THE EFFECT OF FDI AND FINANCIAL DEVELOPMENT MARKETS ON SUB-SAHARA AFRICAN ECONOMY: AN EMPIRICAL STUDY BASED ON VAR MODEL

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Abstract:
This paper investigates the effect of FDI and financial development markets on GDP growth in 35 Sub-Sahara African (SSA) economies over the period 1980-2020. The results in the Vector Autoregression (VAR) Models indicate that FDI has no significant impact on the GDP growth of SSA. However, two variables of financial development have got positive significant effect on the economic growth of SSA. Moreover, the result of the granger causality test show that financial development have significant causality effects on the economic growth of SSA.

Keywords:
Economic Growth, FDI, Financial Development markets, Granger Causality

1. Introduction

FDI remains the largest foreign capital inflow for developing economies. Several explanations have been advanced to justify the benefits of FDI, including augmenting domestic savings and investment, improved managerial skills, and transfer of advanced technologies to the host countries. The relevance of FDI has been emphasized for a variety of reasons, including increasing local savings and investment, transferring cutting-edge technology, and improving managerial abilities in a destination. Consequently, several countries in the developing world have resumed their efforts to attract FDI. A minimum of 126 investment policy reforms were enacted by 65 nations and economies in 2015, of which 84% were investor-friendly. The authorities liberalized entrance conditions in a variety of industries, including transport, energy, and industry. They also encouraged and made it easier for people to invest by making administrative processes simpler, giving incentives, and setting up special economic zones (SEZs). However, those benefits do not automatically convert to becoming the host country's spillovers but require the host country to have an adequate base to absorb the acquired technology.

Global FDI flows dropped by 23% to $1.43 trillion in 2016. This contrasts sharply with rapid growth in trade and GDP. Similarly, Africa's foreign direct investment fell to $42 billion, down 21% from 2016. The downturn was triggered by low oil prices and negative continuing the commodity bust has had macroeconomic consequences in major African counties. (UNCTAD 2018). In the past decade, sub-Saharan African economies have been the main recipient of FDI in the percentage of GDP among developing economies while the economic growth in SSA in 2015 collapsed to its lowest level in 15 years. As financial development helps to allocate and mobilize financial resources as well as support other economic policies in enhancing productivity.

In 2020, Sub-Saharan Africa's real GDP is expected to decline by 1.6 percent, the lowest amount of growth ever recorded. Southern and East Africa, which was the most impacted by the coronavirus, is estimated to recover from a 3.0 percent decline in GDP in 2020. GDP growth in South Africa is estimated to return from -6.4 percent in 2020, while GDP growth in Angola is estimated to revive from -5.4 percent in 2020, following two years of recession.

Central and West Africa's growth is estimated to contract by -0.8 percent in 2020. Nigeria's economy is estimated to increase from -1.8 percent in 2020, mainly to improved oil and non-oil sector performance.

Nevertheless, attracting FDI is crucial for economic development in SSA because it provides the external capital necessary for investments (Asiedu, 2006) and (Cleeve, 2008). Still, the challenge is how to make investors commit to registering for real capital expenditure. It makes sense that things like raising money and hiring staff need time to plan for implementation. However, the variation in FDI inflow and stock in SSA as well represents the uptake capacity of host economies, which falls short of the level of economic development. Examples include underdeveloped financial markets, inadequate physical infrastructure, and the lack of qualified workers, all of which support the notion that member states can often profit from FDI through dynamic capabilities. by improving their initial capacity.

Therefore, the goal of this study is to examine the influence of financial market development and FDI on GDP growth in SSA. The question of whether FDI and financial market development trigger economic growth or economic development brings FDI and a more developed financial market is an unresolved issue. Furthermore, the study focuses on 35 countries in the same geographical region in SSA economies over the period 1980-2020. The paper used time series data since World Bank collected data as a single country. By analyzing the VAR model impulse Response Test, and VAR Granger Causality Test.

2. Literature Review

Several kinds of research have been led on the relationship between FDI and economic growth in the literature. Although most previous studies avoid focusing on SSA because of the data limitation, this section discusses the relationship between FDI, GDP, and the financial development market.

