

POLAC INTERNATIONAL JOURNAL OF ECONOMICS  
AND MANAGEMENT SCIENCE (PIJEMS)  
DEPARTMENT OF ECONOMICS AND MANAGEMENT SCIENCE  
NIGERIA POLICE ACADEMY, KANO

## EVALUATION OF THE EFFECT OF FDI ON MONEY AND PRICES IN NIGERIA: 1981 – 2016

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### Abstract

*This study investigates the effects of FDI on money and prices in Nigeria between 1981 and 2016. Structural macro econometric model consisting of monetary and prices block was developed for the purpose of the study. The model has 4 simultaneous equations and 15 variables to capture the required proxies. Three-stage least squares (3SLS) technique was adopted to estimate the macro econometric system of 4 simultaneous equations in order to capture the effect of FDI on that sector of the economy. FDI has positive effect on that sector as almost all the variables estimated were positive: in the estimated results for the equations MD2, (money supply), PHGS (public holding of government security), CINF (core inflation) and EXCR (exchange rate) of the monetary and price block, when FDI was included as independent variable it was highly significant for all the estimated equations and was positively signed. The major recommendations of the study is that government should provide enabling environment in such a way that the problem of exchange rate volatility, insecurity and corruption would be tackled; this would facilitate easy inflow of FDI into the country and affect the monetary sector positively; the multiplier effect can reduce inflation in the long run and influence the aggregate production which would then help relax the unemployment and foreign exchange bottle neck bedeviling the country and thereby facilitating the rapid growth of the economy.*

**KEYWORDS:** Money, Prices, FDI, Exchange rate, Inflation

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### 1. Introduction

Over the years, policymakers in most developing countries make deliberate efforts to attract foreign investments from economies of developed countries in order to fast-track economic growth. One of the reasons for this is that such economies of developing countries are characterized by low savings and often very high fiscal deficit. Most of the policymakers in such situations believe that external capital is required to finance current account deficits and to accelerate the pace of economic growth through larger production of goods and services. The mainstream thought in this regard is that foreign direct investment can be used to augment domestic savings in bridging the savings-investment gap, (Alfaro & Chauvin, 2017).

Foreign direct investment (FDI) is in many forms and the term is used to refer to different kinds of investment activity. Generally however, FDI is a measure of foreign ownership of productive assets, factories, mines and land. It is direct

investment into production or business in a country by corporate bodies and citizens from another country.

The end of World War II marked a significant watershed in the recognition and use of FDI as a very viable economic growth path, especially for the developing countries, (Lall, 2002). For instance, the contributions of foreign investment to Japan after the World War II and in South Korea after the Korean War are of great importance. In the same vein, Thailand, Singapore, Malaysia, Taiwan, Hong Kong and Indonesia which were once reputed to be economic tigers of Asia owe a significant part of their past successes and much of their current growth largely to heavy inflows of FDI over the years.

Improvements in local productivity due to the presence of foreign companies may arise from a number of channels. On the macro side, FDI could spawn new economic sectors, push an economy's technological frontier, and diversify exports. On the micro side, through knowledge spillovers and linkages

between foreign and domestic firms FDI could foster technology transfer, improve managerial and employee skills, and boost investment incentives and productivity in upstream and downstream sectors. Intensifying competition that results from foreign entry could incentivize local firms to upgrade their productivity, drive out unproductive domestic firms, and reallocate factors of production to more productive firms and uses, (Syverson, 2011). The greatest impact of all these activities in the economy would be money and prices. Therefore, there is no gainsaying the fact that knowledge on the effect of FDI on economic growth particularly as it relates to money and prices and such like in Nigeria needs to be updated. Therefore this study centers on the effect of FDI on economic growth in Nigeria with particular emphasis on money and prices.

