Macroeconomic Drivers Of Foreign Investment Inflows In Sub-Saharan African Countries

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ABSTRACT
The study examined the macroeconomic determinants of foreign investment inflows in Sub-Saharan African-SSA Countries over forty (40) years spanning from 1982 through 2021. Data were collected from the CBN Bulletin and World Bank data from 1982 to 2021. Data set was described using descriptive statistics, correlation analysis and Generalized Linear Model with the help of E-VIEW version 9.0. The finding shows that, exchange rate, inflation rate, and degree to trade openness are determinant of foreign investment inflow into SSA countries. The study thereby submits that measures should be taken to further stabilize the exchange rate among countries in the SSA so as to reduce business failure due to foreign exchange risk for already existing foreign investments in SSA countries. Also, government of each SSA countries should implement monetary and fiscal policies that are geared towards stabilizing the inflation rate so as to attract more Foreign Portfolio Investment-FPI inflows into the SSA countries.
Keywords: Macroeconomic Drivers, Foreign Investment Inflows, SSA Countries

1.0.   INTRODUCTION
Systematic support of cross-border investments, notably by transactions organizations and firms, is one of the key aspects of the globalisation drive. Investing in human and/or physical capital, and more effective technology, is crucial for the development of any economy. It provides the necessary funding for investments, boosts competitors in the industries of the host country, and helps local businesses becoming more competitive globally. Most people think of foreign investment as a way to fill the gap amongst the amount of cash, foreign currency, governmental revenue, and human capital resources needed to achieve growth and developmental goals and the actual amount of these resources available domestically.

Accordingly, the three (3) most common types of foreign investment which a country enters are: foreign direct investments (FDI), foreign portfolio investments (FPI), and foreign institutional investment (FII). The International Monetary Fund (IMF) defines foreign portfolio investment (FPI) as cross-border deals and holdings involving debt or equity securities that aren't part of direct investments or reserve assets (Sokang, 2018). With the trend increasing higher profitability, global financial links, and the expansion of manufacturing bases abroad, there has been an increase in the movement of portfolio investments internationally. The constant increase in global financial trade is what has caused the recent sharp rise in capital inflows into national economies all over the world. One major underpinning factor has been the growing globalization of investors looking for longer-term, higher rates of returns and the opportunity to diversify risk abroad (Giwa, George, & Okodua, 2020).

Due to the removal of barriers that hinder capital inflows, various economies around the world have supported capital inflows (Adebayo, Abolaji, Akinsola & Olanrewaju, 2021). Some restrictions that were removed include deregulation of the domestic banking system, lifting of restrictions on FDI, and improving their economic environment and prospects through the implementation of market-oriented initiatives. If domestic savings are insufficient to produce enough investments, foreign capital is expected

to fill the lacunae between intended or targeted investment and locally mobilized resources. In many sub-Saharan African emerging countries, FDI, FII, and FPI have played a significant role in the development and expansion of the economies. The development and progress of these developing countries have been significantly benefited by its spillover effects on knowledge, skills, technology, and job creation. Consequently, it is essential to set suitable strategies in order for a country to enjoy a sufficient level of growth and development through the decrease of poverty through foreign investments. While wealth in some African nations seems to be considerably exaggerated, the continent's rate of poverty is dangerously rising due to population growth, poor infrastructure, a high level of gender insensitivity, and a high illiteracy rate (Pulstova, 2016).

Although, FDI, FPI, other development assistance (ODA), and bank loans have all increased emerging countries' level of economic competitiveness over time, FPI appears to have grabbed the lead and its share of private capital flows has been on a tremendous upswing (UNCTAD, 2018). According to Maruf, Farzana, and Alishahi (2017), inflows of foreign capital, as opposed to inflows of FDI and FPI, are changing international resource flows so as to give the support required for capital projects with the sole intent to promote a country's level of global competitiveness. Many emerging nations have historically struggled to match the standards of developed nations in terms of economic growth rate because of persistent economic issues in their economies. More original and useful suggestions must be found immediately to aid in the economic growth of these developing nations. Consequently, this paper centers on the macroeconomic drivers of foreign investment in SSA Countries with focus on FPI inflows.

1.2 Justification & Objectives of the Study

With a slowdown in global economic activity, ongoing supply restrictions, the emergence of novel corona virus types, high inflation, and mounting financial risks because of large and increasingly sensitive debt levels, economic growth in Sub-Saharan Africa (SSA) struggles to gain traction. The development of stagflation is complicating the formulation of monetary policy. The war is having an effect on the SSA economies through increased prices for commodities, higher food, fuel, and headline inflation, tighter international economy conditions, and reduced foreign fund flows into the region, despite the fact that there is few trade and financial ties with Ukraine & Russia.

