

International Financial Inflows and Economic Growth of Selected Emerging Markets: Panel Corrected Standard Error Approach

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Abstract: International inflows of private capital consist majorly two components; Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI). Myriads of studies especially in emerging markets have focused on either the determinants of FDI or its effect on economic growth thereby ignoring FPI which incidentally constitutes a larger share of total inflows to these economies. Therefore, this study aims to investigate the disaggregated effect of each component of inflows on economic growth. Using macro-level panel data from nine emerging markets selected from three regions; Africa, Asia, and Latin America, and the Caribbean (LAC). The Panel Corrected Standard Error (PCSE) model was utilized to estimate the data covering 1989 to 2018. The study found that both FDI and FPI had a positive coefficient but only FDI has a significant effect on the economic growth of the EMEs. Secondly, through the interaction of each component with the exchange rates, the study also found that the coefficients of the interacted terms turned out negative, indicating that the benefits accruable from the inflows can be eroded by poor macroeconomic policy design and implementation. It is therefore recommended that to achieve the much-needed growth expected from financial liberalization, policymakers of EME should, on one hand, encourage more inflow of FDI than FPI as currently experienced and other hand increase regulation on portfolio investors to prevent cyclical imbalance created when the massive exodus of their investment occurs.

Keywords: Foreign Direct Investment, Foreign Portfolio Investment, Emerging Market Economies, Economic Growth, Volatility, Financial inflows

1. Introduction

1.1 Background

International or cross-border financial flows have been described as the financial side of international trade (Ott (2019). According to Bussière, Schmidt & Valla (2016), they represent the necessary counterpart to trade flows. It involves the opening of a country's capital accounts for the flow of investments to and from other countries. From the investor's perspective, it is usually for two main reasons- to channel surplus

funds (savings) and to reduce risk and earn higher returns through diversification (Bussiere, et al 2016; Wei, 2018). From the host countries' perspective, international financial inflows help to bridge the gap and a growing mismatch between domestic investment stock and capital required for development (Chorn & Seik, 2017; Ezeanyejì & Ifeako, 2019).

Several studies have positively linked financial inflows to economic growth and development while many have emphasized the distortions and imbalances they create in the economy due to the volatile nature

of some types of inflows especially in EMEs (Prasad, Rogoff, Wei & Kose, 2003; Koekpe, 2015; Bussiere, et al 2016; Chorn & Seik, 2017; Nwosa et al 2017).

International inflows of private capital are majorly dominated by two types of investments; Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) (UNCTAD 1999; Humanicki, Kelm, & Olszewski, 2013; Akporien & Umoffiong, 2020). A Myriad of studies that attempted to link these inflows to economic growth in emerging markets has focused either on the aggregate inflows or the effect of a single component especially FDI on economic growth thereby ignoring FPI which incidentally constitutes a larger share of total inflows to these economies (Humanicki, et al.2013; Adekoya,2020; Nairametric,2020; Udhayakumar & Shankar,2018).

Starting from the 1980s through to the 2000s, many developing countries like Nigeria, South Africa, Egypt, China, India, etc. embraced the Structural Adjustment Programmes (SAP) and policies of IMF and the World Bank. These policies were designed to enable these countries to open their hitherto restricted markets to trade and inflow of foreign investments. However, decades after, most developing countries still rely on foreign debt and official Development Assistance (ODAs) from advanced countries to finance their budgets.

The problem is that rather than attract more FDI which involves substantial investment in assets, technology transfers, tax revenue, and employment generation in the host country, most emerging markets and developing countries have witnessed more influx of foreign portfolio investment ((Humanicki, et al.2013; Adekoya,2020; Nairametric,2020.). This trend can be attributed to either lack of understanding of the economic implication of each type of inflows or poor design and implementation of country-specific policies that will not only attract the right kind of investments but will also ensure the maximization of the potential benefits from such investments.

This study, therefore, is aimed at investigating the effect of FDI and FPI on the economic growth of the EMEs selected based on their position in terms of the value of foreign inflows received into their respective region. The findings are expected to redirect the attention of policymakers, especially in developing

countries to the fundamental characteristics of each type of investment in terms of benefits and distortions inherent in them. This will help them rejig their strategy to address the apparent challenge in the overall portfolio on foreign investment they accumulate.

1.2 Research Question

This study is an attempt to answer the research questions stated below:

1. What effect does each component of international financial inflows have on the economic growth of the selected EMEs?
2. How does this effect vary when each component of inflows interact with macro-economic variables?

2. Review of Literature

2.1 Conceptual Review

2.1.1 Foreign Direct Vs. Foreign Portfolio Investments

There seems to be a consensus on the definition of FDI among researchers and policymakers. According to the World Bank, FDI involves the acquisition of a 10 percent or more equity interest in an enterprise operating in an economy other than that of the investor often referred to as host country (Worldbank 2019). However, in practice, many countries set a higher ownership and control threshold. FDI often involves Multinational Entities (MNEs) establishing subsidiaries as either Greenfield (new business) or by acquiring overseas existing businesses through Mergers and Acquisitions (M&A) referred to as brownfield. For both types of FDI, 50% and above are usually set as the threshold to define ownership or control that qualify an investment as a subsidiary of an MNE Group.

Foreign or cross-border Portfolio Investments; FPIs involve cross-border investment in the debt and/or equity market in another country other than that of the investor. FPI consists of the acquisition of assets by a foreign national or company in a domestic stock market. In other words, it involves foreign investors holding transferable equity, bonds, debentures,

promissory notes, and money market instruments issued in a country (the host country)(Ezeanyejí & Ifeako,2019; UNCTAD,1999).

In other words, Portfolio investment includes investments by a resident entity in one country in the equity and debt securities of an enterprise resident in another country which seek primarily capital gains and do not necessarily reflect a significant and lasting interest in the enterprise. The category includes investments that are both below the 10 percent rule and do not involve affiliated enterprises (UNCTAD, 1999).