### 1.2. Statement of the Problem

Several studies, for instance, Otepolo (2002), Solomon and Eka (2013), and Adeleke, Olowe, & Fasesin (2014), have shown that the performance of the Nigerian economy since the 1980s has remained unsatisfactory in contrast to the robust performance of other developing countries of the same economic history antecedent. Particularly, there are large imbalances in the economy such as high fiscal deficit, inflation, exchange rate problem, balance of payments disequilibrium and low savings despite the availability of huge material and human resources. Imoughele & Ismaila (2014) especially show that though, savings provides developing countries with the much-needed capital for investment which can improve the growth of an economy; the Nigerian experience has not been so. Furthermore, some of the factors which boost the flow of FDI to the money market are: good present or projected economic growth of the economy, positive monetary outlook of the apex bank, decrease in fiscal deficit, good performance of firms in terms of profit, sales, etc. The performance of these factors in Nigeria has not been encouraging; therefore, the general perception of investors has been negative, which has affected the capital flow to the economy.

This study contributes to the literature by examining the relationship between FDI inflows and the money and prices sector and Nigeria's economic growth, hence addressing the country's monetary sector specific dimension to the FDI growth debate. The study is different from previous studies in scope (number of years considered is longer). The study made conscious effort to address the endogeneity issue, and provide justification for the unrelenting efforts of the

government to attract FDI, which are being misunderstood and resisted by the Nigerian populace. The following research questions have been raised in response to the above problem statement:

1. To what extent does the FDI affect the economic growth which is represented by RGDP?
2. To what extent has Money Supply (M<sub>2</sub>) been affected by FDI?
3. To what extent does FDI affect the prices of goods and services?
4. To what extent has FDI affected the exchange rate?

The main objective of the study therefore is to examine the relationship between FDI inflows to the money and prices sector and economic growth in Nigeria and the policy concerns it engenders.

The study also seeks to achieve the following objectives:

1. To assess the extent to which FDI affects the economic growth which is represented by RGDP.
2. To evaluate the extent to which Money Supply (M<sub>2</sub>) is affected by FDI
3. To assess the gross impact of FDI on prices of goods and services proxied by CPI;
4. To determine the effect of FDI on the exchange rate.

The research hypotheses are formulated as follows:

Ho<sub>1</sub>: There is no significant relationship between FDI and the economic growth in Nigeria.

Ho<sub>2</sub>: No relationship exists between Money supply (M<sub>2</sub>) and FDI.

Ho<sub>3</sub>: There is no relationship between FDI and the prices of goods and services.

Ho<sub>4</sub>: No tangible relationship between Exchange rate and FDI.

This research focuses on the monetary and prices sector of the economy. Although, effort have been made to investigate real sector of the Nigerian economy, but there exist few concrete evidence from literature that brings out the salient problems, findings, conclusion and recommendation with respect to monetary sector FDI. However, it would be instructive to examine the sectoral relationship between FDI and other sectors of the economy. Although, it is expected "a priori" that the impact of FDI is noticeable and felt on monetary and prices sector, there is still need to carry out a quantitative analysis of FDI and monetary and prices variables in Nigeria to back it up.

The major limitations of this study however, include data paucity and poor data quality. The problem of data use arise not only from the fact that these institutions often give conflicting data on the same phenomenon, but also from the fact that some of the historical data are stated at current market prices, others at a given base year, while some are given at factor costs. In this circumstance, the problem of data quality and integrity come to the fore which could impair statistical inference procedure. Therefore a lot of tedious (and time consuming) work had to be done to harmonize the data collected from the different sources.

## 2. REVIEW OF RELATED LITERATURE

### 2.1. The Concept of Foreign Direct Investment

There is no specific definition of Foreign Direct Investment (FDI) owing to the presence of many authorities like the Organization for Economic Cooperation and Development (OECD), International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD) and the United Nations Conference on Trade and Development (UNCTAD). All these bodies have attempted to illustrate the nature of FDI from different perspectives. According to IMF (2003), FDI refers to the capital flows from abroad that is invested in the productive sector of the economy and are usually preferred over other forms of finances because they are non-debt creating, non-volatile and their returns depend on the performance of the projects financed by the investors. FDI also facilitates international trade and transfer of knowledge, skills and technology.

### 2.2. Market-based Theories

The market-based theories can be categorized into FDI perfect and imperfect market-based theories. Among the FDI perfect market-based theories are Capital and Market Size Theories. The Capital Theory is also known as the Rate of Return theory and was first proposed by MacDougall (1958) and later Kemp (1964). It is based on the assumptions of a perfectly competitive market, (Alfaro & Chauvin, 2017). This theory suggests that capital flows from a low-rate to a high-rate return country. FDI moves from capital-abundant economies, where returns are low, to capital-scare countries, where returns are high. Thus, assuming a two-country model, and prices of capital being equal to its marginal productivity, foreign investors are attracted to invest when the marginal return is equal to or greater than the marginal cost.

