Foreign Direct Investment Inflow And Inequality In An Emerging Economy – South Africa

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Abstract: This study related the influence of foreign direct investment inflow on income inequality in South Africa. The paper applied the co-integration regression and used the FDI inflow and income inequality data in South Africa for 2005-2015 to determine. Findings from the Augmented Dickey-Fully (ADF) test showed that increase in FDI inflow has (nonetheless not significant) broadened inequality in South Africa during the period of analysis. In addition, a test for a unit root in uhat arising from the Engle-Granger co-integration relationship test applied the Augmented Dickey-Fuller test. The result indicates that, within the time series examined, there is no long-run relationship between income inequality and foreign direct investment inflow to South Africa. The paper recommends that further research should examine likely effect of governance on income inequality by introducing governance variable into the co-integration regression model to see whether democratic governance in South Africa may have contributed in widening income inequality. Further research might also examine the characteristics of foreign direct investment inflow into the country to see whether it possesses certain attributes such as manufacturing FDI, which could create job for local citizens.

Keywords: foreign direct investment; emerging countries; inequality; poverty; economic growth

1 Introduction

Income inequality counteracts social and economic development in developing countries; hence, one of the economic development planning initiatives of governments have centred on the reduction of income inequality and accelerated rural based development. This is very imperative as income inequality reduces growth and stagnates poverty reduction efforts (Dabla-Norris et al, 2015). Many countries have stepped up campaign for the attraction foreign direct investment (FDI) which is widely believed as one of the engines for social economic growth, skills and technology transfer (Lessmann, 2013). But the question amongst

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researchers have been whether FDI does deliver the expected influence inequality. Many research has thus emerged with different views and findings regarding the influence of foreign direct investment on inequality. Several research has found that FDI may amplify income inequality (Lessmann, 2013); others have found that increase in FDI inflow may reduce income inequality (Jensen and Rosas, 2007); accordingly, findings have remained diverse and hence the need to continue research inquisition on the income inequality and FDI relationship. Findings of this important aspect of research is vital for practical economic development policies and for furthering academic debate and research.

This paper contributes to existing literature on the topic of FDI and income inequality as it concentrates attention in an emerging market of South Africa. Specifically, the novelty of this paper and hence its unique contribution is that it examines inequality and FDI within the period of democratic dispensation in South Africa, thus with the rising inflow of FDI within the period of democracy, an investigation of this nature becomes germane to see whether FDI has influenced inequality within this period; and if not where else can economic policy makers look out to improve FDI policies to benefit the poor. Therefore, the question that underpins this paper is whether FDI during South Africa's democratic rule has influence income inequality; therefore, the core objective of the paper is to analyse how foreign direct investment has related with inequality in South Africa.

The structure of the paper is as follows, the next section following the introduction presents the theoretical background and a review of related literature. This is followed by the methods and results section; the discussion of results is presented thereafter. The final section is the conclusion.

2 Theoretical Context – FDI and Acclaimed Benefits

Alfaro and Chauv (2017) define FDI as international capital flow where a foreign firm invest in another country, therefore, maintaining control over the capital invested. According to Rye (2016) FDI can take the form of new business creations in the host countries, technology and knowledge transfers as well as mergers and acquisitions. The link between FDI distribution, poverty and inequality reduction in developing countries can best be explained by the neoclassical theory (Solow, 1956; Koopmans, 1965) and endogenous growth theory (Romer, 1986; Lucas, 1988; Romer, 1990) among others. The neoclassical growth theory argues that FDI increases economic growth of the host country which in a way improves the livelihoods of the citizens. Furthermore, the neoclassical theory alludes that it is through a high national product that incidences of poverty and income inequality are addressed fully through the multiplier effect. On the other hand, the endogenous growth theory uses technology transfer and knowledge spill over to

explain how FDI reduces welfare problems like poverty and inequality. Accordingly, spill over effects can be horizontal or vertical (Magombeyi & Odhiambo, 2017). Horizontal spill over effects takes the form of the local firm imitating the technology used by foreign firms it is in the same level with but at different technological sophistication. This normally takes the form of reverse engineering where local firms learn to reassemble technological foreign equipment before they can adopt it locally. Furthermore, horizontal spill over effects can also be in the form of local labour force acquiring new skills and techniques, which improves their earning capacity (Diyamett & Mutambla, 2015). On the other hand, vertical spill over effects takes the form of industry integration between the foreign firms and the local ones. Vertical spill over effects can be backward or forward integration. Back ward integration is when the foreign big firm subcontract local firms to supply it with intermediate goods while the forward integration explains an arrangement where the foreign firm secure the market outlets for its products.

According to Diyamett and Mutambla (2015), the foreign firm vows to train the local firms to adhere to its quality standards, which improves the efficiency and productivity of local firms. Msweli (2015) remarks that FDI allows for a smooth transfer of technology and other advanced industrial skills from the foreign firms to the local labour force. Hamdani (2016) agrees and points out that FDI leads to human capital development in the host country. In addition, FDI also improves the balance of payments of the host country, which augments favourable living conditions for the citizens. FDI can affect welfare indicators like poverty and income inequality directly and indirectly (Ucal, 2014). The direct impact is achieved when FDI is labour intensive and hence, leads to an increase in employment and income growth. On the other hand, the indirect effect is achieved when FDI spurs economic growth, which consequently improves the welfare of the citizens through the multiplier effect. Ucal (2014) further alludes that it is labour intensive FDI which brings down poverty caused by unemployment compared to capital intensive FDI which target mostly skilled labour.

Rye (2016) argues that it is sagacious for host countries to clearly understand the short and long-term effects of employing FDI as a key tool to resolve socio-economic challenges like poverty and income inequality, the rightful conditions for FDI to yield intended benefits. In addition, Rye (2016) elucidates that it is key for the host country to determine which type of FDI is ideal to spur growth in their economies. FDI can only yield positive results if the host country is well positioned in terms of its institutional policies, absorptive capacity for huge investments, infrastructure and flexible labour force among others. In addition, Magombeyi and Odhiambo (2017) are of the view that it is mainly Greenfield FDI in form of new business creations, which yield more welfare benefits to the host country compared to mergers and acquisitions as they come with their own team and management. The authors of this study believe that South Africa will benefit significantly from

FDI spillovers like technology transfer and knowledge spill over and human capital development, as these will address the structural unemployment in the country, which is caused by a skills mismatch. The theories discussed above are relevant for this study as they set a discourse to understand FDI components and how it is linked to poverty and inequality reduction to host countries.

3 Review of Related Empirical Literature

There is ubiquitous literature on FDI implications on inequality and poverty. However, diverse opinions and findings have surfaced, which provides continuous impetus for more research given the importance of FDI in economic growth and development. The ensuing review is by no sacrosanct; rather, it only touches on few of the literature that provides the motivation for this paper.

3.1. Foreign Direct Investment and Income Inequality

Inequality tends to be a common phenomenon worldwide (Phillips, 2017). Rye (2016) defines inequality as a situation where power, resources and national income is concentrated on a few minorities at the expense of the majority. The Gini coefficient is commonly used in existing literature to measure income inequality. Income inequality can orchestrate conflict and pose a threat to peace if measures are not put in place to resolve it (Sharma & Abekah, 2017). The World Bank (2015) indicates that South Africa ranks high amongst the top unequal countries of the world and hence a dual economic with the rich on one side and with the highly poor on the other side. On that note, it is reported that South Africa exhibits a developed and a developing country status all at once. This causes serious income inequality as most people in marginalised areas live below the poverty datum line. A study by Keeton (2014) asserts that regardless of the social grants given to the poor, the gap between the rich and the poor remains extremely high in South Africa. Malindini (2017) concurs and adds that the richer people in South Africa continues to accumulate wealth while the poor languish in poverty. The United Nations Conference on Trade and Development, (2016) made an important remark that South Africa exhibits high levels of income inequality despite high levels of FDI inflows in the country. As such, Statistics South Africa (2016) reports that in 2014 the Gini coefficient was 0.69 considering the income data. This puts South Africa on the top countries with high-income inequality in the world (Kaulihowa, 2017). Income inequality in South Africa stems from the Apartheid regime as indicated by a Gini co-efficient of 0.58 in 1994 when the country got its independence. The literature also highlights that there is income inequality among the nine provinces in South Africa. Accordingly, the Eastern Cape and Limpopo provinces record high levels of poverty as compared to other provinces such as Gauteng (Statistics South Africa, 2017).