FPI is often referred to as “Hot Money” due to its highly mobile and volatile nature (Humanicki, et al., 2013; Udhayakumar & Shankar, 2018). This type of investment is easily moved from one country to another in search of higher returns and a favorable economic climate. Hence they are considered to be extremely volatile than FDI. Despite the volatility, EMEs have witnessed an increase in the volume of FPI flows which has been linked to the growing importance of institutional investors (insurance companies, pension funds, mutual funds, hedge funds, sovereign wealth funds, private equity funds, etc.), as they added liquidity to global securities markets(Humanicki, et. al.2013; Adekoya,2020; Nairametric,2020).

Although both FDI and FPI involve cross-border financial flows, the following fundamental differences have been observed from the literature; degree of control of the investee entity, investment horizon, and ease of liquidation of the investment.

2.1.2 Evolution, trends, and composition of Financial Inflows in the selected EMEs

Over the last few decades, the financial globalization of emerging market economies (EMEs) with international markets has gained impetus. Institute of International Finance reported that the size of net private capital inflows to EMEs was still relatively low in the 1980s at about 30 billion US dollars but began to grow more rapidly in the mid-1990s reaching an all-time high of 1.2 trillion US dollars in 2007(IIF,2013). From the literature, this phenomenon was attributed to both expected diversification

benefits and the rapidly changing external environment. The principal external factors (push-factors) which present investors with low returns on financial assets in the developed countries forced them to embrace the opportunities for relatively higher returns in emerging markets. EMEs also presented strong host-country-specific factors (pull factors) especially strong growth prospects (Humanicki, et. al.2013).

However, this momentum was soon interrupted by the global financial crisis that swept across the world beginning in 2007. This crisis led to the sharp decline in capital inflows and was attributed to the effect of powerful "push shock" which led to global risk aversion. This forced international investors to withdraw their investments from emerging markets (Belke and Volz, 2018). However, the exodus of capital from EMEs is not unique to the global financial crisis of 2008. The inflow of investments to EMEs over the decades has been characterized by volatility induced by crisis. The Latin American debt crisis, the Asian financial crisis as well as the Arab Spring are examples of such crises (Hannan, 2018).

Figs.2.1 to 2.9 below clearly show the trend and composition of each component of inflows to the nine EMEs. Figures 2.1, 2.2 and 2.3 representing African countries show a similar pattern in both composition and trend. While FDI remained marginally dominant in the earlier part of the period, FPI inflows have overtaken in the more recent period. For instance, Nigeria witnessed a slow pace of growth of both FDI and FPI inflows till 2004 when it experienced an increase attributable to the rapid economic reforms embarked upon by the then newly elected democratic government. From 2011 post-2008 global crisis, FPI over took FDI. Nigeria Bureau of Statistics reported that the FDI share of total inflow fell from 20 percent in 2016 to 4 percent in 2019 while FPI rose from 35 percent to 68 percent in the same period (NBS, 2020). In South Africa, both inflows have been very unstable with FPI dominating from 2009 to 2012 and a sharp rise again in 2016 to gain dominance. The Arab Spring in Egypt in 2011 caused both FDI and FPI to nosedive. This trend was reversed soon after. Both components of inflows rose with FDI exhibiting a more stable growth reaching about US\$6.8 billion in 2018 only while FPI fluctuated with the highest inflow in 2017(UNCTAD, 2019).

Figs. 2.4 to 2.6 show the trend in EMEs-Asia. FDI has maintained dominance in the three countries. China experienced rapid and steady growth in FDI starting from 1990 while FPI picked up around 2002. However, for the three countries, both types of inflows declined between 2008 and 2009 due to the global financial crisis of that period. Others; India and Indonesia witnessed a steady rise although relatively far lower than China in that region.

In the LAC region, Brazil has been leading in the volume of both components followed by Mexico and Argentina. This region has witnessed many periods of volatility as seen in Fig. 2.7, 2.8 & 2.9 below. Brazil

and Argentina witnessed more FDI inflows than Mexico.

In summary, since the early 1980s capital has been flowing to EMEs primarily in the form of foreign direct investment (FDI). However, the composition of capital inflows has shifted towards the rising share of foreign portfolio investment (FPI) in total flows especially in Africa and the LAC. Asia has maintained a relatively higher inflow of FDI which can be linked to the rapid economic advancement in that region. FDI investors seem to find Asia more attractive due to the presence of pull-factors like the size of the market, stock of infrastructure, political stability, etc