The FDI Capital Theory can explain the phenomena behind import substitution industries established in developing countries such as for sub-Saharan Africa. Due to the high demand for consumer goods such as sugar, soap safety matches and clothing, developing countries attracted FDI in the early 1960s. Demand already existed because imports were the only source of commodities to developing countries. Due to a lack of essential commodities, FDI projects were established to take the advantage of the high returns that existed as early investors in the market. Further, horizontal integration is related to high-return expectation because MNEs are driven by the availability of technology, which leads to low marginal costs and anticipated high returns.

### 2.3. The OLI (Ownership, Location and Internalization) Paradigm or Eclectic Theory

The OLI Paradigm or Eclectic Theory is a blend of three different theories of FDI that is O + L + I, each piece focusing on a different question. Dunning (1981) suggests that firms Ownership, Location and Internalization (OLI) advantages must exist to undertake benefiting FDI. The theory argues that FDI is determined by three sets of advantages namely: the presence of Ownership specific competitive advantage in a Transnational Corporation (TNC), the presence of location advantages in a host country, and the presence of superior commercial benefits in an intra-firm as against an arm's - length relationship between investor and recipient (Chatterjee, 2009). The ownership-specific advantages (e.g. proprietary technology) of a firm, if exploited optimally, can compensate for additional cost of establishing production facilities in a foreign environment and can overcome the firm's disadvantages vis-à-vis local firms (Solomon, 2018).

The Ownership-specific advantages of the firm should be combined with the Location advantages of host countries (e.g. large markets or lower cost of resources or superior infrastructure). Finally, the firm finds greater benefits in exploring both Ownership-specific and Locational advantages by internalization e.g. through FDI rather than arm's-length transactions.((UNCTAD, 2006).

### 2.2. Empirical Literature Review

The interest in analyzing the effect of FDI on economic growth is growing in the literature. While examining the implication of FDI flows on economic growth, Bailliu, Lafrance and Perrault (2003) used panel data from 40 selected developing countries from different regions around

the world from 1995–2000. They specified a model which accounted for potential endogeneity of the explanatory variables and the result shows that FDI inflows foster higher economic growth, above and beyond any effects on the investment rate, but only for economies where the banking sector has reached a certain level of development. Also Caudros and Alguacil (2001) examine the nature of the causal relationship between output levels, inward foreign direct investment and trade in Latin American countries; Argentina, Brazil and Mexico from the middle seventies to 1997. Utilizing a vector auto-regressive (VAR) model the result of the study suggests a significant impact of foreign direct investment on economic growth and trade in the countries studied.

A few researchers have emphasized the way in which the growth effects of FDI depend on conditions of the financial markets of the host country. Alfaro (2004) and Durham (2004) found that it is necessary for countries to have well-developed banking and financial institutions in order to gain from FDI in terms of economic growth. Alfaro (2004) used cross-country data between 1975 and 1995 and found that FDI alone did not play any definite role in spurring economic growth. When various measures of financial market development are included positive effects are found. Durham (2004) used data for 80 countries from 1979 to 1998 and found that it is also necessary for a country to have strong institutional development and investor-friendly legal environment for FDI to have a positive effect on growth. Using cross-section data relating to a sample of 66 developing countries over three decades Reinhart and Reinhart (2008) analyzed the role foreign direct investment and trade in economic growth of developing countries within the endogenous growth-theory framework. The study shows that foreign direct investment and trade contribute toward advancing economic growth in developing countries and that foreign direct investment is often the main channel through which advanced technology is transferred to developing countries. The study further believed that sound macroeconomic policies, better stock of human capital and institutional stability are necessary preconditions for foreign direct investment-driven growth to materialize and stimulate domestic growth.

