Balance of Payments and Economic Growth in Nigeria

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Abstract
This study explored the effect of balance of payments on economic growth in Nigeria. The objectives of the study were to establish the connection between the balance of payments and economic growth. Secondary data were gathered from the Central Bank of Nigeria Statistical Bulletin. The Augmented Dickey-Fuller (ADF) test were used to test for stationarity, the results reveal that the variables were statistically at mixed order also the study found that there is cointegration using ARDL method. 99.8 per cent variation in gross domestic product in Nigeria were explained by variation in balance of payment variables. The results found that exceptional financing have positive and significant effect on economic growth, the variables added 0.02 per cent to gross domestic product, capital account have positive but no significant effect and added 0.003, net errors and commission have positive effect and added 0.003 while current account have negative and reduced 0.015 to gross domestic product. The study concludes that balance of payment effect variation in economic growth in Nigeria. The study recommends that both federal and state government should put in place policies that promote industrialization and domestic production in order to promote exportation. This may be done by formulating and implementing dynamic terms of trade and keeping trade openness rate below or at ceiling level in order to ensure economic growth, since capital account has positive effect on economic growth in Nigeria.

Keywords: *Balance of Payments, Economic Growth, Nigeria*

INTRODUCTION

One of the cardinal economic objectives of the developing countries, including Nigeria is to achieve high economic growth that will lead to rapid economic development and reduce poverty. From whatever theoretical angle that one may look at it, economic growth indicates the ability of an economy to increase production of goods and services with the stock of capital and other factors of production within the economy. The opinion that international trade is a factor to achieve economic growth can be traced to Adam Smith.

Smith (1776) emphasized trade as a vent for surplus production and a means of widening the market. In the same vein, Marshall (1890) acknowledged that causes which determine economic progress of nations belong to the study of international trade. From the early 19th century, international trade was heavily regulated and accounted for a relatively small portion compared with national output. In the middle Ages, European trade was typically regulated at municipal level in the interests of security for local industry and for established merchants. Economic growth remained at low levels in the mercantilist era; average global per capita income is not considered to have significantly risen in the whole 800 years leading up to 1820, and is estimated to have increased on average by less than 0.1% per year between 1700 and 1820. With very low levels of financial integration between nations and with international trade generally making up a low proportion of individual nations' economic growth, balance of payment crises were very rare.

Balance of payments account is composed of four main elements namely; current account balances, capital and financial account balances, balancing items (Errors and Omissions) and reserves balances. Current account balances are further subdivided into trade balances, income balances and transfers balances. Trade balances record the value of exports and imports of both goods and services. Examples of goods are final consumer goods, raw materials and intermediate capital goods while services include transportation, construction services, communication services banking, insurance, tourism, travel services, financial services, computer and information services, royalties and license fees, personal, cultural and recreational services, government services and expenses on education. Income balances are comprised of items such as compensation of employees, interest, rent, profits, dividends and royalties received from foreign countries and paid out to foreign countries. Items that make up transfers account balances are gifts, grants and reparation receipts and payments to foreign countries. Transfers can be 2 government transfers or private transfers. Government transfers are normally given either for economic, political or humanitarian reasons (Mannur, 2012).

The balance of payment constrained growth model states that a country's economic growth rate is constrained by the desire to generate foreign exchange and reiterate the function of demand as the motivation for domestic growth. This arises because growth in export and investment growth in import substitution are the only aspect of aggregate demand that can increase GDP growth and reduce foreign constraints (Osuka & Achinihu, 2014). This implies that growth rate may be constrained by the balance of payment as the economy cannot grow faster than what is consistent with the balance of payment equilibrium. The principle of this Keynesian demand side growth theory is that export capability and import attitude may establish a long run economic growth. Income derived from external trade constitutes the principal medium to finance growing import due to a rise in domestic activities (Jhingan, 2016). This model differs from the supply induced growth models which evaluate economic growth by using factor inputs such as savings, human and physical capital, population growth and initial per capital GDP on economic growth (World Trade Organization, 2019). However, it is pertinent to note that, although the dominant theoretical postulations (beginning with the classical) indicate a positive trade-economic growth nexus, most studies concentrated only on the static effects of trade, as Baldwin (2019) posited that the static gains of trade were of little significance. This led to a series of debates in the last decades on the precise direction of trade and stressing its dynamic effects on economic growth.

Balance of payment helps us understand how people of Nigeria trade the Naira for that of another country as well as the flow of human capital across as indicated by net private non-official capital flows and flows of official reserves. Balance of payments records trade in financial assets and all those international transactions, which involve the exchange of money for something else and even including employees' compensation. The monetary approach to balance of payments which regards balance of payment as a monetary phenomenon and expresses balance of payment as a linear function of monetary variable such as money supply, exchange rate, interest rate and other monetary indicators. This is because; normatively balance of payment determines the national currency exchange that influences the economic activities. When in surplus it leverage the economy against external shocks while when in deficit it makes the economy sensitive to shocks, affect the exchange rate and lead to external borrowings to offset the deficits(Imoughele & Ismila, 2015; Obi, 2021) . Nigeria over the years has been on the edge of various monetary and macroeconomic policy reforms for the achievement of balance of payment (Ekpo, 2004) to leverage Nigeria, the economic consequences of deficit is the balance of payment such as depleting external reserves and depreciating naira value, for instance the deregulation of the economy in the

last quarter of 1986. The movement from fixed exchange rate to flexible exchange rate, import restriction, export promotion policies and overhaul in the macroeconomic policy environment such as the financial sector reform and the business environment. This study therefore examined the relationship between balance of payment and Nigeria economic growth.

REVIEW OF RELATED LITERATURE

Balance of Payment

The balance of payments records an economy's transactions with the rest of the world. Balance of payments accounts are divided into two groups: the current account, which records transactions in goods, services, primary income, and secondary income, and the capital and financial account, which records capital transfers, acquisition or disposal of non-produced, nonfinancial assets, and transactions in financial assets and liabilities. The current account balance is one of the most analytically useful indicators of an external imbalance. A primary purpose of the balance of payments accounts is to indicate the need to adjust an external imbalance. Where to draw the line for analytical purposes requires a judgment concerning the imbalance that best indicates the need for adjustment. There are a number of definitions in common use for this and related analytical purposes. The trade balance is the difference between exports and imports of goods (Abaidoo & Rexford, 2019).

From an analytical view it is arbitrary to distinguish goods from services. For example, a unit of foreign exchange earned by a freight company strengthens the balance of payments to the same extent as the foreign exchange earned by a goods exporter. Even so, the trade balance is useful because it is often the most-timely indicator of trends in the current account balance. Customs authorities are typically able to provide data on trade in goods long before data on trade in services are available. Balance of payment is the difference in total value between payments into and out of a country over a period. The balance of payments is the method countries use to monitor all international monetary transactions in a specific period (Abaidoo & Rexford, 2019). The balance of payments is usually calculated every quarter and every calendar year.

The balance of payments is a comprehensive and systematic record of a country's economic transactions with the rest of the world, encompassing goods, services, and capital flows within a specified time frame (Pham, 2017). It comprises the current, capital, and financial accounts, each reflecting different types of transactions. The balance of payments statement provides a clear picture of the economic relations between different countries. It is an integral aspect of international financial management. Balance of payments statement provides information pertaining to the demand and supply of the country's currency. A country's balance of payments determines its potential as a constructive economic partner. In addition, a country's balance of payments indicates its position in international economic growth. By studying its balance of payments statement and its components closely, a country would be able to identify trends that may be beneficial or harmful to the economy and take appropriate measures. Now let's understand the different components of the balance of payments. The balance of payments consists of three main components: current account, capital account and financial. The current account must balance with the combined capital and financial accounts (Atesoglu, 2019).

