

1 The Impact of Foreign Exchange Volatility on Foreign Direct 2 Investment in Nigeria [1999-2016]

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6

7 **Abstract**

8 This paper investigated the impact of foreign exchange volatility on foreign direct investment
9 in Nigeria from 1999- to 2016. The research design adopted in this research is the ex-post
10 facto research design involving the collation of relevant data from statistical bulletins in
11 respect of the variables in the study. Ordinary least squares were used to estimate the partial
12 coefficients of the independent variables. The findings of this study suggest that fluctuations
13 in exchange rate have a positive and significant impact on foreign private investment in
14 Nigeria. This may be attributed to the competitive levels of the Nigerian foreign exchange
15 market, leading to the avoidance of excessive volatility. The result indicates that exchange
16 rate fluctuations has positive and significant impact on Nigeria's foreign private investment
17 which supports the argument that FDI investment in Nigeria is determined by exchange rate
18 as well as technology, entrepreneurial skills, source of capital an overall.

19

20 *Index terms—*

21 **1 Introduction**

22 The major foreign earnings of Nigeria is from oil; hence, volatility of crude oil prices in the world market has made
23 the Nigerian economy highly susceptible to the ever changing exchange rates thus affecting the prices of goods
24 and services in the Nigerian economy. According to Nzekwe (2006) Nigeria's failure to diversify its economy
25 which would have helped cushion the effect of the constant changes in oil prices stems in part from weaknesses
26 in the nation's small and insular private sector. This has had a heavy toll on our foreign reserves and invariably,
27 our balance of trade and balance of payment.

28 As stated by Obadan (2006) a proper foreign exchange rate management in many ways strives to balance
29 the level of imports with that of exports of goods that the country has comparative advantage. Such balance
30 is necessary for an economy to develop to levels beyond subsistence. However, lack of government support for
31 the real sector of the Nigerian economy as a result of it focus on foreign exchange earned from oil has also
32 contributed immensely to the abysmal performance of the all other sectors especially the manufacturing sector.
33 Manufacturers, who account for substantial contributions to Nigeria's gross domestic product before now have
34 been unable to produce hence the fewer jobs, are created.

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36 The Nigerian economy is in dire need of effective foreign exchange rate management that will diversify the
37 economy, break the dominance of the oil sector, and give more opportunities to other sectors of the economy such
38 as the manufacturing, agriculture, solid mineral mining etc and ultimately improve its balance of payment. In
39 this way, a stable foreign exchange management can assist policy makers and planners to reduce risks in cause
40 by fluctuations in exchange rate. An appreciation of exchange rate in Nigeria result to an increase in cost of
41 production in Nigeria's economy. This has resulted to the huge deficit recorded in the country's balance of trade
42 and of payment i.e. Nigeria imports more than it exports which has earned the country the status of a dumping
43 ground for just about anything from foreign countries.

3 REVIEW OF RELATED LITERATURE

44 An examination of literature on exchange rate indicates that most studies are on exchange rate volatility and
45 its impact on these macro-economic indices. Where the study is not on volatility of exchange rate, it involves
46 uncertainty in foreign exchange market on the domestic output of nations macro-economic and institutional
47 factors impact on stock market indices, development of government bond markets, on alternative wage-setting
48 regimes, exchange rate and inflation, exchange rate volatility, stock prices and lending habits of banks. This
49 seminar is an attempt to examine the impact of foreign exchange rate on foreign private investment in Nigeria.

50 The remainder of this paper is organized as follows: Section two contains the review of related literature; section
51 three; the methodology; section four; presentation and analysis of data; while in section five; the conclusion and
52 recommendations.

53 2 II.

