Economic and Financial Review

Volume 47 | Number 3 Article 3

9-1-2009

Foreign direct investment and manufacturing exports in Nigeria.

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Foreign Direct Investment and Manufacturing Exports in Nigeria

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The potential impact of foreign direct investment (FDI) on recipient and investing economies is of considerable policy interest (Pain and Wakelin, 1997). Important to the theory of foreign investment in Nigeria is the question whether foreign investors coming to Nigeria are market-seeking or export-driven. This finding is relevant to economic managers in the design and implementation of appropriate macroeconomic policies to attract FDI. It is also relevant to investigate whether FDI contributes to the overall capacity of developing economies to export. This study investigates the contribution of FDI to manufacturing exports in Nigeria. Using firm level data collected from 232 manufacturing firms in Nigeria, probit regression analysis revealed that FDI does not significantly contribute to manufacturing exports in Nigeria. This finding supports that of Soderbom and Teal (2002) and Nunnenkamp (2002) that FDI in developing countries like Nigeria are not export-driven but are attracted by certain economic fundamentals within the economy like market size and the availability of natural resources.

Key words: Foreign, Direct Investment, manufacturing, export, Nigeria

JEL Classification: F21, F41, F43

I. Introduction

Results from empirical studies show that there are diverse, and often conflicting, reasons why foreign investors seek opportunities abroad. Some of these studies include the works of Dunning (1993),

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Globerman and Shapiro (1999), and Shapiro and Globerman (2001), among others. These studies conclude that multinational corporations' (MNCs) FDI are attracted by strong economic fundamentals in the host economies (Blomstrom and Kokko, 2003). The most important of these economic fundamentals are market size, and the level of real income, with skill levels in the host economy, the availability of infrastructure and other resources that facilitate efficient specialisation of production, trade policies, and political and macroeconomic instability as other major determinants. The import of these conclusions is that there are diverse factors that tend to influence the decision of foreign investors to invest in a particular economy. These studies also show that some FDIs are market-seeking since they are attracted by market size and the level of real income. There are still explanations to show that where domestic markets are not so attractive, perhaps due to poor income distribution or because of low population density, then foreign investors might invest due to the attractiveness of some economic fundamentals with the objective to export.

This study investigates whether FDI in Nigeria's manufacturing sector is essentially market-seeking. If its contribution to exports is significant, then we will conclude that foreign investors are not essentially attracted by the availability of domestic market in Nigeria, but also by the presence of some economic fundamentals which make production cheap and they invest to exploit these production opportunities and then sell abroad. The work is presented in five sections. After this introduction is the literature review. That is followed by the explanation of the methodology employed in the study. In section four, the results of the study are presented. Section five concludes the paper.

II. Review of Literature

The beginning of capital investments in foreign countries is hard to trace to a specific period in history. However, international funds transfer, especially in the African continent, actually climaxed with the emergence and spread of MNCs. This is not, however, to assert that the global movement of FDIs started with the phenomenon of multinational corporations. For most developing countries, the flow of FDIs had started during the colonisation era when MNCs began to establish their subsidiaries in colonial territories. This flow has been rapid over the years. This view is supported by Lambo (1987:400) that, the growth of private foreign investment in the Third World has been extremely rapid. Available data shows that Nigeria had consistently attracted FDIs over the last four decades. However, net FDI inflow to Nigeria has fluctuated during the period 1980 to 2003 reflecting macroeconomic instabilities and fluctuations in FDI policies in the country. In 1980, net FDI inflow to Nigeria was – USD188.52 million. It rose to USD 588.00 million in 1990 representing 24.19 percent of total net inflow to Africa. By 1995, net FDI inflow to Nigeria stood at USD1, 079 representing 21.07 percent of total inflow to Africa. In 2000, net FDI inflow to Nigeria was USD930 million, representing 10.96 percent of the total for Africa. Net FDI inflow rose again to USD1200 million in 2003

(Ayanwale, 2007). Thus, apart from a few declines noted in some years there has been a persistent rise in net FDI inflow to Nigeria.