Current Account

The current account monitors the flow of funds from goods and services trade (import and export) between countries (Bairam, 2018). It includes money received or spent on manufactured goods and raw materials. It also includes revenue from tourism, transportation receipts, revenue from

specialized services (medicine, law, engineering), and royalties from patents and copyrights. In addition, the current account includes revenue from stocks (Barro & Sala-i-Martin, 2019).

Capital Account

The capital account monitors the flow of international capital transactions. These transactions include the purchase or disposal of non-financial assets (for example, land) and non-produced assets (Bairam, 2018). The capital account also includes money received from debt-forgiveness and gift taxes. In addition, the capital account records the flow of the financial assets by migrants leaving or entering a country and the transfer, sale, or purchase of fixed assets (Barro & Sala-i-Martin, 2019).

Financial Account

The financial account monitors the flow of funds pertaining to investments in businesses, real estate, and stocks. It also includes government-owned assets such as gold and Special Drawing Rights (SDRs) held with the International Monetary Fund (IMF). In addition, it includes foreign investments and assets held abroad by nationals. Similarly, the financial account includes a record of the assets owned by foreign nationals (Atesoglu, 2019). The financial account is a measurement of increases or decreases in international ownership of assets. The financial account monitors the flow of funds pertaining to investments in businesses, real estate and stocks. It also includes government-owned assets such as gold and Special Drawing Rights (SDRs) held with the International Monetary Fund (IMF). The financial account is part of a country's balance of payments (Imoisi, Olatunji & Ekpenyong, 2013).

Economic Growth

Coricelli (1997) defined Economic growth is the increase in the level on goods and services of a country within a fixed period of time, in this case economic growth will be measured in term of Gross Domestic Product. Therefore GDP is defined by Jeff Holt (2007) as the total market value of all final goods and services produced annually within the boundaries of the country whether by national or foreigner-supplied resources. Economic growth is the increase in the level on goods and services of a country within a fixed period of time, in this case economic growth will be measured in term of Gross Domestic Product expressed in the percentage change Hausmann Rodrik and Velasco (2008).

Theoretical Review

Cumulative Causation Theory

The theory of cumulative causation developed by Kaldor (1970) views regional growth as determined by the growth of demand for a region’s exports. Kaldor’s first law is that there exists a strong causal relation between the growth of manufacturing output and the growth of GDP. His second law of growth (1966) states that the manufacturing sector is subject to substantial increasing returns to scale. The central point of this law not only provides support for the hypothesis that the manufacturing sector is the ‘engine of growth’, but also sets the basis for the cumulative causation models of growth. According to Verdoorn’s law (1949), a positive correlation exists between the growth of productivity, measured by the rate of growth of output per employee and the growth rate of employment. Later Kaldor (1967) modified this reasoning by replacing employment growth by output growth.

The resulting relationship became known as the Verdoorn-Kaldor law, which suggests that growth of productivity in manufacturing is an endogenous result of the growth of output, because of static and dynamic economies of scale. Economies of scale can be divided into two groups: economies resulting from large-scale production (static economies of scale); and economies of scale derived from 'the insight that the spatial concentration of economic activity can produce externalities' (dynamic economies of scale) (Malecki and Varaiya, 1986). The latter consists of cumulative advantages that originate from the growth of industry itself, like learning-by-doing, and the development of skill and know-how, the opportunities for easy communication of ideas and experience, and the opportunity of ever-increasing differentiation of process and of specialization in human activities (Kaldor, 1970).

Kaldor's third law states that there exists a strong positive causal relation between the growth rate of the manufacturing sector and that of productivity outside the manufacturing sector, because the diminishing returns in agriculture and the small service sectors will supply excessive labour to the industrial sector. If the marginal product of labour is below the productivity in these sectors, the productivity will rise as employment is contracting. According to Thirlwall (2002), Kaldor's arguments on the driver of growth in the manufacturing sector come from demand in agriculture in the early stages of development, and export growth in the later stages. In the later stages, a fast growth of exports and output may set up a virtuous circle of growth with rapid export growth leading to rapid output growth, and rapid output growth leading to fast export growth through the favorable impact of output growth on competitiveness.

Ricardian Trade Theory

Ricardian trade theory by David Ricardo (1817) posits that even when one country has absolute advantage in the production of two goods against another country; it might still be more beneficial to both countries if each of them specialized in the production of only one of the goods. With this, both countries can enjoy the benefits of comparative advantage and enhance the process of exchange between them.

Heckscher-Ohlin model depicts that trade arises from differences in comparative cost which in turn arises from inter-country differences in relative factor endowment. As a result, real income per capita rises than the standard of living would increase. Trade has acted as an important engine of growth for countries at different stages of development, not only by contributing to a more efficient allocation of resources within countries, but also by transmitting growth from one part of the world to another. Not all countries, however, necessarily share equally in the growth of trade or its benefits. This will depend on the production and demand characteristics of the goods that a country produces and trades, the domestic economic policies pursued, and the trading regime it adopts.

Modern Theory of Trade

The Heckscher-Ohlin modern theory of trade explains why countries trade in goods and services with each other. Condition for trade between two countries includes differences in the availability of the factors of production. For instance, if one country has many machines but few workers, while the other country has a lot of workers but few machines differences in factor exists. Specialization is another condition; a country specializes in the production of goods that it is particularly suited to produce. Specialization in production and trade between countries generates, according to this a higher standard-of-living for the countries involved. The production of goods and services requires capital and workers. Some goods require more capital – technical equipment

and machinery - and are called capital intensive. For instance these goods are cars, computers, and cell phones, while other goods require less equipment to produce and rely mostly on the efforts of the workers.

New Trade Theory

According to Ezeala-Harrison (1999), the new trade theory (NTT) emanates from the new growth theory (NGT) that emerged within the international trade and economic growth and development literature during the early 1990s. The NGT emphasizes technological progress (and the determinants of technological progress) as well as the externalities that the development and application of new knowledge confers, as explicit variables that determine economic growth. Apparently, it posits that innovations take place more in some countries than others because of, among other things, differences in the development of science in the countries, the relative levels and quality of their research institutions, and the relative levels and quality of their educational systems. The central point of this theory is the diffusion of knowledge between firms as knowledge is given as a key factor of production. Therefore, the main fundamental nature of NGT is its implications that firms should invest more in knowledge, as much as in other capital resources in order to be productive or maintain productivity.

The association between the NGT and the NTT lies in their common magnitude of technology and the diffusion of knowledge in the relative flow of the gains from trade to trading countries. These theories are regarded as 'new' as they derive from the traditional neoclassical trade theories based on the principles of comparative advantage, which emphasizes the differences between nations' resource endowments (Ezeala-Harrison 1999). The NTT was developed to explain high levels of intraindustry trade and the large proportion of world trade that takes place between similar countries (Dicken 1998; Poon 1997). It suggests that the existence of increasing returns to scale and imperfect competition provides reasons for specialization and trade, even when countries are similar in factor endowments (Krugman 1979; Helpman and Krugman 1985).

Thirlwall's theory

Thirlwall's theory was advanced by Anthony Thirlwall in 1979. (Thirlwall, 1979) proposed that the rate of economic growth of a specific country is restrained by the current account as the economy cannot grow faster than the current account equilibrium or at least consistent with a sustainable deficit in the current account. The basic idea of this model is that export performance and import behavior play a huge role in determining long term economic growth. This model was based on three assumptions; trade balance is in equilibrium in the long run, price effects are negligible and do not affect equilibrium long run growth rates and foreign income growth positively affects domestic income. (Soukiazis et. Al., 2012) found that increasing foreign exchange revenue from exports is the only way to finance increasing imports caused by expanding economic activity. The interpretation of this is that current account deficits restrict the rate of economic growth to a level that is consistent with a sustainable position in the external sector (Andersen, 1993).