54 3 Review of Related Literature

55 The choice of whether a country becomes unitary system, confederation or a federation is a political decision.
56 This political decision once made, have implications for political government, fiscal management and economic
57 development as well as the attainment of social stability ??Okunrounmu, 1996). According to Aigbokhan (1997)
58 and Olowonmi (2000) a very important goal of any government is efficient allocation of resources and efficient
59 distribution of national wealth (Afolabi, 1999). Nigeria, after about 50 years of independent is still engulfed
60 in the problem of how to share centrally generated revenue among the Local Governments, States and Federal
61 Government. The volatility of oil production and revenue due to conflict in the Niger Delta Region plus the
62 excruciating impact of the recent global financial crisis-with drop in commodity prices (including oil prices),
63 aid flows and FDI respectively makes it important to look deeper into alternative sources of revenue. The tax
64 alternatives is a viable option however, it much be practiced vis-à-vis its impact in attracting foreign investment
65 into Nigeria.

66 Numerous empirical studies have demonstrated a positive correlation between the openness of an economy
67 and its economic growth among developing countries (Syrquin and Chenery 1989; ??orensztein, De Gregoria
68 and ??ee, 1995 and ??ei, 1993). Edwards (1993) and Harrison (1996) provide reviews of the early studies. By
69 the openness of an economy, they referred to a business and regulatory environment that are friendly toward
70 trade and foreign investment. Despite the overall enthusiasm toward the positive impact of openness and trade
71 in recent years, there are only a limited number of studies that analyzes the economic mechanism involved in
72 the process. Some suggest that economic openness affects growth by inducing more investment (Baldwin and
73 Seghezza, 1996). Many others emphasize the role of technological progress associated with more trade and more
74 foreign investment of an economy (Tong, 2001).

75 Trade can promote technology progress in developing countries. For example, more trade induces more
76 Research and Development (R&D) spending in domestic firms so that they can be more competitive in the market
77 place. In addition, firms in developing countries can acquire new technologies embodied in new machines and
78 new products they purchased from foreign sources. Similarly foreign direct investment can facilitate technology
79 progress in developing countries. Foreign direct investment carried out by Multinational Corporations (MNCs) is
80 believed to be one of the most important vehicles for the international diffusion of technology (Tong, 2001) There
81 are two reasons why FDI is very important for developing countries to acquire new technologies. First, MNCs
82 are more advanced in technology. A substantial portion of the world's total research and development is carried
83 out within the large MNCs. Therefore; MNCs often possess the much-needed new and advanced technologies.
84 Second, through direct involvement of foreign businesses, MNCs domestic affiliates and other domestic producers
85 can acquire new technology more directly and more effectively Tong (2001).

86 The benefits from FDI are not limited to new technology. Other direct benefits include the productivity
87 increases in MNCs, local affiliates, new management skills brought in by the MNCs, and a potential market
88 expansion brought about through foreign investors. Foreign investment can also increase the productivity in
89 the host economy indirectly through its influence on both the industrial structure of the host economy and the
90 conduct and performance of domestically owned firms. This is accomplished through increased competition in
91 local economy, more investment in capital and human capital, training of labor and management, training of
92 local suppliers of intermediate products, and transfer of knowledge (Blomstrom and Persson (1983); Frischtak
93 and Newfarmer (1992); Blomstrom (1991)).

94 As a result of foreign investment and foreign knowledge inflow, local affiliates of MNCs can achieve productivity
95 increase and therefore higher growth. At the same time, the firms can also realize more export as they become
96 more and more competitive. Empirical studies suggest that the presence of MNCs in developing countries and
97 the associated investment have important impacts on the export of their local affiliates in the host economy
98 ??Aitken, Hanson, and Harrison (1997), Lipsey (1995), and Naujoks and Schmidt (1995).