Foreign direct investment (FDI) according to UNCTAD (2004) is generally seen as a composite bundle of capital stock and technology, which augments the existing stock of knowledge in the host economy through labour training, skill

acquisition and diffusion, and the introduction of new managerial practices and organizational arrangements. De Mello (1997) posited that foreign direct investment can impact economic growth directly and indirectly. FDI can directly impact economic growth through capital accumulation, and the incorporation of new inputs and foreign technologies in the production function of the host country.

De Gregorio (2003) in his contribution to the debate on the importance of FDI notes that FDI may allow a country to bring in technologies and knowledge that are not readily available to domestic investors and in this way increase productivity growth in the economy. In his study, he finds that increasing aggregate domestic investment by 1 percent point of GDP increases economic growth of Latin American countries by 0.1 to 0.2 percent a year, but increasing FDI by the same amount increases growth by approximately 0.6 percent a year during the periods of 1980 – 85, thus indicating that FDI is three times more efficient than domestic investment. Ledyeva and Linden (2006) determine the FDI impact on per capita growth in 74 Russian regions during the periods 1996 – 2003. Their framework related real per capita growth rate to initial levels of state variables such as the stock of physical capital and the stock of human capital and control variables viewed as important factors in the Russian economy's regional development in the analyzed period. Their results imply that in general FDI (or related investment components) do not contribute significantly to economic growth during the period but that some evidence of positive aggregate FDI effects in higher income regions.

Ayashagba and Abachi (2002) carried empirical investigation on the effects of foreign direct investment on economic growth in Nigeria from 1980 to 1997. The result showed that foreign direct investment had significant impact on economic growth in Nigeria. However, the study concludes that the presence of foreign direct investment in the LDCs particularly in Nigeria is not totally useful. Examining the impacts of foreign direct investment in oil sector in Nigeria and its attendant impact on economic growth, Salami, Kari, Chukwu, and Mand David (2012) used co-integration analysis to show that foreign direct investment at current year is negatively associated with GDP possibly due to the fact that such investment needed to be allowed some time lag to translate to any significant impact. The impact of domestic capital formation is relatively small compared with the impact of foreign direct investment in the oil sector. Investigating the relationship between foreign direct

investment and economic growth in Nigeria between 1970 and 2008, Umoh, Jacob, and Chukwu (2012), argued that there is endogeneity i.e., bi-directional relationship between FDI and economic growth in Nigeria. The paper then adopted both single and simultaneous equation systems to examine if there is any sort of feed-back relationship between FDI and economic growth in Nigeria. The results show that FDI and economic growth are jointly determined in Nigeria and there is positive feedback from FDI to growth and from growth to FDI.

According to Onu (2010), in the neoclassical growth models, FDI promotes economic growth by increasing the volume of investment and/or its efficiency, FDI affects economic growth only in the short-run because of diminishing returns to capital in the long-run. He asserts that long-run growth in the neoclassical models arises from exogenous growth of the labour force and exogenous technological progress. In the endogenous growth models according to him, FDI raises growth through technological diffusion from the developed countries to the developing. Using ECM for period 1986 to 2007, he found a positive relationship between FDI and economic growth in Nigeria.

Ayanwale (2007) employs an augmented growth model via the ordinary least square and the 2SLS methods to ascertain the relationship between FDI, its components and economic growth, his results suggest that the determinants of FDI in Nigeria are market size, infrastructure development and stable macroeconomic policy. Openness to trade and available human capital are, however, not FDI inducing but FDI was found to contribute to economic growth in Nigeria. Ayadi (2009) investigates the relationship between FDI and economic growth in Nigeria (1980 – 2007) and finds a very weak correlation and causality between the variables and recommends that infrastructural development, human capital building and strategic policies towards attracting FDI should be intensified. Osinubi and Amaghionyesi (2010) investigates the relationship between foreign private investment (FPI) and economic growth in Nigeria for the periods 1970 – 2005 and find that FPI, domestic investment growth, net export growth and the lagged error term were statistically significant in explaining variations in Nigeria’s economic growth. In a study on the impact of FDI on economic growth in Nigeria, for the periods 1970 – 2001,  $MS_t = MD_t$ .....3.1

The total demand for money is disaggregated into demand deposit (DDPST) and currency held by non – banking public (CRHP), defined as

Akinlo (2004) through his ECM results shows that both private capital and lagged foreign capital have little and not statistically significant effect on the economic growth. The results seem to support the argument that extractive FDI might not be growth enhancing as much as manufacturing FDI.