To identify the importance of country-specific characteristics on FDI-led growth, (Zhang, 2001) the empirical study has been carried out using data from 11 Latin American and Eastern Asian economies. The study found that there is a positive relationship between FDI and productivity growth, concluding that the strength of this relationship depended in particular on host country conditions for improving education and hence the state of human resources, preserving macroeconomic stability, and implementing a liberalized trade regime. Similarly, (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004) discussed that the effects of FDI differ across industries and the effect of FDI on the primary sector is negative and its influence on the manufacturing and service sectors is positive and uncertain. The result indicated FDI targeting the primary sector, especially in oil exporting countries, did not consider the national government to have a minimum degree of human capital or even to be politically stable. human capital or even be politically stable as long as multinational companies repatriate more profit, which is happening in many developing countries.

(Brenner, 2014) studied the effect on the national economic growth of foreign direct investments through GMM panel regressions and identified impacts on productivity development, labor, and capital inputs as well as innovation activities. Moreover, fewer and more developing countries are being analyzed separately along with the periods 1992-200 and 1974-1991. FDI's effects on production capacity for the first time in more developed countries, while impacts on innovation activities for the medium-developed countries in the latter era are established. The findings show clearly that economic growth is a positive effect on rises in capital production. (Pegkas, 2015) observed the effect of FDI on productivity in Eurozone economies, the study's key finding was that FDI is a significant element that influences productivity development in Eurozone nations. As a result, FDI plays an essential role in the Eurozone's economic growth.

To overcome the limitation, (Li & Liu, 2005)investigated whether foreign direct investment economic growth is based on a panel of 84 countries by using both single equation and simultaneous equation system techniques to detect the endogeneity problem. The paper combined and used both the world investment directory published by the UN and World Bank data. They also used education, technology gap, and infrastructure as the interaction term and found that FDI does not directly promote economic growth by itself but indirectly through its interaction terms.

(Johnson, 2006) used panel and cross-section data from 90 countries to come to the conclusion that innovation flows cause FDI to boost economic growth in developing countries but not in developed economies. The study also looked at how FDI affects the growth of economies in the service and manufacturing industries.

(Herzer, Klasen, & Nowak-Lehmann D, 2008) also, run the same test with a different technique. In the majority of the sampled nations, they were unable to identify either a long-or short-term association between FDI and economic growth and they discovered no proof of a causal connection between the two.

In contrast, (Ekanayake & Ledgerwood, 2010) employed panel data on an assembly of 85 evolving nations top Asia, Africa, and Latin America, and the Caribbean for the period 1980-2007, found that FDI has a positive and significant influence on GDP.

(Owusu-Nantw, 2018) empirically examined the long and short-run relationship between FDI and GDP in South America using panel data from 1970 to 2013. The empirical result indicates that positive and statistically significant in the long-run relationship between FDI and productivity growth while short-run the findings show bidirectional causality between sustainable GDP and FDI

(Awad & Ragab, 2018) the study highlighted that FDI appears statistical effect on economic growth per capita, the result indicated that increasing 10% FDI inflow would lead to an increase in the growth rate in per capita economic growth by an average of 1.3%, the positive impact of FDI, in this case, that not reflect simply in domestic investment.

(Li & Tanna, 2019) noted that FDI is commonly seen as a catalyst for productivity growth, especially in developing economies, the GDP-enhancing impact of inward FDI while dependent on the capacity of absorptive of developing economies. They found there is a short direct impact of FDI on total productivity growth in developing economies.

(Ibrahim & Acquah, 2020) The global inflows of FDI have been reallocated to other emerging economies as the FDI inflows to developed countries have decreased in the last ten years. The weak allocation of foreign direct investment gives credence to the African continent's weak financial structure. The continent's financial system is largely bank-based and undeveloped financial development measures financial institutions' ability to make financial services available to individuals and to finance support the economic drive of the private sector in the financial system.

