THE IMPACT OF REGIONAL INTEGRATION ON FOREIGN DIRECT INVESTMENT: THE CASE OF SUB-SAHARAN AFRICA

Bagratee D & Seetanah B

University of Mauritius

ABSTRACT

The main purpose of this study is to study the impact of Regional Integration on the attractiveness of Foreign Direct Investment in Sub-Saharan African countries. This investigation was carried out using a panel data analysis, over a sample of 30 countries for a time-period of 23 years, from 1996 to 2018. To account for the modelling of dynamics and to establish the short-run and long-run relationships between Foreign Direct Investment, the Unrestricted Vector Autoregressive model was employed. The overall analysis indicates that investors are generally more attracted to Sub-Saharan African countries by virtue of other factors, rather than the extent of regionalization in the region. These factors are broadly the level of economic growth, the market size, the level of political stability and the level of trade openness of the countries. It can also be inferred from this study that the most influencing factor in attracting Foreign Direct Investment relates to the level of openness displayed by the countries.

Keywords: *Foreign Direct Investment, Regional Integration, Dynamic Panel data Analysis.*

1.0 Introduction

The International Monetary Fund (IMF, 1993) defines Foreign Direct Investment (FDI) as a long-term relationship that enhances the flow of capital and other resources across national borders. FDI has been resilient during financial crises, leading it to become the preferred source of capital of countries, especially developing and least-developed countries (LDCs) (Loungani and Razin, 2001). Through the transfer of technology, skills, financial and human capital, FDI has led several of these countries to enhance their economic development and transition to more developed economies. Nevertheless, Africa, despite its luscious endowment of resources, its large size and population, has been struggling to keep up its levels of activities and investment globally. The Sub-Saharan African (SSA) region is deemed to be the most developing African area, whereby the United Nations Conference on Trade and Development (UNCTAD) defines most African countries being small LDCs. Low per capita densities of rail and road transport arising from poor cross-

country connections add up to the already high transaction costs, therefore discouraging investment and trade. The lacklustre infrastructure, low-skilled workforce, unstable political regimes and poor legal systems further contribute to the costs of doing business.

African leaders have sought to integrate the disperse nations, including both developing and LDCs, into regional blocs to remedy the lack of FDI attractiveness in the region. To this effect, Regional Trade Agreements (RTAs), referring to a treaty signed by two or more countries, primarily in a view to encourage the free movement of goods and services between member states, have been drafted and signed. The growing importance of investment over the decades has led regional blocs to incorporate investment terms in their treaties. For instance, the South African Development Community (SADC) provides for the Regional Action Programme on Investment (RAPI), which is considered to be one of the most substantial investment-reform pillars in the SSA region (UNCTAD, 2016). However, despite being increasingly integrated, Africa has still been experiencing sluggish growths in FDI inflows and projects, and struggle to retain existing investment. The World Investment Report 2019 states that despite being second-largest continent filled with luscious resources, Africa's FDI inflows constituted of only 3% of global FDI flows in 2018. These alarming statistics therefore put the effectiveness of regional integration to question, and this study focuses on whether the involvement of SSA countries has actually influenced their attractiveness with regards to foreign investment

Indeed, FDI induces growth and development, and has played a crucial role in the development of the global economies, as well as the SSA region, which is the world's most struggling developing region. Most of the SSA economies are LDCs, and struggle to attract FDI, and to this effect, the integration of these economies has been sought to enable them to attract cross-border investments, and retain them. Nevertheless, despite the establishment of RTAs, SSA countries have not been able to attract FDI, with them falling way behind their Asian and Latin-American counterparts. Therefore, impediments are being placed on these countries' abilities to develop further and achieve economic growth, eradicate poverty and improve the overall standard of living in the region. This raises the essentiality for African governments to review their participation in RTAs, and alter provisions such that the needs of each specific country are catered for, thereby encouraging development and hence, FDI. Moreover, countries should be encouraged to focus on improving their own country-specific factors, that may be hindering FDI attraction, and hence boost FDI attractiveness.

The purpose of this study is to analyze whether the participation of SSA countries in regional integration effectively boosts their attractiveness to cross-border investment. Given regional-integration is a dynamic phenomenon which influences economies in various ways, other

macroeconomic factors will be incorporated into the model to provide for a stronger basis, as well as to investigate their significance in attracting FDI for SSA states.

For this study, a sample of 30 SSA countries will be considered, over the period ranging from 1996 to 2018. FDI shall be the dependent variable, and regional integration, proxied by a dummy variable, will be the main independent variable. The level of economic growth, political stability, trade openness and market size shall act as the control variables of the study, whose impacts on FDI shall be considered in-depth. To investigate the relationship between the RTA and FDI, the research makes use of a dynamic panel analysis (namely a GMM) as well as an unrestricted Panel Vector-Autoregressive (VaR) framework, which also accounts for the possibility of dynamism and endogenous relationship in the RTA-FDI nexus.

The rest of the paper is organized as follows: section 2 provides a review of the related literature surrounding regional integration and FDI, section 3 dwells into an overview on regional integration and FDI in the SSA region, section 4 elaborates on the methodology as well as discusses the results from the analysis and section 5 concludes.

Related Literature

RTA and FDI: Theoretical Underpinnings

Prior to the 2000s, two main theories defined the concept of MNCs. Markusen (1984) presents the theory of horizontal multinational corporations, and states that one of the major reasons for setting up plants in foreign lands relates to the elimination of trade restrictions. In contrast, the theory of vertical multinational corporations presented by Helpman (1984) asserts that firms may opt to produce across borders solely to exploit comparative gains, other factors unconsidered. Nonetheless, given the limitations of these theories, Carr, Markusen, & Maskus (2001) combined them into the knowledge-based capital model to better describe the behavior of MNCs as being complex integrated structures, acting beyond the restrictive nature of the horizontal and vertical integration theories. This new model was also adopted by Helpman, Melitz, and Yeaple (2004) who state that contrary to the previous theories- the complex form of MNCs allows production, as well as export platforms, to be set up in the host countries to serve consumers. Other models of MNCs exist, each with their own characteristic (see Bartlett and Beamish , 2014).

Numerous authors have advocated the favorable impacts that the implementation of RTAs has on the FDI of a country. Regional integration reinforced ties between different nations by bringing together countries and people around the world. Hence, with closer relationships founded, chances of inter-country discriminatory behaviour are mitigated, thus boosting investors' confidence.

Evidence for this assumption can be based on the communique issued by the Office of the United States Trade Representatives, stating that the North American Free Trade Area (NAFTA) substantially benefitted the United States of America (U.S.A) and other partnering countries, in that investment flows in the U.S.A rose by 107% from 1993 to 2007, vis-à-vis a 45% increase between 1980 and 1993.

Nevertheless, some authors, such as Blomström and Kokko (1997), Jordaan (2004) and Sichei and Kinyondo (2012), insist on the negative relationship that exists between regional integration and FDI arising in specific circumstances. To this effect, it is argued that it is insufficient to model bilateral FDI based solely on bilateral determinants, since other potential host countries, characterized by different conditions, should also be taken into consideration. If certain conditions in host country are not fulfilled, efficiency spillovers might not occur, thereby restricting the absorption capacities of the host economy. Therefore, this part of the literature review shall not pile up the literature already surrounding the determinants of FDI, but instead focus on the different links that exist between Regional Integration and FDI.

The implementation of RTAs entails the necessary eradication of barriers, causing trade and investment to be more open between countries. As such, FDI inflows shall be influenced, as per the early literature by Blomström and Kokko (1997), who state that FDI is attracted more to RTA-protected markets, whereby investors shall prefer to set up subsidiaries rather than pay substantial sums in export tariffs; a practice defined as “Tariff-Jumping FDI”. This practice specifically applies to market-seeking investment, whereby a more restricted market is favorable since the MNC may find it difficult to export to that country owing to trade restrictions. In contrast, MNCs engaged in export-oriented activities may opt for a more open market to invest due to the fact that higher trade protection in closed markets may entail higher transaction costs related to exporting (Jordaan, 2004). Nevertheless, Dunning (1997) contends that while lower openness may attract extra-investment from non-member countries, intra-investment may be discouraged owing to the already lowered barriers.