Sun and Heshmati, (2010) found strong evidence that international trade has a positive impact on economic growth by facilitating capital accumulation, modernization of industrial structure, technological and institutional progress. (Wagner, 2007) proposed that promoting exports fosters more intense competition and therefore improved productivity risk. (Thirlwall and Hussain, 1982) later extended this model to allow for the influence of foreign capital flows on economic growth. (Kvedaras et. Al., 2020) contributed to this analysis by decomposing economic growth rates and a

cyclical growth term caused by net capital inflows. In recent years, (McCombie and Thirlwall, 1994) and (Moreno, 2003) further revised this theory to ensure that the economy's long run growth is consistent with a sustainable path of foreign indebtedness.

Heckscher-Ohlin Theorem

This theorem states that a capital-abundant country will export a capital-intensive good and a labour abundant country will export a labor-intensive good. Consider two countries, the US and Mexico in the example above and recall that the assumptions applied to the Heckscher-Ohlin theory include a similarity in production functions (identical technology) and aggregate preferences across the two countries. The difference in resource endowments between two countries is sufficient to generate different PPFs, such that equilibrium price ratios would be different in autarky In general, the arguments in favour of trade liberalization are often based on the Heckscher-Ohlin theory. The idea that opening a nation to trade, and thereby allowing its economy to specialize according to its relative endowments is beneficial, was fundamental to the liberal trade position of the US after World War II (Goldstein, 1993). More recently, the notion that free trade provides more benefits to participant countries is supported by advanced countries, or organizations and trade blocs such as GATT (WTO), EU, and AFTA; although several studies suggest that the distributional impacts of such measures are likely to be highly uneven (Conroy and Glasmeier 1993; Glasmeier and Leichenko 1996).

While liberalization of trade may lead to one-time gains in economic efficiency, the growth of exports actually occurs as the result of growth in a country or a region labour or capital supplies. Growth of exports thus follows from the growth of a country or region economy (Leichenko, 2000). However, problems with the Heckscher-Ohlin theory appeared in the late 1950s based on Leontief's input-output studies of the US economy. His empirical studies suggest that US exports require a higher proportion of labour to capital than US imports, and thus the US is not capital-abundant compared with the rest of the world as normally supposed. Also, from the early 1960s, there has been a growing volume of world trade with similar factor endowments occurring between advanced countries. Furthermore, much of this trade particularly after 1980 was either intraindustry trade or intrafirm trade, neither of which can be explained by the Heckscher-Ohlin theory (Dicken, 1998).

Solow Type Growth Theory

The role of investment financing in stimulating economic growth is one of the controversial issues in the development literature. In the standard Solow type growth model, investment financing enables host countries to achieve investment that exceeds their own domestic saving and enhances capital formation (Mankiw, Reis &Wolfers, 2003). According to this theory, the potential beneficial impact of investment financing on output growth is confined to the short run. In the long run, given the diminishing marginal returns to physical capital, the recipient economy could converge to the steady state growth rate as if investment financing had never taken place leaving no permanent impact on the growth of the economy. Mankiw et al (2003) applying the Solow growth model argues that private businesses invest in traditional types of capital such as bulldozers and steel plants and newer types of capital such as computers and robots. On the other hand, government invests in various forms of public capital, called infrastructure, such as roads, bridges and sewer systems. Mankiw et al further argues that policy makers trying to stimulate growth must confront the issue of what kinds of capital the economy needs most.

Empirical Review

Muasya and Muturi (2023) examined the Effects of balance of payment on economic growth of east African region countries. This research study examined the effect of international trade balance on economic growth of East African region in view of trade imbalances in the region. In order to achieve the research objectives, a methodology framework of panel regression analysis was undertaken. For research purposes the study employed descriptive research design. The study focused was East African region and relied on secondary data obtained from the World Bank website, ADI and WDI website. A checklist developed based on the research questions of the study was used to collect data on the values of the variables in the corresponding period under study. The time series data ranged from 1995 -2020. The data was organized through excel and later imported to E-views 12 software for analysis. Regression, descriptive statistics and analytic statistical methods was employed in the analytical process and results presented in tables, graphs and figures for clarity and ease of understanding. The findings revealed a long-run relationship among all the variables. Moreover, all the variables under consideration were found to have long run significant impacts on economic growth in East African region. Time series properties were tested such as the presence of unit roots and co-integration of the variables to ensure that spurious results would not result. A part from the log of GDP which was stationary at level all the other variables under consideration were non-stationary at level but became stationary at first difference hence integrated of order one. The study findings led this research study to conclude that the contribution of trade to the economic growth of East African region countries is mainly a function of trade balance in merchandise, service trade balance and international financial transactions.

Adelegan and Abraham (2022) conducted a study on the determinants of balance of payments in Nigeria. The Autoregressive Distributed Lag Model (ARDL) was used in the investigation. Long-term results from the ARDL regression showed that the exchange rate coefficient was negative, whereas short-term results showed a positive value. Also, the coefficients of FDI, GDP growth, interest rates, and crude oil prices were positive and significant. To help the economy thrive, capital investments and expenditures should be made. The government should make incentives to prospective foreign investors in order to attract FDI inflows into the country. Government should also enhance safety and security and build a sense of belonging in the Niger Delta in order to promote peace and ease of doing business in the petroleum industry there.

Efanga, Ihemeje, Egwu, Yamta, Biradawa & Ikwuagwu (2020) investigated the role of balance of payment on economic growth in Nigeria. Data were obtained from secondary sources; Central Bank of Nigeria Statistical bulletin of 2018. Unit root test on the time series data displayed a combination of 1(0) and 1(1) variables, the Autoregressive Distributed Lag (ARDL) Model was employed for data estimation. Findings reveal that: balance of payment exerted a positive and significant impact on gross domestic product in Nigeria across the period covered by this study. The study recommends that government should continue to put embargoes on the importation of certain products and services that are produced and rendered locally in our economy so as to improve our balance of payment position and also alleviate the pressure on our domestic currency, the Naira.

Fasanyaa and Olayemi (2018) examined the Balance-of-Payment (BOP) constraint growth model in Nigeria for the period of 1980 to 2012 using the bounds testing Auto regressive Distributed Lag (ARDL) approach. The ARDL test suggests that the variables in the framework have a long run relationship. The empirical findings reveal that import is cointegrated with relative price and income, and the equilibrium growth rates coincide with actual growth rates, hence, the result shows

that the Thirlwall's law, of actual growth rate being equal to the predicted growth rate by the balance of payment current account equilibrium holds in Nigeria. This reason may be due the fact that the economy of Nigeria depends mainly on international trade even though oil dominates the export. Achievement of potential growth can be stimulated by making exports more competitive through macroeconomic stability, sound institutional qualities, improvement in human and physical capital development, reducing access problems to external market, among other factors.

