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Foreign direct investment-firm productivity nexus in West Africa: New empirical insights from firm level data

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As recorded widely in the extant literature, foreign-invested firms with superior technology and managerial skills are likely to generate productivity spillovers that may be beneficial to local firms. We examine firm level productivity spillovers in the West African context. Four countries were sampled on the basis that they share institutional and similarities as British colonies and social economic similarities as West African countries. The Levinshon and Petrin methodology was fitted with firm level data sourced from the World Bank enterprise survey for the period 2006–2018 with the sampled countries having data for different years. Our results confirm that foreign direct investment has a significant and positive impact on the productivity of firms in West Africa. Controlling for other effects, Capital intensity has a significant but negative effect on firm productivity; changes in market concentration do not have any impact while firm size negatively affects productivity of firms in the region. The study recommends among other things that policy should be targeted towards removing all cumbersome access restrictions experienced by foreign investors. Improvement in the ease of doing business in these countries could be a major policy thrust which will clear up the path of direct investment inflow.

KEYWORDS
firm level, foreign direct investment, productivity, West Africa

JEL CLASSIFICATION
D22; D24; F21; F23

1 | INTRODUCTION

Foreign direct investment (FDI) is one of variables driving globalization (Baldwin, 2016; Rodrik, 2011). Its significance is felt in improved domestic investment via foreign inflows. Considerable time and effort have been devoted not only by the academia but by development and monetary institutions towards understanding the mechanisms through which its benefits are transferred (Cantwell, 1989; Dunning, 2014; Rugman & Verbeke, 2003; Bruno, Campos, & Estrin, 2018). A strong theoretical expectation has thus been established through this path positing that the host economy benefits from FDI accrue via spillover effects (Borensztein et al., 1998; Bruno et al., 2018; Khanna & Palepu, 2010). It ferries along with it technical know-how, managerial and organizational skills, opens up access to foreign markets, has a potential to transform economies through innovation and productivity enhancement both in the sectors attracting FDI and their supporting industries (Bijsterbosch & Kolasa, 2010; Rizvi & Nishat, 2009; Javorcik et al., 2011; Echandi et al., 2015). FDI brings foreign technology and frontier knowledge which if successfully absorbed by local firms can improve productivity directly. They further state that it can also increase competition in the local market leading to reallocation of resources to more productive firms thus positively affecting average productivity in the long run. These non-finance cross border spills literature calls FDI spillovers (World Bank, 2017).

Seeing the immense benefits of FDI, policymakers in developing countries have not soft pedalled in competing for FDI inflows. This is based on the belief that FDI through the diffusion of knowledge from MNCs benefit its recipient countries improving the domestic firms' efficiency and thus, their productivity. As such, governments continue making policies towards providing a fertile environment to attract multinational firms.

As averred by Moss et al. (2005), FDI ab-initio was not fully embraced by African leaders as an essential feature of economic growth citing the fear that it could engender political sovereignty, create undue competition and thus throw domestic, little firms into bankruptcy and in the natural resource sector, if exploration is accelerated, the risk of environmental degradation will be compounded. Akinlo (2004) supporting this argues that Africa's skepticism towards total embrace of FDI is not unconnected with history, ideology and post-independence period politics. This skepticism he also attributes partly to concerns by policymakers in the region about the full realization of the potential benefit of FDI. Although most of these concerns may be legitimate, for example, the case of Nigeria where there is some valid evidence of perverse and adverse effect of multinational oil firms' explorative activities on the environment (Ikelegbe, 2001) but as stated by David et al. (2010) if a host country creates a favourable investment climate, FDI can spur efficiency and productivity through global integration and transfer of modern technology. African country leaders, like other developing countries realizing this has become gracious to foreign investors by offering fiscal and investment incentives to attract and retain FDI. These incentives are graciously offered for the reasons already stated, mainly seeking capital investments, transfer of technology through joint ventures and knowledge spillovers among others.

A quantitative conclusion however of the effect so far of such an important asset on productivity of firms is not firmly established yet especially in the African context. Even in the face of turning events in political and economic reforms that have almost swept the continent in a bid to attract FDI and strengthen regional integration, just a few studies have been conducted to relate foreign investment and technological spillovers in Africa. For example, Waldkirch and Ofosu (2010) related Foreign Presence in Ghana to Spillovers and Productivity; Gachino (2007) used panel data on Kenyan manufacturing industry to examine what effect foreign presence has on firm level productivity in the sector. Michałowski's (2012) study is that of foreign investment at the Sub-Saharan African level where the research explored its effect on economic growth of the region.

Although a great deal of research has been devoted to understanding of FDI spillovers, some significant knowledge gaps remain especially on the West African sphere. Elsewhere, the contribution of FDI to the productivity of developed economies has been explored by a significant number of theoretical and empirical studies. Many of these existing empirical and theoretical studies many not be ultimately adopted for policy in West Africa given the variations in the socio-economic, political and institutional backgrounds of these climes. A rigorous study on West Africa will no doubt make substantial contribution to our understanding of spillover effect of FDI on productivity in the African region. This will afford policymakers and analysts the right tools and relevant knowledge.

This paper is organized further as follows: Section 2 provides a theoretical presentation of the relationship between FDI and productivity gains. Section 3 discusses the methodology employed. It is continued by estimations and empirical results in Section 4. Section 5 presents the conclusions and policy implications.

2 | OVERVIEW OF THE LITERATURE

Productivity spillovers of foreign direct investment were formally recognized in research in the 19th century when they were modelled by MacDougall in 1960 who conspicuously listed them as possible components of general welfare effects of foreign direct investment. Other seminal contributions to this field include Caves (1971) whose focus was on the welfare effects of foreign direct investment and how it affects industrial structures. Corden (1967) on his own path appraised theoretically the optimal effects of tariff policy resulting from foreign direct investment. He perceived that the competitive effect of the presence of multinational Corporations (MNCs) while having an effect on improved efficiency and productivity reduces profits. Because welfare effects of foreign direct investment were the focus of the work, productivity externalities resulting from FDI were reviewed alongside other general determinants of welfare such as those arising from FDI's impact on tax policies, government revenue, terms of trade and trade balance all coming into the welfare assessment function.

Researchers have since then put forward models that systematically appraise the effects and mechanisms through which the productive external effects of FDI are reaped. It is shown in literature that the benefits of FDI to recipient economies are both direct and indirect. The direct benefits come in form of external benefits often in the form of physical capital increment and direct employment. The indirect benefits take the form of externalities resulting from foreign presence (Ebghaei & Akkoyunlu Wigley, 2018; Suyanto et al., 2014).

It is argued that indirect benefits accrue because the presence of MNCs due to FDI could generate nonmarket impacts on domestic firms as they may experience increasing efficiency or productivity through efficiency or productivity spillovers, increasing ability to better return on investment (pecuniary spillovers), and gaining the technical know-how to enter international markets (market-access spillovers) (Antràs & Yeaple, 2014; Blomström & Kokko, 1998; Lipsey & Sjöholm, 2005; Orlic et al., 2018). Efficiency or productivity spillovers have received much attention from researchers in the last two decades. This attention according to Suyanto and Salim (2011) is indeed not surprising because efficiency analysis of firms is an important aspect as it assesses the production or service environment establishing whether existing resources were optimally being utilized before the incidence of FDI inflow. Spillover effects from FDI, according to Almfraji and Almsafir (2014) and Ebghaei and Akkoyunlu Wigley (2018) can be broadly classified as horizontal (sectoral or intra-industry) and vertical (inter-sectoral or inter-industry) spillover.