To have an intuitive understanding of the role of absorptive capacities based on previous papers, the next part will discuss the FDI absorptive capacity and the choice of financial functioning as the focus of our study, the relationship between financial market development and economic growth as well as how functioning financial intermediation is vital for promoting saving and investment and eventually economic growth.

(Agbloyor, Abor, Adjasi, & Yawson, 2014) The positive relations observed between economic growth and private capital as well as the role of domestic financial development, imply that inadequate financial markets may make nations more susceptible to financial and exchange-rate shocks, which could lead to a loss of foreign capital and a slowdown in long-term growth.

In addition, (Yavas & Malladi, 2020) also argued that stock market returns and volatility play an important role in understanding incoming FDI flows in the U.S. Eventually, results appear to support the paper's core premise: linkages exist between capital markets and foreign direct investment.

(Barbra & Nawaz, 2021) They examined the connection between FDI and GDP in Uganda. They discovered one-way connection among FDI and GDP and that FDI is the driver of GDP growth. Concluded Having an understanding of these connections between causes and effects can help with the predicting of economic expansion in Uganda in the future.

(Abaidoo & Agyapong, 2022) They examine rising economies' formal quality and financial development. All other things being equal, institutional quality accelerates the rate of financial development across countries in the sub-region. According to the results of their study, when considered separately at the micro-level, good governance, institutional quality, rule of law, and responsibility are likely to have a significantly beneficial effect on the growth of the financial sector. (Mutenyo, Nnyanzi, & Makika, 2022) The authors examine the influence of (FDI) and local private investment on the GDP of Sub-Saharan African nations. They discovered that foreign direct investment had a negative effect on GDP in Sub-Saharan African nations. PDI correlates positively with economic growth; hence, PDI is more growth-inducing than FDI in SSA. conclude, SSA states should strengthen regional integration in order to attract the required FDI in order to attain the desired economic outcomes. In addition to government spending, baseline GDP per capita, human capital development, financial development, and trade openness are significant growth variables.

The performance management systems of saves and investments differ in that effective savings are mostly influenced by income, whereas effective investment is primarily determined by entrepreneurial skills, knowledge, and risk-taking propensity. Developing-country savers where financial markets are less developed like SSA where (Hermes &

Lensink, 2003) pointed out the importance of a well-developed financial sector for the technical dissolution process linked with FDI. They verified that 37 of the 67 nations in the given dataset have a financial sector that is highly robust to allow FDI to contribute favorably to economic growth. The majority of these nations are in Asia and Latin America, and only three countries (Ghana, Swaziland and Zambia) are in SSA. These savers with less developed financial markets tend to invest real assets, often of relatively low social productivity.

These papers mostly focus on countries with an already developed financial market while they give little attention to the less developed regions like SSA where the inflow of FDI is substantial, but the development of the financial market is quite low. Therefore, it is important to understand the interrelationships among FDI, financial market development, and GDP growth SSA.

3. Data and Methodology

To assess empirically the influence of financial development markets and FDI on GDP growth in 35 Sub-Sahara African economies over the period 1980-2020. The paper used time series data since World Bank collected data as a single country. The study uses Vector Autoregression Model, Impulse Response Test, and VAR Granger Causality Test. Several studies have used this method previously such as: (Barbra & Nawaz, 2021), (Ocaya, Ruranga, & Kaberuka, 2013). therefore, the basic specification of the first-order, autoregressive process AR l model is presented as:

$$y_t = \mu_0 + \sum_{i=1}^{P} \beta_i \, y_{t-1} + \epsilon_t \, \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Whereas Yt: represents variable vectors either "GDP growth, FDI, FD1DC, and FD2MC". also, P is the number of lags. μ_0: is the constant. β_i is the parameter that we need to estimate\ coefficient of lag i. $y\_(t-1)$: is lagged endogenous variables in time t-1, and ϵ_t is an error term or white noise.

