

## Impact of Financial Liberalization on Financial Deepening in Nigeria

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### Abstract

*The paper empirically assesses the impact of financial liberalization on financial deepening in Nigeria, using annual time series data from 1986 to 2020. Cointegration and dynamic error correction modelling techniques were utilized in the analysis. An index of financial liberalization that captures the gradual progression and institutional changes involved in the liberalization of the financial sector is constructed for the study. The empirical findings show that financial liberalization significantly engenders financial deepening in Nigeria. The growth rate of GDP also had a positive and significant effect on financial deepening. Net official development assistance and the institutional quality variable have positive but non-significant effects on financial deepening. Further evidence shows that government expenditure and inflation have negative and significant effects on financial development in Nigeria. Based on the empirical findings, the paper suggests continuous liberalization of the financial system to guarantee its efficient functioning. The adoption and implementation of a sound and stable macroeconomic policy environment and appropriate legal and institutional framework to facilitate the deepening of the financial sector are also important in order to enhance its intermediation role for real sector growth in Nigeria.*

**Keywords:** Financial liberalization, Financial deepening, Financial Reforms, Institutional quality, ECM

**JEL Classification:** E44, E59, O16, C13

### 1. Introduction

Nigeria and many developing countries are confronted with the challenge associated with the deepening and strengthening of their financial sectors to ensure that they are efficient and effective, given the low levels of financial development. Efforts at liberalizing financial markets have so far not yielded the desired results due to structural challenges, poor macroeconomic policy environment, and weak institutions. Many developing countries, including Nigeria, considerably lag behind the developed countries of the world in the quality of their institutions and in measures of the cost of doing business. Without a doubt, these challenges have substantially contributed to the small and shallow financial systems with limited outreach and financial intermediation prevalent in these economies (Achy, 2003; Ozekhome, 2020).

Beck, Demirgüç-Kunt, and Levine (2009) maintained that financial systems across the world deepened along several dimensions as the standards of financial intermediary and market development increased, with uneven economic progress across countries and regions of the world. Specifically, while a greater level of financial deepening has been realized in high-income countries, the middle-income and low-income countries, including Nigeria, have experienced no significant deepening (IMF, 2010). For instance, the ratio of private sector bank credit to GDP, a measure of financial deepening, declined from 22.2 percent to 18.7 during the period 1990 to 2000, with a further decline to 15.2 percent in 2010 and 13.8 percent by 2018 (World Bank, 2019). The low level of financial deepening in Nigeria is a major factor that affects credit mobilization and intermediation for growth and poverty reduction (Ozekhome, 2020). Given the limited and

inadequate access to credit, which contributes to low productivity and the low contributions of small- and medium-enterprises to private sector development in oil-exporting countries, the declining export revenues tend to affect foreign assets, domestic resources, savings, financial deepening, growth and poverty reduction (AfDB Group, 2010).

The impact of financial liberalization on financial assets has been investigated (Odhiambo 2005). Some studies in Nigeria examined the link between financial liberalization and the growth of the economy (Fowowe, 2008; Alege & Ogunrinola, 2008; Owusu & Odhiambo, 2014). A few other studies in Nigeria examined the effect of financial liberalization on the capital market (Ikhide, 1994; Ogun & Aiyegbusi, 2008). These studies, nevertheless, ignored the major channel through which financial sector liberalization affects the economy in terms of the deepening of the financial sector. Added to this is the possibility of a negative effect of financial reforms on financial deepening due to weak institutions, inappropriate and/or excessive supervisory control, structural rigidities in the economic and financial system, and a host of other policy constraints.

This paper, therefore, intends to fill the gap in the literature by empirically examining the impact of the domestically-induced policy of financial liberalization on financial deepening in Nigeria, particularly in terms of efficient credit intermediation. The study period encompasses the various financial reform era, particularly 1986, which marked the liberalization of the financial sector in Nigeria to enhance competition and efficiency. The current study differs from prior studies in three ways. First, unlike prior studies that were concerned with the link between financial liberalization and the growth of the economy (Ghosh, 2005; Habibullah & Eng, 2006; Akinsola & Odhiambo, 2017), this study examined whether financial liberalization engenders financial sector deepening. Second, previous studies (Ojo, 2008; Alege & Ogunrinola, 2008; Khalaf, 2011) did not consider the impact of institutional quality on the relationship between financial liberalization and financial development, which this study considers as a focal point. Third, while past studies employed a single dummy structure to capture financial liberalization (i.e., 1 for the year of liberalization and 0, otherwise), this study uses a weighted index of eight key dimensions of progression and institutional changes involved in the liberalization of the financial sector.

Following this introductory section, Section 2 is concerned with the review of literature, which considers the conceptual, theoretical, empirical, and policy issues associated with financial liberalization and financial deepening. Section 3 deals with the methodology, model specification, and data. The empirical results and analysis are presented in Section 4, and Section 5 concludes the paper with some evidence-based policy recommendations.

## **2.0 Literature Review**

### **2.1 Concept of Financial Liberalization**

Financial liberalization entails letting market forces drive the financial sector and, in so doing, reducing the active participation and regulation of the government. This would require that the private sector paradigm assume the centre stage, such that issues of efficiency, quality, effectiveness, and healthy competition are embraced. It is expected that with financial liberalization, finance will play its intermediation role more effectively and efficiently, and this should eventually lead to financial development. In practice, financial market liberalization entails the relaxation of credit controls and excessively high reserve requirements, lifting of interest rate controls, removal of entry barriers and restrictions on geographical outreach activities, and greater

private sector involvement in financial sector activities in relation to public sector ownership. In addition, it involves the removal of capital account restrictions and other restrictions on international capital flows and prudential regulations and supervision of the banking sector, including compliance with the Basel standards, among others (Obadan & Ozekhome, 2016).

With financial reform, measures aimed at the removal of non-competitive market forces and other inhibiting factors in the financial sector are embraced and implemented, thereby increasing its level of liberalization. Being a critical aspect of financial restructuring, financial liberalization involves reforms in the financial structure and architecture of the economy. Okpara (2010) asserts that financial liberalization is characterized by the greater scope of market forces in the determination of interest rates, exchange rates, capital accounts, and the allocation of credit, among others. Liberalization of financial markets is based on the need to improve the depth of the financial system to mobilize more national savings in the form of financial assets that will permit the efficient allocation of financial resources for more productive investments. Financial liberalization usually comes after financial repression, where the government of developing countries subjects the administrative framework of the financial system to its whims and caprices in terms of allocation of resources, thereby giving a less important role to market forces (Odhiambo & Nicholas, 2005). From a monetary policy perspective, the growing diversification of firms, business, trade, investment, and household portfolios is largely affected by financial market development, which, ipso facto, depends on the degree of reforms in the financial sector to enhance its effective and efficient functioning. Financial deepening plays an important role in the reduction of risk and vulnerability for disadvantaged groups and increases the capacity of individuals and households to access basic services, like health and education, thereby having a more direct impact on poverty reduction (Levine, 1997).