Trinh (2016) notes that income inequality has worsened for the past three years worldwide despite the globalisation effect where FDI has been flowing in different countries especially developing countries. It becomes crucial to investigate if FDI is a sustainable panacea to the soaring levels of inequality in developing countries such as South Africa (Msweli, 2015). Empirical literature about the FDI and income inequality nexus is still new, scant and underdeveloped which calls for more empirical studies (Trinh, 2016; Malindini, 2017). Malindini (2017) asserts that existing literature about the effect of FDI on income inequality in developing countries is in shambles and inconclusive. The literature about the effect of FDI on income inequality is organised in the following manner; studies that found a positive relationship, negative relationship and or insignificant relationship.

Malindini (2017) analysed the effect of FDI on income inequality in South Africa using data from 1970-2012. The study made utilised Auto Regressive Distributed Lag (ARDL) model on their methodology. The study reported a significant positive impact of FDI on income inequality indicating that FDI rather worsens income inequality in the country. Asteriou, Dimelis and Moudatsou (2014) examined the impact of globalisation on income inequality using EU27 countries. The study employed an econometric approach to analyse the behaviour of the key variables. Among the variables used as globalisation indicators, FDI was established as the main factor, which perpetuates income inequality on the sample countries. Mugeni (2015) examined the effect of FDI on income inequality using 153 countries from both developing and developed countries from 1995-2010. The results showed that FDI reduces income inequality gap in the countries considered. However, the reduction effect was only established in countries where democracy prevailed. A study by Msweli (2015) investigated the nexus between FDI and inequality in South Africa from 1956- 2011. The results showed a negative relationship between FDI and income inequality. It was deduced from the study that FDI inflows decreases inequality in South Africa.Trinh (2016) examined the FDI and income inequality nexus of Vietnam's provinces between 2002-2012. The study used panel data and the pooled OLS model as well as the fixed effects model were employed on the methodology. A negative and significant relationship between the variables was established. The findings show that FDI inflows were able to diminish income inequality as a significant number of lowly low-skilled labour was sort, which improved their incomes relative to the rich. The findings are in agreement with a similar study by Farhan, Azman-Saini and Law (2014). Sharma and Abekah (2017) empirically tested the impact of FDI on inequality reduction between African countries and South American countries from 1970-2014. The results indicated that FDI has an income redistributive effect in host countries. Kaulihowa (2017) tested the link between FDI and income inequality in 16 African countries for using data from 1980–2013. The study utilised a Pooled Mean Group (PMG) to ensure consistency. The results showed that FDI had a U shaped effect on inequality.

Importantly, the findings highlighted that FDI inflows enhances equality in developing countries. Kaulihowa (2017) posited that FDI is a crucial catalyst, which fuels growth, which consequently reduces the gap between the rich and the poor.
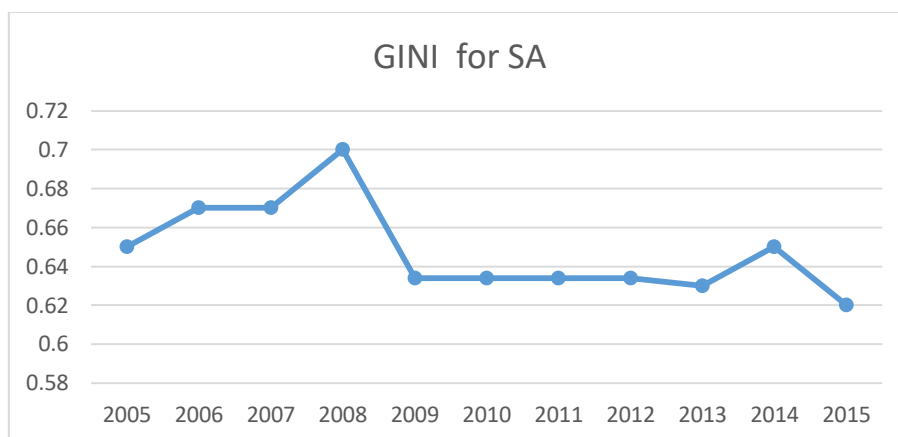
3.2. Foreign Direct Investment and Poverty

Statistics South Africa (2017) argues that poverty level remains relatively high regardless of the perceived decline from 2006 to 2011. Over 50%, an equivalence of over 30,4 million South Africans were deeply entrenched in poverty in 2015. Kaulihowa (2017) concurs and assert that between 1990 and 2010 the number of people living in extreme poverty has risen sharply from 289.7 million to 413.8 million in Africa. Finding a panacea to this soaring problem goes a long way in resolving social unrest and conflicts between the rich and the poor in the country. Shamim, Azeem and Naqvi (2014) assert that a significant number of developing countries have started implementing policies aimed at attracting FDI hoping that it can resolve the random socio-economic challenges like poverty in the host country. Kaulihowa (2017) asserts that FDI can be a panacea towards the high incidences of poverty in Africa as it creates employment. More importantly, FDI improves existing skills of the host country labour force, which increases their earning potential. Nyuur, Ofori and Debrah (2016) support the strand of literature, which posits that FDI results in improved living standards, hence, a reduction in poverty. Extant literature posits that FDI diminishes poverty in developing countries through employment creation, technological growth and knowledge spill over effects and boost government tax which in a way can be distributed to the poor citizens (Wakyereza, 2017). The literature about the FDI effect on poverty reduction is inconclusive (Magombeyi & Odhiambo, 2017). Some studies reported a positive impact between FDI and poverty, while others document a negative impact and the rest show an insignificant impact. However, according to Rye (2016), considering the views held about the effects of FDI on income inequality in existing literature, it is important to determine which motion dominates to pave way for clear policy formulation. Soumare, (2015) empirically tested the effects of FDI on poverty reduction on North African countries using. The study used Human Development Index (HDI) and Gross Domestic Product (GDP) as measures of poverty levels. The study reported a positive impact between FDI inflows and poverty reduction.

This paper contributes by analysing whether FDI has influenced inequality in South Africa. This is important as South Africa is regarding as one of the countries with high inequality despite the dismantling of apartheid. Although pitching high at 0.65 in 2005 and dropping a little at 0.62 in 2015; South Africa's income inequality is generally seen as the highest in the world and regarded as being stably high, which is an indication of inability to control income inequality (OECD, 2017).

4 Method and Results

The approach was quantitative, and we applied the co-integration statistics using observations 2005-2015 (T = 11) to check for possible long-run effect of foreign direct investment (FDI) inflow on inequality in South Africa. Secondary data used in the analysis was retrieved from various online archives. The GINI index was compiled from various sources (World Bank; OECD; trading economics; University of Pretoria repository). The inequality data was compiled from the online in quality data of the World Bank for South Africa. We tested for stationarity using the Augmented Dickey-Fuller (ADF) test. Experts believe that the ADF is one the best approaches for testing co-integration given its simplicity and reliability (Sjö, 2011). Furthermore, the commonly used method for analysing co-integration is the Engle-Granger co-integration test. A line graph of the two variables appear in Figure 1 and Figure 2 with the Gini coefficient and FDI inflow respectively for South Africa (2005 – 2015).