It is relevant to note that Nigeria is one of the largest recipients of FDIs in Africa. For example, in the period 1993-1997, Nigeria topped all other African countries in the inflow of FDIs with an annual average of USD1, 503.00 million for the period, far ahead of Egypt's USD775.00 million and South Africa's USD755.00 million for the same period (UNCTAD 1999; 50). This trend has continued into the 21st century. The UNCTAD World Investment Report 2002 showed that FDI inflow to West Africa is mainly dominated by inflows to Nigeria, which received 70 percent of the sub-regional total and 11percent of Africa's total. Out of this, Nigeria's oil sector alone received 90 percent of the FDI inflow (Dandi, 2009).

A review of theories on the flow of FDI across boundaries explains what opportunities foreign investors seek in recipient economies, and specifically in the sectors in which they invest. There are divergent views on the opportunities foreign investors seek to exploit in recipient economies. Whereas some theories explain that foreign investors seek investments abroad to enjoy absolute and comparative advantage in some countries, other theories explain that it is the extension of product life-cycle and the protection of monopoly that encourages firms to invest abroad (Vernon, 1966 and Teichova, 1989). Many other scholars have contested that in the 1990s most FDIs were attracted by some economic fundamentals in the recipient country--market size, the level of real income, skill levels, trade policies, infrastructures, etc (Dunning, 1993; Globerman and Shapiro, 1999; Shapiro and Globerman, 2001 and Blomstrom and Kokko, 2003). Newer theories suggest that at the beginning of the 21st century, investment incentives were the most potent motivations for inward FDI in most recipient countries (Neven and Siotis, 1993; UNCTAD, 1995, 1996 and Blomstrom and Kokko, 2003). A number of studies have indicated that market size, natural resources and liberalisation policies have served to attract foreign investments to Nigeria despite political instability (see Dandi, 2009). Asiedu (2002, 2006) has studied the determinants of foreign direct investment into the Nigerian economy and confirmed that market-size is the determining factor of FDI inflows into Nigeria. These studies agree with those theories which suggest that FDI is attracted by strong economic fundamentals (like market size) and those that suggest investment incentives as the major attraction to FDIs.

Studies have shown that FDI could improve performance of both recipient firms and even of competing firms. For instance, Aitken and Harrison (1999) studying Venezuelan manufacturing firms observed that case studies present mixed evidence on the role of foreign investment in generating technology transfer to domestic firms. Mansfield and Romeo (1980), however, found that only a few of the multinationals in their survey helped domestic firms acquire new technology. Yauri (2006) found that FDI increases the employment of technology by domestic firms in Nigeria's manufacturing sector. There are also some evidence to suggest that the export performance of manufacturing firms in some countries have improved due to the inflow of FDIs. Pain and Wakelin (1997) argue that the potential impact of FDIs on recipient and investing economies is of considerable policy interest and that FDIs could contribute to exports by improving the productivity of domestic enterprises. Blake and Pain (1994) have studied the UK export performance due to foreign direct investment and their results suggested that net inward investment into the UK had a significant effect on export performance after allowing for the impact of relative price and non-price factors. Rhee and Belot (1989) studying a group of low income countries found that the entry of several foreign firms led to the creation of a booming domestically owned export industry for textiles. There are no similar results from empirical studies on the contribution of foreign direct investment to exports in Nigeria, especially with respect to manufacturing exports.

III. Methodology

The data utilised for analysis in this study was collected by the RPED Department of the World Bank in a survey research on Nigerian manufacturing firms conducted in 2001[1]. A team of World Bank specialists conducting a survey of Nigerian manufacturing firms have administered questionnaires and interview modules on a sample of 232 firms in the Nigerian manufacturing sector. This sample of 232 was drawn from 9 sub-sectors of the Nigerian

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[1] Sincere appreciation to Professor Susan Feinberg, formerly of University of Maryland, for initiating efforts to enable me have access to the data, and to Giuseppe Iarossi and Giovanni Tanzillo of the World Bank RPED for the permission to use their data sets.

manufacturing sector, specifically chemical/paints, food/beverages, metal, non-metal, paper/printing/publishing, pharmaceuticals, plastics, textiles and wood sub-sectors (see Appendix I for identities of sectors as employed in the regression model).