Nevertheless, other theories have been drawn up, such as per the Heckscher-Ohlin’s theory of factor endowment, which states that trade and investment stimulation can be viewed as being complements or substitutes depending on the difference in factor endowment, as well as the type of investment. Authors such as Edwards (1990), Straathof et al. (2008) and Xaypanya et al. (2015) showed how involvement in RTAs led to greater increments in FDI than in trade owing to alterations in countries’ level of openness. Likewise, Bruno et al. (2016) considered the bilateral FDI flows of 34 OECD countries and proved that enhanced economic openness stemming up from their European Union (EU) membership lead to an increase in FDI flows from 14% in 1985 to 38% in

2013. Nevertheless, Parletun (2008) found a weak negative relationship between FDI and openness, which is backed by the study of Baltagi et al. (2007) who emphasize on the importance of remoteness of host countries to other markets on the attraction of FDI. Therefore, the impact of openness on FDI through regional integration may be positive or negative, and shall depend primarily on the type of investment sought for (Overseas Development Institute, London).

Empirical Review

The study by Blomström and Kokko (1997) still remains one of the most significant studies to explain the influence of RTAs on FDI in a country. They conducted their study on three scenarios, and concluded that the Free Trade Agreement (FTA) between the U.S.A and Canada entailed a negative impact upon bilateral FDI; reducing intra-regional FDI between these two countries. However, the FTA between these two countries did influence the extra-regional FDI (from third-countries) in Canada. Likewise, they showed how the inclusion of Mexico in the NAFTA entailed an upsurge of extra-regional FDI into the country, as well as how MERCOSUR has triggered extra-regional FDI into member countries of the trading bloc. Therefore, they concluded that the RTA-triggered environmental change, locational advantages as well competition in the host countries determined their FDI attractiveness, rather than solely the implementation of a RTA.

Yeyati, Stein and Daude (2002) subsequently conducted a study based on the Least Squares dummy variable panel regression model with time effects on OECD countries, and assessed the impact of RTAs on member states. They argued that generalizing the effects of regional integration on FDI to be positive is inappropriate due to the different modes of FDI; horizontal, local-market seeking, or low-cost seeking FDI. Some of these may benefit, as well as exploit, the nations. Likewise, Velde and Bezemer (2004) concluded a significantly positive relationship between RTAs and bilateral FDI, and further assert that investment-related provisions in RTAs indeed play a crucial role in determining the significance of FDI.

Medvedev (2006) used a broad sample of Preferential Trade Agreements (PTAs) and 143 countries within the years 1980-2003 and applied estimation methods coherent to panel-level heteroscedasticity and autocorrelation. The study concluded that RTAs and market size, coupled with geographical proximity to host countries, indeed influenced FDI significantly. Kubny et al. (2008) also agrees that emerging RTAs constituted an important stimulus to FDI but that country specific factors were more significant in explaining the FDI inflows.

Baltagi, Egger, and Pfaffermayr (2008) agreed that multinationals held a wide proportion of trade and investment within developed countries, engaged in the most significant RTAs. Nevertheless, they questioned the impact of these RTAs on FDI, considering a highly interdependent world.

Hence, they attempted to analyze the effect of European trade agreements on FDI, using the spatial HAC estimator of variance-covariance matrix developed by Kelejian and Prucha (2007). They concluded that FDI was redirected from Western European countries to Eastern European countries, primarily due to the European agreements established. Additionally, favorable policy making in RTAs ensued strong links between trade and FDI.

The majority of these studies were during these times when RTAs were not as widespread as they are nowadays. As more RTAs were implemented, nations engaged themselves increasingly in globalization. Thereof, studies conducted on the modern trade liberalization concluded significant increases in FDI flows due to regional integration (Kreinin and Plummer, 2008; Kawai and Naknoi, 2015). Hoang and Bui (2015) made use of panel data to analyze the extent of FDI inflows into Association of Southeast Asian Nations (ASEAN) countries from 1991 to 2009. They concluded RTA alongside market size and trade openness are among the most crucial macroeconomic factors to significantly influence a country's FDI inflows.

It is noteworthy that few could not establish any positively link between RTAs and FDI, for instance Azam and Lukman (2010) studied FDI inflows into three countries; India, Pakistan and Indonesia, from 1971 to 2005. By use of the Log-Linear regression model for each country, they concluded that market size, external debt, trade openness considerably impacted on FDI attractiveness. It was then held that solely the membership of trade agreements shall not attract FDI inflows as much as expected unless proper measures are taken to ascertain political and economic stability, law and order, as well as market potential.

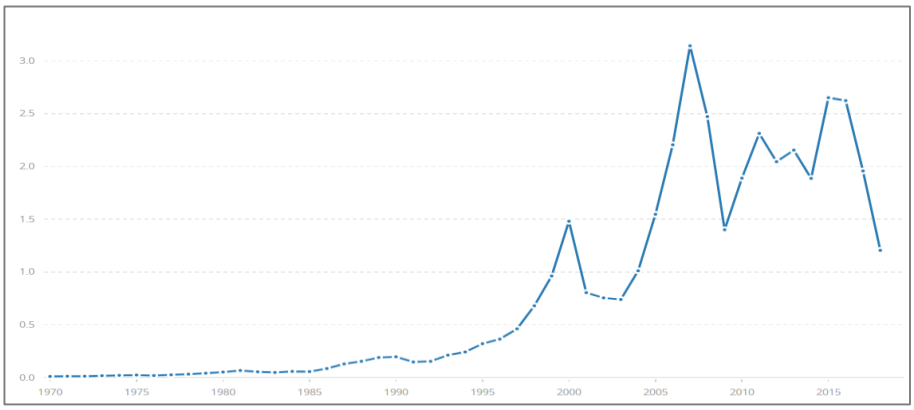
More recently, Delevic and Heim (2017) employed a 13-years panel dataset and questioned the viability of the EU integration for transition economies, ultimately concluding no significant relationship between FDI inflows and EU membership. The study showed certain transition economies failed in boosting their FDI inflows despite their EU-membership. Nevertheless, the authors affirmed that benefits attributed to RTA-members should not go unnoticed, despite not being significant in attracting FDI. As such, Cherif and Dreger (2018) investigated the impact of South-South trade agreements on the decision making of multinationals, relating to their foreign investments. They studied three panels of countries vis-à-vis the MERCOSUR and the ASEAN free trade area, whereby Non-Gulf Arab nations were contrasted to Latin-American and European countries. Their analysis proved that RTAs were significant in attracting FDI in the case of emerging markets, but other factors such as the extent of development of the industrial sector, the

urbanization rates as well as the external indebtedness of the countries were found to be highly crucial.

3. Overview of FDI and Intra-regional FDI in Africa

FDI in Africa

FDI is regarded as being a significant source of capital for most countries, it being linked with the transfer of technology, growth, employment, infrastructure and higher standard of living. The unrelenting widespread of globalization over the last decades has led to massive upsurges in FDI flows, with the overall global net FDI-inflow increasing considerably from US$ 10.172 Billion in 1970 to a staggering US$ 1.205 Trillion in 2018.

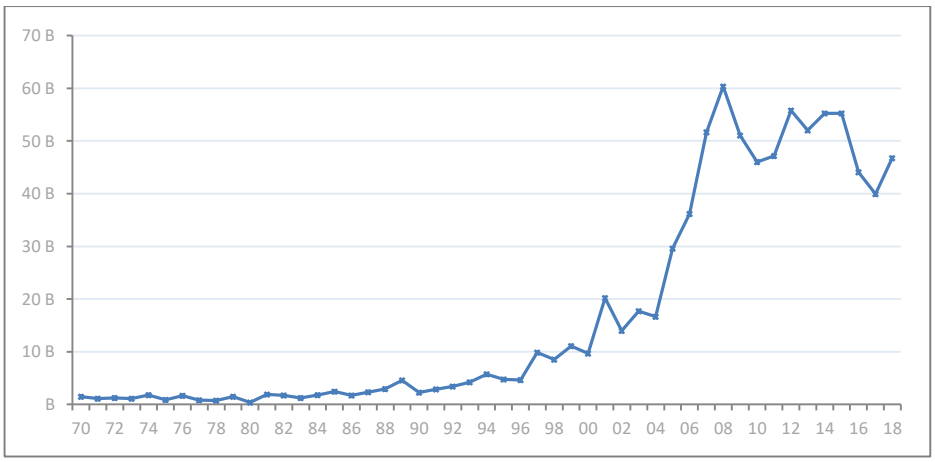


Source: World Bank Database

Figure 1 : Net FDI Inflows (World) from 1970 to 2018 (Expressed in US$ Tn)

In 2018, developed economies recorded their lowest FDI flows ever since 2004, falling by a striking rate of 27%. The dynamic activities of cross-border merger and acquisition deals (increasing by 27% in value) over the decades failed to compensate for the massive FDI outflows in the U.S.A following the imposition of unfavorable tax reforms. As for developing countries, stable FDI flows, rising by 2% from 2017 to 2018, were recorded. Global investors became wary of the innumerable risks involved in investing in European and American countries, previously-termed “safe-havens”. Therefore, it presents an opportunity for struggling SSA countries to boost their FDI flows, be it market-seeking, the resource-seeking or the efficiency-seeking FDI.