Figure 1. Gini Coefficient for South Africa (2005 – 2015)

Source: author, compiled from various sources (World Bank; OECD; trading economics; University of Pretoria repository)

Figure 2. Foreign direct investment, net inflows (BoP, current US$) for South Africa

Source: World Bank (2017, p. 1)

The co-integration model: $\quad y_t = \beta_0 + \beta_1 X_1 + u_t$

Co-integration Results

Step 1: unit root test: ADF Test: Augmented Dickey-Fuller test

Unit test in GINI Coefficient

Null hypothesis for unit root: a = 1

P-value= 0.6773

Step 2: unit root test: ADF Test: Augmented Dickey-Fuller test

Unit test in FDI Coefficient

Null hypothesis for unit root: a = 1

P-value= 0.004258

Step 3: Engle-Granger co-integration regression

OLS with observations 2005-2015 (T = 11)

DV: Gini Coefficient (GINI)

Table 1. Co-integration regression

	coeff	SE	t-ratio	p-v
const	0.637214	0.0174263	36.57	4.24e-011 ***
FDI	1.71943e-06	2.93989e-06	0.5849	0.5730

Md var	0.646364	S.D. Var	0.024606
SSR	0.005833	S.E. of R	0.025458
R-squared	0.036615	Adjusted R^2	-0.070428
Log-likelihood	25.87347	Akaike	-47.74693
Schwarz	-46.95114	Hannan-Q	-48.24857
RHO	0.292649	Durbin-Wat	1.385443

Step 4: unit root test in uhat
Augmented Dickey-Fuller test for uhat
Null hypothesis for unit root in uhat: a = 1
p-value 0.815

5 Discussion of Results

We first tested for the presence of unit root in both variables – to see that the series for each variable is integrated of order 1. Hence, the null hypothesis for unit root was not rejected in one of the variables GINI. Thus, the existence of unit root provided the condition to proceed to a long run co-integration relationship test. Following the co-integration regression test, we tested for a unit root in uhat arising from the co-integration relationship test using the Augmented Dickey-Fuller test. The unit root in uhat produced a P value of 0.815, which is higher than 0.05, this means that the null hypothesis could not be rejected. The implication is that, within the time series examined, there is no long-run relationship between FDI inflow into South Africa and inequality. However, we could deduct from the co-integration test that a positive relationship does manifest in the regression co-efficient although. It is also noteworthy to highlight the implication of the positive coefficient, which indicates (although not significant), that foreign direct investment inflow may exacerbate inequality if the FDI is not equitably managed. This finding seems to concur with previous research findings that FDI may amplify income inequality (Lessmann, 2013). An apparent lesson from here is that a well-managed FDI must benefit the population without segregation; it should provide employment to the local population, and this means it should strive to be manufacturing in nature so as to employ, produce and export. Practically, this means that FDI attraction should be focussed on those that would build industries locally. The tax accruable from such FDI induced industries and/or manufacturing based FDIs would contribute to the spreading of social services to the citizens. The employment income to the local citizens would contribute to the reduction of income inequality in the country. This

means that initiatives on the attraction of industry based FDIs must emphasize the employment of local citizens against a situation where FDIs are allowed to come with their own labour force, this might vitiate the important role of FDIs in growing the host country economy. Further research is imperative regarding the extent with which FDIs into developing countries contributes to the boosting of industrialisation.

6 Conclusion

This paper examined the relationship between foreign direct investment (FDI) and income inequality in South Africa, it sought to determine whether FDI during the democratic period has influenced reduction of income inequality. Applying the co-integration regression, it used FDI inflow and income inequality data in South Africa between 2005-2015 to determine if a long run relationship exists between FDI and income inequality in South Africa. The findings from the Engle-Granger co-integration relationship test, mimic some previous research; a positive relationship is seen in the FDI regression coefficient which signifies that increase in FDI has (though not significant enough) broadened inequality in South Africa. A test for a unit root in uhat arising from the co-integration relationship test applied the Augmented Dickey-Fuller test. The result showed that a unit root in uhat test produced a P value of 0.815, which is far higher than alpha value of 0.05, this shows that the null hypothesis could not be accepted. This suggests that, within the time series examined, there is no long-run relationship between foreign direct investment inflow into South Africa and inequality. The authors suggest that further research should examine likely effect of governance on income inequality by introducing governance variable into the co-integration regression model to see whether democratic governance in South Africa may have contributed in widening income inequality. Further research might also examine the characteristics of foreign direct investment inflow into the country to see whether it possesses certain attributes such as manufacturing and technology transfer, which could create job for local citizens. It is important to examine in future research, whether corruption has influenced FDI benefits to tilt towards certain sections of the population more than others. These suggestions are equally vital for policy makers to consider corruption, governance and FDI characteristics in FDI attraction strategies and the benefit distribution.

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Drivers of Foreign Direct Investment in Egypt

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Abstract: This article set out to analyse the occurrence of foreign direct investment (FDI) in the North African country of Egypt. Various macroeconomic variables were examined to determine their effect on attracting FDI inflows towards Egypt. Using OLS, we sought to identify key determinants of FDI in Egypt. Despite natural resource endowment in gas, oil and alternative energy – there was no evidence that foreign investors were flocking to Egypt for the natural resources. On the other hand, it was established that financial market development plays a pivotal role in harnessing inward FDI. It is recommended that the Egyptian government removes barriers to trade, strengthens institutions, and continues the momentum of providing an investor-friendly environment for foreign investors so as to improve its attractiveness and increase its potential to harness more FDI to push its economic growth agenda as a developing African country.

Keywords: FDI; natural resources; financial market development; Egypt

JEL Classification: E60

1   Introduction

International capital flows have been enjoying growing attention from policy-makers, central banks, international institutions, investors and academia, mainly because the volume of flows has grown at a phenomenal rate since the beginning of the 1990s (De Santis & Ehling, 2007). However, this growth has not been enjoyed by all economies, with some emerging countries performing poorly insofar as attracting FDI is concerned. In 1999, the UNCTAD argued that FDI is a reliable source of stable funding as it gives recipient countries the confidence to adopt long-term views towards their economic growth plans. Also, foreign investment plays the significant role of plugging gaps in funding where there is a mismatch between domestic savings and investment needs (Ndoricimpa, 2009). Therefore, any futuristic government would act to ensure that its investment policies provide a conducive environment to foreign investors.

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An assessment of FDI inflows to Africa revealed that most source countries are in the European Union (United Kingdom, Netherlands, Italy and France), as well as the United States. The economic sectoral beneficiaries are mainly financial services, petroleum and mining, as well as manufacturing (UNCTAD, 2014). In recent years however, foreign investors have upped their stakes and shown greater interest in real estate, oil, gas, and alternative or renewable energy. As a result, this has seen increased FDI inflows directed to smaller economies such as Egypt and Morocco in North Africa, as well as Ghana, Angola and Mozambique. Morocco has started enjoying FDI inflows to its automotive sector, with greenfield investment in 2016 alone amounting to US$1.3 billion, made particularly by PSA Peugeot-Citroen, Renault (France) and Ford (United States) (African Economic Outlook, 2017).