### 3.0. RESEARCH METHODOLOGY

The specifications in the money and prices in this work began with the money supply identity. An additional advantage of the supply approach was that the components were measurable and consistent with the CBN accounting system. The approach used the neo-classical identity of money supply as the sum of balance sheet of the banking system. The balance sheet consisted of net foreign assets, net domestic credit and other assets (net). Other assets (net) were assumed to be a residual in the money supply identity. Following the literature, the most pervasive determinant of the different components of money supply was money market interest rates. The size of government in Nigeria and the consequent relevance of fiscal deficits in the determination of money supply were also captured in the equations (CBN, 2010).

According to CBN 2010, prices in Nigeria were not entirely market determined and free of any intervention. Given the size and structure of the informal economy, a number of underground institutions interplayed to set wages and prices. Unions and associations, often by a combination of sanctions and incentives influenced the behaviour of their members and ultimately influenced the direction and magnitude of price changes. Public sector wage setting and intervention in price setting were also familiar phenomena. However, as in every market economy, the forces of demand and supply remained an integral part of price-setting in Nigeria and conventional laws of prices still obtained. Price in the model comprised major price indices and deflators (consumer price index and output deflator), exchange rate and interest rates. In this study, it is ensured that the demand for real money balance (MD) is equal to the money supply and positively related to the real GDP. Therefore a highly simplifying assumption of equating money supply (MS) with money demand (MD) is made. This is the rationale behind the specification below:

$$MD_t = DDPST_t + CRHP_t \dots\dots\dots 3.2$$

Another variable that exerts so much influence on the demand for money is the public holding of government securities (PHGS). According to Keynes Liquidity Preference theory, it is inversely related to changes in the rate of interest. Also, in prices, the broad analytical framework of the monetary policy represents the linkage between the demands for money, interest rate, exchange rate and balance of payments, on one hand and the endogenisation of the foreign direct investment and prices provide the necessary linkage with other sectors of the economy (Garba, 1998).

(EXCR), domestic maximum lending rate (INTR), private consumption expenditure (PCE), output (GDP), total government expenditure (GEXP), and money supply (MD2).

Overall productivity in the economy generally fell short of aggregate demand and so was heavily complemented by imports. Such supply constraints manifested in the difference between potential and actual output. Demand pressure on the other hand, mounted with increased demand by agents – in private consumption and government expenditure. Of course, the impact of such pressure was fuelled by domestic money supply. Thus, headline CPDEX was specified as a function of nominal exchange rate

$$\log MD_2 = + \log A + \alpha_1 \log FDI + \alpha_2 \log OREV + \log \alpha_3 EXCR + \log \alpha_4 GDP + \alpha_5 \log LOANS + \alpha_6 \log PHGS + \alpha_7 \log MRR + \mu_t \dots 3.3$$

$$\log PHGS = \log A + \alpha_1 \log FDI + \alpha_2 \log GDEF + \alpha_3 \log FNRES + \alpha_4 \log MRG + \alpha_5 \log MKG + \mu_t \dots\dots\dots 3.4$$

$$\log CPDEX = \log A + \alpha_1 \log FDI + \alpha_2 \log INTR + \alpha_3 \log PCE + \alpha_4 \log GDP + \alpha_5 \log GEXP + \mu_t \dots\dots\dots 3.5$$

$$\log EXCR = \log A + \alpha_1 \log FDI + \alpha_2 \log MD_2 + \alpha_3 \log GDP + \alpha_4 \log CPDEX + \alpha_5 \log OILP + \alpha_6 \log GEXP + \mu_t \dots\dots\dots 3.6$$

Where (GDEF) is government deficit, (CRHP) is currency held by non-banking public; (PHGS) is public holding of government securities. The real exchange (EXCR), defined as ratio of the tradable goods prices is given as the ratio of export price (in local currency) to the domestic price level. (FNRES) is foreign exchange reserve, (GEXP) is total government expenditure, (OILP) is oil price, (CPDEX) is domestic price level which is related to the rate of inflation because it shows the nature of the mark-up pricing and (INTR) is interest rate (Solomon, 2018). The parameters are  $\alpha_1 \dots\dots\dots \alpha_N$  with a priori expectation that the entire variables will have positive signs.

study uses the three – stage least squares (3SLS). Therefore the stochastic equations of the model were estimated individually using Three – Stage (3SLS) method. The E-Views software was used for estimating individual equations.