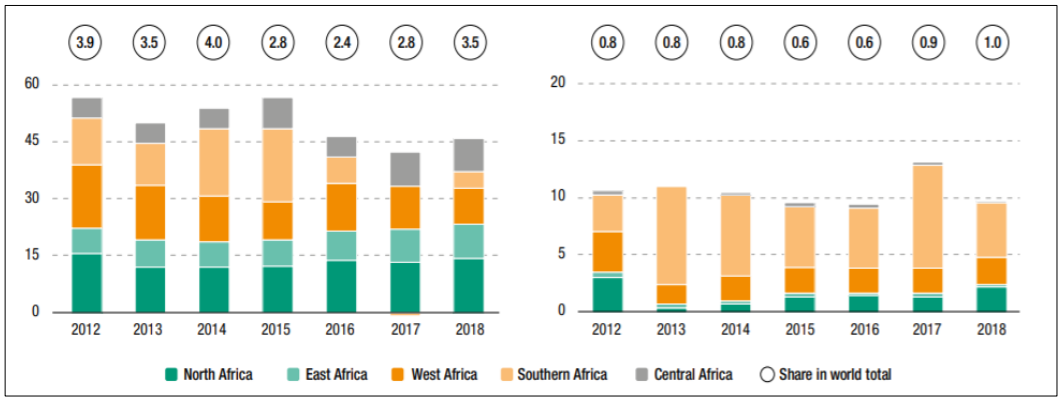
In 2018, despite a global downwards trend of FDI flows, Africa managed to increase its FDI flows to US$ 46 Billion, denoting an 11% rise after two consecutive years of decline, with the trend shown as follows.



Source: World Bank Database

Figure 2 : African Net FDI Inflows from 1970 to 2018 (Expressed in US$ Bn)

Major economies, such as Nigeria and Ethiopia, were among the underperformers, while other economies like South-Africa, whose resource-seeking FDI flows significantly contributed to the 13% increase in FDI flows recorded in SSA, is seen to help offset the underperformance of other economies. The top five African economies contributing to the increase of FDI flows in Africa are Egypt (US$6.8bn), South Africa (US$5.3bn), Congo (US$4.3bn), Morocco (US$3.6bn) and Ethiopia (US$3.3bn). Furthermore, the top three investors contributing heavily to the FDI inflows of African countries are France (US$ 64bn), the Netherlands (US$ 63bn) and the U.S.A (US$ 50bn). The apportionment of FDI inflows and outflows by African region can be shown as follows.

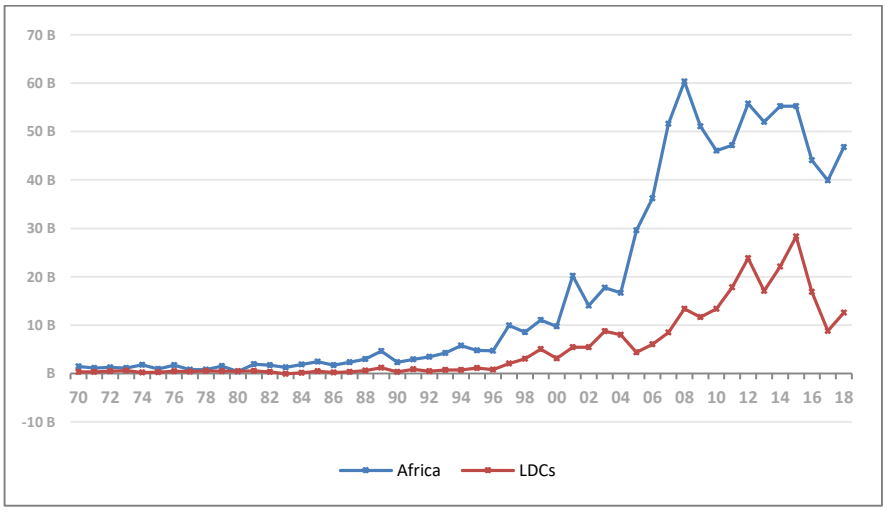


Source: World Investment Report 2019 (UNCTAD)

Figure 3 : FDI Inflows (Left) and FDI Outflows (Right) for African Countries (US$ Bn)

Nevertheless, it can be seen that the lower-developing countries from our sample still face, to this date, numerous constraints in terms of their derisory infrastructure, limited market size and their insufficient access to capital and funds to advance the development of the economies. However, since these countries are well-endowed in terms of natural resources such as gas and oils, they

are considered as a popular destination for investment in these sectors. Hence, the inflows of FDI, coupled with international financial aid, are the primary sustainers of growth in these economies. Given their lacklustre self-reliance, these nations are supported by international economic organisations, such as the IMF and the World Bank, as well as the regional groups they belong in (OECD, 2017). The FDI inflows of LDCs in our sample vis-à-vis the overall African FDI flows can be seen below.



Source: World Bank Database

Figure 4 : Net FDI Inflows of Africa and African LDCs

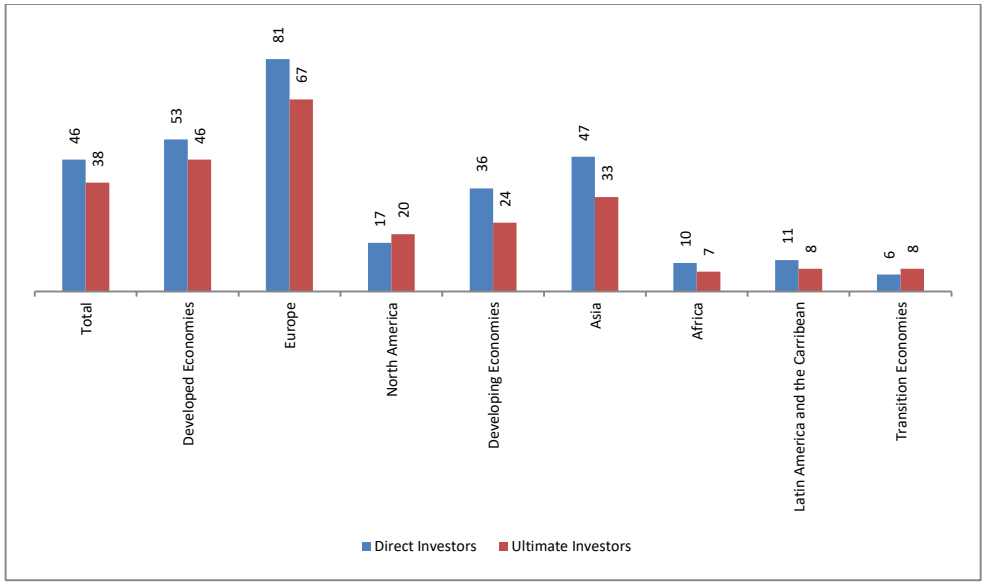
The attractiveness of SSA countries for their natural resources therefore explains the bulk of FDI flows towards the African primary sector. Egypt, for instance, attracted investment from MNCs like British Petroleum, after discovering offshore gas reserves in the country and becoming a major exporter of gas in January 2019. Such forms of investment can also be seen in Uganda, with massive development of oil fields by MNCS such as Total (France), CNOOC (China) and Tullow Oil (United Kingdom). The fact that the bulk of investment in Africa is skewed towards the primary sector and less towards the secondary sector can be evidenced by statistics, which state that investment in manufacturing in Africa in 2017 was only 25%, compared to its developing counterparts Asia and Latin America, recording 52% and 45% of investment respectively.

However, given the exhaustibility of primary resources, investment and growth in primary sector is rendered unsustainable, as compared to the secondary sector. This has led to an eventual and steady development of the African secondary and tertiary sectors, so as to reduce the strain on its primary sector. Morocco for instance, recorded an increase of 36% in FDI flows, coming from investments in finance, renewable energy, the automotive industry and infrastructure, which are further enhanced by its economic stability and diversity. Other economies such as Kenya, are following suit, by constantly improving their “Ease of Doing Business” ranking and their Export

Processing Zones (EPZs). Such developments have led to Egypt attracting US$1.6 Billion in investment (increase of 27% from 2017), with the bulk of the investment skewed towards the manufacturing and hospitality sectors.