The study runs a bivariate VAR model. the first equation excluded the financial market development variable, to understand the influence of FDI on economic growth. Therefore, the estimated equation is:

$$DGDP_t = \mu_1 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFDI_{t-1} + u_{t1} \, \ldots\ldots\ldots\ldots\ldots.. (2)$$

$$DFDI_t = \mu_2 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFDI_{t-1} + u_{t2} \, \ldots\ldots\ldots\ldots\ldots (3).$$

The second equation and third equations will estimate the effect of financial market development variables on economic growth individually. The effect of FD1DC on Economic growth:

$$DGDP_t = \mu_1 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFD1DC_{t-1} + u_{t1} \, \ldots\ldots\ldots\ldots (4).$$

$$DFD1DC_t = \mu_2 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFD1DC_{t-1} + u_{t2} \ldots\ldots\ldots\ldots (5).$$

Third equation is the effect of FD2MC on Economic growth:

$$DGDP_t = \mu_1 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFD2MC_{t-1} + u_{t1} \dots \dots \dots \dots (6).$$

$$DFD2MC_t = \mu_2 + \sum_{i=1}^{P} \beta_1 \, DGDP_{t-1} + \sum_{i=1}^{P} \beta_2 \, DFD2MC_{t-1} + u_{t2} \dots \dots .. (7).$$

3.1. Granger Casualty Test
To determine causality link between time series variables, Granger causality test estimated whether X causes Y.
(Granger, 1969).
Granger causality test bivariate VAR model:

$$y_t = \alpha_1 + \sum_{i=1}^{P} \beta_{11} \, y_{t-1} \sum_{i=1}^{P} \beta_{12} \, x_{t-2} + e_{1,t} \dots \dots \dots \dots . (8).$$

$$x_t = \alpha_2 + \sum_{i=1}^{P} \beta_{21} \, x_{t-1} + \sum_{i=1}^{P} \beta_{22} \, y_{t-2} + e_{2,t} \dots \dots \dots \dots (9).$$

The null hypothesis H0: variable X does not granger causes variable Y.
The alternative hypothesis H1: variable X granger causes variable Y.

Table 1: Data description

Variable	Explanation	Source
GDP	GDP growth (annual %)	**WB**
FDI	FDI Inflow as (% of GDP)	**WB**
DC	Domestic credit to private sector (% of GDP)	**WB**
MC	Monetary Sector credit to private sector (% GDP)	**WB**

GDP represents host country GDP growth. FDI net inflows as a proportion of GDP is referred to as FDI. FDI is a
significant mechanism for transferring technology, expertise, and cash to receiving nations, resulting in increased
economic potential.
DC reflects domestic credit provided by the banking industry, which includes all credit to other sectors. The financial
sector includes deposit money and monetary authorities, as well as other data-driven financial firms.
MC stands for Monetary Sector credit to private sector, financial companies give financial resources to the private
sector in the form of loans, trade credits, non-equity securities purchases, and other accounts receivable that create a

claim for recovery. The financial growth of a host nation is a key requirement for FDI to have a beneficial impact on GDP, and financial system development also adds to the FDI-associated technology diffusion cycle.

4. Result and Discussion

In this section, we present the results obtained from the empirical analysis and discussion. We present a formal empirical analysis that tests the effect of foreign direct investment and financial market development on the sub-Sahara African economy.

4.1. Descriptive Statistics

Table 2: Descriptive statistics:

	GDP	FDI	FD1__DC	FD2__MC
Mean	2.921910	1.523762	42.85271	26.79908
Median	2.859308	1.627731	44.66771	27.36889
Maximum	6.551653	3.854456	56.82258	31.14259
Minimum	-2.509550	0.067083	20.99349	17.96692
Std. Dev.	2.307663	0.985743	10.49491	3.318620
Skewness	-0.490121	0.231977	-0.506871	-0.899749
Kurtosis	2.689525	2.032017	2.129773	3.245722
Jarque-Bera	1.806171	1.968416	2.974946	5.497616
Probability	0.405317	0.373735	0.225943	0.064004
Sum	119.7983	62.47423	1714.108	1071.963
Sum Sq. Dev.	213.0123	38.86760	4295.581	429.5162
Observations	41	41	40	40

The average GDP growth is 2.92%. The average of FDI to SSA economy is 1.52% this indicates that FDI has an important source of financial development for SSA economies. As while as the average of FD1 Domestic credit to the private sector and FD2 Monetary Sector credit to the private sector is 42.85% and 26.79% respectively. The numbers explain the extent of the private sector constraint to credit which can limit the ability of the economy to take advantage of potential spillovers from foreign direct investment.