Several channels through which financial liberalization engenders financial deepening, as well as the dimensions, components, and scope of financial market liberalization, have been suggested by Gibson and Tsakalatos (1994); Anderson and Tarp (2003); Obadan (2006); Abiad et al. (2010); Fowowe (2013); and Adeleye, et al. (2018). They include savings mobilization, development of new and innovative financial instruments, credit intermediation, interest rate, foreign exchange and capital market liberalization, and banking and financial sector reforms. Under financial repression, the monetary authorities impose high reserve requirements, bank-specific credit ceilings and selective credit allocation, mandatory holding of treasury bills and bonds issued by the government, and finally, a non-competitive, fragmented and segmented financial system (Archy, 2003). Financial liberalization, an off-shoot of the Washington Consensus (2005), is expected to revamp an ailing economy through the implementation of an economic recovery programme adumbrated in the famously called 'Structural Adjustment Programme' introduced by the World Bank in the 80s, aimed at restoring macroeconomic stability and economic growth (Alege & Ogunrinola, 2008). The reform of the financial sector was an integral component of the broad-based economic reforms required to encourage the real sector and inclusive growth. Following this, the pace of financial sector reforms considerably evolved within the period 1986-1996, with varying degrees of reforms aimed at fostering the liberalization of financial markets in order to enhance access and availability of long-term credit for real sector economic growth.

Without a doubt, the role of the financial sector is to mobilize savings, allocate resources efficiently and optimally help diversify risks for trade business and investment. The reforms instituted in the financial sector within the framework of structural adjustment programs supported by the IMF and

the World Bank became an integral part of the far-reaching economic reforms that developing countries undertook in the 1980s and 1990s. The reforms included interest rate liberalization, banks restructuring and supervision, and liberalization of current and capital accounts. The reforms did not achieve their expected outcomes for several reasons, including insufficient legal institutions and information sharing (McDonald & Schumacher, 2007; NEPAD-OECD, 2009). In addition, the time necessary to improve the financial infrastructure in developing countries has generally been underestimated, given that the public sector is the major borrower and the fact that the institutional capacity is weak. Countries that attracted greater financial resource inflows had bigger and more developed financial sectors, greater measures of institutional quality, and were more integrated into the global economy with respect to financial and trade flows (IMF, 2010). Following this contention, the roles of financial liberalization and institutions in financial development are intertwined.

## **2.2 Concept of Financial Market Liberalization in Nigeria**

The domestic financial market liberalization process started in Nigeria in the late 1980s, following the implementation of Structural Adjustment Programme (SAP) policies. Nevertheless, it was not until the 1990s that the government began to promote the internationalization of domestic money and capital markets. The deregulation of the capital market commenced in 1993, while the Exchange Control Act of 1962 was repealed alongside the Nigerian Enterprises Promotion Decree of 1989. With the abrogation of these two laws and their replacement with two others, the Nigerian Investment Promotion Commission Decree No. 16 of 1995 and the Foreign Exchange (Monitoring and Miscellaneous Provisions) Decree No.17 of 1995, the capital market became internationalized. It became possible for foreigners to participate in the market both as operators and investors, with no restrictions to the percentage of foreign holding in any company registered in Nigeria. In addition, currency restrictions and capital controls were removed under the market-determined exchange rate regime, while capital inflows and outflows were liberalized (Obadan & Ozekhome, 2016).

The Nigerian economy was hitherto characterized by excessive control of the financial and foreign trade sectors through the determination of interest rates, prices, and exchange rates by fiat. These interventionist policies consequently engendered a severe balance of payments deficit, escalating external debt and crushing the debt-service burden (Iyoha, 1995). The International Monetary Fund (IMF), in a bid to restore macroeconomic stability and growth through broad-based economic reforms required to boost real sector and inclusive growth, supported the Structural Adjustment Programmed (SAP) that encompassed a number of economic and financial reforms to correct the deteriorating economic situation. This was hinged on the enforcement of a substantial reduction of government intervention in setting interest rates, allocation of credits, and capital market activities by eliminating the interventionist regime of the government to allow market forces to determine them (Ozekhome, 2020).

## **2.3. Empirical Review**

Horsch (1989), using OLS, investigates the effect of financial liberalization on financial resources and credit mobilization in the Korean economy. He finds that financial liberalization promotes the deepening of financial markets and increased financial asset mobilization. This is in line with the findings of Cho (1986) that increased competition due to financial liberalization leads to a greater

integrated financial system in terms of increased funds and assets due to efficient resource allocation in Korea.

Olomola (1994) investigates the link between financial liberalization and economic growth under the Structural Adjustment Programme in Nigeria. He finds that the factors that influence financial liberalization are financial structure, size of the financial system, institutional quality, asset distribution by the financial system, interest structure, financial intermediation, and financial efficiency. He further finds that financial liberalization has a positive impact on the distribution of financial assets of commercial banks in the post-SAP era. He suggests the liberalization of the financial sector in Nigeria in order to propel the mobilization of financial resources and their efficient allocation to enhance and encourage productive investment in Nigeria.

Pill and Pradham (1995) examine the nexus between financial market liberalization and financial development using evidence from a sample of African countries, Gambia, Ghana, Kenya, Madagascar, Malawi, and Zambia. They utilize a panel data estimation approach. Less significant results are obtained in the case of the sampled African countries when compared with their Asian counterpart of Indonesia, South Korea, Malaysia, Philippines, Sri Lanka, and Thailand. In particular, the development of the financial system in the sampled African countries using M2/GDP did not change in the post-liberalization era. This outcome is due to the fact that the necessary and appropriate preconditions, such as a stable macroeconomic environment, institutional quality, and financial development, were not in place in those African countries for the success of financial liberalization when compared to their Asian counterparts.

Ikhide (1997) evaluates the effect of financial liberalization on the growth of the capital market in Nigeria. He employed the OLS econometric technique for the study. The findings show that the capital market, as a result of the reform of the financial sector, has grown considerably in terms of its capital mobilization capacities. This growth, according to the author, is reflected in such measures as bank capitalization, securitization, and listing; breadth, measured by the asset pricing characteristics, such as the stock market index; and internationalization, captured by the sizeable increases in the net portfolio and direct investment. The study by Gibson and Tsakalatos (1994) examined the scope and limits of financial liberalization in developing countries. The contributions of the works of Lewis and Stein (1997), Stein, Ajakaiye, and Lewis (2002), and Ikhide and Alawode (2002) to the debate on financial liberalization in Nigeria are also notable.

Laurennceson and Chai (2003) evaluated the impact of financial liberalization on financial deepening in China over the period 1978-1996. Utilizing the Autoregressive Distributed Lag (ARDL) model, the findings show that the liberalization of financial markets resulted in financial deepening in China. Odhiambo (2005) examines the effect of financial liberalization on financial assets in three Sub-Saharan African countries, Kenya, South Africa, and Tanzania. The findings from the co-integration and vector error model show a positive impact of financial liberalization on financial development. Specifically, financial market liberalization positively influences asset distribution and hence, the financial depth of the sampled countries.