Intraregional FDI in Africa

Theoretically, almost half of the FDI inflows of most countries in the same geographical region should comprise of cross-border investment. Africa registered a low percentage of its intra-regional FDI in 2017, accounting for a share of only 10%, vis-à-vis the Latin America and the Caribbean, recording an 11% share in 2017. Such meagre performance in terms of intra-regional investment in the African territories signify that these regions have significant potential to exploit their regional trade and investment links, but to the exception of some, these countries are constrained by their lack of necessitated factors, such as technical knowledge, good infrastructure, good level of education, amongst others.



Source: World Investment Report 2019 (UNCTAD)

Figure 5: Intra-regional investment, Bilateral Inward flows (2017)

Trade blocs play a crucial role in the integration of nations. This can be seen, from the investment perspective, in the African context. The Common Market for Eastern and Southern Africa (COMESA) is one of the largest regional groups in Africa, and attracts investment from numerous sources, ranging from globally to within the COMESA group, and other African regional blocs such as SADC and East African Community (EAC), as shown in figure 7 below.

Source Country/Region and Period Average FDI Inflows, US$ Million					
Destination Country	**Period Covered**	**COMESA**	**EAC/SADC**	**South Africa**	**Rest of Africa**
Burundi	2013 - 2014	14.1	0.4	0.2	2.2
Egypt	2007-2017	22	202.2		3.1
Kenya	2007-2015	22.6	19	158.7	8.4
Madagascar	2007-2014	147.8		0.5	12
Malawai	2010	19.7	10	20	
Mauritius	2007-2017			50.1	18.7
Rwanda	2010-2015	65.9	9.5	32.7	4.8
Eswatini	2007-2011			34.8	
Uganda	2000-2016	55.1		21.2	7.1
Zambia	2007-2017	23.4	4.3	136.9	19.3
Zimbabwe	2012-2015	8.5	4.1	8.1	6.8

Source: COMESA Statistics Unit (COMESA Investment Report)

Figure 6: Average FDI Inflows - COMESA (US$ Millions)

As per the table above, it can be seen that South Africa is a significant intraregional investor, with an average of US$ 158.7 million being invested in Kenya, followed by US$ 136.9 million injected in Zambia over the respective periods. From COMESA as a whole, Madagascar gained massive investment from member countries, with an average of US$ 147.8 million being invested from 2007 to 2014. As for investment from other regional blocs, investment can be said to be rather significant in countries such as Egypt, attracting an average of US$202.2 million from SADC and EAC countries combined. This indicates how investment effectively increases by being part of regional blocs. However, LDCs, such as Burundi, are found to be recipients of meagre FDI flows.

The SADC Secretariat[1] asserts that membership in regional trading blocs contributes to the attraction of FDI in African nations. The SADC has put forward numerous policies so as to improve the investment and business environment in the region, including the UNCTAD-accredited Regional Action Programme on Investment (RAPI) and the SADC Model Double Taxation Avoidance Agreement (DTAA), which assists members in negotiating tax agreements essential for investment. Investment in the SSA has further been improved through the implementation of an Investment Policy Framework (IPF), which acts as a guide for countries to develop their National Action Plans for Investment (NAPI), which in turn aims to ensure a proper environment to facilitate investment from abroad. Countries like Botswana, Malawi and Zambia have adequately implemented these measures and successfully boosted their attractiveness to FDI.

The EAC Vision 2050 is considered to be one of the most substantive pillars of the bloc, aiming at the promotion of economic growth and FDI in member states. The EAC-Secretariat has a vision to

[1] Represented by Mario Lionel, Senior Programme Officer for the SADC Secretariat.

create a single customs system, to facilitate trade and investment in its member states. To this effect, the Single Customs Territory (SCT) was consolidated, which may or may not have contributed heavily in the attraction of FDI.

Partner State	Source	2013		2014		2015		2016		2017	
		Projects	Values	Projects	Values	Projects	Values	Projects	Values	Projects	Values
Burundi	Intra-EAC	11	31	2	1.4	0	0	39	2.6	0	0
	Rest of World	11	37.7	8	149.6	1	1.8	77	12	10	65.1
	Total	22	68.7	10	151	1	1.8	116	14.6	10	65.1
Kenya	Intra-EAC	2	66.5	2	0.9	15	132.1	7	5.7	2	25.3
	Rest of World	61	857.7	122	873.2	236	2055	225	1814.5	192	692.4
	Total	63	924.2	124	874.1	251	2187.1	232	1820.2	194	717.7
Rwanda	Intra-EAC	10	12.6	7	26.2	9	30.5	10	120.2	10	66.6
	Rest of World	51	632.3	104	495	73	815.1	38	479.9	79	1081.2
	Total	61	644.9	111	521.2	82	845.6	48	600.1	89	1147.8
Tanzania	Intra-EAC	28	58.8	37	104.1	20	55.3	8	5.5	25	33.8
	Rest of World	276	2783.6	386	5398.8	285	3394.4	126	3563.3	226	3284.7
	Total	304	2842.4	423	5502.9	305	3449.7	134	3568.8	251	3318.5
Uganda	Intra-EAC	19	67.8	20	75.1	13	19.8	27	120.1	27	71.3
	Rest of World	322	1248.5	399	2041	232	496.9	287	699.5	234	843.9
	Total	341	1316.3	419	2116.1	245	516.7	314	819.6	261	915.2

Source: EAC Trade and Investment Report 2017

Figure 7: Intra-EAC Investment Flows

The performance of the EAC in relation to the investment flows into and out of member states can be seen in the above figure (further detailed in Appendix 4). A drop in the total intra-group investment by an aggregate of 22.3% can be seen as at 2017, with intra-investment being significant in countries such as Rwanda, Tanzania and Uganda, reaping totals of US$ 66.6 million, US$ 33.8 million and US$ 71.3 million respectively during the same period. Such investment was in part due to the intensified integration proposed by the regional blocs. On the other hand, Burundi did not receive any form of investment from any member state, but nevertheless, was subject to receipts of significant investment from outside EAC, with the highest investment received from Belgium of US$35.8 million. The participation of Burundi was slow within the group, but its inclusion in the EAC led it to be more accessible to outside investors, for instance, Russia, India and Oman.

4. Methodology and Analysis

Despite innumerable attempts to integrate the different nations of Africa to boost investment, the continent still lags behind globally in terms of investment flows. A number of studies, such as by Buthe (2008) and MacDermott (2007) have shown how regional integration entails significant increments in FDI, while others conclude a negative relationship under particular circumstances, such as Medvedev (2006), Baltagi et al. (2007) and Sichei and Kinyondo (2012). This paper shall therefore aim to analyze the impact of regional integration on FDI, as well as provide insights over other macroeconomic determinants of FDI in the selected regions.

Model Specification

Previous studies, such as by Jaumotte (2004) and Chandran (2018) amongst others, on the relationship between regional integration and FDI have used the panel data regression model for the purpose of their analysis. The Panel data analysis is found to be the most appropriate since it allows for the consideration of two dimensions, and provide for a more accurate analysis. Moreover, authors like Jaibal and Shenai (2019) amongst others found that the mentioned relationship cannot be directly inferred, but can instead be studied through different links. These factors (links) influencing FDI are integrated in our study, as being controlled variables. Our variables are therefore modelled as follows:

$$FDI_{it} = \beta_0 + \beta_1 GDPPC_{it} + \beta_2 POP_{it} + \beta_3 COR_{it} + \beta_4 OPEN_{it} + \beta_5 RTA_{it} + \varepsilon_{it} \qquad eq.01$$

Whereby:
- FDI_{it} = FDI inflows in country *i* at time *t,* expressed as a percentage to GDP
- $GDPPC_{it}$ = GDP Per Capita in country *i* at time *t*
- POP_{it} = Population in country *i* at time *t*
- COR_{it} = Control of Corruption in country *i* at time *t*
- $OPEN_{it}$ = Openness in country *i* at time *t*
- RTA_{it} = Number of RTAs signed by country *i* at time *t*

The abovementioned equation is similar to the one adopted by Medvedev (2006) and Easterly (2009) in their papers. Since non-linear relationships may emanate from the relationships between the independent and dependent variables, a natural logarithm is applied to reduce the probability of it happening, as well as to turn exponential trends into linear ones which is more appropriate for our model. *Eq.01* is converted as follows, with the logged-values of variables expressed in lowercase.

$$fdi_{it} = \beta_0 + \beta_6 gdppc_{it} + \beta_7 pop_{it} + \beta_8 cor_{it} + \beta_9 open_{it} + \beta_{10} RTA_{it} + \varepsilon_{it} \qquad eq.02$$

It is to be noted that an estimation problem may arise in applying log to our dependent variable, FDI, as well as COR, since numerous observations may bear the values of zero or be negative. The treatment of zero-trades (Eichengreen and Irwin, 1995) is therefore applied whereby an arbitrary value was added to the whole dataset of FDI (value+10) and COR (value + 2). This protocol was adopted from the paper of Stein and Daude (2007) and Chandran (2018).