Table 1. Top FDI destinations in Africa by value of investment (2016)

Destination country	Value (US$ billion)	Main recipient sectors in 2016
Egypt	10.1	Real estate, oil, gas, alternative/ renewable energy
Morocco	4.9	Alternative/ renewable energy, real estate, automotive
Angola	4.4	Oil, gas, communication, transportation
Ghana	3.6	Oil, financial services, construction
Mozambique	3.4	Transport, coal, gas, real estate
Ethiopia	2.7	Chemicals, real estate, textiles
South Africa	2.8	Coal, oil, gas, transportation, automotive

According to the African Economic Outlook (2017), FDI investment by companies in Africa for the 2015/2016 period were primarily driven by location-based motives. It can be assessed from Table I above that Egypt was the leading destination of preference by foreign investors. This could be attributed to the country's growing natural resources discoveries in oil, gas and renewable energy, as well as interest in real estate. Part of the attraction of foreign investors to Egypt is attributable to the country's adoption of the automatic authorisation for priority investments, which have greatly enhanced the country's institutional quality. This includes the provision of guarantees against expropriation and nationalisation; the right to own land, the right to maintain foreign currency back accounts, freedom from administrative attachment, the right to repatriate capital and profits, and equal treatment regardless of nationality (Alessandrini, 2000).

Table II gives a snapshot of FDI inflows to selected African economies from 2007 to 2014. Earlier work by Makoni (2015) revealed that in general, there was an upward trend in FDI inflows to most of the surveyed countries. Small economies such as Egypt, Tunisia and Mauritius have emerged and taken over traditional recipients of foreign direct investment such as oil-producing Nigeria. Nigeria lost substantial volumes of FDI primarily as a result of fluctuating global oil prices, as well as its own political instability, which shook investor confidence.

Table 2. FDI inflows to selected African economies (% FDI to GDP)

	2007	2008	2009	2010	2011	2012	2013	2014	1980-2014 AVG
BWA	4.52	4.76	1.25	1.06	6.97	0.99	1.26	2.31	3.19
CIV	2.18	1.93	1.63	1.44	1.19	1.19	1.19	1.33	1.27
EGY	8.87	5.83	3.55	2.92	-0.20	1.06	1.54	1.67	2.40
KEN	2.28	0.27	0.31	0.45	0.33	0.32	0.68	1.55	0.54
MAUR	4.37	3.92	2.91	4.42	3.85	5.15	2.17	220.00	7.71
MORO	3.76	2.77	2.17	1.37	2.54	2.96	3.23	2.45	1.28
NGA	3.63	3.94	5.05	1.64	2.15	1.54	1.09	2.29	3.00
RSA	2.20	3.45	2.58	0.98	0.99	1.16	2.25	1.64	0.93
TUN	3.89	5.80	3.51	3.00	0.94	3.44	2.25	2.63	2.53

Source: World Development Indicators (2015)

As indicated in Table II above, Mauritius has been receiving significant FDI inflows, equivalent to as much as 220% of its GDP in 2014. In 2007, the top 3 FDI-recipient countries in terms of FDI to GDP were Egypt (8.87%), Botswana (4.52%) and Mauritius (4.37%). Shortly after the global economic meltdown, the top 3 FDI-recipient countries were Botswana (6.97%), Mauritius (3.85%) and Morocco (2.54%), while in 2014, Mauritius remained leading the pack (220%), followed by Tunisia (2.63%) and Morocco (2.45%), respectively. Of all the countries under review, Mauritius harnessed the highest average of 7.71% of FDI to GDP over the period 1980 to 2014, followed by Botswana at 3.19% and Nigeria at 3%. This was significant compared to Kenya's 0.54%.

Egypt - Foreign Direct Investment, percent of GDP
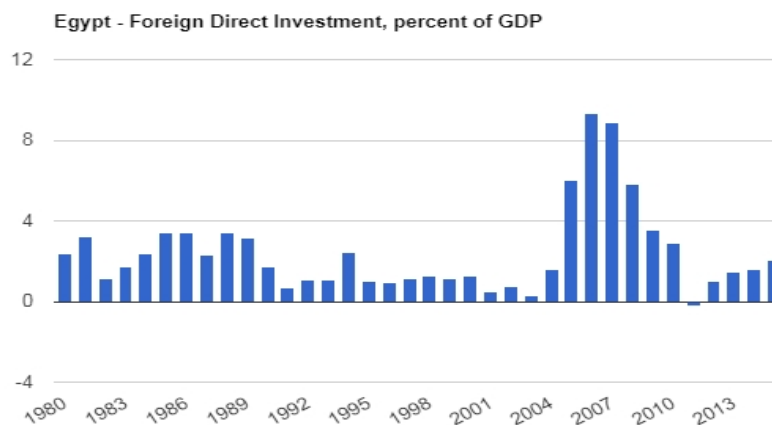
Source: TheGlobalEconomy.com, The World Bank

Figure 1. FDI trends, Egypt 1980 - 2015

According to the World Investment Report (WIR, 2017), FDI flows to the North African region rose by 11% to US$14.5 billion, buoyed by foreign investment reforms and new gas discoveries. Much of the investment growth can be attributed to Egypt where FDI inflows grew by 17% to US$8.1 billion, mainly due to Shell's discovery of gas reserves in Egypt's Western Desert. On the contrary, Moroccan FDI inflows fell by 29% to US$2.3 billion in 2016 as a result of a decline in European consumer demand. Using time series, country level data for Egypt for the period 1980 to 2016, the main objective of this paper is to explore factors that give rise to inward FDI flows to the country. The remainder of this paper is as follows: Section 2 gives a detailed review of literature on the determinants of FDI. Section 3 considers financial markets in Egypt, while the methodology and empirical analyses are in Section 4. The paper ends with a brief discussion of the findings in section 5, and conclusion and policy recommendations in section 6.

2   Literature Review

Foreign Direct Investment (FDI) is any international investment made by one economy's resident entity, in the business operations of an entity resident in a different economy, with the intention of establishing a lasting interest (International Monetary Fund (IMF), 1993). Several theories have been put forth

to explain patterns and motives of FDI globally. Lipsey (2004) argued that the macroeconomic view sees FDI as a flow of (foreign) capital across national borders, from home to host countries, measured in balance-of-payments statistics. He further identified macro (country)-level determinants that impact on a host country's ability to attract FDI as being market size, economic growth rate, GDP, infrastructure, natural resources, and institutional factors such as the political stability of the country, amongst others.

The theory of foreign direct investment is based on the principles of international specialisation of production and early work laid by Smith (1776) as cited in Smith (1937) and Ricardo (1817). However, Smith's theory of absolute advantage did not explain how trade arose between countries where one country was not in the business of production. Ricardo's (1817) FDI proposition was based on the theory of comparative advantage. Ricardo's (1817) theory was also flawed because it was based on the assumptions of two countries, two products and perfect factor (labour and capital) mobility, but still did not justify international capital movements (Kindelberger, 1969). Other well-known scholars to theorise FDI include Mundell (1957), Vernon (1966), Casson (1979), Rugman (1980), Calvet (1981), Kojima and Ozawa (1984), and Grosse (1985). It is however Dunning's eclectic paradigm (theory) of international production (Boddewyn, 1983) which to this day is used to explain the underpinnings of FDI.

Dunning's 1977 Eclectic Paradigm postulates that FDI occurs under different scenarios of ownership, locational and internalisation advantages (OLI). According to Dunning (2000), in order for a firm to engage in foreign direct investment, it should possess net, firm-specific ownership advantages over other firms serving particular markets such as trademarks, patents, information and technology. Furthermore, FDI location is influenced by firm behaviour insofar as the motives of its siting is concerned, that is, whether it is resource-seeking, market-seeking, efficiency-seeking or strategic asset seeking. However, the overarching decision is in fact taken on the basis of economic geography which considers country-level characteristics such as its natural resources endowment, availability of labour, local market size, infrastructure and government policy regarding these national resources (Popovici & Calin, 2014). Lastly, it must be more profitable for the firm possessing these ownership advantages to use them for itself (internalisation), rather than to sell or lease them to foreign firms through licensing or management contracts (externalisation).