Stylized Facts on FDI and FPI Inflows to selected EMEs for the study

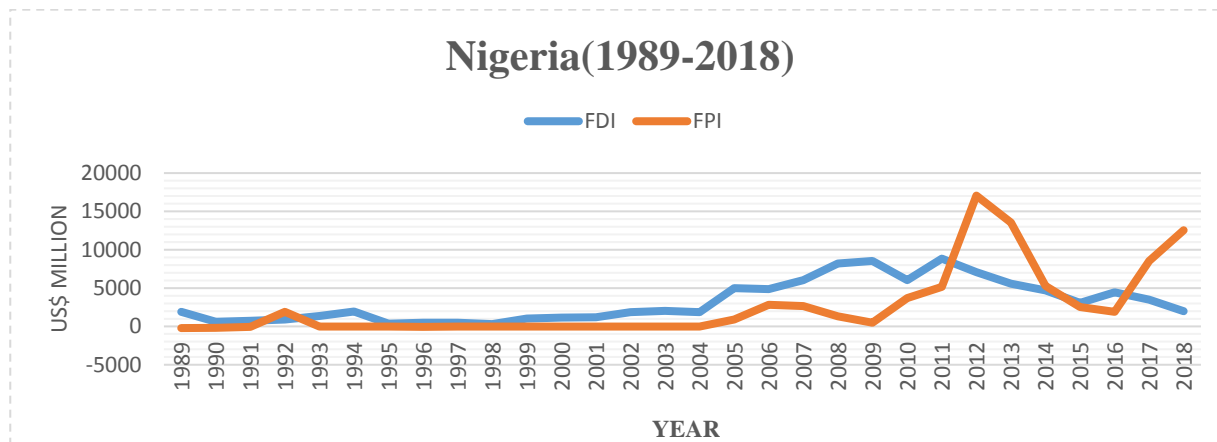


Fig. 2.1 Trend of Inflows into Nigeria

Source: IMF-International Financial Statistics database 2019

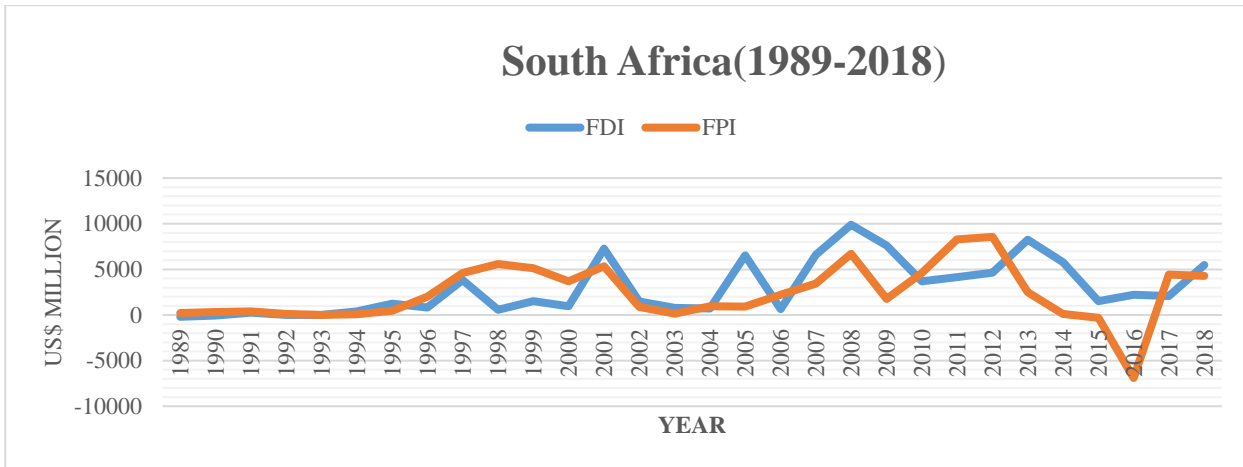


Fig. 2.2 Trend of Inflows into South Africa

Source: IMF-International Financial Statistics database 2019

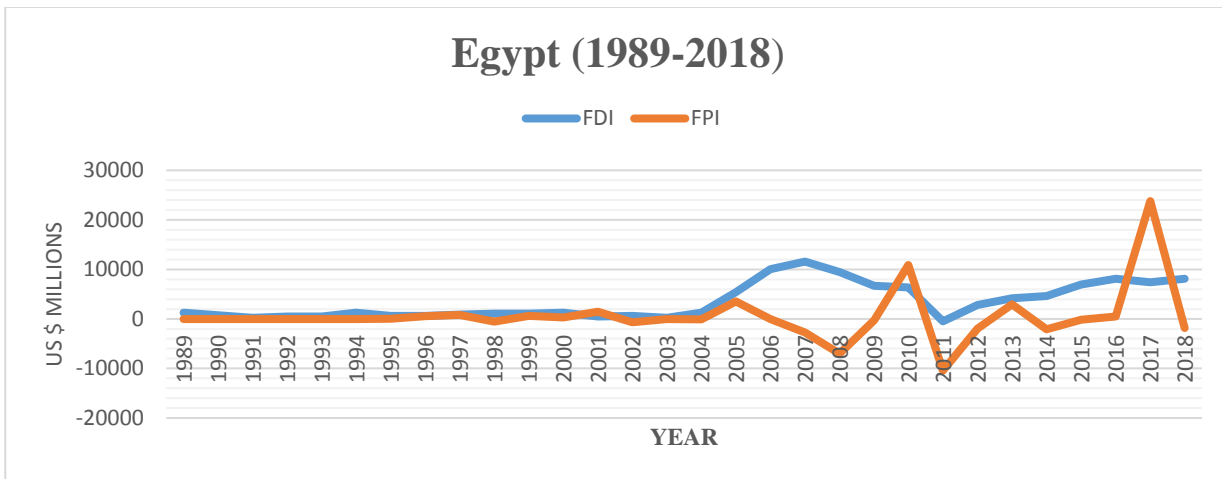


Fig. 2.3 Trend of Inflows into Egypt

Source: IMF-International Financial Statistics database 2019

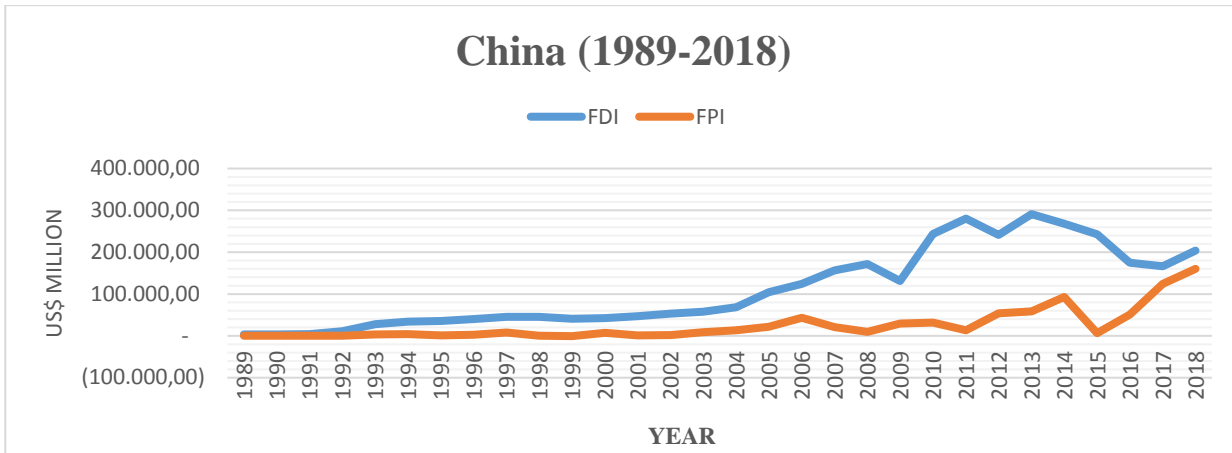


Fig. 2.4 Trend of Inflows into China

Source: IMF-International Financial Statistics database 2019

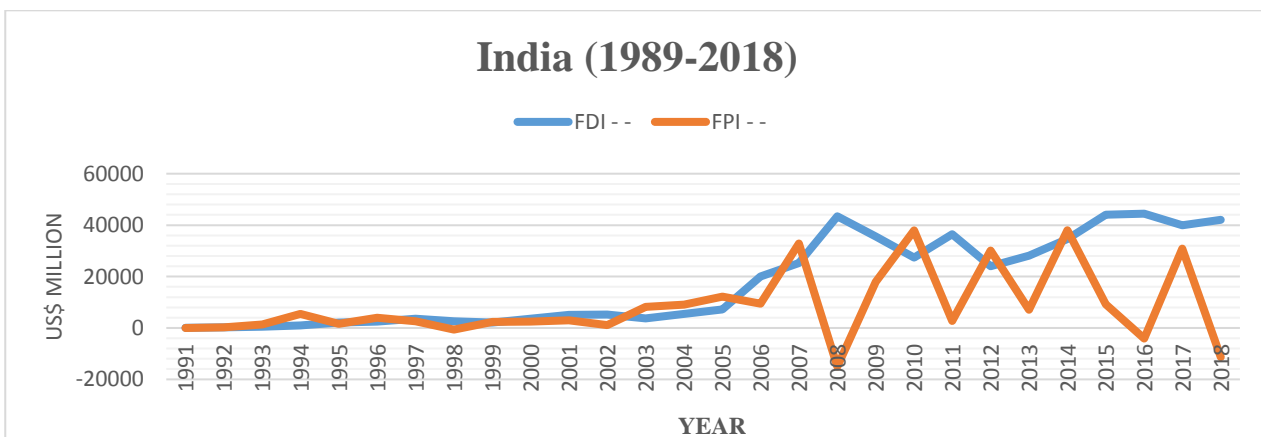


Fig. 2.5 Trend of Inflows into India

Source: IMF-International Financial Statistics database 2019

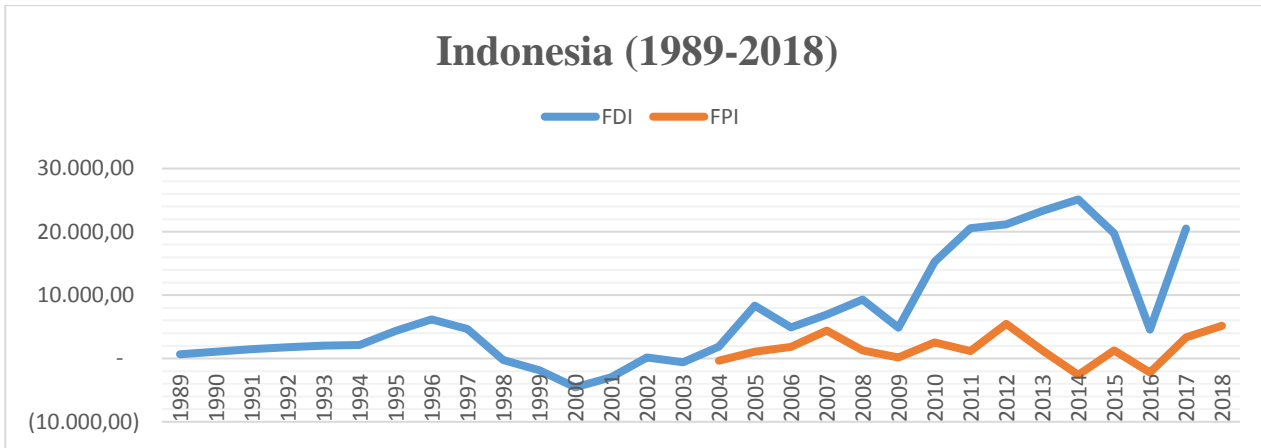


Fig. 2.6 Trend of Inflows into Indonesia

Source: IMF-International Financial Statistics database 2019

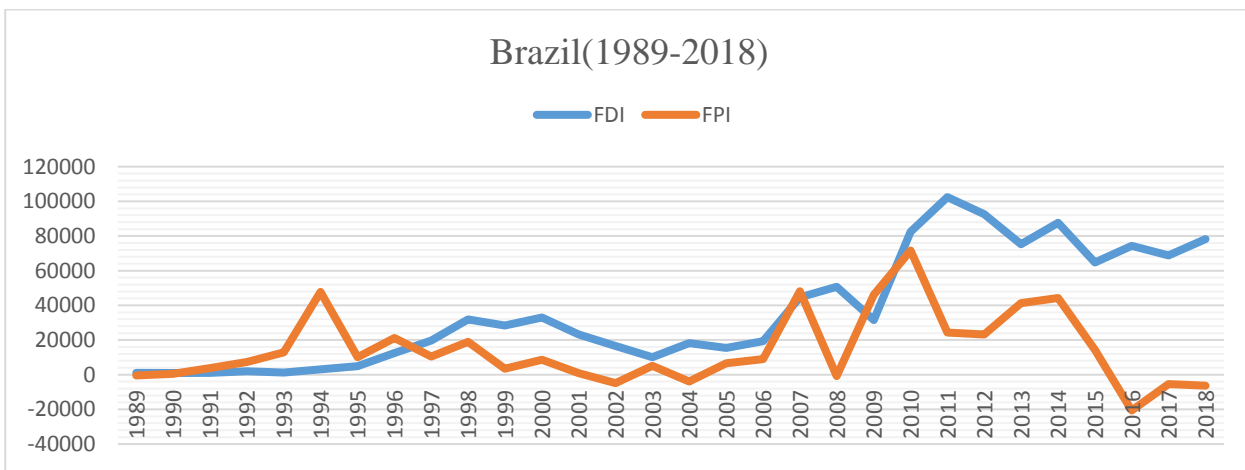