**RESULTS AND DISCUSSIONS**

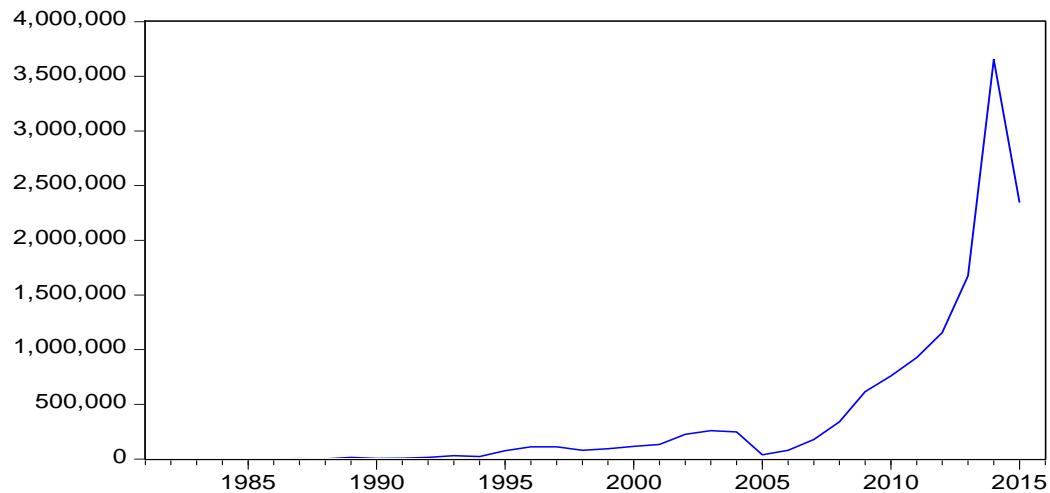
**4.1. Trend of FDI in Nigeria**

**Figure 4.1: Trend of Foreign direct investment (FDI) in Nigeria from 1981 to 2016**

Figure 4.1 shows the trend of FDI in Nigeria over the study period. The result indicates that FDI inflow to Nigeria was very low from 1980 to 1990 but rises marginally in 1995 and continues into 2005 without significant fluctuation.

A research of this nature requires the analysis of secondary data for parametric analysis and other analytical reviews. In this regard some major sources of data used for this study are; Federal Ministry of Finance (FMOF), National Bureau of Statistics (NBS), the Central Bank of Nigeria (CBN), the International Monetary Fund (IMF), the World Bank. This

## FDIV



Source: Computed by the Author from the CBN's Statistical Bulletin, Various Issues.

One factor that may account for low FDI in the 1980s and 1990s is military regimes of the periods and the indigenization policy introduced and sustained by them. Also, the non-democratic style of governance that characterizes military dispensation did not make the country an investment friendly economy. The military decrees and edicts could not be trusted as they could be changed anytime to suit the government even at the expense of the masses. For example, during Abacha's regime (1992-1997), fixed exchange rate was maintained over a reasonable period despite the economic implication of the policy on FDI. As such, investors were scared of bringing their resources and money into Nigeria for investment. From the year 2005, FDI trended upward and increases sharply until the year 2015 when it, again, dropped drastically. The reason for the sharp increase could be attributed to the enabling environment created by the democratic government of President Olusegun Obasanjo and his successors, Presidents Umaru Musa Yar'adua and Good luck Jonathan. During President Olusegun Obasanjo for example, some enterprises, including telecommunication, were privatized and this attracted investors into the economy. In the mid 2015, FDI shows a downward trend by decreasing sharply. This was due partly to the drastic fall in the value of Nigeria's domestic currency relative to dollar and partly due to the economic recession Nigeria went through from late 2014 which affected many investors and invariably money and prices in Nigeria (Solomon, 2018).