The African economy is still relatively resistant to inflows, despite the many policy mandates of individual economies and the African Union to make sure that the continent draws more foreign capital inflows. Hence, it has become an important problem to worry about which has been largely disregarded in recent empirical studies as to whether local firms benefit from their international peers or not. Our knowledge of the connection between foreign investment inflows and economic growth-ECG will increase with the solution of this issue, among others, and it will also widen our area of competence. Although, there is proof suggesting the linkage between FDI inflows and wealth creation in Africa, industry connectivity effects and foreign inflows to the countries have little empirical validity. Due to falling exchange rates, emerging economies' small new investments eventually result in large sums of money being obtained from of the host nation in the world of financial income. Consequently, if these funds were invested wisely in industrialised states' financial system, the crisis enclosing the manufacturing capacity of foreign investment income would not have increased. Furthermore, the bulk of less advanced nations are caught in a generational poverty. The average income of the populace is quite low, and they already lack the required capital assets. Poor incomes result in low rates of savings, which therefore induce low levels of investment. Due to low income, the tax base is correspondingly smaller, resulting in similarly low government revenue. In such situations, the less advanced countries must deal with both a balance-of-payments deficit and a retirement funds deficit. The study looked into the macroeconomic factors that influence FDI inflows into Sub-Saharan African nations in response to these perceived deficiencies. Specifically, this paper seeks: to ascertain the effect of Exchange Rate (EXCR), Inflation Rate (INFR), and Degree of Trade Openness (DTO) on Foreign Investment (FIV) vis-à-vis FPI inflows in SSA countries

2.0. LITERATURE REVIEW
2.1. Conceptual review
2.1.1 Concept of Foreign Investment (FIV) inflows
For ease of understanding, the term foreign investment Inflows is broken down into three which are "foreign", "investment", and "Inflows". The term foreign refers to any company, person, or thing outside of the originating (domestic) economy while investment involves giving up current expenses in order to reap future rewards. It contains things that are very liquid, like currency and credit. Non-liquid assets like equities, real estate, and high-interest loans are also included. The majority of investments are made by large financial firms. Lastly, "Inflows" is the transfer (movement) of resources into the economy. Hence, "foreign investment inflows" refers to transfers of investments (funds and knowledge) from one country's residents to another (Egbuwalo & Abere, 2018). Above all, FIV inflows relate to an increase in the volume of assets transferred from outside sources to a country (nation) or geographic area in order to promote socio-economic performance across board as well as economic expansion.

2.1.2. Determinant of Foreign Investment-FIV inflows
1. Exchange Rate
A shift in the value of one currency relative to another is referred to as an exchange rate. Volatility is another name for it. Profitability of foreign exchange trades will be impacted by a foreign currency's appreciation or depreciation in value. In this context, fluctuation refers to every movement and changes that have impacted the domestic currency. Gorodnichenko and Talavera's (2017) study, among many other key ones, made a significant contribution to our understanding of how exchange rate fluctuations affect the macroeconomy. The rate of exchange between local and foreign currencies is known as the exchange rate and is typically expressed as the amount of local currency (say Naira) that is exchanged for one unit of foreign currency (say Dollar).

2. Inflation Rate
According to Gbenga 2020, inflation is either a rise in the supply of money or a steady decline in the purchasing power of money (Gallegati, Giri & Fratianni, 2019). In turn, this reduces people's purchasing power because they require more money to buy the same amount of goods or services. As a result, people spend a lot of money on consuming, savings and investment drop, which leads to more unemployment and slower economic growth.

3. Trade openness
The extent to which a country is open to trade is a vital aspect of economic development. Trade potential in nations that attract FIV is mostly determined by GDP level and generates extra trade prospects. Openness to trade promotes the economy's adoption of new technologies and knowledge, as well as increases exposure to competitiveness and the improvement of competitive advantage. However, a country may decide to be open in some areas (like business) but not so much in others, like FDI.

2.1.3. Foreign Portfolio Investment inflows
Foreign Portfolio Investment (FPI) is recognized by the International Monetary Fund (IMF) as international transactions and positions concerning debt or equity securities that are not part of direct investment or reserve assets. In a portfolio investment, securities are held solely as a financial investment that can be liquidated based on the holder's investment horizon. Foreign capital is brought into an economy through portfolio investment to profit from the local financial market. This frequently occurs when an interest rate misalignment makes it possible to earn a return that is larger than what is reasonable given the potential amount of risk (Sokang,2018). Portfolio investments may be made in the stock market or money market. Such investments are typically undertaken in domestic capital markets to profit from a bullish trend.