Several empirical studies have highlighted human capital, degree of openness and inflation as being leading determinants of FDI. Al Nasser and Gomez (2009) tested the influence of financial market development and found a positive relationship between FDI and stock market development, as well as a significant and positive correlation between FDI inflows and credit offered by banks to the

private sector. Later, Zheng (2009) found that inward FDI flows to China and India were influenced by domestic market growth, imports, cost of labour, and political risk. Similar to Zheng's (2009) survey were the findings of Leitao (2010) on Greece using data from 1998–2007, who concluded that trade openness, market size and labour costs were significant FDI determinants. Empirical evidence on Africa shows that the main FDI determinants are infrastructure, trade openness, natural resource endowment, low inflation and efficient legal systems (Anyanwu & Erhijakpor, 2004; Asiedu, 2006; Bokpin, Mensah & Asamoah, 2015). Asiedu (2003) explained that countries with a high unemployment rate may place more value on the employment creation aspect of FDI. Since economies in Africa are characterised by high unemployment rates, FDI in search of minerals and access to the abundant, low cost labour, will have to ensure job creation. Makoni (2017) in exploring the drivers of FDI and FPI in developing African countries, found that FDI inflows are influenced by past inflows of FDI, low inflation, infrastructural development, real GDP growth rate and financial market development.

From the foregoing discussions, it has been ascertained that foreign direct investment contributes to the economies of many developing countries. However, the various channels through which investors enter host countries is largely dependent on location-specific characteristics, which are often at the control of the host governments and policy-makers. With this in mind, we seek to identify the determinants of FDI and the specific role of the domestic financial markets in Egypt. The next section considers the state of financial markets in Egypt.

3 Financial Markets in Egypt

3.1. Stock Markets

Researchers have in recent years provided evidence on the growing and important role of financial market development with regard to economic growth. Some arguments that have been put forth are that financial market development enhances resource allocation efficiency. The financial markets are responsible for reducing liquidity risk, while facilitating risk management on behalf of savers. The same system also offers alternative avenues of investment (portfolio diversification), as well as acting as an information hub for would-be investors (Demirguc-Kunt & Maksimovic, 1996; King & Levine, 1993). As such, according to Allen and Ndikumana (2000), countries which have unsophisticated financial markets offer investors limited investment choices, often resulting in harnessed savings being allocated to unproductive projects.

In Africa, private capital demand is the result of a desire to use technology transfers and abundant low-cost labour. Sovereign capital demand is generated by the need to finance budget deficits and boost infrastructural development. Both

these scenarios provide opportunities for foreign investors to diversify their portfolios by venturing into other financial markets, besides their own. In considering where to place their surplus funds, foreign investors consider such matters as the higher costs of transacting in foreign securities, exchange rate risk, political risk and institutional factors and the failure of purchasing power parity.

The financial landscape in Africa is diverse. However, two main categories of financial markets can be identified, namely, the public equity (stock) market and the private debt (banking sector) market. Stock markets play a very important role in an economy. Roles that have been continually reinforced are the commonly-discussed savings mobilisation, resource allocation, liquidity, risk sharing and portfolio diversification.

The Egyptian Exchange (EGX) is one of the oldest stock markets to be established in the Middle East. Its origins can be traced back to 1883 when the Alexandria Stock Exchange was established, followed by the Cairo Stock Exchange in 1903. The Alexandria Stock Exchange was renowned for its forward cotton contracts, to the extent that up until the 1950s, most of the trading was done with the Liverpool Cotton Exchange; proof of Egypt's strong ties with the British Empire; and also Egypt's own dependency on the cotton crop. When Egypt's economy was booming, the number of listed companies on the Cairo Bourse alone reached 228, with a combined market capitalisation of ninety-one million Egyptian pounds. At one point when taken into consideration together, the Cairo and Alexandria Bourses ranked among the world's top five stock exchanges. As of July 2016, there were 222 listed companies on the EGX, with a turnover of 18.88%, the lowest over the past years. The first ETF on the Egyptian market was traded in 2016. Egypt imposes no restrictions on foreign ownership or investment, and there are also no taxes levied on capital gains, dividends nor repatriated funds, which makes foreign entry and exit simple.

3.2. Bank Credit Market

Domestic credit to the private sector by banks (PCRED) refers to financial resources provided to the private sector by the financial sector including deposit money banks and other depository corporations (deposit-taking corporations except central banks), such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment (World Bank, n.d.). It measures financial intermediary activity and the efficiency of channelling savings to investors, and is considered to be a common investment vehicle in countries where the stock market is under-developed (Ghartey, 2015). A high level of credit to the private sector indicates an abundance of domestic capital, in which case, foreign investment capital (FDI and FPI) would not be necessary (Anyanwu, 2012).

A survey of selected African countries revealed that the average amount of domestic credit to the private sector by banks was below 50% of GDP for the period 1980 to 2014, with the exception of South Africa (108%), Tunisia (62%) and Mauritius (54%). Countries such as Botswana, Nigeria, Cote d'Ivoire and Kenya recorded domestic credit to the private sector by banks below 30% of GDP. This trend of stagnated levels of domestic credit to the private sector by banks portrays the depressed state of alternative financing options for development projects in the selected African countries.

Table 3. Domestic credit to the private sector by banks (PCRED)

	2000–2004 Average	2005–2009 average	2010	2011	2012	2013	2014
BWA	18.50	20.79	27.19	26.84	31.03	31.63	31.88
CIV	13.91	14.40	16.59	17.13	16.70	18.30	20.33
EGY	53.90	49.84	33.07	31.15	29.11	27.82	27.30
KEN	26.18	25.37	27.23	30.57	29.54	31.81	34.42
MAUR	64.04	70.35	87.86	91.42	100.81	108.10	100.24
MORO	44.79	49.97	68.67	71.99	73.40	70.17	70.59
NGA	13.78	18.77	15.42	12.48	11.80	12.59	14.61
RSA	124.52	135.34	148.98	139.54	146.09	149.47	67.22
TUN	60.70	59.98	68.53	76.26	75.93	75.74	71.74

Source: World Development Indicators (2015)

The second banking sector development measurement variable was LIQLI. Liquid liabilities of the financial system (M3) as a ratio of GDP (LIQLI) is an indicator that shows the general size of the banking sector by measuring the sector's realisable obligations, relative to the economy of the country, (Levine, 2002). Ghartey (2015) further added that these are essentially financial resources set aside for investment to boost production for future consumption, and consequently promote economic growth. As was assessed from Table IV, the overall size of the financial system in each of the surveyed economies was measured using liquid liabilities (M3) scaled by GDP. It was found that the largest financial systems were in Egypt, Mauritius and Morocco, respectively, while the smallest were in Nigeria, Cote d'Ivoire and Botswana. Again this confirms that the Egyptian economy is able to sustain itself with just domestic investments.

Table 4. Liquid liabilities of the financial system (LIQLI)

	2000-2004 average	2005-2009 average	2010	2011	2012	2013	2014
BWA	25.97	32.81	43.53	40.36	45.59	46.26	45.95
CIV	22.62	24.42	33.54	41.24	32.16	33.09	33.98
EGY	82.60	85.04	76.62	73.99	81.53	80.22	78.59
KEN	38.22	39.18	45.10	47.37	43.13	43.80	44.09
MAUR	78.41	88.89	96.76	96.43	95.45	96.37	96.70
MORO	75.90	84.16	104.95	109.13	102.11	103.08	103.86
NGA	19.74	22.05	36.49	32.99	31.97	33.85	34.60
RSA	44.96	44.39	41.49	40.23	43.46	43.46	42.91
TUN	57.75	56.54	62.21	67.17	59.85	60.95	61.93

Source: World Development Indicators (2015)

It can hence be concluded that the trends of foreign investments closely mimic the level of banking sector and stock market development, thereby underpinning the relative importance of financial market development in African economies in general.