Fig. 2.7 Trend of Inflows into Brazil

Source: IMF-International Financial Statistics database 2019

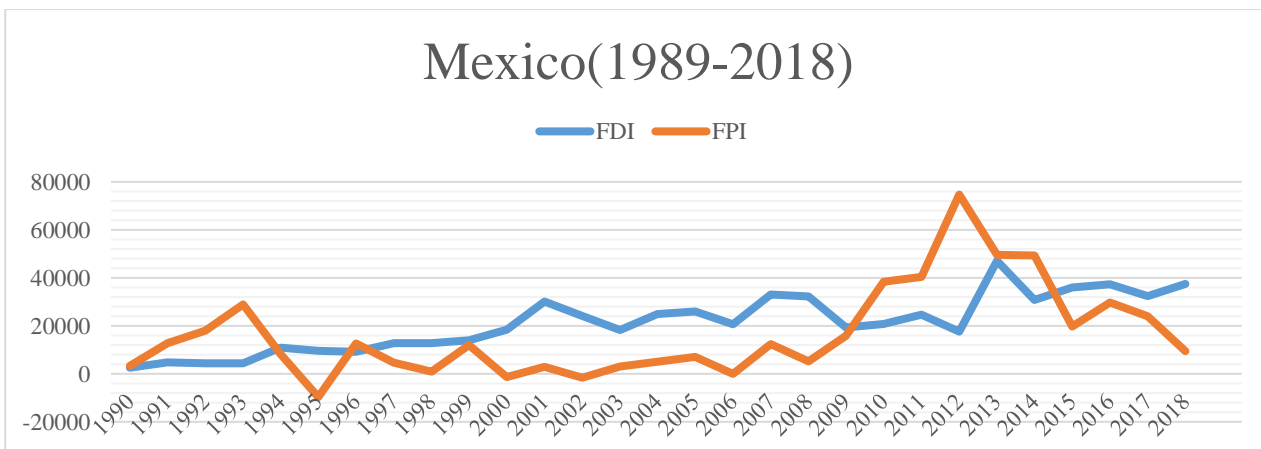


Fig. 2.8 Trend of Inflows into Mexico

Source: IMF-International Financial Statistics database 2019

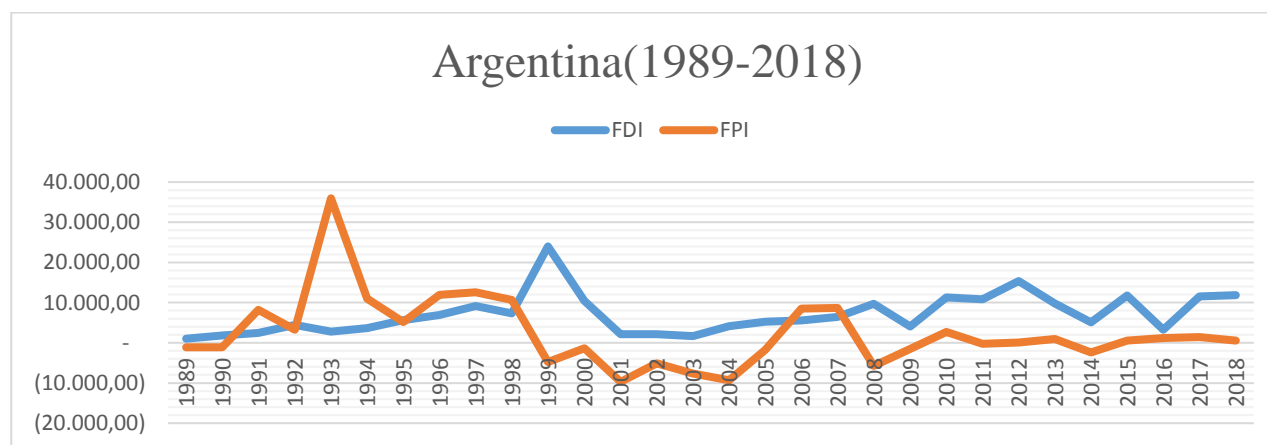


Fig. 2.9 Trend of Inflows into Argentina

Source: IMF-International Financial Statistics database 2019

Table 2.1 SHARE OF FINANCIAL INFLOWS BY REGION

| AGGREGATE DATA (1989-2018) US\$ MILLION | | | | | |
|---|--------------|---------------------|---------------------|-------------------|-------------------|
| Capital Inflows | | | | | |
| S/N | Countries | FDI | FPI | % of Regional FDI | % of Regional FPI |
| EM Africa | Egypt | 103,883.23 | 17,659.84 | 36% | 11% |
| | Nigeria | 95,909.70 | 78,380.90 | 33% | 47% |
| | South Africa | 88,488.98 | 70,409.00 | 31% | 42% |
| | Total | 288,281.92 | 166,449.74 | 100% | 100% |
| Asia Market | China | 3,357,931.92 | 767,830.19 | 83% | 75% |
| | India | 490,542.89 | 238,656.46 | 12% | 23% |
| | Indonesia | 220,540.00 | 23,842.14 | 5% | 2% |
| | Total | 4,069,014.80 | 1,030,328.78 | 100% | 100% |
| EM-LAC | Argentina | 211,479.59 | 71,648.31 | 11% | 7% |
| | Brazil | 1,096,123.24 | 437,994.60 | 57% | 44% |
| | Mexico | 619,030.93 | 475,557.18 | 32% | 48% |
| | Total | 1,926,633.76 | 985,200.08 | 100% | 100% |

Source: IMF-IFS Database and Author's calculation

Table 2.1 summarizes the total capital inflows and composition of the inflows into the selected EM countries for 30 years. It also shows the share of each country's inflows as a percentage of total inflows to the respective regions. In EM Africa, Egypt received 36% of FDI inflows followed by Nigeria 33%, and South Africa 31%. In essence, Nigeria received more FDI than South Africa for the period under study. On the other hand, Nigeria's foreign portfolio investment tops others at 47 percent followed by South Africa at 42 percent while Egypt received the lowest share of 11 percent.