Measurement of Variables

In this study, Foreign Direct Investment is considered to be the dependent variable, and is proxied by the net FDI inflows of a country expressed as a percentage of its GDP (FDI/GDP), as per studies by Buthe (2008) and Vijay Shenai (2019). It represents the net investment, comprising of equity capital, the reinvestment of earnings, as well as other short and long-term capital as accounted for in the balance of payments, made by in a particular country after accounting for both investment and disinvestment by foreigners.

Our regional integration variable relates to the participation of countries in regional integration. Numerous authors, namely Sachs (1995) and Büthe (2008), among others, have advocated the use of the cumulative number of trade agreements in which countries engage themselves. A dummy is therefore created, with membership in a regional bloc yielding a value of 1, while non-membership yielding a value of 0. Regional trade blocs considered are: COMESA, SADC, EAC, SACU and ECOWAS.

Trade agreements generally aim to enhance trade openness as well as financial openness. Certain studies, like the one by Faroh and Shen (2015), claim that the greater the openness, the more will overseas corporations be motivated to invest in a country. For the purpose of this study, the trade ratio can be used a proxy for this variable, which signifies the ratio of exports and imports in a country over its GDP at a given time period, as previously done in studies by Lederman et al. (2005) and Medvedev (2006).

Dunning (1998) also confirms the fact that countries with a larger population indeed tend to attract market-seeking MNEs, thereby increasing FDI. We proxied this by the population size of the countries in question, as done by previous researchers, including Jaumotte (2004). Another main stimulant of FDI is growth, for which the GDPPC can be used as a proxy. This variable is deemed to be highly synonymous to a country's growth as per the study of Azam and Lukman (2010), Delevic and Heim (2017) and Jaiblai and Shennai (2019). High GDPPC indicates high purchasing power, and can be a stimulant for high returns on capital invested, and therefore attract more FDI. The investment climate in a country can be indicated by the level of macroeconomic and political stability. This can be proxied by the estimate value of the Control of Corruption, as indicated by Durham (2004) and Hoang and Bui (2015), whereby the more control a country has over its corruption, the higher will be the estimate.

Sample Selection & Data Sources

Contrary to the majority of existing literature which focused on regional integration in high-developing countries and developed countries based in Europe, Asia and America , our study will

be focusing on SSA countries, which have been involved significantly in regional integration over the last decades. However, out of the 48 SSA states, only 30 were considered for this study due to the non-availability of data for the period starting from 1996 up to 2018.

The selected SSA countries are:-

Benin, Botswana, Burkina Faso, Cabo Verde, Cameroon, Chad, Comoros, Cote d'Ivoire, Eswatini(Swaziland), Gabon, Ghana, Kenya, Madagascar, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

Table 1 : Summary of Sources, Backing Research and Expected Signs of Variables

Dependent Variable	Proxy	Backing Research	Source	Expected Sign
FDI	FDI as a Percentage of GDP	Velde and Bezemer (2004) , Cherif and Dreger (2018), Shenai and Jaiblal (2019)	World Bank	N/A
Independent Variables				
RTA	Dummy for Involvement in Regional Blocs	Sachs (1995), Büthe (2008)	Regional Bloc Websites	+/-

Table 1 (Continued)

GDPPC	GDP Per Capita (Economic Growth)	Azam and Lukman (2010), Delevic and Heim (2017), Jaiblai and Shennai (2019)	World Bank	+
POP	Population Size	Jaumotte (2004), Morris (2008)	World Bank	+
COR	Control of Corruption	Durham (2004), Delevic and Heim (2017), Hoang and Bui (2015)	World Bank	+
OPEN	Trade Openness, expressed as the sum of Exports and Imports as a ratio of GDP	Medvedev (2006), Lederman et al. (2005), Macdermott (2007)	World Bank	+

Source: Author's Compilation

This paper employs dynamic panel data analysis given the dynamic nature of FDI modelling, particularly the fact that past FDI can influence current level of FDI due to word of mouth and also increased confidence of current investors (Khadaroo and Seetanah, 2009). Moreover, there also exists the possibility of endogenous relationship. We thus accordingly use both a GMM and an Unrestricted Panel Vector Autoregressive model, in the presence of stationary data series I(0)) which take into account the above issues.

Analysis and Findings

The GMM and Panel EGLS Model

Results from the GMM and ELS estimators are reported in table below

Table 2 : Panel GMM Estimation Results

	Dependent Variable : *lfdi*			
	Panel GMM Model		**Panel EGLS Model**	
	Coefficient	**P-value**	**Coefficient**	**P-Value**
gdppc	0.028046	0.0000***	0.025724	0.0039***
pop	0.095828	0.0043***	0.083864	0.0011***
cor	0.133709	0.0000**	0.123131	0.0000***
open	0.356448	0.0000***	0.217805	0.0000***
RTA	-0.020608	0.2081	-0.015588	0.2142
C			0.014786	0.9695
	J-statistic	24.74981	**(R2)**	0.5497
			Adjusted R2	0.5263
	P(J-statistic)	0.533171	**F-Statistic**	23.52004
			P(F-statistic)	0.0000

Source: Author's Computations

Note: ***,**,* implies the 1%,5% and 10% S.L respectively

Per the above table, we can see that the results for both models are synonymous, with all explanatory variables explaining the dependent variable positively and significantly at the indicated significance levels, except for *RTA,* which remains insignificant in explaining FDI inflows in both models. The variable's negative coefficients indicate that for every additional RTA, the FDI/GDP in that country are likely to fall by an approximate rate of 0.0206% (GMM model) and 0.0156% (EGLS

model). This insignificance explained by the theory of MNCs, whereby the implementation of RTAs may induce overall extra-regional investment, but may reduce intra-regional investment, especially horizontal investment[2], since it may be more feasible to trade with countries involved rather than to invest [Blomström and Kokko (1997) and Sichei and Kinyondo (2012)]. The Heckscher-Ohlin's theory of factor endowment may also be upheld, whereby horizontal investment when factor endowment differs indeed entails decreases in horizontal FDI (Im, 2016).

The growth proxy, *gdppc,* yielded close coefficients in both models, indicating that a 1% increase in *gdppc* is likely to entail an increase in *fdi.* This is in line with studies such as by Vijai and Shenai (2019) and Berthelon (2004). Both models list *open* with the highest coefficient amongst the variables, indicating its higher importance in explaining FDI attractiveness, as also stipulated by Hoang and Bui (2015). It implies that the higher an economy's trade openness, the more will FDI inflow, whereby every 1% increase in *open* leads to an increase in *fdi* by an approximate 0.3564% (GMM) and 0.2178% (EGLS). Moreover, the coefficient of *cor* is higher than pop in both models, signifying that the market size of the host economy is considered less impactful than its level of corruption-control. Both variables remain significant, supporting the findings of Jordaan (2004).

The validity of the EGLS model is heighted, bearing a high F-statistic of 23.52004, which is significant at 5%. The accuracy of our GMM estimation can be ascertained by the Sargan-Hansen J-test[3]. The p-value for the J-test of 0.533171 exceeds the 5% level of significance, corroborating the model's greater accuracy. The Arellano-Bond serial correlation test concluded that the dynamic model has effectively accounted for serial correlation in the model, thereby enhancing its validity.

Vector Autoregressive Model (VAR)

Our six-variable VAR is estimated with two lags, providing the following results.