Habibullah and Eng (2006) investigate the causality between financial liberalization and economic growth using evidence from 13 Asian developing countries over the period 1990-1998. The authors employed the Granger Causality, and error correction modelling (ECM) approaches. The results show that, among other things, financial liberalization promotes deposit money bank assets,

thereby increasing their intermediation capacity. Jankee (2006) examines the effect of financial repression on financial development in Mauritius over the period from 1970 to 2000. The results show that banking controls inhibit financial sector development and constrain financial resource allocation.

McDonald and Schumacher (2007) investigate the role of certain dimensions of legal institutions—creditor rights and information sharing—on financial markets in 37 SSA countries for the period 1983 to 2004, using a dynamic panel estimation approach. They construct three data points 1983 to 1987, 1993 to 1997, and 2000 to 2004. Financial development is measured as the ratio of private credit by deposit banks to GDP and is regressed on an index of financial liberalization, legal/institutional variables, and control for macroeconomic factors. The index of financial liberalization ranges between 0 and 100 and is an aggregation of the following conditions—whether interest rates are liberalized, the number of years of real lending, whether deposit rates have been positive, the existence of a significant informal financial sector, and direct credit allocation mechanisms. The results show that financial liberalization promotes financial deepening. In addition, given the degree of financial liberalization, countries with improved legal institutions—precisely, protection of creditor rights, improvement in the prediction of borrower defaults by reducing information asymmetries, and efficient judicial system and the rule of law, experience higher levels of financial development.

Alege and Ogunrinola (2008) examine the effect of financial sector reforms on the growth of the Nigerian economy for the period 1970 to 2002. They employ co-integration and error-correction techniques and find that the liberalization of the financial market (proxied by interest, exchange rate, and private sector credit) has had beneficial effects on financial assets. They conclude that financial liberalization has a positive impact on the mobilization of national savings in the form of financial assets (deposits) and enhanced efficient allocation of financial resources for more productive investments. In a similar vein, Ojo (2008) finds that the liberalization of the financial sector in Nigeria has improved efficient financial resource allocation to critical sectors of the economy, thereby improving the intermediary role of deposit money banks.

Fowowe (2008) evaluated the growth effect of financial liberalization in Nigeria, utilizing a dynamic estimation technique. He computes the elasticities of economic growth with respect to financial liberalization variables using interest rates, exchange rates, financial size, and private sector credits. The findings show that financial liberalization drives financial development and economic growth through larger asset penetration. Khalaf and Sanhita (2009) examine the financial development effect of financial repression policies over the period 1970-2002 and financial liberalization over the period 2003-2007. The findings show that neither financial repression policies nor financial liberalization policies promoted financial development in Iraq during the period 1970 - 2007.

Tressel and Detragiache (2008) investigate whether financial sector reforms lead to financial deepening, using evidence from a sample of 50 emerging market and developing economies based on a newly constructed dataset on financial liberalization during the period 1990-2005. The findings from the Binary Classification Tree Model (BCTM) show that reforms have led to financial deepening, but only in countries, with strong institutions that place checks and balances on the banking sector.

Khalaf (2011) investigate the Mackinnon-Shaw hypothesis, i.e., whether financial liberalization promotes financial depth in Iraq. Employing the Autoregressive Distributed Lag (ARDL) model on quarterly data spanning the period 2005-2010, the findings show that financial liberalization stimulated the rise of deposit money assets and overall financial depth in the long run. Owusu and Odhiambo (2013) investigated the long-run relationship between economic growth and financial liberalization in Nigeria. Employing the Autoregressive Distributed Lag (ARDL)-Bounds testing approach on annual time series data covering the 1969 -2008 sample period, the findings show that liberalization policies positively influence economic growth in Nigeria both in the short and long run.

Usuab, Odozi, and Adeniyi (2016) examined the link between financial liberalization and the growth of small and medium-scale enterprises (SMEs) in Nigeria, accounting for some key macroeconomic variables such as inflation and domestic national output (GDP). Utilizing annual time series data covering the period 1981-2012 and the ARDL approach, the findings show that financial liberalization has a negative, though non-significant, effect on the growth of SMEs. The authors suggest policy measures aimed at diversification of the economy and improvement of the business environment in Nigeria.

Akinsola and Odhiambo (2017) examined the impact of financial liberalization and banking crises on economic growth and whether variations in income levels across Sub-Saharan African (SSA) countries affect the relative impact of financial liberalization. They used a sample of 30 SSA countries. The results from the Generalized Method of Moments show a positive and significant coefficient of financial liberalization for SSA. Nevertheless, the financial liberalization dummy changed to a negative sign for low-income countries, even though it was significant. Further evidence shows a negative relationship between the banking crisis and economic growth. Folarin (2019) it was shown that a reversal of financial reforms could occur, and that is the reality in Nigeria.

On the studies that found negative effects of financial sector reform on financial development, Allen and Gale (2007), for instance, argue that excessive regulation or reform is neither optimal nor desirable because it reduces the ability of financial institutions to perform their basic task of efficient allocation of resources. Excessive regulation reduces the incentives for banks to introduce new services and products. In view of the dynamic requirements of economies, the inability to introduce new products can result in sub-optimal risk hedging and exploitation of consumers. Mehrez and Kaufmann (2000) show that increasing liberalization induces risk-taking behavior and may cause banking crises. Kakwani and Pothong (2000) find that persons in the lowest income stratum are more negatively affected during financial crises than other income groups in Thailand. The study by Obadan (2006) further shows how weak or poorly regulated financial institutions could make a country highly vulnerable to economic and financial crises that may disproportionately burden the poor.

Concerning the link between financial liberalization and bank crisis, Demirgüç-Kunt and Detragiache (1998; 1999) utilized a dummy variable that takes a value of one for the first year in which some interest rates were liberalized as a measure of financial reforms over the period 1980-95 for 53 countries and found evidence of banking crises in liberalized financial systems. They also find that the impact of financial liberalization on a fragile banking sector is weaker where the

institutional environment is strong. Although interest rate liberalization is important, it only covers a minor aspect of financial sector reform. In addition, this indicator does account for policy reversals. Other studies that explore the relationship between financial liberalization and bank crisis include Kaminsky and Reinhart (1999), based on evidence from 76 currency crises and 26 banking crises for 20 countries from 1970 to mid-1995; Stein et al. (2002); Honohan and Laeven (2005); and Beck and Demirgüç-Kunt (2006), who found evidence for 69 countries using data that covered the period 1980-1997, that the presence of banking concentration, regulatory policies, and institutions that discourage competition are associated with greater banking system fragility and crises.

