	Stationarity (mixed)

Note: The asterisks (*** ** and *) denote rejection of the null hypothesis at the 1%, 5% and 10% levels of significance, while a and b indicate stationarity at the level and first difference, respectively.
Source: Extracts from STATA Output

The results of the panel unit root tests in Table 2 reveal that HCE and INF are generally stationary across most tests, suggesting these variables do not contain unit roots and are stable over time. PCI also shows consistent stationarity in several tests but indicates mixed results in others. Conversely, VAT exhibits mixed results, indicating it may contain unit roots and could require differencing to achieve stationarity.

4.3 Cointegrationtest Result

Table 3: Cointegrationtest Results

Kao Test Results	**Statistic**
Modified Dickey-Fuller t	-0.9576
Dickey-Fuller t	-1.1907
Augmented Dickey-Fuller t	-1.6141*
Unadjusted modified Dickey-Fuller t	-1.5507*
Unadjusted Dickey-Fuller t	-1.4573*
Pedroni Test Results	
Modified Phillips-Perron t	1.4976*
Phillips-Perron t	1.3787*
Augmented Dickey-Fuller t	2.0512**
Westerlund Test Results	
Gt	-2.827**
Ga	-8.108
Pt	-3.116
Pa	-8.151

*** p<0.01, ** p<0.05, * p<0.1.

Source: Extracts from STATA Output

The cointegration test results reveal a significant long-term equilibrium relationship among the variables. The Kao test indicates that three out of its five statistics-specifically, the Augmented Dickey-Fuller (ADF) t-statistic (-1.6141), the Unadjusted modified Dickey-Fuller t-statistic (-1.5507), and the Unadjusted Dickey-Fuller t-statistic (-1.4573)-are statistically significant at the 10% level. Additionally, the Pedroni test supports this result, with a significant ADF t-statistic (2.0512) at the 5% level, while the Modified Phillips-Perron (1.4976) and Phillips-Perron (1.3787) statistics also indicate supportive trends. Further validation comes from the Westerlund test, which reports a significant Gt-statistic of -2.827 at the 5% level, reinforcing the presence of cointegration. Collectively, these findings confirm a stable long-term relationship among the variables, underscoring their interconnected dynamics and long-term stability.

4.4 Average Ccorrelation Coefficients and Pesaran CD Test

Table 4: Results of Average correlation coefficients and Pesaran CD Test

Variable	**CD test**	**P-value**	**Corr**	**abs(corr)**
lnHCE	8.34	0.000	0.879	0.879
lnVAT	0.89	0.375	-0.094	0.318
lnPCI	5.99	0.000	0.632	0.632
INF	5.78	0.000	0.61	0.61

*** p<0.01, ** p<0.05, * p<0.1.

Source: Extracts from STATA Output

The results from Table 4.4 provide the relationships between variables based on average correlation coefficients and the Pesaran CD test, which is used to detect cross-sectional dependence in panel data. For the variable household consumption expenditure (HCE), the CD test statistic is notably high at 8.34, and the corresponding P-value is 0, indicating significant cross-sectional dependence. This is further reinforced by the strong positive correlation coefficient of 0.879, suggesting that health care expenditure is closely linked across entities (such as countries or regions) and tends to move in a similar direction. On the other hand, value added tax (VAT), exhibits a CD test statistic of 0.89 with a P-value of 0.375, indicating no significant cross-sectional dependence. The average correlation coefficient for VAT is -0.094, signifying a weak negative relationship with other variables. The absolute correlation value of 0.318 suggests that the overall influence of VAT on the system is quite limited.

For per capita income (PCI), the CD test statistic is 5.99, with a P-value of 0, confirming the presence of strong cross-sectional dependence. The correlation coefficient of 0.632 reflects a moderate positive relationship, meaning that changes in per capita income are somewhat aligned across the panel, indicating that economic performance in terms of income tends to be interrelated across entities. Finally, inflation (INF) demonstrates a similar pattern to PCI, with a CD test statistic of 5.78 and a P-value of 0, suggesting significant cross-sectional dependence. The correlation coefficient of 0.610 indicates a moderate positive correlation, meaning that inflation rates across different entities are moderately synchronized. Thus, the results in household consumption expenditure (HCE), per capita income (PCI), and inflation (INF) exhibit strong cross-sectional dependence and moderate to strong positive correlations, implying that these variables tend to behave similarly across different entities in the panel. In contrast, VAT (lnVAT) does not show significant cross-sectional dependence and has a weak negative correlation, suggesting a more independent or localized behavior with limited interconnection to other variables.