Osuka, Otiwu, and Kalu (2024) examined the effect of balance of payment on economic development in Nigeria from 2000 – 2022. Import and export were used as a proxy for balance of payment, while per capita income was used for economic development in Nigeria. Data were obtained from secondary sources; International Monetary Fund, Balance of Payments Statistics yearbook and data files (2000-2022). Unit root test on the time series data displayed stationaity at first difference 1(1) for all variables. And Johansen cointegration test was carried out and result confirmed goodness of fit and validity of the model employed for the analysis. Multiple linear regression model was used to test hypotheses since, the data has a uni-lateral direction. Findings reveal that import and export have significant effect on per capita income in Nigeria. In conclusion, balance of payment has significant effect on per capita income in Nigeria. The researcher recommended that both federal and state government should put in place policies that promote industrialization and domestic production in order to promote exportation. This may be done by formulating and implementing dynamic terms of trade and keeping trade openness rate below or at ceiling level in order to ensure economic development, since exportation has positive and significant effect on per capita income in Nigeria.

Bakari and Mabrouki (2020) investigated the relationship between imports and economic growth in Panama, annual data for the periods between 1980 and 2015 were tested using the Johansen cointegration analysis of Vector Auto Regression Model and the Granger-Causality tests. According to their result of the analysis, it was determined that there is no relationship between exports, imports and economic growth in Panama. On the other hand, they found that there is strong evidence of bidirectional causality from imports to economic growth and exports to economic growth. Kotishwar (2020) their paper shows that Short-run causality result shows the presence of short run causality between exports, domestic investment and exchange rate to GDP, running from the variables to GDP.

Lawal and Ezeuchenne (2020) showed that there is a long-run relationship between international trade and economic growth, import and trade openness are both insignificant in the short-run but significant in the longrun while export and balance of trade are significant in both the short and long-run. The granger causality test showed that economic growth is independent of imports, exports and balance of trade but economic growth is unidirectional with trade openness economic growth. Ali, Yassin, Ali and Dalmar (2018) investigated the impact of exports and imports on the economic growth of Somalia over the period 1970-1991. They applied econometric methods such as the OLS (Ordinary Least Squares) technique. The Granger Causality and Johansen Co-integration tests were also used for analyzing the long-term association. It was found that economic growth does not Granger Cause Export but was found that export Granger Cause GDP. So, this implies that there is unidirectional causality between exports and economic growth. Also, there is a bidirectional Granger Causality between import and export.

Barbara and Alberto (2011) examined the nexus between trade and economic growth in Italy has been widely debated by historiography. The outcome suggests that three variables, GDP, import, export commove in the long run but the direction of causality varies across time. However, there are also other studies that do not support the relationship between these variables. There is no

causal relation between exports and economic growth, namely exports and economic growth are both the result of the development process and technological change. Kogid, Mulok, Ching, Lily, Ghazali and Loganathan (2011) analyzed the relationship between the economic growth and the import in Malaysia from 1970 to 2007. Results show that there is no co integration exists between economic growth and import, but there exists bilateral causality between economic growth and import. Results also show that import could indirectly contribute to economic growth, and economic growth could also directly contribute to import. These findings may be vital for future economic growth policies.

Akhter (2015) investigated the relationship between import, and GDP growth. "They conclude that the impact of exports on economic growth is positive and an opposite scenario is found in the case of import. All these research investigated the relationship between import, and GDP growth by taking of different control variables like import and remittance." But no evidence found in the literature that considered government expenditure and inflation which is the key elements of GDP.

Mushtaq, Nazir, Bashir, Ahmed and Nadeem (2014) tested the relationship of two figures, import-export by using VAR Analysis. According to the study it was determined that there were causality relationship between these variables, the variable import influenced GDP, and GDP influenced the variable export. Between export and import, two way Causality relationships released mutually. In the same way, the results of causality overlap with variance decomposition test

Omoju and Adesanya (2012) investigate international trade and growth in developing country using Nigeria as a case study. "They make use of secondary data from 1980 – 2010 and applying the Ordinary Least Square (OLS) regression method, they find out those exports, imports and exchange rate have a significant positive impact on economic growth in developing countries. Empirically, there appears to be good evidence that international trade affects economic growth positively by facilitating capital accumulation, industrial structure upgrading, technological progress and institutional advancement. Specifically, increased imports of capital and intermediate 17 products, which are not available in the domestic market, can result in the rise in productivity of manufacturing. Malefane and Odhiambo (2018) did a bivariate regression analysis to investigate the export-growth nexus and found evidence in favor of exports acting as a stimulus for economic growth. Krueger (1978) used a simple log-linear specification to analyze the impact of exports on growth in 10 countries using data for 1954-1971. She found that real gross national product depended more on export earnings than on total foreign exchange availability.

Ogbokor and Meyer (2017) tested the long run relationship between external trade and economic performance in South Africa. Their results indicate cointegration relationships between the investigated variables and also show that exports contributed more to economic performance as compared to the openness of the economy and exchange rate. Based on these results, they concluded that external trade will remain one of the key propellers of economic growth in South Africa

Malefane and Odhiambo (2018) investigated the dynamic impact of trade openness on economic growth in South Africa. Their long run empirical results show that trade openness had a positive and significant impact on economic growth when the ratio "total trade-GDP" was used as proxy of trade openness, but not when other proxies were used.6 Their short run empirical results showed that when the first three proxies of openness were used, trade openness had a positive impact on economic growth, but not so when the trade openness index was used. Based on these results, they concluded that promoting policies that support international trade was relevant for the South African economy

Moyo and Khobai (2020) investigated the empirical relationship between trade openness and economic growth in sub-Saharan Africa (SSA). Their results showed that there was a significant positive relationship between trade openness and economic growth. Based on these results, they concluded that openness to international trade had a significant positive impact on economic growth in SSA. Tinta et al. (2020) examined whether countries should develop strategies to increase international trade through an increase in the degree of openness or whether countries should develop policies 18 to strength community or regional trade through potential value chains within regional integration. For this, they estimated two models with fixed-effects panels Moyo and Khobai (2020) investigated whether trade openness had a positive effect on economic growth in SADC by doing a panel data analysis for 11 countries for the period 1990-2016. Their results showed that trade openness had a negative impact on economic growth in the long-run. Based on these results, the authors concluded that trade openness jeopardized growth in SADC countries in the long-run.

Sheridan (2014) used ordinary least squares and fixed effect estimation as well as regression tree technique to explore the potential relationship between disaggregated exports and economic growth in a panel of 117 developed and developing countries over the period 1960 to 2009. The study finds that manufacturing exports are more highly correlated with economic growth than primary exports, conditional on a country having attained a threshold of human capital. Hence, concluding that investing heavily in the manufacturing sector in a country without the necessary skilled workforce is likely to be an inefficient use of resources. Barış (2012) investigates potential Granger causality among the real GDP, real exports and inward FDI in 18 least developed countries for the period between 1970 and 2009. The results indicate one-period-ahead, unidirectional causality from exports to GDP in Haiti, Rwanda and Sierra Leone, and from GDP to exports in Angola, Chad and Zambia.

Mushtaq et al (2014) explored association among government spending, exports, imports and economic growth proxied using GDP for eight countries (China, Indonesia, Japan, Malaysia, Pakistan, Philippines, Sri Lanka and Thailand) over a period of 1995 to 2011 using panel cointegration test and fixed effects model. The results show that government spending, exports and domestic private investment affect economic growth positively and significantly while imports affect economic growth negatively and significantly.

Yüksel and Zengin (2016) analyzed six developing countries (Argentina, Brazil, China, Malaysia, Mexico and Turkey) over the period 1961 to 2014 using Engle Granger cointegration analysis (Engle and Granger, 1987) and vector error correction model similar to Kim, Lim, and Park (2007) 19 as well as Toda Yamamato causality analysis (Toda & Yamamoto, 1995) to examine the relationship between imports, exports and economic growth. The results find support for the export-led growth hypothesis for Argentina only and no causal relationship between imports and economic growth in any of the other countries." The study also finds a causal relationship from imports to exports in China and Turkey and from exports to imports in Malaysia.