Table 3 : Long-run coefficients

	Coefficient	T-Statistic
gdppc(-1)	-0.174561	1.77073 *
gdppc(-2)	0.180101	-1.84993 *
***pop*(-1)**	-0.784525	0.68125
***pop*(-2)**	0.79013	-0.68527
***cor*(-1)**	-0.115525	1.19958

[2] Also known as Tariff-Jumping FDI
[3] Also known as the test for over-identifying restrictions

***cor*(-2)**	0.07735	-0.79722	
***open*(-1)**	0.121359	-1.88842	*
***open*(-2)**	-0.084256	1.34292	
***RTA*(-1)**	0.044807	-0.92009	
***RTA*(-2)**	-0.0186	0.38164	
C	-0.849571	4.27578	
Critical Values	**1%:** 2.75 (***)	**5%:**2.042 (**)	**10%:** 1.697 (*)

Source: Author's Computation

Note: ***,**,* implies the 1%,5% and 10% S.L respectively

Based on the above, we can conclude that out of our variables, only *gdppc(-2)* and *open(-1)* are significant in explaining *fdi* in the long-run. In other words, higher FDI inflows relative to GDP are linked to markets bearing high purchasing power and greater trade openness, whereby a 1% increase in the lagged value of *gdppc* and *open* can entail a 0.1643% and 0.1185% increase in *fdi* respectively. Nevertheless, the first-lagged value of *gdppc* is seen to impact negatively of *fdi,* with 1% increase in *gdppc* causing a 0.1746% decrease in *fdi.*

Our variable of interest, *RTA,* bears a negative coefficient [*RTA* (-2)], and is insignificant in both time lagged periods, supporting the results of our precedent models. Dunning's OLI framework, focusing on the geographic proximity of host countries, may explain the inverse relationship between FDI/GDP and RTAs, as per Medvedev (2006). Our sample comprises mostly of LDCs, which are landlocked, highly remote and weakly integrated in the global platform, and given their high costs of doing business (Baltagi et al.,2007), FDI is highly deterred. Both the Impulse Response Function (IRF) and the Variance Decomposition (VDC) analysis confirmed the above result on the overall.

5. Conclusion

The main focus of this study was to analyze the impact of regional integration, together with other control variables, on FDI in the SSA region, based on a sample of 30 countries, spanning over 23 years ranging from 1996 to 2018. The findings of the study thereby revealed that regional integration is insignificant in explaining FDI attraction both in the short- and long-run. This contradicts the majority of studies, which state that the more regionally integrated a country is, the more FDI it should attract. However, such statements were mostly made based on studies on European, American or Asian RTAs, while RTAs in Africa face additional challenges due to the

country-specific factors which severely discourage FDI attraction. Nevertheless, our remaining control variables were found to be significant in positively influencing FDI in these regions, as per the results of the dynamic model and the panel EGLS model. Of these variables, the VAR's long-run estimates indicate a statistically significant relationship between FDI and GDP, as well as trade openness, with the remaining variables remaining rather insignificant in the long-run.

Therefore, it can be said that foreign investors may be based primarily on these control factors, with the luscious availability of natural resources and cheap labor being the amongst the tempting factors besides the level of growth and openness, to decide on their investment paths in SSA regions. This study adds up to the scarce literatures surrounding the impact of regional integration on the attraction of FDI in SSA regions, but concluding that for the same region, FDI is not significantly attracted through the increasing regional-integration.

Recent occurrences, such as the global pandemic, COVID-19, shall definitely entail a restructuring of the global markets, which may entail further discrepancies with regards to investment in Africa. Nevertheless, investment may tend to shift towards the primary sector, more specifically the agricultural sector, which shall position Africa as an ideal location for investment, hence boosting the level of FDI-inflows.

It is apparent from our results that regional integration has an insignificant impact upon FDI attraction in SSA countries. The formation of RTAs indeed entail benefits, which however do not accrue to each member equitably, with countries like South Africa and Mauritius gaining significantly, while countries like Benin gain insignificantly. The main reason is that these countries are LDCs and exhibit lamentable development trends, and hence, foreign investors are less willing to invest. Therefore, RTAs should be altered and improved such that more policies are drafted in the aim to promote the development of these countries, to encourage FDI inflows.

Moreover, political stability is seen as being a major concern for investors in deciding on where to channel their funds, whereby a higher stability shall attract greater FDI. Our sample, however, contains countries which display severe signs of political instability, such as Zimbabwe, Niger and even South Africa, whereby corruption plagues the economy. As such, RTAs should be enhanced to include higher protection measures for investors, and to ease restrictions on their investment in countries running high political instability risks. Such actions shall facilitate the attraction of FDI, and the domino effect shall apply, whereby the country shall be more exposed to development, and hence possibly entail the eradication of political instability factors.

Most African SSAs are known to have been drafted in the 90s and prior, and thus, their provisions need to be reviewed frequently so as to broaden the scope for FDI attraction in Africa. The

implementation of Bilateral Investment Treaties (BITs), which are likely to enhance FDI flows between countries, should be encouraged, but only after thorough consideration of its associated costs and benefits, since if improperly established, it might infringe on the country's sovereignty. This may motivate member countries to expand their output base, and generate new trade by allowing for diversification in relatively unchartered areas. As such, intra-regional relations shall be boosted, with increments in per-capita GDP following.

With regards to sustainable investment, RTAs should provide for more restrictive terms, whereby investors are obliged to undergo environmental assessment procedures before being able to invest in SSA countries. This is specifically applicable to SSA countries, since investment in these regions are primarily targeted towards their natural resources, and investment in such countries may see them losing out on their resources in the long term, and also be subject to notorious side effects, such as pollution. Governments of member states of RTAs should remain committed to the integration process, and the establishment of clear checks and balances in place should be ensured, so as to ensure that each country, irrespective of their development level, are able to strategically assert themselves on the international arena.

REFERENCES

Aggarwal, A., 2008. Regional Economic Integration And FDI In South Asia : Prospects And Problems. Available at: <http://hdl.handle.net/10419/176236>. [Accessed 12 December 2019].

Ang, J., 2008. Economic development, pollutant emissions and energy consumption in Malaysia. *Journal of Policy Modelling,* 30(2), 271-278.

Azam, M., and Lukman, L., 2010. Determinants of Foreign Direct Investment in India, Indonesia and Pakistan: A Quantitative Approach. *Journal of Managerial Sciences*, 4(1), 31-44.

Baier, S., and Bergstrand, J., 2007. Do free trade agreements actually increase members' international trade?. *Journal of International Economics*, 71(1), 72-95.

Balasubramanyam, V., Sapsford, D. and Griffiths, D., 2002. Regional Integration Agreements and Foreign Direct Investment: Theory and Preliminary Evidence. *The Manchester School*, 70(3), 460-482.

Baltagi, B., Egger, P., and Pfafermayr, M., 2007. Estimating Regional Trade Agreement Effects on FDI in an Interdependent World. *SSRN Journal of Econometrics*, 145(1-2).

Bartlett, C. and Beamish, P., 2018. Transnational Management. pp.281-285. Available at: https://www.springer.com/cda/content/document/cda_downloaddocument/Morschett_Strategic_International_Management.pdf?SGWID=0-0-45-1494779-p177066208, [Accessed on 2nd December 2019].

Becker, J., Fuest, C., and Riedel, N., 2012. Corporate tax effects on the quality and quantity of FDI. *Oxford University Centre for Business Taxation,European Economic Review*, 56(8).

Blomstrom, M., and Kokko, A., 1997. Regional Integration and Foreign Direct Investment: A Conceptual Framework and Three Cases. *Working Paper 6019, National Bureau of Economic Research*.

Blonigen, B., Davies, R., Waddell, G. and Naughton, H., 2007. FDI in space: Spatial autoregressive relationships in foreign direct investment. *European Economic Review*, 51(5).

Braga, P., Carlos, A., and Carsten, F., 1998. The Relationship Between Intellectual Property Rights and Foreign Direct Investment, *Duke Journal of Comparative & International Law,* 9(2), 163-188

Bruno, R., Campos, N., Estrin, S., and Tian, M., 2016. The Impact of Brexit on Foreign Investment in the UK- Gravitating Towards Europe: An Econometric Analysis of the FDI Effects of EU Membership.

Büthe, T., and Milner, H., 2008. The Politics of Foreign Direct Investment into Developing Countries: Increasing FDI through International Trade Agreements?. *American Journal of Political Science*, 52(4).

Carr, D., Markusen, J., and Maskus, K., 2001. Estimating The Knowledge-Capital Model of the Multinational Enterprise. *American Economic Review*, 91(3), 693-708.

Chakrabarti, A., 2001. The Determinants of Foreign Direct Investments: Sensitivity Analyses of Cross-Country Regressions. *Kyklos*, 54(1), 89-114.

Chandran, D., 2018. Trade Impact of the India-ASEAN Free Trade Agreement (FTA): An Augmented Gravity Model Analysis. *Research Journal of Economics and Business Studies.* 6(11*).*

Cherif, M., and Dreger, C., 2015. The impact of South-South trade agreements on FDI. *Discussion Papers, No. 1461, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin*. [Online] Available at: https://www.econstor.eu/bitstream/10419/108730/1/821055186.pdf. [Accessed on 27th November 2019]

Cherif, M., and Dreger, C., 2018. Do regional trade agreements stimulate FDI? Evidence for the Agadir, MERCOSUR and AFTA regions. *Review of Development Economics*, [online] 22(3), 1263-1277.