4.2. Unit root test: ADF and Philips Tests

The data used in VAR model should be. The study used Augmented Dickey Fuller (ADF) test and Philips- Peron test to estimate the unit root test of the variables at level and first difference. as the result of tables 3 and 4 indicates all variables are non stationary at level the p-value of variables are greater than 0.05. while all variables are stationary at first difference the p-value of the variables are less than 0.05. therefore, the data is stationary at first difference.

Table 3: ADF Test
Unit root test of SSA: ADF Test

SSA:	L		1(D)	
	T-statistics	Prob	T-statistics	Prob
GDP:	-2.288342	0.4303	-6.830693	0.0000
FDI:	-0.872385	0.9491	-10.81336	0.0000
FD1: DC:	-1.084547	0.9185	-5.120847	0.0036
FD2:MC:	-2.371628	0.3877	-5.668728	0.0013

Significant level: 0.01, 0.05, 0.10.

Table 4: Philips Test
Unit root test of SSA: Phillips-perron Test

SSA:	L		1(D)	
	T-statistics	Prob	T-statistics	Prob
GDP:	-2.392181	0.3778	-8.655448	0.0000
FDI:	-2.504725	0.3243	-12.15255	0.0000
FD1: DC:	-0.484953	0.9800	-16.82499	0.0000
FD2: MC:	-2.261757	0.4436	-9.298052	0.0000

Significant level: 0.01, 0.05, 0.10.

4.3. VAR Model
4.3.1. Vector Autoregression Estimates
Vector Autoregression can be estimate, all variables are endogenous and stationary at the first difference. The lag length criteria based on Akaike information criterion "AIC" the optimal lag is one, also there is no cointegrating equations, short-run relationship is estimated. The short-run is adjusted through individual coefficients of differenced terms. in order to determine the significant impacts of the variables we estimated Wald test as shown Tables 5, 6 and 7.

Table5 FDI and GDP: Vector Autoregression Estimates

Variables:	Coeff	std. Error	t-stat	prob	Wald test
DGPD to DGDP:	-0.075164	0.169814	-0.442626	0.6594	0.6580
DGDP to DFDI:	0.402691	0.516352	0.779877	0.4380	0.4355
Cons:	-0.050277	0.288060	-0.174538	0.8619	

DFDI to DGDP:	0.058189	0.047627	1.221757	0.2258	0.2218
DFDI to DFDI:	-0.465623	0.144820	-3.215180	0.0020	0.0013
Cons:	0.045756	0.080792	0.566341	0.5729	

Significant level: p<0.001, p<0.01, p<0.05.......

As the result of table 5 indicates, based on Wald test DGDP and DFDI has no significant impact on DGDP. DGDP is 0.6580 and DFDI is 0.4355. both variables they are greater than the level of significant. Also, DGDP is 0.2218 it doesn't have significant impact on DFDI. While DFDI is 0.0013 it has significant impact on DFDI.

$$dgdp = -0.050277 + (-0.075164dgdp) + 0.402691dfdi$$

$$dfdi = 0.045756 + 0.058189dgdp + (-0.465623dfdi)$$

Table6: FD1DC and GDP: Vector Autoregression Estimates

Variables:	Coeff	std. Error	t-stat	prob	Wald test
DGPD to DGDP:	-0.159458	0.146046	-1.091833	0.2788	0.2749
DGDP to DFD1DC:	0.244437	0.065327	3.741731	0.0004	0.0002
Cons:	0.006804	0.256568	0.026520	0.9789	
DFD1DC to DGDP:	-0.497912	0.358970	-1.387059	0.1700	0.1654
DFD1DC to DFD1DC:	-0.067848	0.160526	-0.422657	0.6739	0.6725
Cons:	0.028700	0.639201	0.044900	0.9643	