In the Asia region, China dominated the region in both types of investment inflows. From the table, 83 percent and 75 percent of FDI and FPI respectively went to China making it the largest recipient of capital inflows among the three countries while India shared 12 percent of FDI and 23 percent of FPI followed by Indonesia which recorded a paltry share of 5 percent of FDI and 2 percent of FPI. This shows that India's aggregate inflows of FPI nearly doubled the amount of FDI, unlike China and Indonesia which showed higher FDI than FPI for the same period.

Lastly, flows to Emerging Market countries in Latin America and the Caribbean were dominated by Brazil with a 57 percent share of FDI and Mexico which received 48 percent of portfolio investment. Argentina recorded the least inflows of 11 percent FDI and 7 percent FPI.

Researchers seem to have a consensus that the best way to design effective policies to counter the effect of the volatilities associated with these flows is to, first of all, understand the effect of each component of the financial inflows on the economy.

2.1.3 Empirical review of international financial inflows and economic growth nexus

The conventional wisdom has it that FDI is a relatively safe form of external finance as it is “bolted down”, while FPI is viewed as volatile “hot money” and more prone to destabilizing the economy (Acharya, Shin & Yorulmazer, 2008; Hattari & Rajan, 2011; Nwosa and Adeleke, 2017; Tyson and Beck 2018). The most common spillover benefits from FDI as seen in

literature are employment generation and technology transfer whereas FPI is said to strengthen or deepen the capital markets by expanding the products traded and providing liquidity.

Despite the fact that not many studies focused on the effect of FPI especially in emerging and developing economies, some policymakers have relied on this popular belief to take certain policy actions to address this issue. These include the use of selective liberalization of capital accounts. While controls on FDI transactions are eased to allow for inflows, regulations are still maintained or even tightened on FPI inflows (Acharya et al, 2008).

Empirical literature is replete with contribution of FDI to the economic growth of emerging markets leaving policy makers to rely on conventional wisdom regarding the effect of FPI (Hattari & Rajan, 2011; Humanicki, et. al.2013; Albulescu, 2015). For example a cross-country study by Awolusi & Adeyeye, (2016) found that FDI inflows to South Africa, Egypt, and Nigeria among a few other countries had a positive but negligible effect on growth. Using OLS and GMM to analyze panel data from 1980-2013, they found that a 1% increase in FDI inflows to South Africa, Egypt, and Nigeria will spur growth to 0.12%, 0.05%, and 0.02% respectively. One of the studies that attempted to examine the effect of each component of inflows was carried out by Alley, (2015). Interestingly, some studies that considered the effect of FPI as well as the effect of macroeconomic policies however found divergent results. Albulescu, (2015) studied the effect of FPI and FDI on the long-term economic growth of 13 Central and Eastern European (CEE) Countries covering 2005-2015. It was found that both FDI and FPI (equity and investment fund instruments) significantly contributed to long-term growth of these countries. Interest rate, exchange rate, unemployment rate and the level of education were some of the control variables used in the model. In a related study, Oladejo (2016) found a significant positive effect of FPI on economic growth of the Nigerian economy. However, divergent finding were made by Onuoha, Okoro and Okere, (2018), Using panel of 14 Sub-Saharan African (SSA) countries from 1990- 2013studied, the conclusion did not make distinction regarding the effect of each (FDI and FPI) on the economic growth of the countries. Using system GMM on a panel of 10 West African countries from 1990 to 2016 found that FPI (equity and bond) are insignificant in influencing real GDP of

the countries (including Nigeria) considered in the study. This result aligns with older study by Macias & Massa, (2009).

Both schools of thought agree that macroeconomic policies are important factors that enable governments to maximize the economic benefits accruable from foreign investments. This study therefore, is an attempt to contribute to the ongoing debate as well as to enable policymakers especially those in EMEs to understand the characteristics of each inflows and how they interact with macroeconomic and other variables. This will help in formulating the right policies to attract the most beneficial investment to the economy.

4. Methods

Macro panel dataset was used to estimate the effects of a disaggregated international financial inflows on the economic growth of selected EMEs. The dataset consists of both dependent and explanatory variables covering 30 years from 1989 to 2018. The nine countries selected for the study are Africa; Egypt, Nigeria, South Africa, Asia: China, India, Indonesia, and LAC: Argentina, Brazil, and Mexico. The period covered became significant apparently due to the upsurge of foreign capital inflows from advanced to emerging markets which was occasioned by increased financial integration.

The data were sourced from IMF –IFS Balance of Payment (BoP) data for each country, the World Development Indicators (WDI), and the Central Bank of Nigeria Statistical Bulletin.

2.2 Model Specification

A neoclassical growth model was specified with disaggregation of international financial inflows into FDI and FPI as proxies. These are the explanatory variables of interest however, other variables can explain the increase in a country’s GDP. The disturbance term μ_i is included to adjust for omitted variables. The model also controlled for other variables beyond used by Onuoha, et al. (2018). In addition to trade openness and exchange rate used by Onuoha, et al, we added stock market capitalization, infrastructure proxy by information and communication technology (ICT), as well as regulatory quality.