2.2. Theoretical Review
The Portfolio Allocation Model (PAM) was used to underpin the study. Feddeke and Liu developed PAM in 2002, which postulates that capital flows are driven by two classes of determinants which are rates of return and risk factors with positive responses to rates of return and negative to risk. PAM is a dynamic

optimization model in which an individual seeks to maximize the present value of their utility derived from expected return on a portfolio of capital assets driven by three component of the equilibrium capital flows, namely; (a) initial divergence effect (b) impetus effect (c) time path effect. The initial divergence effect is the ratio of initial divergence between foreign and domestic (the starting level of capital stock) and inter-temporal equilibrium holdings of foreign and domestic assets respectively. The stronger the divergence is in foreign assets holdings, the greater the capital inflows.

2.3.   Empirical Review
2.3.1.   Exchange rate and FIV inflows
Benson, Eya and Yunusa (2019) reported that, exchange rate and interest rates are major drivers
of FDI inflows into the Nigerian economy from 2006-2018. However, Eregha (2017) evidenced that, foreign exchange rate hampered the growth of the West African Monetary Zone significantly from 1980-2014. This was reaffirmed by Morrissey and Udomkerdmongkol (2017) whom disclosed that, exchange rate debar the FDI inflows into the US economy from 1990-2015.
2.3.2.   Inflation Rate and FIV inflows
Using the ARDL approach, Emerson, Mohamed and Leroy (2021) found that, higher inflation rate improved FIV inflows into Sierra Leone from 2009Q1-2020Q2. However, Adebayo, Abolaji, Akinsola and Olanrewaju (2021) found that, Inflation rate had non-linear effect on FIV inflows into the Nigerian economy form 1981 and 2018.Utilizing the non-linear ARDL frameworks, Ofori, Shuibin, Kwaben and Dwomoh (2020) refuted Adebayo et'al (2021) claims and affirmed that, inflation rate and interest rate trivially positively predicted GDP.
2.3.3.   Degree of Trade Openness and FIV inflows
Su, Thanh, Nguyen, Canh, and Christophe (2019) found that, the more an economy is open to trade, the more the Vietam economy grows over 2005-2017. Conversely, Abdel and Anass (2019) found that, FDI flow reduced by 53% due to the country's stiff trade openness Policy.

3.0 METHODOLOGY
The *ex-post facto* research design was used because this type of research is one that takes place after the event or the fact had taken place. Since the domain is the SSA, the 48 countries in SSA were adopted as the study population. This study purposively selected 10 SSA Countries. More so, the study adopted the secondary source of data collection using the data that was sourced from the World Bank Data Base over the years under investigation. Variables considered includes: Exchange rate (EXCR), Inflation Rate (INTR), the Degree of Trade of Openness (DTO), and Foreign Portfolio Investment Inflows (FPI). The study adopted the Generalized linear Model. The model of this study,as stated in equation 1, was adopted from the works of Okumoko, Akarara and Opuofoni (2018).

$$FPI = \beta_0 + \beta_1 EXCR + \beta_2 INFR + \beta_3 DTO + U \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where:
    FPI = Foreign Portfolio Investment inflows
    EXCHR = Nominal Exchange Rate
    INFR = Inflation Rate
    DTO = Degree of Trade Openness
    β_0= Regression intercept
    $\beta_1 - \beta_3$ = Coefficient of the independent variables to the dependent variable
    U = Error term.

Table 1: Measurement of Variables

Code	Target Variable	Measurement	Aprioiri Expectation
EXCR	Exchange Rate	Official exchange rate	+
INFR	Inflation Rate	Consumer prices (annual %)	-
DTO	Degree of Trade Openness	Trade(% of GDP)	+
FPI	Foreign Portfolio Investment inflows	Annual FPI inflows to GDP	Nil

Researcher's Compilation (2023)

4.0 RESULT ESTIMATION AND DISCUSSIONS

4.1 Descriptive Statistics

The statistics include mean (average), standard deviation (STD), Maximum (MAX), and minimum (MIN.) values for each variable. The Descriptive statistics is shown on Table 2:

Table 2: Summary of Descriptive Statistics

	FPI	EXCR	INFR	DTO
Mean	-1.13E+10	290.8929	11.80343	66.87752
Median	-7450430.	63.84217	7.334154	51.21666
Maximum	2.32E+11	3727.069	382.8160	225.0231
Minimum	-8.08E+11	2.99E-08	-13.05657	0.784631
Std. Dev.	7.80E+10	505.5800	20.43697	44.19906
Observations	200	200	200	200

Source: Econometric Views 9.0 (2023)

The descriptive statistics in table 4.1 evidenced that, FPI, EXCR, and INFR, have an average values of -1.13E+10, 290.8929 and 11.80343, respectively, with higher standard deviation values of 7.80E+10, 505.5800 and 20.43697 respectively. This signals that, FPI, EXCR, and INFR deviated far away from their mean values throughout the studied periods since their mean values are below their standard deviation values. However, DTO and have an average values 66.87752 respectively, with lower standard deviation (STD) values of 44.19906. This signals that, DTO clustered around their mean values throughout the studied periods since their mean values are lower than their STD values.