99 Foreign direct investment (FDI) is an integral part of an open and effective international economic system
100 and a major catalyst to development. Yet, the benefits of FDI do not accrue automatically and evenly across
101 countries, sectors and local communities. National policies and the international investment architecture matter
102 for attracting FDI to a larger number of developing countries and for reaping the full benefits of FDI for
103 development. The challenges primarily address host countries, which need to establish a transparent, broad
104 and effective enabling policy environment for investment and to build the human and institutional capacities to

105 implement them .OECD ??2002) With most FDI flows originating from Organization for Economic Co-operation
106 Development (OECD) countries, developed countries can contribute to advancing this agenda. They can facilitate
107 developing countries' access to international markets and technology, and ensure policy coherence for development
108 more generally; use overseas development assistance (ODA) to leverage public/private investment projects;
109 encourage non-OECD countries to integrate further into rules-based international frameworks for investment;
110 actively promote the OECD Guidelines for Multinational Enterprises, together with other elements of the OECD
111 Declaration on International Investment; and share with non-members the OECD peer review-based approach
112 to building investment capacity ??OECD, 2002).

113 Policymakers believe that foreign direct investment (FDI) produces positive effects on host economies. Some
114 of these benefits are in the form of externalities and the adoption of foreign technology.

115 Externalities here can be in the form of licensing agreements, imitation, employee training and the introduction
116 of new processes by the foreign firms ??Alfaro, 2006). According to Tang, Selvanathan and Selvanathan (2008),
117 multinational enterprise (MNEs) diffuse technology and management know-how to domestic firms. When FDI
118 is undertaken in high risk areas or new industries, economic rents are created accruing to old technologies and
119 traditional management styles. These are highly beneficial to the recipient economy. In addition, FDI helps in
120 bridging the capital shortage gap and complement domestic investment especially when it flows to a high risk
121 areas of new firms where domestic resource is limited (Noorzoy, 1979).

122 Nigeria is one of the economies with great demand for goods and services and has attracted some FDI over
123 the years. The amount of FDI inflow into Nigeria has reached US\$2.23 billion in 2003 and it rose to US\$5.31
124 billion in 2004 (a 138 % increase) this figure rose again to US\$9.92 billion (a 87% increase) in 2005. The figure
125 however declined slightly to US\$9.44 billion in 2006. The question that comes to mind is do these FDIs actually
126 contribute to economic growth in Nigeria? If FDI actually contributes to growth, then the sustainability of FDI
127 is a worthwhile activity and a way of achieving its sustainability is by identifying the factors such as favourable
128 tax rate which will contribute to the growth and enhancement of FDI into the host country.

129 The concern with exchange rate management policy in Nigeria could be traced back to 1960 when the country
130 became politically independent, even though the Central Bank of Nigeria and the Federal Ministry of Finance
131 had come into being two years earlier ??Ogiogio, 1996). The Management of exchange rate can be traced to two
132 divisions/phases; pre-Structural Adjustment era of 1960-1985 and post-Structural Adjustment era 1986till date.
133 The above binary classifications occasioned a closely historical sequence of about five phases, namely: There was
134 a fixed parity of a one-to-one relationship between the Nigerian pound (N£) and the British pound sterling (B£)
135 until the British pound was devalued in 1967.

136 Again, in the period 1967-1974, there was a fixed parity with the USD. During this stage of Nigeria's exchange
137 rate policy it became apparent that there were drawbacks in pegging the naira to a single currency which led
138 to its abandonment. Another phase in Nigeria's foreign exchange management was the period 1974-1976. This
139 period heralded an independent in exchange rate policy. Neglecting the peg policy of naira to a single currency
140 of US dollar in 1974-1976, CBN opted to an independent exchange rate management policy that pegged the
141 naira to either the US dollar or British pound sterling, whichever currency was stronger in the foreign exchange
142 market.