Coughlin, C., and Segev, E., 2000. Foreign Direct Investment in China: A Spatial Econometric Study. *The World Economy*, 23(1), 1-23.

Daude, C., and stein, E., 2007. The quality of institutions and foreign direct investment. Journal of *Economics & Politics*, 19(3), 317-344.

Delevic, U., and Heim, I., 2017. Institutions In Transition: Is The EU Integration Process Relevant For Inward FDI In Transition European Economies?. *Eurasian Journal Of Economics And Finance*, 5(1), 16-32.

Drukker, D., and Millimet, D., 2007. Assessing the Pollution Haven Hypothesis in an Interdependent World. *Southern Methodist University, Department of Economics Departmental Working Papers,* [online] (703). Available at: <https://ideas.repec.org/p/smu/ecowpa/703.html>. [Accessed on 2nd November 2019]

Dunning, J., 1977. Trade, Location of Economic Activity and the MNE: A Search for an Eclectic Approach. *The International Allocation of Economic Activity*, 395-418.

Dunning, J., 1997. The European Internal Market Programme and Inbound Foreign Direct Investment. *JCMS: Journal of Common Market Studies*, [online] 35(2),189-223.

Dunning, J., and Lundan, S., 2008. Multinational Enterprises And The Global Economy. 2nd ed. *Cheltenham: Edward Elgar Publishing, Number 3215*. Available at: https://ideas.repec.org/b/elg/eebook/3215.html. [Accessed on 30th November 2019]

Durham, B., 2004. Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth. *Journal of European Economic Review,* 48, 285-306.

East African Community., 2017. The EAC Trade and Investment Report 2017 [online]. Available at: http://eabc-online.com/resources/business-guides/105-the-east-african-community-eac-trade-and-investment-report-2017/file. [Accessed on 18th January 2020]

Ecowas.int. 2020. Economic Community Of West African States(ECOWAS) | .. [online] Available at: <https://www.ecowas.int/> [Accessed on 16th January 2020]

Edwards, S., 1990. Capital Flows, Foreign Direct Investment, and Debt-Equity Swaps in Developing Countries. *NBER Working Paper No. w3497*. Available at SSRN: https://ssrn.com/abstract=226689 [Accessed on 28th November 2020]

Eichengreen, B., and D. Irwin., 1995. Trade blocks, currency blocs and the reorientation of trade in the 1930s. *Journal of International Economics* 38, 1–24.

Fakher, A., 2012. The impact of economic integration on FDI: applied study on ASEAN. *International Journal of Trade and Global Markets*, [online] 5(3/4), 214.

Faroh, A., and Shen, H., 2015. Impact of Interest Rates on Foreign Direct Investment: Case Study Sierra Leone Economy. *International Journal of Business Management and Economic Research,* 6, 124–32.

Feils, D., and Rahman, M., 2008. Regional economic integration and foreign direct investment: The case of NAFTA. *Management International Review*, 48(2), 147-163.

Frankel, J., and Rose, A., 2002. An Estimate of the Effect of Common Currencies on Trade and Income. *The Quarterly Journal of Economics*, 117(2), 437-466.

Helpman, E., 1984. A simple theory of international trade with multinational corporations. *Journal of Political Economy*, 92 (3), 451–471.

Helpman, E., Melitz, M., and Yeaple, S., 2004. Export Versus FDI with Heterogeneous Firms. *American Economic Review*, 94(1), 300-316.

Hoang, H., and Bui, D., 2015. Determinants of foreign direct investment in ASEAN: A panel approach. *Management Science Letters*, 5(2), 213-222.

Horst, R., 2002. Preferential Trade Agreements and Tax Competition for Foreign Direct Investment. *CESifo Working Paper Serie* [online] (763). Available at SSRN: https://ssrn.com/abstract=343561 [Accessed on 24th December 2019]

Im, H., 2016. The effects of regional trade agreements on FDI by its origin and type: Evidence from U.S. multinational enterprises activities. *Japan and the World Economy, 39(C),* 1-11.

Jaiblai, P., and Shenai, V., 2019. The Determinants of FDI in Sub-Saharan Economies: A Study of Data from 1990–2017. *International Journal of Financial Studies*, 7(3), 43.

Jaumotte, F., 2004. Foreign Direct Investment and Regional Trade Agreements: The Market Size Effect Revisited. *IMF Working Papers*, 04/206, 32.

Jones, C., and Temouri, Y., 2016. The determinants of tax haven FDI. *Journal of World Business*, 51(2), 237-250

Kelejian, H., and Prucha, I., 2010. Specification and estimation of spatial autoregressive models with autoregressive and heteroskedastic disturbances. *Journal of Econometrics*, 157(1), 53-67.

Knoema. 2018. Free Data & Statistics, Data Collection, Analysis, Visualization And Sharing - *COMSTAT Data Hub*. [online] Available at: http://comstat.comesa.int/ftejjwb/launch-of-the-comesa-investment-trends-report-2018. [Accessed on 18th January 2020].

Knoema. 2020. Home - East African Community Data Portal. [online] Available at: http://eac.opendataforafrica.org/ [Accessed on 19th January 2020].

Kolstad, I., and Tondel, L., (2002). Social development and foreign direct investments in developing countries. *Chr. Michelsen Institute, Bergen, Norway* (11).

Kreinin, M., and Plummer, M., 2008. Effects of regional integration on FDI: An empirical approach. *Journal of Asian Economics*, 19(5-6), 447-454.

Kubny, J., Mölders, F., and Nunnenkamp, P., 2008. Regional Integration and FDI in Emerging Markets. [online] *Germany: Kiel Institute for the World Economy,* 1418. Available at: https://ideas.repec.org/p/zbw/ifwkwp/1418.html. [Accessed on 26th December 2019]

Kubny, J., Mölders, F., and Nunnenkamp, P., 2011. Regional Integration and FDI in Emerging Markets. *Journal of Regional Integration, Economic Development and Global Governance,* 2.

Kurecic, P., Luburic and Goran, K., 2015. The Influence of the Size of the Economy and European Integration on Foreign Direct Investments in the Central, Southeastern and

Levy, Y., E., Stein, E., and Daude, C., 2003. Regional Integration and the Location of FDI. *SSRN Electronic Journal*, 414.

Lim, E., 2001. Determinants of, and the Relation Between, Foreign Direct Investment and Growth: A Summary of the Recent Literature. *IMF Working Papers*, 1(175), 9-19.

Loungani, P., and Assaf R., 2001. How beneficial is foreign direct investment for developing countries? *Journal of Economics and Finance,* [online] 38(2). Available at: https://www.imf.org/external/pubs/ft/fandd/2001/06/loungani.htm. [Accessed on 27th December 2019]

MacDermott, R., 2007. Regional trade agreement and foreign direct investment. *The North American Journal of Economics and Finance*, 18(1), 107-116.

Markusen, J.R., 1984. Multinationals, multi-plant economies, and the gains from trade. *Journal of International Economics,* 16 (3–4), 205–226.

Maskus, K., 2000. Teaching the economics of intellectual property rights in the global economy. Journal of *Teaching of Intellectual Property*, 51(1), 166-184.

Medvedev, D., 2006. Beyond Trade: The Impact of Preferential Trade Agreements on FDI Inflows. World Development, 40(65), 18-32.

Morschett, D., Schramm-Klein, H. and Zentes, J., 2010. Strategic International Management. 2nd ed. Wiesbaden: Springer Gabler.

ODI. 2020. Home. [online] Available at: <https://www.odi.org/>. [Accessed on 6th January 2020]

Okafor, G., 2015. The impact of political instability on the economic growth of ECOWAS member countries. *Journal of Defence and Peace Economics*, 28(2), 208-229.

Parletun, J., 2008. The Determinants of Foreign Direct Investment: A Regional Analysis with Focus on Belarus. *Lund: Lund University*, 10–16.

Sachs, J., Warner, A., Aslund, A., and Fischer, S., 1995. Economic Reform and the Process of Global Integration. *Brookings Papers on Economic Activity*, 1, 1-118.

Sacu.int. 2020. [online] Available at: <https://www.sacu.int/> [Accessed on 4th January 2020]

Sadc.int. 2020. Southern African Development Community :: Home. [online] Available at: <https://www.sadc.int/> [Accessed on 4th January 2020]

Salike, N., 2010. Effect of regional integration agreement on foreign direct investment : A theoretical perspective. *Journal of Business and Behavioral Sciences (JBBS)*, 1, 211-226.