4.5 Causality Test Results

Table 5: Granger Noncausality test Result

Causality Flow	Z.Stat	Prob. value	Decision
H0: lnVAT does not Granger-cause lnHCE	6.5844***	0.0103	Reject H_0
H0: lnHCE does not Granger-cause lnVAT	35.1569***	0.000	Reject H_0

*** p<0.01, ** p<0.05, * p<0.1.

Source: Extracts sfrom STATA Output

The Juodis, et al. (2021) Granger noncausality test was employed to ascertain the nature and direction of causality flow among the variables in the system. The results are presented in Table 5.

The results of the Granger noncausality tests indicate a bidirectional causal relationship between lnVAT and lnHCE. Specifically, the Z-statistic of 6.5844 with a p-value of 0.0103 leads to the rejection of the null hypothesis, suggesting that changes in VAT are a significant predictor of changes in Household Consumption Expenditure (HCE). More so, the Z-statistic of 35.1569 with a p-value of 0.000 also leads to the rejection of the null hypothesis, indicating that changes in HCE significantly predict changes in VAT. Thus, the results imply that there is a two-way causal relationship between VAT and HCE. This implies that changes in VAT influence household consumption expenditure, and vice versa, suggesting a dynamic interaction where both variables affect each other over time.

4.6 Hausman Test Result

Table 6: Hausman Test Results

PMG Vs MG	(b)PMG	(B) MG	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.	Chi-Square Test (Prob>chi2)
LnVAT	-0.168533	0.146146	-0.31468	.	0.51 (0.9170)
LnPCI	3.537705	2.355133	1.182572	.	
INF	0.004642	0.01111	-0.00647	0.009349	
DFE Vs PMG	**(b)DFE**	**(B) PMG**	**(b-B) Difference**	**sqrt(diag(V_b-V_B)) S.E.**	
LnVAT	-0.148007	-0.16853	0.020457	0.128895	2.37 (0.4995)
LnPCI	3.802719	3.537705	0.265014	0.715851	
INF	0.002675	0.004642	-0.00197	0.011482	

Source: Extracts from STATA Output

The Hausman test result presented in Table 6 compare the Pooled Mean Group (PMG) estimator with the Mean Group (MG) and Dynamic Fixed Effects (DFE) estimators to determine the most efficient and consistent model for the data. For the PMG vs. MG comparison, the test statistic for the key variable of interest, lnVAT, is 0.51 with a p-value of 0.9170, indicating that there is no significant difference between the PMG and MG estimators. Similarly, for the DFE vs. PMG comparison, the Chi-square test for lnVAT yields a statistic of 2.37 with a p-value of 0.4995, also showing no significant difference between the two estimators. These results suggest that the PMG estimator is more appropriate, as it does not significantly differ from the alternatives but offers the advantage of capturing both short-run and long-run dynamics efficiently across heterogeneous panels. Therefore, the PMG estimator is preferred for the data analysis.

Table 7: The Analysis of the Impact of VAT on Household Consumption Expenditure

VARIABLES	PMG (Long-Run)	PMG (Short-Run Côte d'Ivoire)	PMG (Short-Run Ghana)	PMG (Short-Run Nigeria)	Augmented Mean Group estimator
Ec		-0.0527***	-0.142	-0.567***	
		(0.0161)	(0.104)	(0.205)	
D.llnHCE		-0.152	0.0664	0.138	
		(0.163)	(0.191)	(0.171)	
D.lnVAT		0.00378	0.0819	0.349	
		(0.00963)	(0.0691)	(0.489)	
D.lnPCI		0.0782	2.071	0.400	
		(0.157)	(1.296)	(2.610)	
D.INF		-0.00227	-0.00536**	-0.0102*	
		(0.00252)	(0.00256)	(0.00558)	
lnVAT	-0.169				-0.0426
	(0.156)				(0.0735)
lnPCI	3.538***				1.016***
	(0.479)				(0.243)
INF	-0.00464				-0.00748
	(0.0152)				(0.00625)

__000007_t					0.00588
					(0.00662)
Constant	0.604	0.175	0.248	1.388	16.82***
	(0.393)	(0.208)	(0.473)	(2.261)	(1.555)
Observations	84	84	84	84	90
Number of country	3	3	3	3	3

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Source: Extracts from STATA Output

4.7 Long-Run PMG Estimates

The estimated coefficient for per capita income (lnPCI) in the long run is positive (3.538) and statistically significant at 5% level of significance. This suggests that a 1% increase in per capita income leads to 3.54% increase in household consumption expenditure. Theoretically, this finding aligns with economic models predicting that higher income increases purchasing power and thus drives household spending. The significant and positive relationship shows the importance of income growth in stimulating household consumption. This explains the need for policies that promote income growth—such as investment in human capital, productivity improvements, and job creation—as higher incomes directly translate into increased household consumption.