From the review of the literature, there is a paucity of robust and recent empirical evidence on the impact of financial liberalization on financial deepening in Nigeria. This is due to the fact that none of the studies reviewed in this study using evidence from Nigeria has examined the impact of financial sector reforms/liberalization on financial development using a more encompassing and weighted index of the key dimensions of progression and institutional changes involved in the liberalization of the financial sector. In addition, none of the Nigerian studies reviewed in this study accounted for the role institutional framework and macroeconomic policy environment play in financial development in Nigeria. These factors are crucial, especially for an evolving financial system where economic and structural inflexibilities and government policies affect financial development, thus necessitating a further empirical investigation on the financial liberalization-financial development nexus in Nigeria.

## **2.3 Theoretical Literature**

### **2.3.1 Neo-Classical Economic Doctrine of Liberalization**

The theoretical basis for economic and financial liberalization is rooted in the neoclassical economic doctrine of laissez-faire. The tenet of economic laissez-faire entails sequential or full liberalization of both the real and financial sectors, the privatization or commercialization of government-owned companies, corporations, and parastatals, liberalization of both the domestic and external sectors, and in general, allowing market forces to determine the prices of commodities and, thus allocate scarce resources (Alege & Ogunrinola, 2008). In line with Iyoha (1995), the adoption of economic liberalization presupposes belief in a laissez-faire approach, in which the doctrine of consumer sovereignty is upheld, the doctrine of near infallibility of Adam Smith's invisible hand and the belief in the superiority of the market system and of market-determined prices. It is expected that with liberalization, the financial sector will yield optimal allocation of scarce resources, reduce wastages and bring about real sector growth.

In line with economic theory and under specific conditions, a competitive market will guarantee an efficient allocation of resources in the Pareto sense. Such situations will guarantee efficiency in resource allocation in both internal and external circumstances. Critical to achieving efficiency in resource allocation among competing economic needs/units are adjustments and reforms in the internal and external conditions. The external dimension is usually predicated on the elimination of distortionary forces in trade regimes, as well as providing improved incentives for all trading sectors, where the focus is on foreign exchange regimes with the objective of achieving the stability of the exchange rate. The stability of the exchange rate is critical to international competitiveness,



improved balance of trade, and overall balance of payments position, under the proposition that in certain conditions, free trade will lead to efficient and optimal allocation of resources among trading countries (Alege & Ogunrinola, 2008). In line with the literature, a number of critical factors, ranging from financial liberalization, political and legal institutional framework, and a host of other macroeconomic variables, affect financial development (see McDonald & Schumacher, 2007; Roe & Siegel, 2007).

In support of this, Ozekhome (2020) argued that substantial variations across countries in terms of institutional quality and macroeconomic environment significantly correlate with country differences in the degree of financial development. Favourable institutional setups, particularly good governance, strong legal institutions, political stability, and good macroeconomic policy environment are, by implication, major determinants of financial deepening given that differences in the level of 'social infrastructure,' which denotes institutions and government policies, considerably influence the degree of financial development, and in turn, economic development. Financial liberalization is expected to enhance efficiency and promote greater growth through higher levels of allocative and financial resource/intermediation efficiency. The depth and breadth of financial markets, particularly the banking systems that are the dominant financial institutions in Nigeria and other developing countries, are generally limited, shallow, thin, fragmented, and segmented and are characterized by marked variation across countries (Iyoha, 2004). This results in low financial intermediation by formal institutions, which is the mobilization and matching of idle funds with investment opportunities by channelling funds from lenders to borrowers (deficit units).

### **2.3.2 Financial Liberalization Hypothesis**

The proposition and recommendation by Shaw (1973) and Mckinnon (1973) in relation to the liberalization of the financial system as a means to improve the financial depth and financial intermediation in the financial system have been a subject of concern among economists, policymakers, and experts. The position of Mckinnon-Shaw on the critical role of finance in economic development is that financial depth and economic growth in many developing countries are low due to government intervention and stringent restrictions and control in the financial system. The proponents of financial liberalization based their argument on financial sector reform through a well-developed financial sector that supports real sector productivity. According to their contention, the practice of repressing interest rates at below market-determined level has destabilizing effects on the financial sector, and, accordingly, the efficient financial intermediation role of banks. Administratively fixing interest rates at low levels leads to a situation where the incentive of economic units to hold surplus funds in the form of financial assets becomes less. In addition, the fear of anticipated persistent inflationary expectation and devaluation of the currency leading to capital flight may discourage savings. As a result, the supply of investible funds will be limited. Such controls also suggest that the interest rate can no longer become a potent mechanism to ration credit and distinguish between investment projects with different yields.

In support of the liberalization hypothesis, other proponents, such as Kitchen (1982), assert that if a bank's credits are scarce and rationed, then a firm's capacity utilization may be restricted because it would be extremely difficult to obtain credit to finance its working capital, which may greatly limit its output. Accordingly, Kitchen argued that deregulation (liberalization) of interest rates would lead to greater availability of credit, which may have the effect of increasing the utilization

of existing financial resources and capital stock. The liberalization of the financial market, thus, would lead to the efficient allocation of financial resources and capital stock, which will propel a higher level of financial development, increased savings, credit intermediation, and growth. Against this background, the proponents of financial liberalization explained that financial repression is growth-retarding. Theory suggests that the creation and promotion of efficient financial institutions are necessary for genuine and enduring economic processes. Financial institutions can ameliorate risk, improve savings, and corporate governance, mobilize savings, reduce transaction and information costs, and promote specialization (Levine, 1997).

The opponents to the proposition of financial repression, such as Shaw (1973), Mckinnon (1973), Roubini and Sala-i- Martin (1992), King and Levine (1993), Demetriades, and Luintel (1997) argued that financial repression undermines financial development and economic growth. Accordingly, they suggested financial liberalization to re-establish an underdeveloped and lagging financial system. A policy of liberalization resulting in higher interest rates, according to them, would therefore institute a virtuous cycle of increased savings, improved investment efficiency, and higher rates of economic growth. Financial liberalization, in line with the proponents, will speed up economic growth due to the resulting efficiency. The availability of financial assets, according to them, would allow the financial sector to deepen.

Stiglitz (1993), however, criticized the financial liberalization thesis. He based his contention on the view that financial markets are significantly different from other markets and are more prone to failure. He maintained that financial repression might be beneficial until an advanced stage of the development process is reached. In a contrasting position, Wijbergen (1982) maintained that financial liberalization could possibly reduce the rate of economic growth by reducing the total real supply of credit available to businesses. In line with the thesis of financial liberalization, the liberalization of the domestic financial system should enhance monetary policy effectiveness, which in turn, should reflect in improved intermediation efficiency, thereby supporting domestic savings and the development of the financial sector.