Seetanah, B., and Khadaroo, J., 2009. The Role of Transport Infrastructure in FDI: Evidence from Africa using GMM Estimates. *Journal of Transport Economics and Policy*, 43(3), 365-384).

Sichei, M., and Kinyondo, G., 2012. Determinants of Foreign Direct Investment in Africa: A Panel Data Analysis. *Global Journal of Management and Business Research,* 12(18), 1-12.

Simionescu, M., 2016. The Impact of BREXIT on the Foreign Direct Investment in the United Kingdom. *Bulgarian Economic Papers,* [online] 68. Available at: https://ideas.repec.org/p/zbw/glodps/68.html. [Accessed on 9th January 2020].

Straathof, SM, Linders, GJM, Lejour, A & Mohlmann, JL., 2008. The Internal Market and the Dutch economy: implications for trade and economic growth, 168.

Tanaka, K., and Arita, S., 2016. The impact of regional investment liberalization on foreign direct investment: A firm-level simulation assessment. *Japan and the World Economy*, 37/38, 17-26.

Ullah, S., Akhtar, P., and Zaefarian, G., 2018. Dealing with endogeneity bias: The generalized method of moments (GMM) for panel data. *Journal of Industrial Marketing Management*, 71, 69-78.

UNCTAD, 2012. Regional Integration And Foreign Direct Investment In Developing And Transition Economies. *Journal of Investment, Enterprise and Development Commission.* [online] Available at: <https://unctad.org/meetings/en/SessionalDocuments/ciimem4d2_en.pdf>. [Accessed on 6th December 2019].

UNCTAD, 2019. World Investment Report. [online] Available at: https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2460. [Accessed on 14th January 2020].

Unctad.org. 2020. [online] Available at: https://unctad.org/Sections/dite_dir/docs/WIR2019/wir19_fs_Africa_en.pdf. [Accessed on 18th February 2020].

Velder, D., and Bezemer, D., 2004. Regional Integration and Foreign Direct Investment in Developing Countries. Published in: DFID/EC-PREP funded research project (UNCTAD). Available at: https://unctad.org/en/docs/iteiit20062a3_en.pdf. [Accessed on 24th November 2019]

Williams, R., 2020. Overview Of Serial Correlation. [online] *University of Notre Dame*. Available at: <https://www3.nd.edu/~rwilliam/stats2/l26.pdf>. [Accessed on 6th January 2020]

Xaypanya, P., Poomthan R., and SasaiwimonP., 2015. The determinants of foreign direct investment in ASEAN: The first differencing panel data analysis. *International Journal of Social Economics*, 42, 239–50.

Yanikkaya, H., 2003. Trade openness and economic growth: a cross-country empirical investigation. *Journal of Development Economics*, 72(1), 57-89.

Yeaple, S., 2003. The complex integration strategies of multinationals and cross country dependencies in the structure of foreign direct investment. *Journal of International Economics*, [online] 60(2), 293-314.

Yu, T., (2012). The Effect of Regional Trade Agreements (RTAs) on Foreign Direct Investment in New Zealand: The Case of the New Zealand-China Free Trade Agreement. [online] Available at: https://openrepository.aut.ac.nz/handle/10292/4612. [Accessed on 27th November 2019].

APPENDICES

APPENDIX 1 : LIST OF COUNTRIES

(NUMBER OF REGIONAL TRADE AGREEMENTS SIGNED)

Countries	Year																					
	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18
Benin	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Botswana	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Burkina Faso	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cabo Verde	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cameroon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Comoros	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Cote d'Ivoire	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Eswatini(Swaziland)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ghana	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Kenya	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Madagascar	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	2	2	2	2	2
Mali	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mauritania	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mauritius	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mozambique	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Namibia	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Niger	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Nigeria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rwanda	0	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Senegal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Seychelles	0	0	1	1	1	1	1	1	0	1	1	1	2	2	2	2	2	2	2	2	2	2	2
South Africa	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sudan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tanzania	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Togo	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Uganda	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Zambia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Zimbabwe	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Source: Regional Blocs' Websites

APPENDIX 2: INTRA-EAC INVESTMENT FLOWS

Partner State	Source	2013		2014		2015		2016		2017		Year to Year Growth 2016/2017	
		No.of Projects	Values	No.of Projects	Values	No.of Projects	Values	No.of Projects	Values	No.of Projects	Values	No.of Projects	Values
Burundi	**Tanzania**	4.0	20.0	-	-	-	-	9.0	0.5	-	-	-	-
	Uganda	1.0	1.0	-	-	-	-	8.0	0.2	-	-	-	-
	Kenya	1.0	5.8	-	-	-	-	15.0	1.7	-	-	-	-
	Rwanda	5.0	4.2	2.0	1.4	0.0	0.0	7.0	0.2	-	-	-	-
	Rest of World	11.0	37.7	8.0	149.6	1.0	1.8	77.0	12.0	10.0	65.1	-87.0	442.5
	Total	**22.0**	**68.7**	**10.0**	**151.0**	**1.0**	**1.8**	**116.0**	**14.6**	**10.0**	**65.1**	**-91.4**	**345.9**
Kenya	**Tanzania**	2.0	66.5	-	-	3.0	12.3	2.0	0.2	2.0	25.3	-	12550.0
	Uganda	0.0	0.0	2.0	0.9	7.0	7.2	4.0	5.3	0.0	0.0	-100.0	-100.0
	Rwanda	0.0	0.0	0.0	0.0	4.0	112.4	1.0	0.2	0.0	0.0	-100.0	-100.0
	Burundi	0.0	0.0	0.0	0.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Rest of World	61.0	857.7	122.0	873.2	236.0	2055.0	225.0	1814.5	192.0	692.4	-14.7	-61.8
	Total	**63.0**	**924.2**	**124.0**	**874.1**	**251.0**	**2187.1**	**232.0**	**1820.2**	**194.0**	**717.7**	**-16.4**	**-60.6**
Rwanda	**Tanzania**	2.0	2.5	1.0	1.7	2.0	5.8	3.0	6.2	1.0	1.0	-66.7	-83.9
	Uganda	3.0	1.0	2.0	19.1	3.0	3.2	3.0	76.4	1.0	49.8	-66.7	-34.8
	Kenya	5.0	9.1	4.0	5.4	4.0	21.5	1.0	1.5	5.0	7.7	400.0	413.3
	Burundi	0.0	0.0	0.0	0.0	0.0	0.0	3.0	36.1	3.0	8.1	0.0	-77.6
	South Sudan									0.0	0.0	0.0	0.0
	Rest of World	51.0	632.3	104.0	495.0	73.0	815.1	38.0	479.9	79.0	1081.2	107.9	125.3
	Total	**61.0**	**644.9**	**111.0**	**521.2**	**82.0**	**845.6**	**48.0**	**600.1**	**89.0**	**1147.8**	**85.4**	**91.3**
Tanzania	**Kenya**	27.0	57.0	32.0	83.6	14.0	33.4	6.0	2.4	21.0	32.9	250.0	1294.1
	Uganda	0.0	0.0	3.0	10.4	3.0	10.6	2.0	3.1	3.0	0.6	50.0	-82.2
	Rwanda	1.0	1.8	1.0	0.0	3.0	11.3	0.0	0.0	1.0	0.3	-	-28.5
	South Sudan							0.0	0.0	0.0	0.0	0.0	0.0
	Burundi			1.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Rest of World	276.0	2783.6	386.0	5398.8	285.0	3394.4	126.0	3563.3	226.0	3284.7	79.4	-7.8
	Total	**304.0**	**2842.4**	**423.0**	**5502.9**	**305.0**	**3449.7**	**134.0**	**3568.8**	**251.0**	**3318.5**	**87.3**	**-7.0**
Uganda	**Tanzania**	2.0	0.7	4.0	7.6	1.0	1.6	3.0	2.9	2.0	3.0	-33.3	3.4
	Kenya	14.0	64.8	16.0	67.5	11.0	17.9	21.0	109.8	16.0	33.0	-23.8	-69.9
	Rwanda	2.0	1.8	0.0	0.0	1.0	0.3	1.0	2.9	3.0	3.9	200.0	34.5
	South Sudan							2.0	4.5	6.0	31.4	200.0	597.8
	Burundi	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Rest of World	322.0	1248.5	399.0	2041.0	232.0	496.9	287.0	699.5	234.0	843.9	-18.5	20.6
	Total	**341.0**	**1316.3**	**419.0**	**2116.1**	**245.0**	**516.7**	**314.0**	**819.6**	**261.0**	**915.2**	**-16.9**	**11.7**