4 Methodology

This section considers the research data, data sources and model specification of the study. This paper considers determinants of foreign direct investment in Egypt from 1980 to 2016. A regression analysis is used to ascertain the relationship between FDI and selected macroeconomic variables.

4.1. Data and Variables

This paper employed annual financial, economic and institutional quality data drawn from the World Bank's Development Indicators and Kuncic's (2014) databases. Table VIII below summarises the variables used in this study, and where they were also applied in similar studies.

Table 5. Indicators of FDI, FPI and FMD variables

Variable	Indicator	Similar Studies (Sources)
FDI and FPI inflow variables		
FDIGDP	Ratio of net FDI inflows to GDP	Alfaro et al. (2004); Asiedu (2006); Otchere, Soumaré & Yourougou (2015)
FPIGDP	Ratio of net FPI inflows to GDP	Agbloyor et al. (2014); Otchere et al. (2015)
Financial market development variables		
SMCAP	Stock market capitalisation of listed companies as % of GDP	Demirguc-Kunt & Levine (1996); Chinn & Ito (2006); Agbloyor et al. (2013)
SMTVT	Stock market value traded (total value as % of GDP)	Demirguc-Kunt & Levine (1996); Chinn & Ito (2006); Soumaré & Tchana (2015)
PCRED	Domestic credit to the private sector by deposit banks as a share of GDP	Demirguc-Kunt & Levine (1996); Agbloyor et al. (2014); Soumaré & Tchana (2015)
LIQLI	Liquid liabilities of the financial system (M3) divided by GDP	Demirguc-Kunt & Levine (1996); Alfaro et al. (2004); Soumaré & Tchana (2015)
Economic and other control variables		
RGDPG	Real GDP growth rate	Ekeocha, Ekeocha, Victor & Oduh (2012); Otchere et al. (2015)
INFL	% change in GDP deflator	Asiedu (2006); Otchere et al. (2015)
INFRAS	Log(telephone lines per 1,000 people)	Asiedu (2006); Agbloyor et al. (2013)
TRDOPN	Sum of imports and exports to GDP	Allen & Ndikumana (2000); Agbloyor et al. (2013); Otchere et al. (2015)
INTR	The real interest rate as measured by the lending interest rate, adjusted for inflation by the GDP deflator	Agbloyor et al. (2013); Otchere et al. (2015)
NATRES	Total natural resources rent to GDP	Agbloyor, Gyeke-Dako, Kuipo & Abor (2016)
INSTQ	Institutional quality, measured by the average of Kuncic's institutional quality variables	Kuncic (2014)

A times series data set for Egypt as a developing African country for the period 1980 to 2016 was used for our econometric analysis.

4.2. Model Specification

In determining the relationship between the variables of interest, FDI inflows are specified as a function of selected macroeconomic variables.

FDI = *f(FPI, PCRED, SMCAP, SMTVT, LIQLI, TRDOPN, INFRAS, RGDPG, INFL, INTR, NATRES, INSTQ)*

The functional form of FDI highlighted above is specified as a linear function of the selected macroeconomic variables. Thus,

$$FDI_{it} = \alpha_0 FPI_{it} + \alpha_1 RGDPG_{it} + \alpha_2 INTR_{it} + \alpha_3 INFL_{it} + \alpha_4 INFRAS_{it} + \alpha_5 TRDOPN_{it} + \alpha_6 INSTQ_{it} + \alpha_7 NATRES_{it} + \alpha_8 TRDOPN_{it} + \alpha_9 SMCAP_{it} + \alpha_{10} SMTVT_{it} + \alpha_{11} LIQLI_{it} + \alpha_{12} PCRED_{it} + \varepsilon_{it} \ (1)$$

where, *i* denotes country, *t* denotes time, α_0 is a constant term, ε_{it} is a random error term and the other variables are defined as:

FDI_{it} = the inflow of FDI as a percentage of GDP into country *i* for time *t*

FPI_{it} = the inflow FPI inflows as a percentage of GDP into country *i* for time *t*

$RGDPG_{it}$ = the real GDP growth rate

$INTR_{it}$ = the lending interest rate, adjusted for inflation by the GDP deflator

$INFL_{it}$ = the annual rate of inflation

$INFRAS_{it}$ = log of fixed telephone lines per 1000 people of the population

$TRDOPN_{it}$ = the openness index proxied by total trade as a % of GDP

$INSTQ_{it}$ = the measure of legal, political and economic institutional quality

$NATRES_{it}$ = total natural resources scaled by GDP

$SMCAP_{it}$ = stock market capitalisation as a % of GDP

$SMTVT_{it}$ = stock market total value traded as a % of GDP

$LIQLI_{it}$ = liquid liabilities of the financial system (M3) divided by GDP

$PCRED_{it}$ = domestic credit by banks to the private sector as a % of GDP.

Diagnostic tests were applied to the above linear model before it was estimated. To avoid spurious results of the regression analysis, the data were tested for serial

correlation, multicollinearity and heteroskedasticity. The Breusch-Pagan test was used to test for heterokcedasticity. A correlation matrix was used to detect any multicollinearity amongst the variables.

The Ordinary Least Squares (OLS) model was applied on the multiple regression to determine the nature of the relationship between the dependent and independent variables. The next section presents the results of the regression analysis and a discussion of the empirical findings.

4.3. Results

As a preliminary to our econometrics, we ran descriptive statistics for the variables identified. Table VI summarises the descriptive statistics for Egypt for the period 1980 - 2016. The descriptive statistics indicate that the FDI inflows to Egypt as a percentage of GDP were significantly low. The mean of net FDI inflows for the period under review was 2.39% of GDP, with a standard deviation of 2.11. With regard to FPI inflows, the average was 0.02% of GDP, with a standard deviation of 0.51. The minimum FPI as a percentage of GDP was -2.45%, while the maximum was 0.81%. In both cases of international capital flows, FDI and FPI disinvestment is deemed to have occurred in Egypt where the flow values were negative, thereby implying that outflows occurred during that period. The low FPI inflows could be attributed to the regulatory framework governing foreign investments into the country. Stock market capitalization peaked at 106.75, indicating that the domestic financial markets in Egypt are able to sustain the economy without a need to necessarily depend on external funding sources such as FDI.

Table 4. Summary statistics for variables used in the pooled estimation (1980 – 2016)

Variable	Obs	Mean	Std. Dev.	Min	Max
YEAR	37	1998	10.82436	1980	2016
FDIGDP	37	2.391485	2.113088	-.2045323	9.343527
FPIGDP	37	.0208698	.5053239	-2.45166	.813284
PCRED	37	35.19249	11.33044	13.18058	54.93114
SMCAP	37	26.1454	25.15778	4.080647	106.7521
SMTVT	37	9.353066	12.62908	.1712102	44.15637
CCBA	37	68.26444	10.85261	50.59142	82.13815
LIQLI	37	79.0993	6.488059	58.37586	92.03516
TRDOPN	37	52.05704	11.31654	35.325	82.17668
INFRAS	37	69.03045	47.9683	9.358883	157.0041
RGDPG	37	4.688932	2.066811	1.078838	10.01134
GOVSP	37	12.72803	2.473031	10.28571	19.01848
GCFGDP	37	21.54585	5.287532	14.04686	34.91937
INFL	37	10.54832	5.771394	.8699564	31.13814
HUMCA	37	96.86624	13.803	67.32982	114.8487
REXCR	37	3.656928	2.205031	.7000007	7.077609
INTR	37	14.35468	2.325408	11.00833	20.32833
NATRES	37	15.82075	7.942653	4.87787	35.4223
INSTQ	37	.4350013	.0203982	.380764	.4616895

Correlation amongst the identified variables was tested at the 1% level of significance. It was found that the individual financial market variables of stock market capitalization, stock market value traded and liquidity have a positive and highly significant correlation with both foreign direct investment and institutional quality. A highly significant and positive relationship was also established between FDI and trade openness. This is because an investor-friendly policy framework as well as a developed financial system attract foreign investment into the market. High lending interest rates on the other hand were found to shun FDI, as investors would rather borrow in their own home markets which provided lower costs on loans. This was found to be the case in Egypt. These findings in turn reiterate the importance of foreign direct investment in further spurring the development of domestic financial markets, as well as improving government investment policies.