### **2.3.3 The Structural View of Financial Liberalization**

The structural view of financial liberalization, which has its root in the works of Prebisch (1950), Singer (1950), and other structuralist economists, maintained that in a bid to break the vicious circle of financial instability, structural deficiencies and other rigidities in developing economies must first be removed. This is to pave the way for financial development and economic transformation (see Campos & Coricelli, 2002; Singh et al., 2005). In line with this thesis, public policy must, as a matter of prime importance, focus directly on remedying the prevalent structural deficiencies through social, structural, and economic policies rather than controlling and regulating monetary and fiscal policy, such as restricting the supply of money and government expenditures. The adoption, implementation, and deepening of important structural reforms will, accordingly, fast-track growth in developing and transition economies. Structuralism, therefore, argued that extensive efforts should first be directed towards addressing the inadequacies, imperfections, and structural rigidities in the economic and financial sphere in order lay a strong basis for financial sector reforms and long-run macroeconomic stabilization. Such structural rigidities and economic inhibitions, if not addressed, could obviate efforts to rapidly grow and develop the economy even in the face of developed financial markets.

### 3.0. Methodology

#### 3.1. Model Specification

In order to examine a more systematic relationship between financial liberalization and financial deepening, a stylized financial liberalization-financial deepening model is specified in the form:

$$FDEP_t = f(FLIB_t, X_t) \quad (1)$$

where:

FDEP represents Financial Deepening, measured as the ratio of private sector credit to GDP; FLIB is financial liberalization; t is time period, and X is a vector of macroeconomic variables, in line with extant literature that influences financial deepening (see McDonald & Schumacher, 2007; Abiad et al., 2010; Ozekhome, 2020) The variables include:

GDP growth rate (GDPGR);

GOVEXP= Government expenditure;

INF= Inflation rate;

NETODA = Net official development assistance, and;

INST= Institutional quality

In recognition of these variables, the extended functional form of the model is presented as:

$$FDEP_t = f(FLIB_t, GGDP_t, GOVY_t, NETODA_t, INF_t, INST_t) \quad (2)$$

The empirical specification of the model is, therefore

$$FDEP_t = + \alpha_1 FLIB_t + \alpha_2 GGDP_t + \alpha_3 GOVY_t + NETODA_t + \alpha_5 INF_t + \alpha_6 INST_t + \epsilon_t \quad (3)$$

Where FD, FLIB, GDPG, GOVY, INF, NETODA, and INST are as earlier defined.

$\alpha_1 - \alpha_6$  are parameters to be estimated, and  $\epsilon$  is the unobserved error term.

The *a priori* expectations are  $(\alpha_1, \alpha_2, \alpha_4, \alpha_6) > 0$ ; and  $(\alpha_3, \alpha_5) < 0$ .

The estimation is done using cointegration, error correction model (ECM). As a prelude to this, the preliminary unit root properties of the time series variables are investigated since the regression of non-stationary time series variables on another may yield spurious and inconsistent parameter estimates (Engle & Granger, 1987). The study covers the period from (1986 – 2020). The choice of the period is hinged on two reasons. First, the starting year (i.e., 1986) marks the formal process of financial market liberalization in Nigeria. Second, the entire study period represents the period of greater financial market liberalization in Nigeria, engendered through broad financial sector reforms.

#### 3.2. Justification of the Variables in the Model

The justification for the selection of the variables in the model is based on (i) modification of the approach previously adopted by other researchers such as McDonald and Schumache, (2007) and Alege and Ogunrinola (2008), (ii) economic and structural context of the Nigerian financial system and (iii) economic intuition, wherein a host of macroeconomic such as growth rate of the economy and inflation have been found to determine financial deepening. Government expenditure to income ratio and net official development assistance are included in this model, a novel feature of this study, unlike previous studies, such as Alege & Ogunrinola (2008) on the subject matter in Nigeria.

In theory, a number of basic indicators of the size of the financial development of a country and the question of selecting the most appropriate measures arise when the countries being studied are at dissimilar levels of financial systems. A traditional and broad measure of financial development is liquid liabilities (which is currency held outside the banking system, plus demand and interest-bearing liabilities of banks and other financial intermediaries relative to the GDP). This measure reflects the overall size of the intermediary financial sector, but it does not distinguish between the allocation of capital to the private sector and to the public sector (comprising governmental and quasi-governmental agencies). Given that public ownership of financial institutions is pervasive in Nigeria and the fact that most of the borrowers are from the public sector, it is more appropriate to focus on the extent of financial intermediation in the private banking sector as a measure of market-based financial development. This study, thus, uses private sector credits by deposit banks as the ratio of GDP percent as a measure of the level of financial deepening, as it represents the claims of the private banking sector on the private sector. In so doing, a better representation of the overall development of banking markets in the private sector is captured. This measure of financial development is typically preferred in the empirical literature (see McDonald & Schumache, 2007) since formal financial institutions, especially banks, generally provide credit for business, investment, and trade-oriented activities.

In line with the extant literature, FLIB is expected to be positively related to financial development since increased liberalization and the removal of administrative controls and financial distortions are expected to steer efficiency and encourage the development of the financial system through competition. Similar to previous studies (see Odhiambo, 2005; IMF, 2010), a set of macroeconomic variables are included to control for the effect of the macroeconomic environment using economic output, inflation rate, government expenditure, and net official development aid. Financial depth may depend on a country's output and level of development since higher economic output would increase the financial resources available for mobilization. Apart from measuring macroeconomic stability, the inflation rate is included because of its relationship with savings, upon which the financial intermediation function is based. The inflation rate is expected to be negatively connected with financial development.

Government expenditure is important to financial development because of its potential to crowd out private credit. When viable investment opportunities are available in the private sector, their impact will be negative if there is crowding out. Institutional quality influences financial development in line with the literature, as strong legal and political institutions will enable fundamental reforms in the financial sector through appropriate frameworks. This submission is in line with the extant theory and supports the position of McDonald and Schumacher (2007) and Roe & Siegel (2007), and IMF (2014). Finally, aid is likely to positively impact financial development since external financial aid (external resource inflows) generally increases the resources available for financial intermediation.

### 3.3. Definition of Variables and Sources of Data

The definitions of the variables in the model, unit of measurement, as well as sources of data, are provided in Table 1.

**Table 1: Definition of Variables and Data Sources**

Variable	Description/Measurement	Source
Financial Deepening	Private sector credits by deposit banks to GDP percent	World Bank World Development Indicators.
Financial Liberalization	A weighted composite index of eight financial reforms liberalization components that measures the various aspects of the deregulatory and institutional building process- bank denationalization and restructuring, interest rate liberalization, strengthening of prudential regulations, direct credit, free entry into banking, capital account liberalization, stock market liberalization, and foreign exchange market liberalization (see appendix 1) for construction (Laeven, 2003; Bandiera et al. 2008; Fowowe, 2008; Usuab et al., 2016).	World Bank World Development Indicators.
The growth rate of the domestic economy	The annual growth rate of GDP growth percent.	World Bank World Development Indicators
Government Expenditure	Government expenditure to GDP percent- A measure of government fiscal action.	Central Bank of Nigeria (CBN) Statistical Bulletin (various issues).
Inflation Rate	A measure of the macroeconomic policy environment- captured as a percentage change in the consumer price index.	World Bank World Development Indicators.
Net Official Development Aid	Net official development assistance to GDP percent- made to capture the influence of external resource inflows on the deepening of the financial system.	World Bank World Development Indicators.
Institutional Quality	Annual averages of five measures of institutional quality variables that pertain to the development of the financial sector- the rule of law, political stability, government effectiveness, regulatory quality, and control of corruption- measured on an index scale of -2.5 to 2.5.	World Bank Governance Indicators of the World Development Indicators.