Yee Ee (2015) examined the validity of export-led growth hypothesis in four Sub-Saharan African countries (Botswana, Equatorial Guinea and Mauritius) over the period 1985-2014using fully modified ordinary least square (FMOLS) and dynamic OLS (DOLS). The results find that the effect of export led growth is positive and significant, indicating that exports explain not only the cyclical changes in output (short term) but also in the long run trend." Keho (2015) analyses the relationships between exports, FDI and economic growth in 12 selected Sub-Saharan countries over the period 1970 to 2013. Multivariate cointegration analysis suggests that the three variables are cointegrated in ten countries. However, the results show a weak support for export led growth

hypothesis as a causal relationship between exports and economic growth was found only in Ghana.

Mehrara and Firouzjaee (2017) also used Granger causality relationship between non-oil export and economic growth to investigate panel cointegration analysis for 73 developing countries during the period 1970-2007. "Their sample countries are categorized into two groups of oil dependent countries and non-oil developing countries. They reported results which show that in both bi- and tri- variate models, there is bi-directional long-run causality between export and GDP growth for both groups of countries. Also, in the bi-variate model, there is bidirectional short-run causality between export and GDP growth for nonoil developing countries. However, for oil countries, there is no short run causality relationship between the oil exports and economic growth, in any of the two models.

Biyase and Zwane (2011) applied five panel data models: pooled ordinary least square (OLS), fixed effects model (FE), random effects model (RE), Two-Stage Least-Squares (2SLS) and generalized methods of moments (GMM) to investigate the link between growth and export for 30 African countries between the period 1990 to 2005. Their results from these models provide evidence that exports cause growth for African countries. Specifically, they estimated that a 1 percent increase in export leads to 0.056 percent increase in economic growth." Jamal (2010) examines the ELG hypothesis for eight Middle East and North African (MENA) countries. The study utilized Johansen and Juselius cointegration procedure and error correction modeling to test the ELG hypothesis. The empirical evidence supports the existence of a "stable" long-run equilibrium relationship among real output, real exports, terms of trade, and finds strong support for the ELG hypothesis in all but one of the MENA countries analyzed.

Kundu (2013) investigated the export-led growth (ELG) paradigm for South Asian Association for Regional cooperation (SAARC) countries11 using panel data for the period 1971 to 2011. The paper applied pooled ordinary least square (OLS), fixed effects model (FEM), 21 Random Effects model (REM) and Hausman test. Fixed effects and random effects model lead to conclusion that, there is no significant relationship between the size of GDP growth rate and export rate for these countries. On the other hand, panel unit root test simply that there is strong evidence of stationary process for both GDP and export at level. Ugochukwu and Chinyere (2013) used data covering the period of 1986 to 2011 to study the export-led growth hypothesis in Nigeria. They employed Ordinary Least Squares (OLS) and Granger Causality test econometric techniques to determine the level of impact export has on growth, or vice versa as well as the direction of causality between them. The result arising from the findings indicates that oil export positively and significantly impacted on the growth of Nigeria's economy for the period under review. It was also shown in the result that non-oil export has a positive and significant impact on GDP. The result of the granger causality test indicates that there is unidirectional causality between oil export and GDP.

Enu et al (2013) examined the effect of foreign trade on economic growth in Ghana by using a Johansen cointegration analysis. "The results of Johansens's cointegration test indicated that there exist a long run and short run relationship among real gross domestic product, foreign direct investment, exports, imports and foreign direct investment in Ghana. The study also indicated that in the long run, exports had a positive effect on real gross domestic product. Imports and foreign direct investment had a negative effect on real gross domestic product, respectively.

Waithe et al (2011) studied a case of economic growth in Mexico against the backdrop of exportoriented policy reforms in that country in the mid-1980s. "Using an export-augmented neoclassical production function, the validity of the Export-led Growth Hypothesis for Mexico was tested over the period 1960-2003. The study employed the multivariate cointegration

techniques of Johansen (1988) and Johansen and Juselius (1990), Augmented Dickey-Fuller (ADF) test by Dickey and Fuller (1979, 1981), the Phillips-Perron (PP) test by Phillips and Perron (1988) and the KPSS test by Kwiatkowski et al. (1992) to examine this hypothesis. Evidence offers support for the Hypothesis in the short run; however, contrary to the Hypothesis, long-run results suggest an inverse relationship between exports and GDP. A likely explanation offered by the authors is the high import content and diminishing local content of exports, and weak linkages with domestic suppliers, thus reducing possible spillover or multiplier benefits. The study concludes that if Mexico is to succeed in its quest to achieve high and steady economic growth, current incentive schemes that allow tax-free entry of imported inputs and raw materials for export purposes must be reconsidered. Also, it was suggested that policies that promote technological innovation in manufacturing and linkages with local suppliers are imperative.

Yifu Lin and Li (2011) found that many studies, based on the accounting identify of gross domestic product (GDP), found that the contribution of foreign trade to China's economic growth over the past 20 years was very small. The study re-examined the issue and find that those studies underestimate the contribution of exports to GDP growth by overlooking the indirect impacts of exports on domestic consumption, investment, government expenditures and imports. The study proposed and used a new estimation method including Ordinary Least Squares (OLS), Two-Stage Least Squares (2SLS), Three-Stage Least Squares (3SLS) and Seemingly Unrelated Regression (SUR); and find that a 10% increase in exports resulted in a1 percent increase in GDP in the 1990s in China, when both direct and indirect contributions are considered.

Anega (2010) empirically tested the validity of the simplified version of the balance of payment constrained economic growth model for Ethiopia during the period 1971-2008. The finding showed that the average economic growth over the sample period was 2.84 percent, whereas the economic growth as suggested by Thirwall's law is 7.42 percent. Ethiopia's economy has been growing at a low rate as compared to the model's predicted growth rate as shown by the findings.

Gouvea and Lima (2010) contributed to the literature on balance-of-payments-constrained growth by investigating how structural change, identified with changes in the sectoral composition of exports and imports, affects the external constraint. The study tested both the original and a multisectoral version of Thirlwall's law for a sample of Latin American and Asian countries. The original Thirlwall's law was found to hold for all sample countries except South Korea, whereas the multispectral analogue holds for all of them. As the sectoral composition of exports and imports is found to matter for growth, the study analyzed the evolution of each country's weighted trade income elasticities.

Bagnai, Rieber and Tran (2012) using a multi-country generalization of Thirlwall's law, investigated the contribution to the growth performance of Sub-Saharan Africa (SSA) countries of trade with the low and lower-middle income countries in SSA and South Asia in the last two decades. The generalized law was estimated using a panel cointegration approach on a sample of 20 developing SSA countries, using annual data from 1990 to 2008 and considering three partner areas: SSA, developing Asia, and the rest of the world. The generalized law was found to perform better than other versions of the law. Moreover, the empirical analysis showed that although each partner area contributed to the relaxation of SSA countries BOP constraint, these contributions have occurred through different channels of transmission. Anoka and Takon (2014) examined balance of payments constrained growth in Nigeria. The analysis was based on the theoretical underpinnings of the Original and Expanded Thirlwall's model derived from the Harrods Foreign Trade Multiplier. The study adapted the Ordinary Least Squares (OLS) econometric technique to

analyze empirical data. The results showed that, all the variables in the model contributed 71 per cent to changes in economic development.