3. Aims

The study sought to evaluate the effect of each components of financial inflows on economic growth of EMEs rather than an aggregated approach which is more common in literature. The study is also an attempt to examine the moderating effect of macroeconomic variables in the model. The study found that both FDI and FPI had a positive coefficient but only FDI has a significant effect on the economic growth of the EMEs and secondly, coefficients of the interacted terms turned out negative which indicates that the benefits accruable from the inflows can be eroded by poor macroeconomic policy design and implementation.

The functional form of the model;

$$\ln RGDP = f(\ln FDI, \ln FPI, \ln ExcR, \ln Trade, \ln ICT, RQ, MCap)$$

The model is empirically transformed into the following equations;

$$\ln RGDP_{it} = \alpha + \beta_1(\ln FDI) + \beta_2 (\ln FDI * \ln ExcR) + \beta_3(\ln ExcR) + \beta_4 \ln Tradeopen + \beta_5 \ln ICT + \beta_6 \ln RQ + \beta_7 \ln MCap + \mu_i \dots \dots \dots \text{Eq. 1}$$

Equations 1 above measured the effect of FDI on economic growth on one hand and the effect of the interactions of macroeconomic policy (real exchange rate) on the other hand. In the same vein, equations 3 & 4 below examined the effect of FPI and its interaction with macroeconomic policies. The introduction of two-way interaction of key independent variables $(\frac{\ln FDI / FPI}{GDP} * \ln Macroeconomic policy)$ was done to evaluate the separate and combined effect of explanatory variables on the economic growth of the EMEs.

$$\ln RGDP_{it} = \alpha + \beta_1(\ln FPI) + \beta_2 (\ln FPI * \ln ExcR) + \beta_3(\ln ExcR) + \beta_4 \ln Tradeopen + \beta_5 \ln ICT + \beta_6 \ln RQ + \beta_7 \ln MCap + \mu_i \dots \dots \dots \text{Eq. 2}$$

Where;

LnRGDP: The natural Log of Real GDP as a proxy for economic growth

LnFDI: The natural log of FDI as a percentage of GDP as a proxy for International Financial inflows

LnFPI: The natural log of FPI as a percentage of GDP as a proxy for International Financial inflows

LnExcR: The natural log of the real effective exchange rate as a %GDP

LnTradOpen: The natural log of Trade Openness measured by aggregate trade as %GDP

LnICT: The natural log of Infrastructure proxied by % of total telephone and mobile subscribers (ICT) as a % GDP

LnMCap: The natural log of Market Capitalization as %GDP proxy for capital market development

LnRQ: The natural log of Regulatory Quality Index is a proxy for Governance

2.3 Data Analysis and Estimation Technique

Before performing the regression analysis, the model was subjected to preliminary diagnostic tests as follows: Multicollinearity Test, Cross-Sectional Dependency Test (CSD) and Panel Unit Root Test.

5. Result

The Panel-Corrected Standard Errors (PCSE) estimator technique is applicable to heterogeneous dynamic panels (Cameron & Trivedi, 2005; Hoechle, 2006). The estimator corrects for cross-sectional dependence in the data. The PCSE technique is an alternative to the Feasible Generalized Least Squares (FGLS) that eliminates the fixed effects in addition to controlling for other issues affecting panel data analysis such as cross-sectional dependence, autocorrelation, and heteroskedasticity.

The results for the variables of interest are presented thus; from the table 5.1 shows that FDI, is positive and significant for the full sample as well as Africa region but negative for both Asia and the LAC. Also, the exchange rate is positive for the LAC, Africa and the full sample. The interactive variable $\ln\text{FDI_ExchR}$ returned a significant negative coefficients for the full sample, Africa and the LAC. Please note the each region with positive effect of macroeconomic variables turned out a negative $\ln\text{FDI_ExchR}$.

For table 5.2, FPI had a positive but no significant effect on growth relative to FDI except in Africa with negative coefficient. In the other hand, exchange rate had positive and significant effect on the full sample as well as Africa. The interaction variable $\ln\text{FDI_ExchR}$ returned negative coefficient for the LAC and full sample but positive for Africa and Asia.

Among the controlling variables ICT (proxy for Infrastructure) has positive and very significant effect on economic growth of EMEs in both FDI and FPI models.

Table 5.1 Regression Result for Equation 1

| | FDI and Exchange Rate | | | |
|-----------------------|------------------------------|---------------|---------------|---------------|
| | Full Sample | Africa | Asia | LAC |
| | lnRGDP | lnRGDP | lnRGDP | lnRGDP |
| lnFDI | 0.5845** | 0.7503*** | -0.6731 | 0.7335 |
| | (2.28) | (3.23) | (-1.18) | (1.32) |
| ExchR | 0.0023 | 0.0044 | -0.0039 | 0.0011 |
| | (0.70) | (1.51) | (-0.71) | (0.18) |
| lnFDI_ExchR | -0.0054** | -0.0082*** | 0.0075 | -0.0053 |
| | (-2.18) | (-3.56) | (1.29) | (-1.03) |
| lnMCap | -0.0395 | -0.0307 | 0.0264 | 0.2413** |
| | (-0.76) | (-0.44) | (0.54) | (2.06) |
| lnTrade | -0.7314*** | -0.1645 | -0.6042** | -0.0999 |
| | (-6.50) | (-0.87) | (-2.51) | (-0.71) |
| lnICT | 0.4679*** | 0.4646*** | 0.5364*** | 0.3499*** |
| | (11.37) | (11.47) | (10.09) | (4.92) |
| RQ | 0.1032 | -0.1504 | 0.3545 | 0.5489*** |
| | (0.89) | (-1.01) | (1.22) | (2.66) |
| Constant | 14.0797*** | 10.8742*** | 14.7181*** | 11.3746*** |
| | (23.03) | (11.00) | (17.18) | (10.96) |
| No. of Obs. | 157 | 40 | 57 | 60 |
| R-Squared | 0.997 | 0.988 | 0.997 | 0.997 |
| Wald Statistic | 314.65*** | 467.08*** | 270.47*** | 77.81*** |