**Source:** Author's compilation.

## 4.0. Empirical Results and Analysis

### 4.1. Descriptive Statistics

Table 2 presents the descriptive statistics of the data on the variables used for the analysis. The average level of financial deepening is 12.88 percent. The maximum and minimum values are 32.3

and 5.89 percent, respectively. Apparently, the degree of financial development, and by extension, private credit intermediation, is relatively low in Nigeria. The mean value of financial liberalization is 5.2, and the maximum and minimum values are 8.00 and 1.02, respectively. The mean growth rate of GDP, government expenditure, net official development assistance, inflation rate, and institutional quality are 4.22, 6.05, 15.1, 12.3, and -0.67, respectively. The high standard deviation value of the inflation rate is evidence of macroeconomic instability. Invariably, inflation has not only been high but unstable over the period.

**Table 2: Summary Statistics**

	<i>Mean</i>	<i>Median</i>	<i>Max.</i>	<i>Min.</i>	<i>Std. Dev.</i>
<i>FDEP</i>	12.88	11.95	32.23	5.89	4.52
<i>FLIB</i>	5.21	5.45	8.00	1.02	2.20
<i>GDP</i>	4.22	4.03	7.58	-1.58	6.05
<i>GEXP</i>	6.05	5.25	9.22	1.02	2.23
<i>NETODA</i>	15.10	17.92	22.20	4.22	3.50
<i>INF</i>	12.25	12.36	72.80	4.70	9.22
<i>INST</i>	-0.67	-0.52	2.50	-1.55	2.10

**Source:** Author's computation

#### 4.2. Unit Root Test for Stationary

Unit root test involves a test of stationary for variables used in regression analysis. The stationarity of time series used in regression is hinged on the fact that non-stationary time series cannot be applied to an extended period apart from the present. The results are presented in levels, and the first difference is in Table 3, using the Augmented Dickey-Fuller (ADF) test. From the unit root test results, the null hypothesis of no unit root could not be rejected for the time series variables at the 5% level of significance, implying that the variables are non-stationary at levels. Following Box and Jenkins (1994), non-stationary time series variables can be made stationary by differencing them; the variables were subjected to the first-differencing mechanism. After the first differences, the variables became stationary. The variables are, therefore, difference-stationary, attaining stationary after the first difference. They are thus integrated into order one (i.e., I [1]).

**Table 3: Unit Root Stationary Test**

Variables	ADF Statistics (in levels)	ADF Test (in First Difference)	Order of Integration	Remark
D(FDEP)	-1.026	4.9027	I(1)	Stationary
D(FLIB)	-1.102	-5.771	I(1)	“
D(GDP)	-1.098	-5.403	I(1)	“
D(GEXP)	-0.982	-5.2201	I(1)	“
D(NETODA)	-1.221	-4.8873	I(1)	“
D(INF)	-0.973	-5.0632	I(1)	“
D(INST)	-0.774	4.2444	I(1)	“

Source: Author's computation

#### 4.3. Test for Co-integration

The Johansen Cointegration test method was used for the analysis, and the result is presented in Table 4.

**Table 4: Johansen Multivariate Cointegration Tests Results.**

Trace Statistic			Maximum Eigenvalue Test			Hypothesized No of CE(s)
Null Hypothesis	Test Statistic	Critical Value	Null Hypothesis	Test Statistic	Critical Value	
$r = 0^*$	121.30	92.24	$r = 0^*$	82.52	65.24	None**
$r \leq 1^*$	98.40	74.30	$r = 1^*$	66.23	50.25	At most 1**
$r \leq 2^*$	9.50	65.30	$r = 2^*$	50.20	39.72	At most 2**
$r \leq 3^*$	60.50	50.05	$r = 3^*$	38.07	19.10	At most 3**
$r \leq 4^*$	42.27	32.30	$r = 4^*$	26.21	10.45	At most 4**
$r \leq 5^*$	22.22	19.62	$r = 5^*$	14.02	7.32	At most 5**
$r \leq 6^*$	9.02	5.04	$r = 6^*$	4.02	6.05	At most 6
$r \leq 7^*$	0.02	0.03	$r = 7^*$	0.02	0.03	At most 7

Max-eigenvalue test indicates 5 cointegrating eqn(s) at the 0.05 level (\*\*\*) denotes rejection of the hypothesis at a 5% significance level.

Source: Author's computation

The results from the table show that there are at least six significant (plausible) cointegrating vectors among the variables, using the  $\lambda$ -max and the trace test statistics since the hypothesis of no cointegrating vector ( $r=0$ ) is to be rejected. Apparently, the number of cointegrating relations or vectors (indicated by  $r$ ) is at six. Accordingly, the existence of a long-run equilibrium relationship between financial liberalization and financial deepening in Nigeria is confirmed. Given that their co-integrating equations exist, the requirement for fitting in an Error Correction Model (ECM) is satisfied.

#### 4.4. The Error Correction Model (ECM)

The confirmation of the existence of a co-integrating vector among series gives enough background for estimating the dynamic short-run adjustment model using the Error Correction Model (ECM), which shows the response of financial deepening to financial liberalization and other variables in Nigeria. The result is presented in Table 5.

**Table 5: Error Correction Model Results**

Dependent Variable: FDEP		
Variable	Coefficient	T-ratio
D(FDEP (-1))	0.0242	1.2252
D(FLIB)	0.2113	2.1670**
D(FLIB(-1))	0.1652	1.8334*
D(GDP)	0.3063	3.1063***
D(GEXP)	-0.1785	-2.0315**
D(NETODA)	0.1520	1.2027
D(INF)	-0.0721	-1.8270**
D(INST)	0.0942	0.8210
C	0.1434	1.52130
ECM(-1)	-0.8532	-2.4621**
R-squared	0.8731	
Adjusted R-squared	0.8211	
F-statistic	75.182 (0.00)	
Breusch-Godfrey Serial Correlation LM Test Statistic	1.463 (0.25)	

Note: \*, \*\* & \*\*\* indicate statistical significance at 10%, 5% & 1% levels, respectively/

**Source:** Author's computation

The adjusted  $R^2$  value shows that the independent variables and the ECM explain over 82 percent of the net systematic variations in financial deepening, thus making the predictive ability of the model good. The F-value of 75.2 is highly significant at the 1 percent level, validating the hypothesis of the existence of a significant linear relationship between financial deepening and all the independent variables combined. The coefficient of the first lag of financial deepening is positively signed but fails the significance test. Thus, past levels or realization of financial development tend to constitute a springboard for further development of the financial sector, especially in the face of policy consistency and continuance.