Lanzafame (2014) synthesised the two growth literatures on the Harrod (1939) natural rate of growth and the balance of payments constrained growth model. Using 22 OECD countries for the 1960 to 2010 period, the study provided evidence that the natural rate of growth was equal to the balance of payments constrained rate of growth. Significant support for Thirlwall's Law was found. Granger-causality methods results indicated the existence of unidirectional long-run causality from BOP-constrained growth rate to the natural rate of growth, thus reinforcing the view, embodied in Thirlwall's Law, demand-determined is the long-run growth and constrained by the BOP. Emmanuel (2017) applied the adjusted balance of payment (BOP) constrained growth framework modified by Thirwall and Hussain (1982) on Nigeria's economic growth to estimate the determinants of the long run rate of growth in Nigeria. The study applied cointegration test on time series data to estimate the long-run relationship between Nigeria's real GDP (output) and its real export. Results signify cointegration between the variables, lending support to Thirwall's BOP constrained model as a suitable framework.

Elish (2018) examined the Thirlwall Balance of Payment (BOP) constraint growth model in the case of Egypt for the period of 1980 to 2016 using the bounds testing Auto Regressive Distributed Lag (ARDL) model. A long run relation between imports, gross domestic product (GDP) and relative prices having a negligible effect as suggested by the model validates Thirlwall's assumption. The actual growth rate was found to be equal to the calculated potential growth rate given the BOP constraint assumption. The empirical results support the historical development of the Egyptian BOP analysis which shows how the external balance was and remains a major factor affecting Egypt's growth rate. Lélis, Silveira, Cunha and Haines (2018) analysed the balance-of-payments-constrained growth in Brazil considering Thirwall's Law (1979). The study estimated export and import demand functions using two econometric models: vector error correction and structural state space model for the period of 1995–2013. The results suggest that the balance of payments is a constraint to the Brazilian economic growth

Literature Gap

A cursory examination of the empirical review shows that previous research is mainly foreign or trade liberalization variables none of the works focused on both economic concepts in a single study. For example, many studies on the relationship between balance of payment and economic growth have been conducted since the advent of the trade misinvoicing theory; the studies reviewed focused on the traditional measures of balance of payment such as exchange rate. While these traditional measures are important indicators of balance of payment, there is a need to directly assess balance of payment and economic growth using contemporary measures such as capital account, current account, exceptional financing and net errors and commission which are the four components of balance of payment.

CHAPTER 3
METHODOLOGY

The design is ex post facto designs were used because the designs do not use random assignment. Because the study used the already available published random data. The design is intended to provide an elaborative assessment of the trend and the association of the variables (Onwuegbuzie & Turner, 2007). This study utilized secondary data. The data is described as time series data that is information on a variable of study over the periods of one year. We collected secondary data for

estimation from the Central Bank of Nigeria financial stability report, Central Bank of Nigeria Economic reports and Journals, Textbooks and Seminar papers. Thus the data for this study are time series data ranging from 1984-2023. The data consist of yearly data of balance of payment and economic growth.

Model Specification

GDP= f (CA, CAPA, EF, NEC) (1)

To have the estimable version of above models 3.1 can be rewritten to have

GDP = $\beta_0 + \beta 1CA + \beta_2 CAPA + \beta_3 EF + \beta_4 NEC + \mu$ (2)

Where

GDP = Nigeria gross domestic product

CA = Current Account of Nigeria balance of payment

CAPA = Capital account of Nigeria balance of payment

EF = Exceptional financing

NEC = Net errors and commission

$\phi_0 \alpha_0$ = Constant

β_1 - β_5 = Coefficients of independent variables

μ_{it} = Error Term

A-Priori Expectation

Base on theories such as trade theory and empirical results examined in this study, the variables are expected to have a positive effect on the dependent variables. The mathematical implication is stated as follows: β_1, β_1, β_1, β_1 >0

Data Analysis Techniques

Econometric Analysis

Appropriate levels of analysis were conducted, in each case ranging from the global analysis (that reveals the overall utility of the models) to analysis of relative statistics that test the hypotheses. This study applies unit root test first so as to uncover the true nature of stationary-properties of all the variables under consideration. This is necessary in order not to run into the problem of spurious regression since unit root problems are common features encountered in most time series studies. However, the simple regression model was employed as the estimation technique for this study. Johansen and Jusellius Co-integration Test was applied to determine the long run equilibrium of the variables in the model, while the Granger Causality Test was applied in checking the underlying structure of the causal relationship between the variables.

Ordinary least squares (OLS) are a method for estimating the unknown parameters in a linear regression model. Hutcheson (2011) defined ordinary least square (OLS) regression as a generalized linear modeling technique that may be used to model a single response variable which has been recorded on at least an interval scale. This method minimizes the sum of squared vertical distances between the observed responses in the dataset and the responses predicted by the linear approximation.

OLS technique may be applied to single or multiple explanatory variables and also categorical explanatory variables that have been appropriately coded. In single explanatory variables, the relationship between a continuous response variable (Y) and a continuous explanatory variable

(X) may be represented using a line of best-fit, where Y is predicted, at least to some extent, by X. If this relationship is linear, it may be appropriately represented mathematically using the straight line equation 'Y = a + ßx

For the multiple explanatory variables additional variables are added to the equation. The form of the model is the same as in a single response variable (Y), but this time Y is predicted by multiple explanatory variables (X_1 to X_5).

$Y= \beta_0 + ß_1X_1 + ß_2X_2 + ß_3X_3$ (3.3)

The interpretation of the parameters (a and ß) from the above model is basically the same as for the simple regression model, but the relationship cannot be graphed on a single scatter plot. A indicates the value of Y when all variables of the explanatory variables are zero. Each ß parameter indicates the average change in Y that is associated with a unit change in X, whilst controlling for the other explanatory variables in the model. Model-fit can be accessed through comparing deviance measures of nested models. For example, the effect of variable X_3 on Y in the model can be calculated by comparing the nested models

$Y= \beta_0 + ß_1X_1 + ß_2X_2 + ß_3X_3$ (3.4)

$Y= \beta_0 + ß_1X_1 + ß_2X_2$ (3.5)

The change in deviance between these models indicates the effect that X3 has on the prediction of Y when the effects of X_1 and X_2 have been accounted for (it is, therefore, the unique effect that X_3 has on Y after taking into account X_1 and X_2). The overall effect of all three explanatory variables on Y can be assessed by comparing the models

$Y= \beta_0 + ß_1X_1 + ß_2X_2 + ß_3X_3$ (3.6)

Y= a. (3.7)

The significance of the change in the deviance scores can be accessed through the calculation of the F-statistic using the equation provided above (these are, however, provided as a matter of course by most software packages). As with the simple OLS regression, it is a simple matter to compute the R-square statistics.

RESULTS AND DISCUSSION

Table 1: ADF Unit Root Test

H0: Variable is not stationary

H1: Variable is stationary

Variable	ADF	MacKinnon @1%	MacKinnon @5%	MacKinnon @10%	Order of integration
GDP	-2.841458	-3.610453	-2.938987	-2.607932	1(0)
NEC	-2.453295	-3.610453	-2.938987	-2.607932	1(0)
EF	-2.741228	-3.610453	-2.938987	-2.607932	1(0)
CAPA	-1.150983	-3.610453	-2.938987	-2.938987	1(0)
CA	-7.146726	-3.615588	-2.941145	-2.609066	1(1)

Source: E-view Output, 2025.

The first step to start the time series analysis is to conduct unit root test. If unit root test results show that all variables being analyzed are stationary, then ordinary least square (OLS) or Vector autoregressive model (VAR) method can be used to determine the relationship between the given variables. However, if the reverse is the case, alternative method is applicable such as Johansen test or Autoregressive distributed lag (ARDL) appropriate.