Note: ***, **, * represent statistical significance at the 1%, 5%, and 10% levels, respectively; t-statistics in ().
Source: Researcher's Computations

Table 5.2 Regression Result for Equation 2

| | FPI and Exchange Rate | | | |
|-----------------------|------------------------------|---------------|---------------|---------------|
| | Full Sample | Africa | Asia | LAC |
| | lnRGDP | lnRGDP | lnRGDP | lnRGDP |
| lnFPI | 0.0917 | -0.1101 | 0.0148 | 0.3376* |
| | (1.29) | (-0.76) | (0.06) | (1.85) |
| ExchR | 0.0047** | 0.0150*** | 0.0130 | -0.0012 |
| | (2.06) | (5.07) | (1.45) | (-0.48) |
| lnFPI_ExchR | -0.0008 | 0.0015 | 0.0002 | -0.0042*** |
| | (-1.13) | (0.90) | (0.08) | (-2.71) |
| lnMCap | -0.0117 | 0.0369 | 0.0319 | 0.3152** |
| | (-0.22) | (0.57) | (0.38) | (2.28) |
| lnTrade | -0.1533 | -0.0668 | -0.7687*** | 0.0548 |
| | (-0.98) | (-0.42) | (-2.59) | (0.30) |
| lnICT | 0.4844*** | 0.6037*** | 0.4702*** | 0.3649*** |
| | (10.87) | (14.45) | (4.93) | (6.81) |
| RQ | 0.2606** | -0.2266* | -0.1183 | 0.7973*** |
| | (2.12) | (-1.66) | (-0.26) | (4.34) |
| Constant | 11.2860*** | 8.6341*** | 13.8649*** | 10.8118*** |
| | (13.26) | (9.69) | (9.40) | (12.34) |
| No. of Obs. | 124 | 32 | 50 | 42 |
| R-Squared | 0.994 | 0.986 | 0.997 | 0.999 |
| Wald Statistic | 198.46*** | 379.49*** | 219.62*** | 200.56*** |

Note: ***, **, * represent statistical significance at the 1%, 5%, and 10% levels, respectively; t-statistics in ().

Source: Researcher's Computations

6. Discussion

What effect does each component of international financial inflows has on the economic growth of the selected EMEs?

From table 4.1, in respect of the full sample, FDI has a positive coefficient and significant at 5 percent level. On the regional or sub-sample level, only inflows to EM Africa are statistically significant at 5 percent. On the other hand, FPI inflows are only statistically significant in LAC at a 10 percent level whereas the full sample and other regions remain insignificant. This result provides further evidence to support the view of many researchers and policymakers who have

continued to emphasize that FDI is more beneficial to the economy than FPI. The benefit is linked to the stable nature and the spill-over effect of FDI including employment generation, technology transfer from the foreign firms to domestic ones as well as increase in the tax base to improve revenue generation. On the other hand, the result of the regression analysis in Table 4.2 laid credence to the fact that FPI, though with a positive coefficient, does not produce a significant contribution to growth. This can be attributed to the volatility of this type of inflows (hot money). Though the positive contribution of FPI is largely in the area of capital market development, its unstable nature can easily erode this benefit by

creating a procyclical imbalance in the economy when the investors pull out their funds at the slightest event of economic crisis.

How does this effect vary when each component of inflows interact with macro-economic variables?

Table 4.1 and 4.2 shows regression results indicating that both FDI and FPI have a retarding effect on the economic growth of EMEs. This outcome is a consequence of macroeconomic policy (exchange rate) which was interacted with the key variables. The interaction of variables $(\frac{\ln FDI/FPI}{GDP} * \ln \text{Macroeconomic policy})$ in the FDI model produced a negative and statically significant coefficient at a 5 percent level showing that the potential benefit accruable from this investment type can be eroded by poor macroeconomic policy. The same applies to portfolio investment though the coefficient is not significant.

Among the control variables, infrastructure stood out as significantly contributing to economic growth. With a positive coefficient at 1 percent significant level, this finding aligns with several studies which attributed the size of and access to infrastructure as a key booster of inclusive growth in developing countries (Kodongo and Ojah, 2016). Another outcome of the regression shows that stock market capitalization is positive and significant for both models. This provides evidence of the economic growth benefit that can be experienced when a country's stock market is developed. This will encourage the inflow of investments that will lead to a multiplier effect on the economy

7. Conclusion

This study has contributed to knowledge in the following ways; first of all, it made a clear distinction in the contribution of both components of international

financial inflows. While FDI makes a positive and significant contribution to the nine EMEs as a whole, FPI contribution is insignificant. Secondly, the interactions of monetary variable (exchange rates) with each component of international financial inflows in the FDI model produced a negative and statically significant coefficient at a 5 percent level showing that the potential benefit accruable from this investment type can be eroded by poor macroeconomic policy. The same applies to portfolio investment though the coefficient is not significant. It is therefore recommended that policymakers should design and implement policies that will attract more FDI than FPI as currently observed in most EMEs especially in Africa and the LAC. They should learn from Asia by establishing the enabling environment for FDI inflows. These policies may take the form of a 'lockdown' on portfolio investment to a specific period before investors are allowed to repatriate their earnings. This can come with an incentive like exemption from capital gains tax if investments are allowed to remain for a specified period. This will largely prevent the volatility and imbalances FPI creates when the funds are whisked away during economic downturn.

Authors Contribution

This research work is a joint effort of the authors. While the conceptualization and literature review was performed by Iyika, Paulinus (Main Author), Dr. Alexander Omankhanlen provided the design and supervision in collaboration with Professor Uwalomwa Uwuigbe.

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