The coefficient of the financial liberalization variable and its first lag is appropriately positive in line with the theoretical expectation and is significant at the 5 and 10 percent levels, respectively. Thus, increased financial liberalization stimulates the deepening of the financial system due to the competition, efficiency, and diversification of financial services it engenders. The result supports the findings of Karikari (2010) and Khalaf (2011). The coefficient of financial liberalization indicates that a unit increase in financial liberalization through the removal of credit and interest rate controls, entry barriers, and other capital flow inhibitions will enhance financial deepening by



0.21. The coefficient of economic growth (output) is positively signed in line with presumptive expectation and significant at the 5 percent level. Thus, increased economic activities tend to encourage financial deepening since such activities will stimulate financial activities and dealings and make credit available for mobilization and channeling. This finding corroborates the findings of McDonald & Schumache, (2007). Its coefficient indicates that a unit increase in output (reflected in rising economic growth) will enhance financial deepening by 0.31.

The coefficient of government expenditure is negative and significant at the 5 percent level. Apparently, increased government expenditure and the resulting fiscal deficits tend to have an adverse effect on the level of financial deepening in Nigeria since it crowds out private credit and investment through a rising interest rate that is associated with public sector/government borrowing. Its coefficient indicates that a unit increase in government fiscal deficit crowds out private sector credit and thus reduces the level of financial deepening by 0.18. This finding corroborates the results of Ozekhome (2020) that an exogenous increase in government expenditure (in the form of fiscal deficit) crowds out private sector credit, thereby having a deteriorating effect on financial deepening.

The coefficient of net official development assistance (a measure of external resource inflows) has the correct positive sign (although) it fails the significance test. This could be due to the dwindling level of development assistance and other foreign resource inflows to Nigeria in recent times and the fact that such resources are not adequately channelled to complement domestic resources for credit intermediation and other productive activities that will deepen the financial system but rather diverted to unproductive consumption and in most cases, looted on account of corruption, poor institutional framework and weak monitoring mechanisms. The result buttresses the findings of Odhiambo (2005). Since its t-ratio is greater than unity, net official development assistance (i.e., external financial inflows) positively influences financial development in Nigeria, but the impact is weak. The coefficient indicates that a unit percent increase in external resource inflows will further develop the financial system by 0.15.

The coefficient of inflation is negative in line with the theoretical expectation and is statistically significant at the 10 percent level. Thus, rising inflation rates (evidence of macroeconomic instability) have a destabilizing effect on the deepening of the financial sector in Nigeria. This finding corroborates the findings and submission of the IMF (2010). In line with the estimate, a unit increase in the rate of inflation will diminish the level of financial development (deepening) in Nigeria by 0.07. The coefficient of institutions is positively signed in line with theoretical projections but fails the significance test at the 5 percent level. Thus, institutional quality is positively related to financial development in Nigeria, albeit with a non-significant effect. This finding may be due to the poor level of the institutional framework (legal and political) in Nigeria, in addition to a pervasive weak regulatory framework, political instability, and a high level of corruption. Although some institutional measures have been introduced by the current administration led by President Buhari to tame corruption, much is still expected. Without a doubt, strong political, legal, and institutional setups will speed up financial development in Nigeria as they play a considerable role in determining the level of financial development in any country. This finding is in line with the findings of McDonald and Schumacher (2007) and Roe & Siegel (2007). The coefficient shows that a unit improvement in the institutional settings will further develop the financial sector in Nigeria by 0.09.

As regards the post-diagnostic, considering the fact that the DW statistic breaks down and is no longer valid in the presence of lagged value of the dependent variable, a higher diagnostic test for the robustness and validity of results obtained using the Breusch-Godfrey LM test is implemented. The post-estimation evidence, as can be deduced from the results, leads to the non-rejection of the null hypothesis of no contemporaneous serial correlation {with F-Statistic = 1.46 (0.25)}, as the p-value of the test statistic is greater than 0.05. There is thus no plausible evidence to invalidate the model, considering the fact that the estimates are robust in the absence of serial correlation. The estimated model can therefore be used for structural and policy analysis.

Apart from the diagnostic statistics, the coefficient of the error term is appropriately negative and significant at the 5 percent level. Its coefficient of 0.82 indicates that the contemporaneous speed of adjustment of financial development to long-run equilibrium after temporary disequilibrium and perturbation is 82 percent.

**4.5. Stability of the Estimated Parameters**

Model stability is necessary for prediction and econometric inference. The study uses the approach to testing the stability of the regression model proposed by Brown, Durbin, and Evans (1975). The approach involves the use of plots of the cumulative sum of recursive residuals (CUSUM) and cumulative sum of squared residuals (CUSUMSQ) to test the constancy of the regression parameters over time (that is, the short-run and long-run stability of the model). The results of the test are presented in Figures 1 and 2.

Figure 1: CUSUM Residual Plot

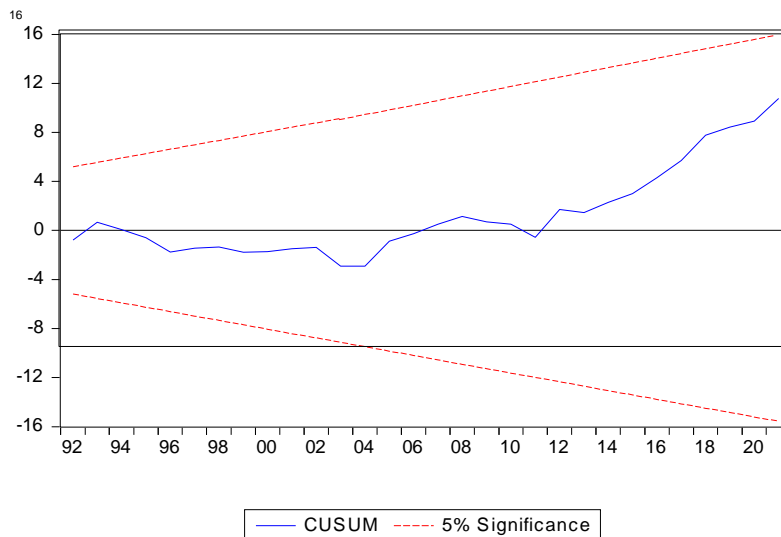
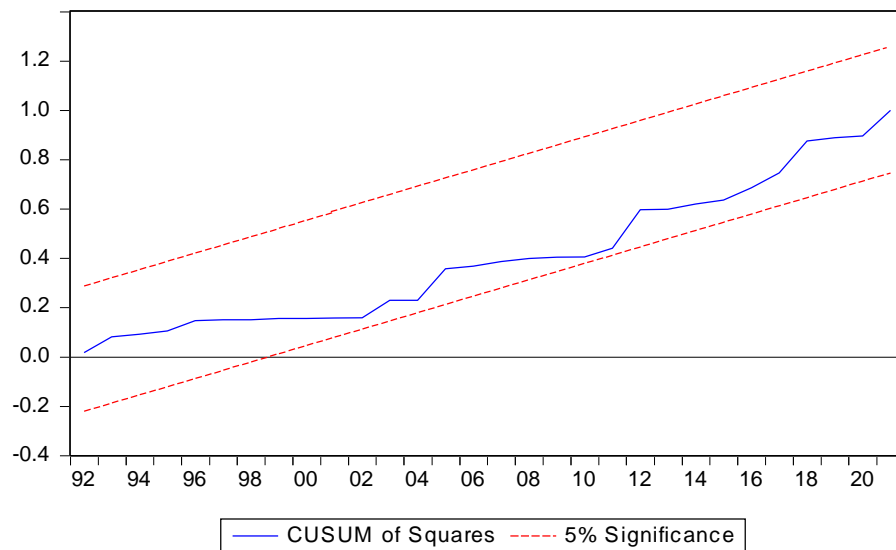