Table 1 present the series of unit root tests of (ADF). The results show that all the variables are not stationary of order I (0) in first differencing, as shown in table there is evidence of mixed unit root test result. CA is not stationary while, the remaining variables are stationary. Following,

evidence of mixed unit root test result Autoregressive distributed lag (ARDL) was employed to analyze the study data to ascertain both short run and long run estimation.

Table 2: Descriptive Statistics

	GDP	EF	CAPA	CA	NEC
Mean	4.019574	5.029868	2.756645	5.109754	4.666725
Median	4.195209	5.324520	3.395688	5.402937	4.103475
Maximum	5.370006	6.817448	6.961051	6.757798	6.783520
Minimum	2.219715	2.478999	0.000000	1.644439	0.977724
Std. Dev.	1.008166	1.252835	2.558035	1.459325	1.603600
Skewness	-0.415533	-0.545885	0.010061	-0.767272	-0.101255
Kurtosis	1.836093	2.198753	1.291104	2.625839	1.798514
Jarque-Bera	3.408920	3.056595	4.867884	4.158032	2.474299
Probability	0.181871	0.216905	0.003690	0.125053	0.290210
Sum	160.7829	201.1947	110.2658	204.3901	186.6690
Sum Sq. Dev.	39.63953	61.21423	255.1982	83.05555	100.2898
Observations	40	40	40	40	40

Table 2 presents the descriptive statistics which describes the characteristic of the data used in the study. The study observation is 40. In a normally distributed series the skewness is zero, kurtosis is three (3) and the JB statistics is not expected to exceed the critical value 5.991 at 5%. The skewness which measures the degree of asymmetric of the series shows that gross domestic product and other variables have negative sign except capital account that is long-right tail while, the negative sign means that is long-left tail as well as normal skewness and platykurtic because all the values. If the kurtosis exceeds 3, the distribution is peaked (leptokurtic) relative to the normal; if the kurtosis is less than 3, the distribution is flat (platykurtic) relative to the normal. The Jarque-Bera test statistic which measure the difference of the skewness and kurtosis of the series with those from the normal distribution show that all the variables understudy were not significant except capital account with the probability that a Jarque-Bera statistic exceeds (in absolute value) the observed value under the null hypothesis - a small probability value leads to the rejection of the null hypothesis of no normal distribution. Thus, it can be concluded that the study data exhibit normal distribution.

Table 3: Covariance Analysis: Ordinary

Covariance Correlation t-Statistic	GDP	EF	CAPA	CA	NEC
GDP	0.990988				
	1.000000				
EF	0.924255	1.530356			
	0.750518	1.000000			
	7.000842	-----			
CAPA	-1.533282	-0.960050	6.379955		
	-0.609788	-0.307248	1.000000		
	-4.742814	-1.990273	-----		
CA	1.004625	1.355621	-0.735558	2.076389	
	0.700350	0.760480	-0.202094	1.000000	
	6.048268	7.219271	-1.272040	-----	
NEC	1.313639	1.505411	-2.527258	1.718773	2.507245
	0.833380	0.768529	-0.631891	0.753296	1.000000
	9.294920	7.404538	-5.025743	7.060609	-----

Source: E-view Output, 2025.

The table above shows the correlation values between the independent variables. The relationship between balance of payment variables and gross domestic product, the results shows that EF is positively correlated to the dependent variables; CAPA is negatively correlated to the three dependent variables while CA and NEC is positively correlated to the dependent variable.

Table 4: Cointegration bond test

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	4.199756	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
Actual Sample Size	38		Finite Sample: n=40	
		10%	2.427	3.395
		5%	2.893	4
		1%	3.967	5.455
			Finite Sample: n=35	
		10%	2.46	3.46
		5%	2.947	4.088
		1%	4.093	5.532

Source: E-view Output, 2025.

From the ARDL bounds test result, it is clear that there is a long run relationship amongst the variables. This is because the computed F-statistic of about 4.19 is higher than the upper critical bounds at 1%, 2.5%, 5% and 10% critical values. This provided evidence to reject the null hypothesis of no cointegration at 5% and 10% significance level for the growth model. It can therefore be concluded from the ARDL bounds test that there is a long-run relationship among the

variables. Therefore, this study illustrate that balance of payment have a long run relationship with real gross domestic product.

Table 5: ARDL Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	1.352165	0.161574	8.368704	0.0000
GDP(-2)	-0.371129	0.159985	-2.319777	0.0271
EF	0.020664	0.009888	2.089739	0.0449
CAPA	0.003849	0.004641	0.829351	0.4132
CA	-0.015996	0.009118	-1.754263	0.0893
NEC	0.003274	0.011632	0.281507	0.7802
C	0.080188	0.049573	1.617557	0.1159
R-squared	0.998623	Mean dependent var		4.112881
Adjusted R-squared	0.998356	S.D. dependent var		0.944706
S.E. of regression	0.038299	Akaike info criterion		-3.521969
Sum squared resid	0.045471	Schwarz criterion		-3.220308
Log likelihood	73.91740	Hannan-Quinn criter.		-3.414640
F-statistic	3746.903	Durbin-Watson stat		2.161510
Prob(F-statistic)	0.000000			

Source: E-view Output, 2025.

From table 4.6, the estimated ARDL model found that balance of payment variables explained 99.8 per cent variation in gross domestic product in Nigeria; this implies that 0.2per cent was explained by variables not capture in the model. The model is statistically significant with the value of f-statistics and probability. The Durbin Watson statistic proved the presence of serial autocorrelation. The results found that exceptional financing have positive and significant effect on economic growth, the variables added 0.02 per cent to gross domestic product, capital account have positive but no significant effect and added 0.003, net errors and commission have positive effect and added 0.003 while current account have negative and reduced 0.015 to gross domestic product. The above results enable us to present the ARDL error correction results.

Table 6:ARDL Error Correction Regression
ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.371129	0.110876	3.347246	0.0022
CointEq(-1)*	-0.618964	0.003506	-5.409512	0.0000
R-squared	0.476583	Mean dependent var		0.081480
Adjusted R-squared	0.462044	S.D. dependent var		0.048455
S.E. of regression	0.035540	Akaike info criterion		-3.785127
Sum squared resid	0.045471	Schwarz criterion		-3.698938
Log likelihood	73.91740	Hannan-Quinn criter.		-3.754461
Durbin-Watson stat	2.161510			

Source: E-view Output, 2025.

The co-integration equation has a value of -0.618964 from long side probability of 0.0000. This implies that there may be a distortion in short runs which will be corrected in the long run via adjustment mechanism. This indicates that short term distortions in the variables are of enormous

importance in their long term relationship at 61.8% of this disequilibrium is corrected in the current period.

Table 7: ARDL Long Run Form and Bounds Test

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.080188	0.049573	1.617557	0.1159
GDP(-1)*	-0.018964	0.013240	-1.432276	0.1621
EF**	0.020664	0.009888	2.089739	0.0449
CAPA**	0.003849	0.004641	0.829351	0.4132
CA**	-0.015996	0.009118	-1.754263	0.0893
NEC**	0.003274	0.011632	0.281507	0.7802
D(GDP(-1))	0.371129	0.159985	2.319777	0.0271
Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EF	1.089629	0.740772	1.470938	0.1514
CAPA	0.202971	0.336999	0.602287	0.5514
CA	-0.843488	0.836097	-1.008840	0.3209
NEC	0.172664	0.620084	0.278452	0.7825
C	4.228427	2.570667	1.644875	0.1101
EC = GDP - (1.0896*EF + 0.2030*CAPA -0.8435*CA + 0.1727*NEC + 4.2284)				

Source: E-view Output, 2025.