#### 4.2.: Effect FDI on Monetary and Price Sector

Table 4.1 below shows the estimated results for the equations MD2, PHGS, CINF and EXCR of the monetary

and price block. FDI included as independent variable was highly significant for all the estimated equations and was positively signed. This is as expected. The results show that a one per cent increase in FDI increases the elasticity of broad money supply (MD2) by about 29 per cent. An increase in money supply is expected to stimulate the economy especially during recession. This is in consensus with Aliyu (2014). Table 4.7 below show the performance of the broad money supply during the period of study and it confirm the results of the estimation. MD2 increases steadily throughout the period under consideration. For example, in 1981, 1990, 2000, 2010 and 2015, it was ₦16.1 million, ₦68.2 million, ₦1 trillion, ₦11.1 trillion and ₦14.9 trillion respectively.

PHGS, CINF and EXCR have elasticities of 31 per cent, 27 per cent and 37 per cent respectively and all the estimates are highly statistically significant. These results conform to the *a priori* expectation. The flow of FDI in Table 4.7 supports this result as the following values of the variables are obtained ₦6.1 million, 21.42, 0.61 in 1981 for PHGS, CINF and EXCR respectively. Also, in 1990, the following values are obtained, ₦48.8 million, 7.5 and 8.03 respectively. In the year 2000, these values are obtained for the variables, ₦513 million, 36.1 102.1 respectively. By the year 2015, ₦3.9 trillion, 12.5, 257.4 are figures generated by the variables respectively. This suggests that that FDI flows to Nigeria led to an increase in the economic activity in the country. The increase in economic activities results from the combined effect of FDI stimulus on public holding of government securities (PHGS), core inflation (CINF) and real exchange rate (EXCR) on the economy. For example, an increase in PHGS means that there is cash available to government to be expended on the economy.

The Keynesians claimed that increase in government spending will boost aggregate demand and increase the level of economic activities in the country thereby affecting money and prices positively.



Table 4.1: Estimated Result for Monetary and Price Block

Variables	FDIV	CINF	OILR	EXCR	GDP	INTR	PHGS	IMPR	GDEF	FREX	IMPC	R <sup>2</sup> , R <sup>2</sup> , {D-W}
<i>LnMD2</i>	0.282* (2.44) [0.02]	-----	0.2012 * (3.034) [0.002]	0.169 (0.832) [0.406]	0.040* (3.410) [0.0008]	0.021 (0.539) [0.590]	0.196** (1.770) [0.078]	0.22** (1.737) [0.084]	-----	-----	-----	0.560, 0.555, {1.09}
<i>LnPHGS</i>	0.309* (3.912) [0.000]	-----	-----	-----	-----	-----	0.171* (3.017) [0.009]	0.225** (1.908) [0.058]	0.204 (0.553) [0.581]	0.012 (0.063) [0.949]	0.173** (1.662) [0.099]	0.513, 0.513 {2.14}
<i>LnCIFN</i>	0.272* (3.368) [0.001]			----- --	0.027* (3.062) [0.003]	0.309* (5.096) [0.000]	0.1829* (2.2820) [0.0235]	0.211* (10.30) [0.000]	0.201 (0.571) [0.569]	0.199* (3.500) [0.000]	-----	0.582, 0.582 {3.13}
<i>LnEXCR</i>	0.368* (5.550) [0.000]	0.308 (1.044) [0.300]	0.083 (1.295) [0.199]	----- -	0.059* (0.005) [0.000]		-----		0.250 (0.818) [0.416]		0.181* (2.049) [0.044]	0.561 0.561, {2.58}

Source: E-Views Econometrics Computer Software Application (Version 9)

Note:

\* means significant at 5 %

\*\*means significant at 10 %

Figures in parenthesis ( ) are t-values while figures in square bracket

**TABLE 4.2: SECTORAL FDI INFLOW TO NIGERIA: 1981 – 2015 (M ₦).**

YEAR	MD2	PHGS	CINF	EXCR
1981	16,161.70	6,131.90	21.42	0.61
1985	26,277.60	11,598.10	4.67	0.89
1990	68,622.50	48,878.40	7.5	8.03
1995	318,763.50	438,481.30	72.81	21.88
2000	1,036,079.50	513,003.40	36.1	102.1
2005	2,814,846.10	188,298.08	8.8	132.1
2010	11,116,900.00	664,994.08	13.7	150.3
2015	14,980,234.43	3,900,786.46	12.5	257.4

Source: CBN Statistical Bulletin, Various Issues.