143 From the period 1976 to 1985, the naira was peggedto an import-weighted basket of currencies. In this era,
144 the naira was pegged to a basket of currencies which comprises the seven currencies of Nigeria's major trading
145 partners; the American dollar (USD), the British pound sterling (GBP), the German mark, the French franc
146 (CFA), the Dutch guilder, the Swiss franc (CHF), and the Japanese yen (JPY). The 1981-1985 global economic
147 crises led to unavailability of exchange rate while naira was grossly over-valued against the US dollar and gave
148 FGN two options; one is to continue with the overvalued naira as a result of fixed exchange rate while the second
149 alternative is to adopt the IMF-World Bank imported SAP which enshrined market forces (free hands of DD
150 and SS). The Federal Government of Nigeria chose the second option and introduced the Second-tier Foreign
151 Exchange Market (SFEM) which later transformed to foreign exchange market (FEM) in September 1986 during
152 IBB regime.

153 The fifth era in Nigeria's exchange rate management commenced during post-SAP era up to date. SFEM was
154 established with immediate effect in September 26, 1986. The Nigerian forex market was liberalized with the
155 introduction of an Autonomous Foreign Exchange Market (AFEM) and the Inter-bank Foreign Exchange Market
156 (IFEM) in 1995 and 1999 respectively. The AFEM metamorphosed into a daily, two-way quote IFEM, October
157 25, 1999. From 16 July 2002, CBN has replaced IFEM with the Dutch Auction System (DAS) which has been
158 in operation till date.

159 4 III.

160 5 Methodology

161 The research design adopted in this research is the ex-post facto research design. This is the type of research
162 involving events that have already taken place, data exists as no attempt is made to control or manipulate
163 relevant independent variables apparently because these variables already exist in their final form.Consistent
164 with the above therefore and in line with researches conducted in this area of finance in Nigeria where most data
165 utilized were obtained from the Central of Nigeria Statistical Bulletin for the relevant periods the nature and

8 CONCLUSION AND RECOMMENDATIONS

166 sources of data for this type of research will be secondary data. In line with the objective of this paper, the
167 model used in this paper follows the prior empirical works of —: The Impact of Foreign Exchange Volatility on
168 Foreign Direct Investment in Nigeria ??1999] ??2000] ??2001] ??2002] ??2003] ??2004] ??2005] ??2006] ??2007]
169 ??2008] ??2009] ??2010] ??2011] ??2012] ??2013] ??2014] ??2015] ??2016] IV.

170 Presentation and Analysis of Data a) Presentation of Data Table ??1: Presents the data for this study

171 6 b) Test of Hypothesis

172 To test the hypothesis of this paper, a hypothesis was formulated which was stated in null and alternate forms,
173 thus, Ho:

174 Exchange rate fluctuations in Nigeria do not have positive and significant impact on foreign private investment
175 in Nigeria.

176 7 Ha:

177 Exchange rate fluctuations in Nigeria have positive and significant impact on foreign private investment in Nigeria.
178 As revealed from the table, exchange rate fluctuations had positive and significant impact on Nigeria's foreign
179 private investment. The probability value confirms the significance of the result. The coefficient of determination
180 which measures the goodness fit of the model as revealed indicates that 78.0% of the variations observed in the
181 dependent variable were explained by variations in the dependent variable.

182 Foreign direct investment is a form of lending or finance in the area of equity participation. It generally
183 involves the transfer of resources, including capital, technology, and management and marketing expertise. Ekpo
184 (1997) argues that the need for foreign capital to supplement domestic resources was felt by the developing
185 economies, in view of growing mismatch between their capital requirements and saving capacity. Further, many
186 developing countries view foreign capital as a key element in their development strategy against the other forms
187 of foreign financing as it aids in upgrading technology in hi-technology concentrated industries. Results existing
188 from literature suggest that foreign direct investment is not determined by the exchange rate regime but by an
189 economies desire for source of capital, managerial expertise, and technology for both developing economies and
190 economies in transition. According to Root (1984), foreign direct investment involves flows of capital, technology
191 and entrepreneurial skills to the host economy where they are combined with local factors in the production of
192 goods for local and for export markets.