The result of the long run result is presented in table 4.8 presents the restricted coefficient of the variables without trend, the long run result shows that the variables have positive but no significant effect on gross domestic product except current account segment of balance of payment.
EC = GDP - (1.0896*EF + 0.2030*CAPA -0.8435*CA + 0.1727*NEC + 4.2284)
The interpretation of the above equation is that a unit increase decrease in balance of payment variables increases the economic growth except current account. The results imply that the economic growth is highly affected negatively by the BOP of Nigeria.

Table 8: Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
EF does not Granger Cause GDP	38	0.19070	0.8273
GDP does not Granger Cause EF		0.75730	0.4769
CAPA does not Granger Cause GDP	38	0.82601	0.4466
GDP does not Granger Cause CAPA		2.67270	0.0840
CA does not Granger Cause GDP	38	1.01388	0.3738
GDP does not Granger Cause CA		0.69967	0.5040
NEC does not Granger Cause GDP	38	0.13092	0.8777
GDP does not Granger Cause NEC		1.79155	0.1825

Source: E-view Output, 2025.

Table 8 presents granger causality test result. The foregoing result suggests that the null hypothesis that stated that EF does not Granger Cause GDP and that GDP does not Granger Cause EF is

accepted given the p-values of 0.8273 and 0.4769 greater than 0.05 levels of significant. The null hypothesis that stated that CAPA does not Granger Cause GDP and that GDP does not Granger Cause CAPA is accepted given the p-values of 0.4466 and 0.0840 greater than 0.05 levels of significant. The null hypothesis that stated that CA does not Granger Cause GDP and that GDP does not Granger Cause CA is accepted given the p-values of 0.3738 and 0.5040 greater than 0.05 levels of significant. The null hypothesis that stated that NEC does not Granger Cause GDP and that GDP does not Granger Cause NEC is accepted given the p-values of 0.8777 and 0.1825 greater than 0.05 levels of significant.

Discussion of Findings

The objective of the first research question and hypothesis was to examine the effect of current account balance on economic growth in Nigeria. The estimated model found that ccurrent account has negative effect and reduced 0.015 to gross domestic products. The negative effect of current account balance on gross domestic product is contrary to a-priori expectations of the study and invalidates various Nigeria foreign trade policies. The negative effect of the variable could be traced to greater import than export, a critical look of the balance of payment data as reported by Central Bank of Nigeria proved that, Nigerian non-oil balance of payment has been negative over the periods of the study. Empirically, the negative findings is supported by the findings of Muasya and Muturi (2023) a long-run relationship among all the variables and variables under consideration were found to have long run significant impacts on economic growth in East African region, the findings of Adelegan and Abraham (2022) that the exchange rate coefficient was negative but contradict the findings of Efanga, Ihemeje, Egwu, Yamta, Biradawa and Ikwuagwu (2020) that balance of payment exerted a positive and significant impact on gross domestic product in Nigeria.

The second objective was to examine the effect of capital account on economic growth in Nigeria. The estimated model found that capital account has positive but no significant effect and added 0.003 per cent to gross domestic product. The positive effect of the variable confirm the expectation of the results, validates the Nigeria trade policies and in line with theories such as comparative advantage. It could be recall that Nigeria over the years has embarked on trade and economic policies directed toward economic growth such as export incentives, trade liberalization and financial sector globalization. The findings of this study is in line with the findings of Fasanyaa and Olayemi (2018) that import is cointegrated with relative price and income, and the equilibrium growth rates, the findings of Osuka, Otiwu, and Kalu (2024) that import and export have significant effect on per capita income in Nigeria, the findings of Bakari and Mabrouki (2020) there is strong evidence of bidirectional causality from imports to economic growth and exports to economic growth.

The third objective of the study focused on the effect net errors and commission and economic growth from 1984-2023. It was found that net errors and commission have positive bit no significant effect on Nigeria economic growth. Also, the positive effect of the variable confirm the expectation of the results, validates the Nigeria trade policies and in line with theories such as comparative advantage. It could be recall that Nigeria over the years has embarked on trade and economic policies directed toward economic growth such as export incentives, trade liberalization and financial sector globalization. The finding is in support of the findings of Lawal and Ezeuchenne (2020) that there is a long-run relationship between international trade and economic growth, import and trade openness are both insignificant in the short-run but significant in the long run while export and balance of trade are significant in both the short and long-run, Ali, Yassin,

Ali and Dalmar (2018) that economic growth does not Granger Cause Export but was found that export Granger Cause GDP, Mulok, Ching, Lily, Ghazali and Loganathan (2011) exists bilateral causality between economic growth and import. Results also show that import could indirectly contribute to economic growth, and economic growth could also directly contribute to import and the findings of Akhter (2015) that the impact of exports on economic growth is positive and an opposite scenario is found in the case of import.

The fourth objective was to evaluate the effect of exceptional financing on the growth of Nigeria economy. The study found that exceptional financing have positive and significant effect on economic growth, the variables added 0.02 per cent to gross domestic product. This finding is expected and confirms the a-priori expectations and the findings of Mushtaq, Nazir, Bashir, Ahmed and Nadeem (2014) that there were causality relationship between these variables, the variable import influenced GDP, and GDP influenced the variable export. Between export and import, two way Causality relationships released mutually, Omoju and Adesanya (2012), Ogbokor and Meyer (2017) found cointegration relationships between the investigated variables and also show that exports contributed more to economic performance as compared to the openness of the economy and exchange rate and the findings of Malefane and Odhiambo (2018) that when the first three proxies of openness were used, trade openness had a positive impact on economic growth, but not so when the trade openness index was used.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study examined the effect of balance of payment on economic growth using time series data from 1984-2023. The introductory chapter of the study provided a background to the study and formulated the research objectives and research problem. It also covered the significance of the study as well as organization of the study. The second chapter literature review provided the theoretical and empirical grounding for the thesis through the discussion of the relationship between the study variables. The methodology section, chapter three outlined the research design of the study. It also provided data collection and analysis techniques. The fourth chapter presented the outcome of data analysis and findings in line with the study objectives, the hypotheses tests were computed in line with the objectives while chapter five presented summary, conclusion and recommendations. Findings from the study revealed that, balance of payment variables explained 99.8 per cent variation in gross domestic product in Nigeria while 0.2per cent were explained by variables not capture in the model. The estimated model found that exceptional financing have positive and significant effect on economic growth, the variables added 0.02 per cent to gross domestic product, capital account have positive but no significant effect and added 0.003, net errors and commission have positive effect and added 0.003 while current account have negative and reduced 0.015 to gross domestic product.

Recommendations

i. Both federal and state government should put in place policies that promote industrialization and domestic production in order to promote exportation. This may be done by formulating and implementing dynamic terms of trade and keeping trade openness rate below or at ceiling level in order to ensure economic growth.

ii. The study revealed that capital account have positive effect on economic growth, therefore there is need to be checked through establishment of import substitutions industries to reduce imports, this is because the presence of imports lead to depreciation of the Nigeria naira hence imports substitution policy will strengthen the currency in Nigeria.

iii. There is need for the development of the financial sector, exceptional financing were insignificant and hence seem to be low. The financial sector needs to be enhanced and the functionality of the country financial system needs to be developed. Nigeria financial regulatory authorities need to established highly regulated and sound financial system that attract foreign investors and limit capital flight.

iv. Balance of payment if reduced generate the economic growth, there is need for Nigerian government to increase on the debt servicing, increase their participation to the international trade unions such as world trade organization necessary for the inducement of the growth, the policy development on the economy need to be enhanced for the growth of trade.

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