Also, the sample firms were selected from three major geographical regions and industrial axis of Nigeria namely, East (Region 1 in regression analysis), North (Region 2) and Lagos and South (Region 3). The Lagos and South region had the highest share of the sample with 125 firms, North 60 and East 47. Of the firms in the sample, 102 had FDI at the time of the survey (represented in the model as $\beta_2 fdisurvey_{it}$), 130 commenced business with FDI but had no evidence of FDI at the time of the survey ($\beta_1 fdistartup_{it}$).

Gorg and Strobl (2002) similarly utilised the World Bank RPED Survey data for Ghanaian manufacturing firms for the period 1991-1997 in their study. Gorg and Strobl (2002) observed that the data set includes among other things, data on the level of output, total expenditures on wages, the replacement value of the capital stock, the level of value added, and the level of employment. More importantly, they noted that the data collection entails an intricate questionnaire on the background of the owner, or, in the case of a corporation, the chairman of the firm. Thus, the data sets reveal whether a firm is owned by foreigners through direct investment, a firm has received some amount of foreign investment or not at all. Specifically, according to Gorg and Strobl (2002) one is able to identify whether the owner/chairman has received any explicit training by foreign firms in the past, whether their immediate previous experience was working with a foreign firm within the same industry as the industry of their current firm or in some other industry, and whether they have had any previous same industry experience in general.

For the purpose of this study, the following hypothesis is formulated:

H : FDI firms in Nigeria export a significantly higher proportion of their total output

H_1: FDI firms in Nigeria do not export a significantly higher proportion of their total output.

To test this hypothesis, we needed data on the export performance of the manufacturing firms in the sample. Question *gen51* of the general questionnaire in the World Bank Survey of Nigerian manufacturing firms asked responding firms (both FDI and domestic firms) to indicate the percentage of their production that is directly exported. Thus, we generated a discrete parameter and we employed a probit regression to test the hypothesis. The probit regression model is expressed as follows:

$gen51_{it} = \alpha + \beta_1 fdistartup_{it} + \beta_2 fdisurvey_{it} + \beta_3 firmage_{it} + \beta_4 sectorid_{it} + \beta_5 region_{it} + \beta_6 firmsize_{it}$

$gen51_{it}$= A dependent variable which is a proxy for percentage of firm i's production that is exported at time t.

α= an intercept

$\beta_1 fdistartup_{it}$ = firm i that commenced business with FDI at time t (1 if firm with FDI, 0 if none)

$\beta_2 fdisurvey_{it}$ = firm i with FDI at the time of survey t (1 if firm with FDI, 0 if none)

$\beta_3 firmage_{it}$ = the age of firm i at the time of survey t (years)

$\beta_4 sectorid_{it}$ = the sector of firm i at the time of survey (1=food and beverages sector, 0=otherwise)

$\beta_5 region_{it}$ = the region where the firm i is located at time t (1=East, 0= otherwise)

$\beta_6 firmsize_{it}$ = the size of firm i, whether small-medium or large at time t (1 if large; 0 otherwise).

IV Results and Discussions

The results (see Appendix II) indicate no significant relationship between FDI and exports. In other words, less than a significant proportion of the output of FDI firms in Nigeria is exported to markets abroad. Both firms that commenced business with some foreign investments *(fdistartup)* and those that had FDI at the time of the World Bank Survey but which firms we cannot ascertain whether or not they started business with foreign investments *(fdisurvey)* did not possess high tendency to export. Thus, the hypothesis that FDI firms export a significant proportion of their total output is rejected. However, the results above show a positive but weak relationship (at 10% level of significance) between firm size and export, indicating that larger firms are slightly more likely to export than smaller firms. An interesting result is that firms in sector 8 (paper/printing/publishing) have a higher tendency to export compared to firms in sector 1; it also has a higher tendency to export than all other sectors considered in the study. It could be inferred from the above findings that manufacturing in Nigeria is mainly of consumer goods and is targeted towards local consumption. Secondly, it could be concluded from the findings that FDI inflow in Nigeria is driven by the existence of a large consumer market since most FDI firms do not produce for export. Thirdly, it confirms the existence and viability of resources and companies in the paper/printing/publishing sub-sector whose final output are consumed locally and exported perhaps to other countries in Sub-Saharan Africa.