The estimated long-run coefficient for VAT (-0.169) is negative but statistically insignificant at 5% level of significance, indicating that VAT does not have a significant impact on household consumption expenditure in the long run. Theoretically, VAT, as a consumption tax, could reduce disposable income and therefore household consumption. However, the lack of significance suggests that the long-run effects of VAT on consumption are either muted or offset by other factors, such as tax evasion or compensatory fiscal policies (e.g., subsidies or transfers). It implies that while VAT remains an important tool for government revenue, its direct impact on household consumption may be minimal.

The long-run coefficient for inflation is negative (-0.00464) but statistically insignificant at 5% level of significance. This suggests that inflation does not have a significant long-term effect on household consumption expenditure. Theoretically, inflation erodes purchasing power and could reduce consumption, but this result implies that households may adjust over time, mitigating the negative effects of inflation. It also indicates that inflationary pressures may be well-managed in the long run, reducing their impact on consumption behavior.

4.8 Short-Run PMG Estimates

In the short run, the estimated coefficient for lagged household consumption expenditure is negative in Côte d'Ivoire (-0.152), positive in Ghana (0.0664), and Nigeria (0.138), but statistically insignificant across all three countries at 5% level of significance. This suggests that changes in past household consumption do not significantly affect current consumption in the short run. Theoretically, this could mean that household consumption is less dependent on past consumption levels and more influenced by current economic conditions such as income, prices, or expectations. The economic implication is that households are likely adjusting their consumption decisions based on immediate circumstances rather than following rigid consumption habits.

The estimated short-run effects of VAT are positive but statistically insignificant in all three countries, with coefficients of 0.00378 (Côte d'Ivoire), 0.0819 (Ghana), and 0.349 (Nigeria). This suggests that changes in VAT do not have a significant immediate impact on household consumption expenditure. Theoretically, VAT changes might take time to be fully absorbed by

consumers, or businesses might adjust prices gradually, muting the short-term effects on consumption. This implies that VAT changes are not an effective tool for influencing short-term consumption behavior.

The estimated short-run coefficients for per capita income are positive but statistically insignificant in all three countries, with the largest effect observed in Ghana (2.071), and followed by Nigeria (0.400) and Côte d'Ivoire (0.0782). This indicates that short-term changes in income do not have a significant immediate effect on household consumption expenditure. The result of this study is consistent with the Relative Income Hypothesis of consumption. By this, the theory posits that households strive constantly toward a higher consumption level and emulate the consumption pattern of a neighbor (Ohale, 2002). If income should fall, consumption expenditure does not fall immediately as households try to maintain previously attained consumption level which they are accustomed to. This is often called the "Ratchet Effect" (Ahuja, 2013). Theoretically, this could be due to the fact that households may smooth their consumption over time, adjusting only gradually to changes in income. This suggests that short-term income fluctuations are not as crucial to immediate consumption decisions as long-term income growth.

In the short run, inflation has significant negative effects on household consumption expenditure in Ghana (-0.00536) and Nigeria (-0.0102), but is statistically insignificant in Côte d'Ivoire. This suggests that inflation reduces household consumption in the short term by eroding purchasing power, particularly in Ghana and Nigeria. The significance of the short-run inflation coefficients shows the immediate impact of price instability on household consumption decisions. This implies that inflation control is crucial for maintaining stable consumption levels in the short term. High inflation can severely reduce households' real income, leading to lower consumption. For Ghana and Nigeria, this finding emphasizes the need for effective monetary and fiscal policies to curb inflation and protect household spending power. In Côte d'Ivoire, where inflation is not statistically significant, inflation may be better managed, reducing its short-term impact on consumption.

The error correction term is negative and significant for Côte d'Ivoire (-0.0527), implying that any short-run deviations from the long-run equilibrium in household consumption expenditure are corrected over time. However, the magnitude of this coefficient suggests a slow adjustment process, where only 5.27% of the deviation is corrected each year. In contrast, the error correction term for Nigeria (-0.567) is much larger and also statistically significant at 5% level of significance, indicating a much faster adjustment process. Ghana's error correction term (-0.142) is negative but not statistically significant, suggesting a weak adjustment process in that country. The economic implication is that Nigeria demonstrates a strong ability to return to equilibrium after short-term shocks, likely due to more dynamic economic policies or greater flexibility in household consumption patterns. In Côte d'Ivoire, however, the slow adjustment speed may indicate structural rigidities or a less responsive economy, meaning that economic shocks could have more persistent effects on household consumption. For Ghana, the weak adjustment could suggest that external shocks in household consumption are less likely to correct naturally, requiring more strong policy intervention to stabilize consumption.