4.2. Correlation Matrix

The Correlation matrix stated in table 3:

Table 3: Correlation matrix

	FPI	EXCR	INFR	DTO
FPI	1.000000			
EXCR	0.077191	1.000000		
INFR	0.042954	-0.119499	1.000000	
DTO	0.022582	-0.149062	-0.133896	1.000000

Source: E-Views 9.0 Output (2023)

The correlation matrix reported in table 4.2 above revealed that EXCR, INFR, and DTO, have correlation coefficient values of 0.077191, 0.042954 and 0.022582 respectively. This signposts that EXCR, INFR, and DTO, exerted positive weak correlation with FPI but did not exhibit high correlation suggesting low multicollinearity problems in the series. To reaffirm this, the VIF was introduced. The estimate is in table 4.

4.3. Diagnostic Test

Before presenting the main result, various diagnostic tests/robustness checks were introduced. This is to ensure that, the classical assumption of OLS is maintained, and that, the regression result is reliable. This confirms with the submissions of Agbogun, Ehiedu, Bayem, and Onuorah (2022); Olokoyo, Ighosewe, Agbogun, Adegboye & Isibor (2021).

Table 4: Variance Inflation Factors-VIF

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
EXCR	0.741698	6.845788	1.319229
INFR	2.29E-06	1.626163	1.221339
DTO	0.070803	4.254071	1.133471

Source: E-Views 9.0 Output (2023)

The VIF values/estimate in table 4 revealed that, the series are all below the benchmark of 10. This is an indication of an absence of multicollinearity among the variables. Thusl there would be likely no issue of unstable parameter estimates in the regression line.

Table 5: Heteroskedasticity (HER) Test

F-statistics	16.09513	Prob.	0.1837

Source: E-Views 9.0 (2023)

The HER test with prob. value of 0.1837 suggests that, the model (series) is Homoskedastic which is desirable.

Table 6: Ramsey RESET Test

	Value	Df	Probability
F-statistic	1.545536	(1, 789)	0.2142

Source: E-Views 9.0 (2023)

From the table 4.5, the Prob. value of the chi-square which stood at 0.2142 gives us prove that there is none of the study variables that were omitted since it is not significant at 5%.

4.4.   Regression Result

Having ascertained that, the regression result is devoid of Multicolinearity problems, Homoskedastic, and well-captured, the regression result is presented thus:

Table 7: Regression Output- Generalized Linear Model

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.346269	0.248667	9.435380	0.0000
EXCR	-0.167563	0.184560	-0.907903	0.3639
INFR	-0.446552	0.105192	-4.245100	0.0000
DTO	0.002694	0.009005	0.299143	0.7648
Mean dependent var	15.70194	S.D. dependent var		12.51747
LR statistic	204.3481	Prob(LR statistic)		0.000000

Source: E-Views 9.0 (2023)

The result suggests that all the regressors on the overall are significant. Again, the Wald test revealed that the independent variables, EXCR, INFR, and DTO, jointly had a high statistically significant effect on the dependent variables, FPI of Sub-Saharan African countries. Therefore, the model is adequate and the null hypothesis of this research may not be accepted.

From the Generalized Linear Model in Table 6, exchange rate reported negative coefficient values of -0.167563 and a prob-value 0.3639. Since the p-value of EXCH is > 5% level. This suggests that, exchange rate reduced the flows of FPI into the SSA economy minimally. This may be due to the multiple exchanges inherent in SSA countries.

Again, the high INFR inherent in SSA countries discouraged more FIV inflows into the economy to about 44.66%. This suggests the need for policy makers to consider the rising high INFR.

Lastly, the result reaffirmed that, the SSA economy though open to trading activities but still not open to encourage huge flows of FIV inflows at the moment since it only encouraged FIV inflows by an insignificant value of 0.002694 units with a p-value 0.7648 that is above 5% level

5.   CONCLUSION AND RECOMMENDATIONS

This study investigated the determinants of FIV inflows into SSA countries from the period of 1982 to 2021. The regressors are EXCR, INFR, and DTO while, the regressor is FPI. Having subjected the models to series of analysis, the study was patterned after the Generalized Linear Model. Premised on the regression result, the study concludes that, only INFR are determinants of foreign portfolio investment inflows into SSA countries in the periods reviewed. Therefore, the following submissions were made:

   i.   SSA Countries should institute policies that would help to further stabilize the exchange rate.
   ii.   SSA Countries should implement monetary and fiscal policies that are geared towards stabilizing the inflation rate so as to attract the inflow of foreign investment into SSA countries.
   iii. A proper policy integrating economic and institutional considerations is required to ensure a long-term profitable economic growth of SSA Countries.

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