Significant level: p<0.001, p<0.01, p<0. 05..
As the result of table 6 shows based on Wald test DGDP has no significant influence on DGDP. While DFD1DC is 0.0002. it has positive significant impact on DGDP. Also, both variables DGDP and DFD1DC has no Significant impact on DFD1DC: financial development 1, Domestic credit.

$$dgdp = 0.006804 + (-0.159458dgdp) + 0.244437dfd1dc$$

$$dfd1dc = 0.028700 + (-0.497912dgdp) + (-0.067848dfd1dc)$$

Table7: FD2MC and GDP: Vector Autoregression Estimates

Variables:	Coeff	std. Error	t-stat	prob	Wald test

DGPD to DGDP:	-0.110528	0.156094	-0.708088	0.4813	0.4789
DGDP to DFD2 MC:	0.379731	0.135114	2.810440	0.0065	0.0049
Cons:	0.018056	0.274668	0.065738	0.9478	
DFD2MC to DGDP:	-0.135867	0.171100	-0.794079	0.4300	0.4271
DFD2MCto DFD2MC:	-0.271445	0.148519	-1.827677	0.0721	0.0676
Cons:	0.136833	0.305093	0.448495	0.6552	

Significant level: $p<0.001$, $p<0.01$, $p<0.05$..

As the result of table 7 indicates, based on Wald test DGDP has no significant influence on DGDP. While DFD2MC is 0.0049 it has positive significant impact on DGDP. Also, both variables DGDP and DFD2MC has no Significant impact on DFD2MC: financial development 2: Monetary sector credit.

$$dgdp = 0.018056 + (-0.110528\text{dgdp}) + 0.379731 \text{ dfd2mc}$$

$$dfd2mc = 0.136833 + (-0.135867\text{dgdp}) + (-0.271445\text{dfd2mc})$$

4.3.2 Impulse Response Function Test

In econometric research that utilizes VAR model, the impulse response is a crucial step that explains the response of one variable to changes of another variable in the system while all other shocks are held constant at zero. Cholesky decomposition method was used to investigation the response variable shocks to another variable. The below Figures indicates the responses of DGDP and DFDI, DGDP and DF1DC, DGDP and DF2M. Respectively figure 1 up to figure 3.
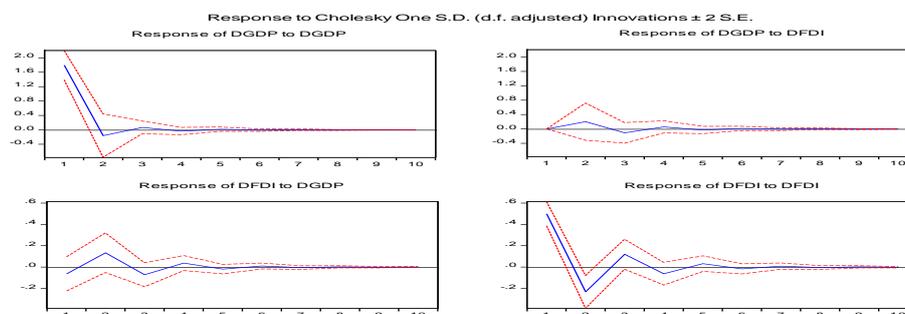

Figure1

Response of DGDP: one SD shocks on the GDP starts positive 1.80% slightly decline GDP in the first period later at the second period became negative -0.16 then it made a little increase at period 3 positive 0.07.

Response of DGDP: one SD shocks FDI starts zero first period increases second period 0.2 then decline third period -0.11 and lastly increased fourth period 0.06.