The results are consistent with the findings of other studies. Many studies have indicated that most FDI to third world countries is market-driven and is not likely to manifest in export orientation. Nunnenkamp (2002) noted that in contrast to FDIs in industrial countries, FDIs in developing countries still are directed predominantly to accessing natural resources and national or regional markets. Majority of firms in the Nigerian manufacturing sector, therefore, produce for the local economy. Soderbom and Teal (2002) also found that a striking feature of Nigerian manufacturing firms is that not many of them export. Their survey of Nigerian manufacturing enterprises 2001 shows that only 7 percent of the sampled firms (about 176 of them) export. Excluding exporters to Africa, only 5 percent of firms export out of Africa. Thus, this study agrees with other empirical studies which have found that manufacturing firms in Nigeria produce largely for domestic consumption. In a Report on

Nigerian manufacturing exports for the same period 2000-2001, Albaladejo (2003) found that manufactured exports plummeted from USD216 million in 1985 to USD88 million in 2000, making Nigeria one of the least export-oriented economies in the world.

V. Conclusion

The findings from the test of hypothesis have shown that FDI firms in Nigeria's manufacturing sector are not export-driven. It can be concluded, therefore, that foreign investors in Nigeria's manufacturing sector are mainly attracted by the availability of domestic markets for their output. Other economic fundamentals like cheap labour and raw materials (though not investigated in this study) might have explained the flow of FDIs into Nigeria's manufacturing sector. Because firms in the oil sector have not been included in the sample (as shown in Appendix I), this study cannot conclude on the aggregate contribution of FDIs to Nigeria's total exports.

References:

Aitken, B.J. and Harrison, A. (1999). "Do Domestic Firms Benefit from Foreign Direct *Investment? Evidence from Venezuela", The American Economic Review*, June , 89(3):605-18

Albaladejo, M. (2003). "Industrial realities in Nigeria: from bad to worse", *Working Paper Number 101*, Queen Elizabeth House, University of Oxford, March

Asiedu, E. (2002). "On the Determinants of Foreign Direct Investment to Developing *Countries: Is Africa Different?"* World Development, vol. 30 (1), 107-119

Asiedu, E. (2006). Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Stability, United Nations University

Ayanwale, A.B. (2007). FDI and Economic Growth: Evidence from Nigeria, AERC Research Paper 165, African Economic Research Consortium, Nairobi

Blake, A.P. and Pain, N., (1994). Investigating Structural Change in UK Export: The Role of Innovation and Direct Investment, NISER Discussion Paper

Blomstrom, M. and Kokko, A. (2003). The Economics of Foreign Direct Investment *Incentives*, Working Paper 168, 2003, also paper presented at the "Conference on Foreign Direct Investment in the Real and Financial Sectors of Industrial countries", Organised by the Bundesbank, Frankfurt, Germany, May 3-4, 2002

CBN (1993). Statistical Bulletin, vol.3, no.I June, Central Bank of Nigeria

CBN (1998). *Foreign Private Investment in Nigeria*, Economic and Financial Review, vol. 36, no. 2 June, Central Bank of Nigeria

Dandi, S. (2009) Factors attracting FDI to Nigeria: an Empirical Investigation, Madras School of Economics, Chennai, India, Phone: =+91 44 22300304, sdinda2000@yahoo.com

Dunning, J.H. (1993) Multinational Enterprises and the Global Economy: Reading, Addison Wesley Publishing Co., Workingham, England

Gorg, H., and Strobl, E. (2002). Spillovers From Foreign Firms Through Worker *Mobility: An Empirical Investigation*, Institute for the Study of Labour (IZA), Germany, Discussion Paper Series, Discussion Paper No. 591, October