Table 7. Correlation results

	FDIGDP	FPIGDP	PCRED	SMCAP	SMTVT	LIQLI	TRDOPN
FDIGDP	1.0000						
FPIGDP	-0.2859	1.0000					
PCRED	0.1725	0.0028	1.0000				
SMCAP	0.6836*	-0.2650	0.6243*	1.0000			
SMTVT	0.7469*	-0.2406	0.3980	0.8912*	1.0000		
LIQLI	0.4593*	-0.1767	0.4957*	0.6108*	0.5173*	1.0000	
TRDOPN	0.4329*	-0.1656	-0.2841	0.1028	0.1753	0.0045	1.0000
INFRAS	0.3885	-0.1777	0.6878*	0.8563*	0.7932*	0.6235*	-0.0746
RGDPG	0.3797	-0.0288	-0.0575	0.0969	0.1616	-0.2955	0.5135*
INFL	0.0590	-0.1393	-0.5380*	-0.2527	-0.1316	-0.0016	0.0148
INTR	-0.1841	0.0627	-0.4229*	-0.5685*	-0.5844*	-0.0886	0.1682
NATRES	0.4160	-0.1105	-0.3200	0.0204	0.1133	-0.1128	0.8611*
INSTQ	0.3318	-0.0542	0.2631	0.5987*	0.6969*	0.1232	-0.1094

	INFRAS	RGDPG	INFL	INTR	NATRES	INSTQ
INFRAS	1.0000					
RGDPG	-0.1339	1.0000				
INFL	-0.2754	-0.0032	1.0000			
INTR	-0.6622*	-0.0045	0.3979	1.0000		
NATRES	-0.1720	0.5835*	0.1008	0.0201	1.0000	
INSTQ	0.5575*	0.0347	-0.0642	-0.6246*	-0.0429	1.0000

We conducted various diagnostic tests on our data variables. Using the Jacque-Bera normality test, we failed to reject the null hypothesis as our data was found to be normally distributed. We tested our variables for the presence of multicollinearity using the Variance Inflation Factor (VIF). There was no serial correlation between any of our variables as the VIFs were below the 10-point cutoff. Lastly, we examined our data for heteroskedasticity using the Breusch-Pagan test. Again, we failed to reject the null hypothesis as our probability is above 0.05, hence we concluded that our data is free of heteroskedasticity.
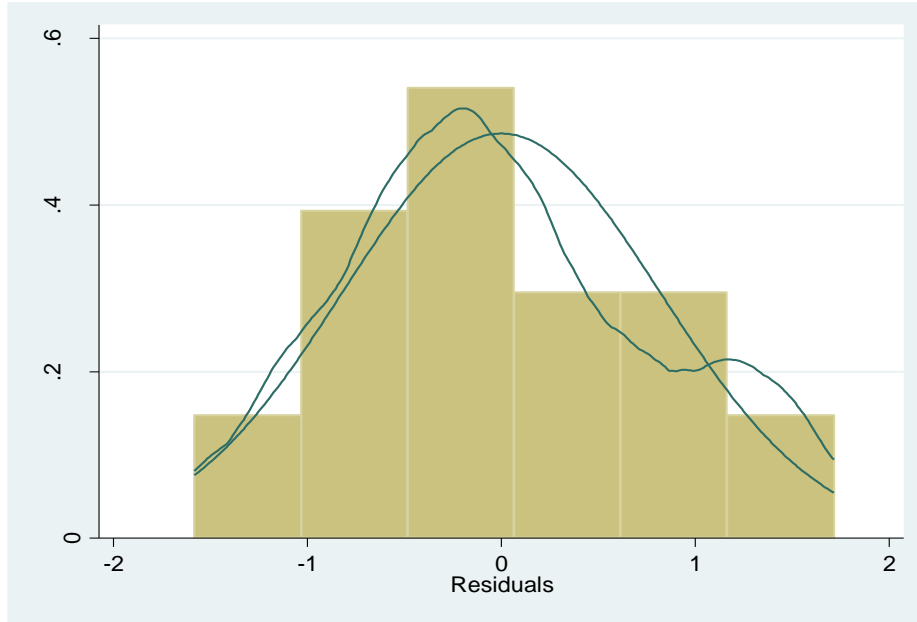
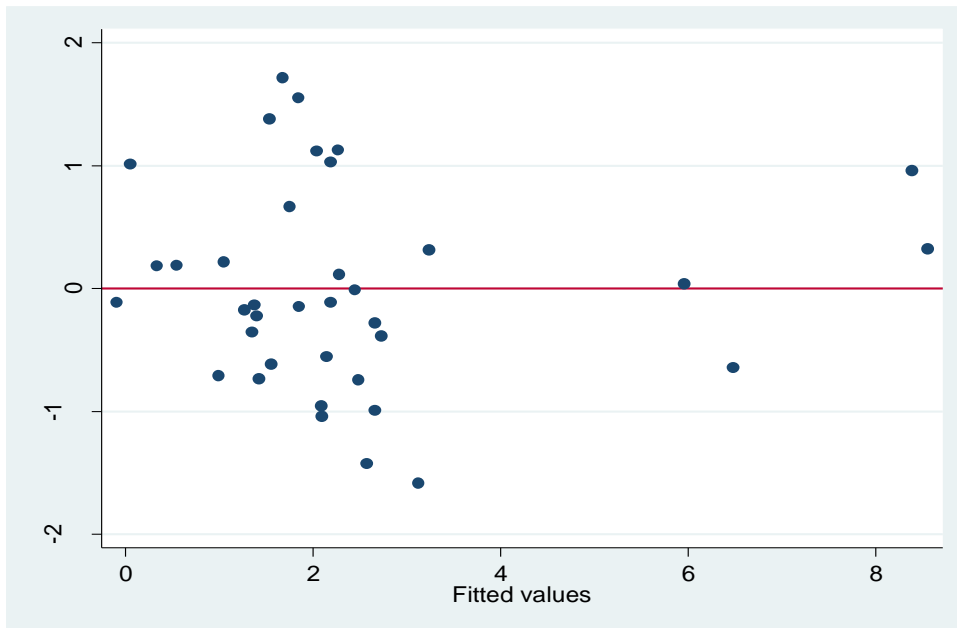**Figure 2. Histogram and normal distribution curve**

Figure 3. Residual-versus-fixed (RVF) plot graph

Using Ordinary Least Squares (OLS) regression, we set out to identify and examine the relationships between FDI and various determining factors in Egypt.