Similarly, low CINF increases the level of economic activities because it encourages the producer to produce more output. Theoretically, inflation is undesirable but certain level of it should be allowed in an economy. After all the classical economists argued that a zero per cent inflation will mean that a 100 per cent unemployment since they believed in the existence of a trade-off between the two. Furthermore, the behaviour of real exchange rate (EXCR) in an economy determines the level of economic activities in the country. When EXCR appreciates, the value of

domestic currency is strengthened. This increases the inflow more foreign investment into the economy, but in recent years the opposite has been the case in Nigeria as shown in table 4.2 above. The R-squares from the estimated results in table 4.1 show that the entire model has good fits. Furthermore, all the estimated the Durbin-Watson values for the subsectors are within acceptable limit. They are closer to the value 2 than to the value 0, suggesting the absence of autocorrelation in the residuals of the estimated model (Solomon, 2018).

## 5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1. Summary

This study assesses the effects of foreign direct investment (FDI) on the money and prices sector of Nigerian economy using three stages least square (3SLS) regression. The choice of 3SLS is to overcome the shortcoming of the OLS method of analysis. Results from the study shows that FDI has significant and positive impact on money and prices in Nigeria. This is evident in the estimated results for all the equations in the structural block considered in the study. All the coefficients of FDI for all variables estimated in money and prices block have positive signs suggesting that foreign direct investment impacts positively on the Nigerian economy. A one per cent increase in FDI in the sector increases the elasticity of output of money and prices by about 28 per cent and the estimate is statistically significant at 5 per cent.

### 5.2. Conclusions

The effects of foreign direct investment (FDI) on economic growth of the host country have been long debated in the literature. One major focus of the debate has been whether or not FDI has the potentials to contribute to the economic growth of the host country. This study makes contribution to this ongoing debate by examining the effect of foreign direct investment on the money and prices in Nigerian economy. Based on the findings of this study, conclusions are that FDI has the potentials of contributing significantly the positive performance of money and prices leading to economic growth in Nigeria. This is supported by both the results of 3SLS at sectoral level that increase inflow of FDI to the Nigerian economy will have an increasing effect on output which would affect money and prices positively.

### 5.3. Recommendations

Given the finding of the study, the following recommendations are made:

(i) The effect of inflow of FDI on output (GDP) in Nigeria is positive, but the monetary proceeds there from will not make much impact on the Nigerian economy if it is used to finance consumption expenditures. FDI should be used in financing capital projects such good road networks, rail lines across the country and stable power supply in the country. This will reduce the fixed and the overhead costs of doing business in Nigeria and increase profitability of business firms in the country. Also the multiplier effect of constructing road networks, rail lines across the country and new power stations is that they will positively affect performance of money and prices which will translate into economic growth of the country.

(ii) Results show that a one per cent increase in FDI increases the elasticity of broad money supply (MD2) by about 29 per cent. An increase in money supply is expected to stimulate the economy especially during recession which will affect employment, income, and output positively thereby promoting the long-term growth of the Nigerian economy. The Central Bank of

Nigeria should exercise its monetary policy function in blocking all loopholes that allows money laundering in the economy so that financial proceeds from FDI can really circulate within the economy.

(iii) Core inflation (CIFN) and exchange rate (EXCR) have elasticities of 27 per cent and 37 per cent respectively and all the estimates are highly statistically significant. These results conform to the *a priori* expectation. The influence of FDI on these two key variables was very positive meaning that the prices of goods and services remain relatively stable and even if the exchange rate was volatile, it was not caused by the inflow of FDI but other factors; therefore the policy makers should urgently address these negative factors. These impediments include inadequate power supply, insecurity, corruption, poor infrastructure, unstable regulatory environment and unreliable dispute resolution mechanisms. When all these are removed, foreign investors will be more willing to invest in Nigeria and this will increase FDI inflows leading to positive performance of monetary and prices variables.

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