Globerman, S. and Shapiro, D. (1999). The Impact of Government Policies on Foreign *Direct Investment: The Canadian Experience*, Journal of International Business Studies, vol. 3 (3), 513-532

Lambo, T. (1987). Nigerian Economy: A Textbook of Applied Economics, Evans Brothers (Nigeria Publishers) Limited, Ibadan, Nigeria

Mansfield, E. and Romeo, A. (1980). *Technology Transfer to Overseas Subsidiaries by US-Based Firms*, Quarterly Journal of Economics, 95(4), December, 737-750

Neven, D. and Siotis, G. (1993). *Foreign Direct Investment in the European Community: Some Policy Issues*, Oxford Review of Economic Policy, vol. 20, 72-93

Nunnenkamp, P. (2002). Foreign Direct Investments in Developing Countries: What *Economists (Don't) Know and What Policy Makers Should (Not) Do!* CUTS Center for International Trade, Economics and Environment, India, Monographs on Investment and Competition Policy # 11

Pain, N. and Wakelin, K. (1997). Export Performance and the Role of Foreign Direct *Investment*, www.niesr.ac.uk/pubs/dps/dp131.PDF

Rhee, J. W. and Belot, T. (1989). "Export Catalysts in Low-Income Countries", Working Paper, World Bank

Shapiro, D. and Globerman, S. (2001). "National Infrastructure and Foreign Direct *Investment",* mimeo, Simon Fraser University, February

Soderbom, M. and Teal, F. (2002). "The Performance of Nigerian Manufacturing Industries"; *Report on the Nigerian Manufacturing Survey 2001*, www.unido.org

Teichova, A. (ed.) (1989). "Multinational Corporations in Historical Perspectives", Cambridge University Press, New York

UNCTAD (1995). World Investment Report 1995: Transnational Corporations and Competitiveness, United Nations, New York and Geneva

UNCTAD (1996). *Incentives and Foreign Direct Investment*, Current Studies, Series A, No. 30, United Nations, New York and Geneva

UNCTAD (1999). Foreign Direct Investments in Africa: Performance and Potentials, UNCTAD/ITE/IIT/Misc. 15, www.unctad.org/en/docs/poiteiitm15.pdf

UNCTAD (2002). World Investment Report 2002, United Nations, New York and Geneva.

Vernon, R. (1966). International Investment and International Trade in the Product *Life-Cycle*, Quarterly Journal of Economics, vol. 8: 2

Yauri, N.M. (2006). "Foreign Direct Investment and Technology Transfer to Nigerian *Manufacturing firms: Empirical from Empirical Data"*, Central Bank of Nigeria Economic and Financial Review, Vol. 44, No. 2:18-38

APPENDIX

Appendix I: Identity of Sectors of Firms in the RPED Survey

Sector identification	Name of sector
sector1	Food and beverages
sector2	Wood and furniture
sector4	Textile and garments
sector6	Metal
sector8	Paper/printing/publishing
sector9	Non-metal
sector12	Pharmaceuticals
sector13	Plastics

Appendix II: Results of Regression Analysis

Independent variables	***Dependent variable=export*** ***P > |z|***
fdistartup	*0.1404*
1.3770	
fdisurvey	*0.9323*
1.4693	
firmage	*0.0691*
0.0682	
sector2	*8.2867*
7.9134	
sector4	*-1.8445*
1.9671	
sector6	*-1.1016*
1.5193	
sector7	*-2.0141*
3.0845	
sector8	*57.4995****
17.9709	
sector9	*-1.9786*
1.6861	
sector11	*-0.8320*
1.6067	
sector12	*5.4128*
4.5697	
sector13	*1.6840*
3.1663	
Region2 (North)	*-5.6926*
4.3281	
Region3 (Lagos/South)	*-8.4287***

4.2627	
firmsize	*5.2761**
	3.2252
F statistic	*3.03****
R squared	*0.4284*
Constant	*5.2033*

*, **, *** *significant at 10%, 5% and 1% level respectively*