Response of DFDI on DGDP: one SD shock on the GDP first period starts negative -0.06 and later second-period increases 0.12 then decline in the third period negative -0.07, as the graph shows. its up and down positive and negative responses until the last period. Therefore, shock GDP has a symmetric impact on FD.
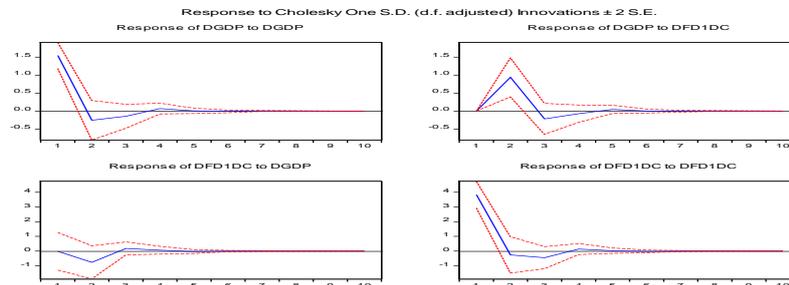
Figure 2

Response on DGDP: one SD shock to FD1DC initially increases on DGDP. positive 0.94 response sharply declines at period 3 and period 4 and remains negative declines. Therefore, the shock to FD1DC has a symmetric impact on GDP.

Response on DFD1DC: one SD shock to DGDP decreases negative DFD1DC. That negative response remains or stays until half of period 3 (-0.3). then increase period 3 again (0.2) and remains positive.
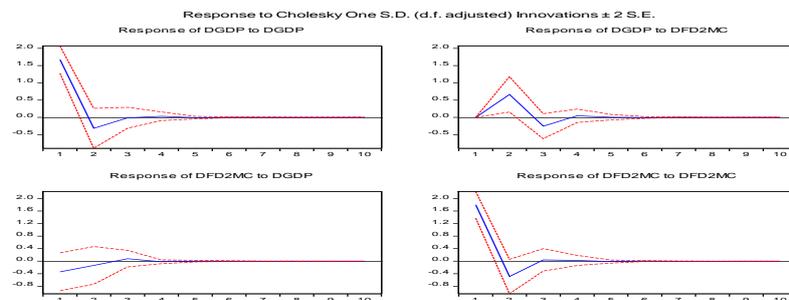

Figure 3

Response on DGDP: one SD shock to FD2MC initially increases on DGDP. The positive 0.66 response sharply declines negative at period 3 (-0.26). then increase period 4 positive (0.04). Therefore, the shock to FD2MMC has a symmetric impact on GDP.

Response on DFD2MC: one SD shock DGDP gradually has a negative on DFD2MC from period 1 to period 2, then increases a few at period 3. it stays state value and remains positive.

4.3.3. VAR Granger Causality

Table 8: VAR Granger Causality/Block Exogeneity Wald Tests: all variables

Hypothesis:	chi-sq	df	prob	decision causal
DFDI to DGDP:	0.608207	1	0.4355	No causality
DGDP to DFDI:	1.492690	1	0.2218	
DFD1DC to DGDP:	14.32704	1	0.0002	One-way causality
DGDP to DFD1DC:	1.923933	1	0.1654	
DFD2MC to DGDP:	7.411592	1	0.0065	One- way causality
DGDP to DFD2MC:	0.630562	1	0.4271	

H_0 significant rejection level: $p<0.05$, $p<0.01$.

As the result of table 8 shows there is no directional causality effect of foreign direct investment on economic growth. While the two variables of financial development have significant causality on economic growth of SSA.

5. Conclusıon

This study examined the influence of FDI and financial development markets on GDP growth in 35 Sub-Sahara African economies over the period 1980-2020. Several statistical measures were used such as, Vector Autoregression Model, Impulse Response Function IRF Test, and VAR Granger Causality Test. At vector Autoregression in order to determine the significant impacts of the variables we estimated Wald test. The results indicate FDI has no significant impact on economic growth of SSA. While the two variables of financial development FD1DC and FD2MC has positive significant effect on economic growth of SSA. Additionally, the result of causality links indicates that foreign direct investment does not have directional causality effect on economic growth. While the two variables of financial development have significant causality effect on economic growth of SSA. Therefore, the positive causation impact of the FD1DC and FD2MC to GDP shows that an increase of financial development markets increases the economic growth of SSA.

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