Table 8. OLS results

Source	SS	df	MS			
				Number of obs =		37
				F(12, 24) =		11.25
Model	136.483991	12	11.3736659	Prob > F =		0.0000
Residual	24.2610547	24	1.01087728	R-squared =		0.8491
				Adj R-squared =		0.7736
Total	160.745046	36	4.46514017	Root MSE =		1.0054

FDIGDP	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
FPIGDP	-.0703417	.3657978	-0.19	0.849	-.8253112	.6846278
PCRED	.022535	.036616	0.62	0.544	-.0530368	.0981068
SMCAP	.0417848	.0210605	1.98	0.059	-.001682	.0852515
SMTVT	.1568599	.0426751	3.68	0.001	.0687828	.244937
LIQLI	.0323457	.053625	0.60	0.552	-.0783308	.1430223
TRDOPN	-.0169004	.0450116	-0.38	0.711	-.1097998	.0759989
INFRAS	-.0295527	.0114365	-2.58	0.016	-.0531565	-.0059489
RGDPG	.0206592	.1377161	0.15	0.882	-.2635728	.3048912
INFL	.0405208	.0486971	0.83	0.414	-.0599851	.1410266
INTR	.0787901	.1700477	0.46	0.647	-.2721711	.4297513
NATRES	.0733505	.0598776	1.23	0.232	-.0502307	.1969318
INSTQ	-23.60168	14.68598	-1.61	0.121	-53.91205	6.7087
_cons	6.852585	8.831052	0.78	0.445	-11.37381	25.07898

4.4. Discussion

The results from our OLS estimation for FDI are reported in Table VII above. We find that financial market development proxied by stock market capitalization and stock market value traded are positive and statistically significant in the OLS estimation. Schumpeter (1912), Goldsmith (1969), McKinnon (1973) and Shaw (1973) theoretically advocated that well-functioning financial markets, by reducing transaction costs, facilitated capital allocation to projects that yield the highest returns and therefore enhanced growth rates. Errunza (2001) studied the role of capital markets in economic development, and the relationship between market development and economic growth. By conceptually extending the Shaw-McKinnon framework, Errunza (1974; 1979) argued that as markets develop, specialised institutions and instruments, improved liquidity and further opportunities for diversification would result in increased savings rates and capital accumulation. He reached the conclusion that a well-functioning local market is a pre-condition for attracting foreign investment capital into emerging markets. This confirms the important role played by the presence and sophistication of domestic financial markets in developing countries such as Egypt, as a driver of FDI inflows.

The stock market helps explain FDI because it produces signals that are relevant for firm investors, as well as provides an avenue to raise additional capital for growth and expansion of foreign-owned firms in the future.

Empirically, this finding is in line with earlier studies by Makoni (2017) who studied FDI and FPI determinants in emerging African economies. She found that FDI was spurred by financial market variables of stock market capitalisation and domestic credit to the private sector by banks. Further, Soumaré and Tchana (2015) examined the relationship between FDI and financial market development in 29 emerging market economies from 1994 – 2006, and found that FDI and stock market capitalisation have a simultaneous and positive impact on each other. This means that there exists bi-directional causality between FDI and financial market development. The stock market in Egypt features as a driver in harnessing FDI inflows by playing an efficient intermediary role of allocating excess funds' in the economy to deficient but productive sectors, while at the same time FDI further enhances the size and efficiency of the market. Liquidity and efficiency of financial markets locally are expected to boost the level of FDI inflows. The more developed the domestic financial market, the easier it becomes for multinational corporations (MNCs), which are the transmission agents of foreign capital flows, to grow and further expand their local operations by borrowing/ raising additional capital from the local financial system. Similarly, the more developed the domestic financial markets, the higher the likelihood of attracting foreign investment capital inflows. Earlier empirical studies by Law and Demetriades (2006) confirmed the notion that FMD is enhanced when a country's economy is simultaneously open to both trade and capital flows, as Rajan and Zingales (2003) hypothesised.

Contrary to FDI theory based on the eclectic paradigm, wherein locational advantages such as the presence of natural resources endowment, developed infrastructure and the absence of corrupt business practices, should be major attractions to foreign investors; we find that infrastructural development, natural resource endowment, and institutional quality are negatively related to FDI in Egypt. Generally, it was expected that the higher the quality of infrastructure, the more attractive the host country's potential to foreign investors, particularly those keen on FDI. Natural resource endowment was measured using natural resources rent scaled by GDP, as was applied by Agbloyor, Gyeke-Dako, Kuipo and Abor (2016) and Yilmaz, Tag, Ozkan and Degirmen (2014). According to the UNCTAD (1999), about 60% of Africa's FDI is allocated to oil and natural resource. There was expectation of a positive relationship between FDI and infrastructural quality, and FDI and natural resource endowment, respectively; however our study found this to not apply in the case of Egypt. This may be because of other factors such as financial market development which are stronger drivers of FDI in the country. Lastly, institutional quality is a complex explanatory variable which considers legal, political and economic institutional quality. These three forms of institutions

have a bearing on the decisions made by international investors in that they give an indication of the political stability of the country, and other such factors as expropriation risk, enforcement of contracts, respect for property rights, among others. The higher the institutional quality, the more attractive the country will be to foreign direct and foreign portfolio investors. A country's institutional strength plays a big role in the FDI game. Government fitness requires the adoption of protective regulation to manage market fitness. Popovici and Calin (2014) added that Government fitness is considered to include economic openness, a low degree of trade and exchange rate intervention, low corruption and greater transparency. If policies are hostile and unfavourable towards investors, MNCs will shy away from such countries as the political instability increases the risk burden on their investments. (Wilhelms & Witter, 1998).

Empirically, our findings go against those of Anyanwu and Erhijakpor (2004) who observed that infrastructure and trade openness had a positive influence on FDI inflows; while credit to the private sector, export processing zones and capital gains tax in fact shunned FDI away from Africa. Asiedu (2006) also examined determinants of FDI to Africa, and found that natural resource endowment, good infrastructure, low inflation and efficient legal systems attract FDI to Africa, while corruption and political instability have a negative impact. It was expected that with the recent discoveries and increased interest in gas and oil reserves, as well as alternative energy developments, a liberalized exchange rate regime and a supportive policy environment in Egypt; these three variables would positively and significantly influence FDI inflows.

5 Conclusion and Policy Recommendations

The aim of this paper was to identify key drivers of FDI to Egypt. The study confirmed that individual financial market variables responsible for the driving inward FDI flows were stock market capitalization, stock market total value traded as well as domestic credit to the private sector by banks and liquidity. Law and Habibullah (2009) affirmed that well-functioning financial markets and financial institutions should be a policy priority for governments. It is thus recommended that the Egyptian government formulates investment policies which will open up trade with other countries, as well as diversify and develop their other economic sectors such as manufacturing, real estate, tourism and even financial services, which in the long-run contribute to macro-economic policy goals, while moving away from their dependence on natural resources alone. Also, there is a growing need to enhance the attraction of domestic financial markets by improving instrument offerings so as to attract increased levels of FDI inflows.

On the other hand, and contrary to theoretical and empirical evidence, we found that FDI to Egypt was deterred by low institutional quality, infrastructural development and natural resource endowment. Our negative findings were unexpected because Egypt already has in place exemplary investment policies which serve the interests of foreign investors to the country. Such policies include the provision of guarantees against expropriation and nationalisation; the right to own land, the right to maintain foreign currency back accounts, freedom from administrative attachment, the right to repatriate capital and profits, and equal treatment regardless of nationality (Alessandrini, 2000).

We conclude that the advance development of the stock market and banking sector in Egypt is a step in the right direction for the country, and should be sustained. The poor performance of FDI to Egypt can be overcome by further removing all barriers to trade, further developing the financial markets, reducing the level of corruption and political instability, improving the policy environment and building stronger institutions. Financial market development could be further supported by a positive policy environment to ensure an increased inflow of FDI which would enable the country to grow its GDP.

There is scope for further research looking at identifying the long-run relationships and directions of causality between FDI and its various determinants, particularly financial market development factors in different emerging countries.

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