4.9 Augmented Mean Group (AMG) Results

The AMG estimator provides an alternative perspective by allowing for heterogeneity across countries. The AMG results show a strong positive effect for per capita income (1.016), suggesting that income is a significant determinant of household consumption when accounting for country-specific factors. The constant term (16.82) is also highly significant, indicating strong country-specific effects, which could represent structural differences in consumption behavior across the countries.

Thus, the PMG results, particularly in the long run, provide strong evidence that per capita income is the most significant driver of household consumption expenditure, with a large and highly significant coefficient. This explains the importance of per capita income in sustaining household consumption in the long term. Short-run results reveal that inflation control is crucial, especially in Ghana and Nigeria, where it significantly affects consumption. Therefore, the study emphasizes the critical role of income growth in driving household consumption, while inflation control is necessary to ensure short-term stability in consumption patterns. The Augmented Mean Group results confirm these findings while accounting for country-specific effects, reinforcing the idea that income growth and inflation management should be central to economic policy.

5. CONCLUSION AND POLICY RECOMMENDATIONS

The findings of the study reveal that the long-run effect of VAT on household consumption is negative but statistically insignificant, indicating that VAT does not have a significant impact on household consumption expenditure in the long run. This finding aligns with the study of Idris and Sebastine (2022) whose findings revealed an insignificant relationship between VAT and consumption expenditure. The study also showed a significant bidirectional causal relationship between Value-Added Tax (VAT) and household consumption expenditure (HCE). Specifically, the Z-statistic of 6.5844 with a p-value of 0.0103 leads to the rejection of the null hypothesis, suggesting that changes in VAT are a significant predictor of changes in Household Consumption Expenditure (HCE). More so, the Z-statistic of 35.1569 with a p-value of 0.000 also leads to the rejection of the null hypothesis, indicating that changes in HCE significantly predict changes in VAT. Thus, the results imply that there is a two-way causal relationship between VAT and HCE. The study agreed to the study of Adegbite (2018) whose finding shows that HCEXP granger- causes VAT. This dynamic interaction explains the importance of VAT policies in shaping consumption behavior over time.

The Pooled Mean Group (PMG) results further highlight that in the long run, per capita income is the most significant determinant of household consumption expenditure, with a substantial and highly significant positive impact. Inflation, particularly in the short term, has a detrimental effect on household consumption in Ghana and Nigeria, emphasizing the importance of inflation control for maintaining stable consumption levels. This study agreed to the study of Idris and Sebastine (2022) whose findings indicates that inflation has a negative influence on household consumption.

To effectively address the findings, several policy recommendations are necessary:

1. Promoting sustainable per capita income growth should be a top priority, as higher income levels directly lead to increased household consumption. Governments of West African countries, in collaboration with private sector stakeholders, should implement policies that encourage job creation, investment in education, and skills development to enhance labor productivity, stimulate household incomes and consumption.
2. VAT policies in ECOWAS countries need to be carefully calibrated to balance the need for government revenue generation with the potential adverse effects on household consumption. Ministries of Finance and tax authorities should consider reducing VAT rates on essential goods and services that form a large part of the consumption basket for low-income households. This would help protect these vulnerable groups from the negative impacts of VAT on their disposable income, thereby ensuring that their consumption levels remain stable. Additionally, VAT policies should be complemented with compensatory fiscal measures such as targeted subsidies or cash transfers to offset the tax burden on households, particularly during periods of economic downturns or inflationary pressures.

These measures will help maintain household consumption levels while still allowing governments to generate necessary revenue through VAT.

3. Controlling inflation is another crucial aspect that requires immediate attention, particularly in countries like Ghana and Nigeria, where inflation significantly reduces household consumption in the short run. Central banks and national governments must prioritize inflation control by implementing sound monetary policies that stabilize prices. Tightening monetary policy in response to rising inflation, alongside with ensuring fiscal discipline, can help reduce inflationary pressures and protect household purchasing power. By maintaining a low and stable inflation environment, governments can safeguard households' real incomes, ensuring that consumption levels are not eroded by rising prices.
4. Addressing structural rigidities in economies like Côte d'Ivoire, where the adjustment to long-run equilibrium after economic shocks is slow, is essential for improving economic flexibility and resilience. Governments of West African countries should implement comprehensive economic reforms aimed at reducing bureaucratic hurdles, enhancing market efficiency, and promoting innovation. Investment in critical infrastructure, such as transportation and communication networks, will also boost economic productivity and responsiveness to shocks.
5. Finally, diversification strategies that reduce reliance on a narrow range of economic activities will help economies better absorb external shocks and maintain stable household consumption levels in the face of adversity. By tackling these structural challenges, governments of West African countries can ensure that their economies are more resilient to shocks and that household consumption remains stable over time.

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