193 V.

194 8 Conclusion and Recommendations

195 The findings of this study suggest that fluctuations in exchange rate have a positive and significant impact
196 on foreign private investment in Nigeria. This may be attributed to the competitive levels of the Nigerian
197 foreign exchange market, leading to the avoidance of excessive volatility. The result indicates that exchange
198 rate fluctuations has positive and significant impact on Nigeria's foreign private investment which supports
199 the argument that FDI investment in Nigeria is determine by exchange rate as well as other motives such as
200 technology, entrepreneurial skills, source of capital an overall. An effective foreign exchange rate management is
201 expected to break the dominance of the oil sector, and give more opportunities to other sectors of the economy such
202 as the manufacturing, agriculture, solid mineral mining etc and ultimately improve its balance of payment. FDI
203 is an important avenue for investment in agricultural, manufacturing and transfer of technology to an economy.
204 Though this study found that exchange rate fluctuation has positive impact on foreign direct investment in
205 Nigeria, however, a stable foreign exchange management is recommended in Nigeria. This can assist foreign
206 investors to reduce their risks in investment. This study thus recommends an aggressive expansion of the
207 Nigerian economy especially investment in the real sectors of the Nigerian economy. This obviously will lead
208 to less dependent on oil revenue which is determined by fluctuations in exchange rate prices. ¹ ²

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Year	EXR	FPI	FPI/GDP
1999	53.76	1.0	0.02
2000	58.25	51.1	0.74
2001	70.58	92.5	1.14
2002	85.13	24.8	0.22
2003	106.68	23.6	0.18
2004	126.69	23.5	0.14
2005	143.78-180.1		-
			0.81
2006	148.33-194.6		-
			0.68
2007	155.75-231.9		-
			0.70
2008	90.31	-560.5	-
			1.43
2009	97.44	-122.3	-
			0.28
2010	93.39	-167.8	-
			0.31
2011	89.82	-247.6	-
			0.39
2012	79.58	-325.9	-
			0.45
2013	74.20	-506.6	-
			0.63
2014	69.51	-542.4	-
			0.61
2015	70.83	-329.4	-
			0.35
2016	78.70	-44.8	-
			0.04

A cursory look at the table above reveals that in 1999, real exchange rate was N53.76 to 1USD. This was sustained from 2000 to 2004 when the real effective exchange rate was N126.69 in 2004, 2001 N70.58, 2002 (N85.13), 2003 (N106.68), 2004 (N126.69). The real effective exchange rate increased slightly in 2005 (N143.78), 2006 (N148.33) but rose slightly to N155.75 in 2007 to 1USD. In 2008, it fell to N90.31 and rose to N97.44 in 2009 and further rose in 2010 when it was N93.39 to 1USD. The real exchange rate was N78.70 to 1USD as at 2016.

As indicated from table, foreign private investments in Nigeria had shown a gradual and consistent increase from 1999 to 2016. The yearly increase was sustained until 2002 when there was a decrease of N67 billion representing 60.99% from the previous year figure of N92.5 billion. In 2003, Nigeria witnessed its lowest foreign private investment in percentage terms over the period 1987 to 2011. The quantum of foreign private investment reduced by 171.20% from N23.6 billion in 2003 to N23.5 billion 2004, a further year decrease was observed from 2005 to 2016. While in 2003, the quantum of foreign

Source: CBN Statistical Bulletin (Various Years). The figure of N481, 239.10million by N71, 259.50billion in 2016, foreign portfolio investment reduced to N78.70 billion.

8 CONCLUSION AND RECOMMENDATIONS

42

Figure 2: Table 4 . 2 :

42

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXR	2.712829	0.836478	3.243156	0.0055
FPIGDP	341.8403	43.12082	7.927501	0.0000
C	-354.4491	78.73336	-4.501892	0.0004
R-squared	0.807389			
Adjusted R-squared	0.781707			
F-statistic	31.43857			
Prob(F-statistic)	0.000004			

Source: E-
view Result

Figure 3: Table 4 . 2 :

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