Figure 2: CUSUMSQ Residual Plot



The results of the tests provide strong evidence of structural stability in the estimates, as both plots lie within the critical bound of 5 percent significance. This implies that all the coefficients in the short-run model are stable and robust for prediction and policy analysis.

#### 4.6. Policy Implications of the Findings

A number of important policy implications can be deduced from the empirical findings. First, the reform of the financial sector that encompasses financial liberalization is important for financial development and real sector growth. In this regard, financial development is positively related to real sector growth, as it helps to mobilize resources and provide trade credit necessary to finance and promote business, trade, and investment. Therefore, it is important that governments and policymakers articulate efficient financial deepening policies that will stimulate the growth-enhancing intermediation role of the financial system.

Second, increased economic activities are important to the deepening of the financial system, given that with the increase in economic activities, a concomitant increase in financial services will be involved, thereby further enhancing the deepening and operations of the financial system in Nigeria. Thus, policies that will steer economic output, particularly in the area of the diversification of the economy through increased business trade, investment, and industrialization, are important.

Third, increased external resource inflows are important to the deepening and development of the financial sector in Nigeria. In this regard, appropriate external resource-augmentation inflow policies should be implemented to help increase the resources available for financial intermediation.

Fourth, a sound and stable macroeconomic environment, particularly a low and stable inflation rate, is important to the development of the financial sector in Nigeria. Government and policymakers should therefore put in place a sound and stable macroeconomic environment that

will enhance the role of the financial sector in real sector growth. Finally, an appropriate institutional setting, both legal and stable political structures, are imperative to the deepening of the financial system in Nigeria.

## 5. Conclusion

This paper has examined whether financial liberalization causes financial deepening in Nigeria. The empirical results show that financial liberalization positively and significantly influences financial deepening in Nigeria. Other determinants of financial development include the growth rate of the economy (a proxy for economic size), inflation rate (a proxy for macroeconomic policy environment), and government expenditure. Net official development assistance and the institutional quality variable have weak effects on financial deepening in Nigeria.

Against the backdrop of the critical role of a robust financial architecture via financial sector reforms in financial development, the implication is that there is a need for the implementation of policies and strategies geared towards financial deepening in Nigeria. The development of the financial system will effectively and efficiently drive financial intermediation (i.e., mobilization and transformation of financial resources) into viable loans and credits for productive investment in Nigeria. At present, there is a weak linkage between the real sector and the financial system, an indication that the majority of banks' loans are channeled to unproductive sectors of the economy. A strong, effective, efficient, and well-developed financial system is critical to business, trade, and investment and, consequently, real sector growth, as it helps to mobilize the required resources and credit to finance their growth, safeguard the financial system from instability, and allow optimal risk diversification. Therefore, policies to enhance the development of the financial sector in Nigeria are required. Specifically, continuous financial sector reforms and the development of new, flexible, versatile, and innovative financial instruments that will help deepen the financial system are essential to help the country maximize the potential of a sound financial system, through efficient financial intermediation.

Against the background of the foregoing, it is important that monetary authorities in Nigeria adopt and implement result-oriented policies that will stimulate financial liberalization and, in so doing, enhance financial deepening in Nigeria. Through continuous financial sector reforms that encompass appropriate and well-sequenced liberalization, prudential supervision and surveillance, increased external resource inflows, a strong and stable macroeconomic environment, and a strong institutional framework, among other considerations, financial deepening can bring about efficient financial intermediation that will drive real sector growth and development.

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## Appendix

### Financial Liberalization Index

Years	Bank Denationalization & Restructuring	Interest Rate Liberalization	Strengthening of Prudential Regulations	Direct Credit	Free Entry into Banking	Capital Account Liberalization	Stock Market Liberalization	Foreign Exchange Market Liberalization	Index of Financial Reforms/ Liberalization
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0
1987	0	1	0	1	1	0	0	0	3
1988	1	1	0	1	1	0	1	0	5
1989	1	1	0	1	1	1	1	0	6
1990	1	1	0	1	1	1	1	0	6
1991	1	0	1	1	0	1	1	0	5
1992	1	0	1	1	0	1	1	0	5
1993	1	0	1	1	0	1	1	0	5
1994	1	0	1	1	0	1	1	0	5
1995	1	0	1	1	0	1	1	0	5
1996	1	0	1	1	0	1	1	1	6
1997	1	1	1	1	1	1	1	1	6
1998	1	1	1	1	1	1	1	1	8
1999	1	1	1	1	1	1	1	1	8
2000	1	1	1	1	1	1	1	1	8
2001	1	1	1	1	1	1	1	1	8
2002	1	1	1	1	1	1	1	1	8
2003	1	1	1	1	1	1	1	1	8
2004	1	1	1	1	1	1	1	1	8
2005	1	1	1	1	1	1	1	1	8
2006	1	1	1	1	1	1	1	1	8
2007	1	1	1	1	1	1	1	1	8
2008	1	1	1	1	1	1	1	1	8
2009	1	1	1	1	1	1	1	1	8
2010	1	1	1	1	1	1	1	1	8
2011	1	1	1	1	1	1	1	1	8
2012	1	1	1	1	1	1	1	1	8

2013	1	1	1	1	1	1	1	1	8
2014	1	1	1	1	1	1	1	1	8
2015	1	1	1	1	1	1	1	1	8
2016	1	1	1	1	1	1	1	1	8
2017	1	1	1	1	1	1	1	1	8
2018	1	1	1	1	1	1	1	1	8
2019	1	1	1	1	1	1	1	1	8
2020	1	1	1	1	1	1	1	1	8

**Source:** Reports from Various Sources on the Deregulation and Institutional Reforms in the Nigerian Financial Sector.