Does Chinese FDI inflow into Africa influence Inflation in the African Economy

Usman A. Usman[1] and Mohammed I. Mohammed[2]
[1]Department of Economics, Ibrahim Badamasi Babangida University, Niger, Nigeria
[2]Department of Economics, Dr. Umar Sanda Ahmadu College of Education Minna, Niger, Nigeria

Abstract
For several decades, most disruptions and failing macroeconomic stability have been attributed to endogenous drivers. The rapid increase in Chinese FDI raises concern for indigenous firms, even though a few have argued that foreign firms compete with foreign firms in isolation from the indigenous firms. Heavy expenses on foreign products for a continent whose place in the supply chain is primarily raw materials and not finished goods implies paying heavily for payment and exchanging local currency for dollars. This impliedly means rise in inflation due to the importation cost. This study employed the generalised method of moments (GMM) to investigate Chinese FDI inflow into Africa and its effect on macroeconomic stability (inflation). This study employed a panel data set of forty-two (42) African countries spanning 2016 to 2023. The findings show that Broad money is negative at 10% level, indicating that it does not affect inflation. However, government revenue has a negative effect on inflation, indicating that it reduces inflation at 1% level of significance. Gross fixed capital formation is positive at 1% level of significance, indicating that it stimulates inflation. The coefficient of Chinese FDI is also positive at 1% level of significance, indicating that it increases inflation. U.S export has a negative effect on inflation at 5% level of significance.

Introduction
Africa inflationary pressure has implication on domestic demand especially with nations with low per capital income and poor employment which precipitate ineffective demand. inflation reduced slightly by 2 percent, in 2018, it pegged at 11.2 per- cent and dropped to 9.2 percent in 2019. Theories have established outcomes of FDI inflow to have effect on productivity and competition. FDI influence aggregate demand as well as pushing price upward. Inflation in Africa

continued to exacerbate series of macroeconomic imbalances; it rose sharply from 3.6 percent in the period 2015 to averagely 5.4 percent in 2016. Since several economic disruptions such as pandemic and structural economic transformation had struck global economies, African is not an exception to these disruptions as recoveries for economies remain slow. It is expected that lower inflation is characterized by blend of low domestic demand and moderate increases in foreign prices (African Economic Outlook, 2020). Between 2016 and 2020 Sub-Sahara Africa recorded 1.3 percent increase in inflation, that 9.9 in 2016 and rose slightly to averagely 11.2 percent in 2020. It rose slowly to 11.6 in 2021 and 15.2 percent in 2022. A sharp increase recorded in 2023 to averagely 17.6 percent and 18.3 percent in 2024. For the whole of African continent inflationary rate rose sharply from 2020 to 2024. In 2020 it stood at 11.1, it further rose to 12.3 in 2021 and 14.2 in 2022. It further escalated in 2023 to averagely 18.2 and 20.1 in 2024 (IMF, 2024).

Chinese FDI over the last two decades played a pivotal role in sharpening Africa economy and supporting for saving and investment opportunities in the continent. Chinese FDI flow globally in 2016 stood at 196.15 billion U.S. Dollars, this continued to decelerate slowly to 136.91 in 2019, in 2020 the period of pandemic, it rose sharply to153.71 due to global aggregate demand and in 2021, it stood at 178.82 billion after which it declined slightly to averagely 163.12 billion in 2022 and rose upward to 177.29 billion in 2023. This presents the turbulence in the Chinese supply chain and the demand for its products globally.

African economy is perpetually dependent on production of raw materials and this alone placed it on primary production in supply chain therefore depending on foreign goods. Chinese FDI inflow into Africa continued to rise. Specifically, activities of Chinese FDI into Africa are predominantly focused on the extraction of raw materials to support industries in Chinese economy, the need to sell finished products also precipitate taking advantage of local market where resources are abundant, lower costs and incorporating African producers into international value chains (Brautigam, Xiaoyang and Xia, 2019).

On fiscal balances, the pooled fiscal deficit-to-GDP share in Africa declined from 5.9 percent in 2017 about to 4.8 percent in 2019. However, this stem from continuous drop in commodity prices and higher tax coupled with nontax revenues. Revenue-to-GDP fraction rose averagely by 0.3% for the 54 African economies, but it rose by more than 1% for oil exporters, such as Angola, whose fraction rose 2.2% (African Economic Outlook. 2020). Since slight recovery and

stabilization has been achieved by African continent, a serious concern remains that the domestic investment remains perpetually poor making the continent a market for finished goods and puts the continent in an unbalanced position in supply chain therefore, this study seeks to investigate the relationships among these variables of interest and domestic investment in Africa. Studies have emerged on Chinese FDI Miao et al. (2021) and Doku, Akuma, Owusu-Afriyie (2017) reported the activities of Chinese FDI on economic growth, this study failed to ascertain the channels through which Chinese FDI affects growth. African economy had to grapple with rising inflation and food prices coupled with other durables making the achievement of sustainable development goal unrealistic and precipitating poverty among larger population.

The context of this study is that African economies have had disruptions characterized with rising unemployment and inflation coupled with high debt profile and failing economic policies to attain structural economic transformation. This few macroeconomic imbalances amongst many attributed to slow pace of African continent and above all the poor technology know-how to produce for supply chain continued to put Africa backward in the race with Asia and other continents. Although theories have attributed advantages to FDI inflow into host countries, the inflow of Chinese FDI continued to increase, the slow state of technology of indigenous firms to produce at global standard continued to decelerate, the existence of FDI in host countries should improve competition and reduced cost of production through efficiency, rising cost of production is the feature of production among indigenous firms, thus, majority of indigenous firms are unable to cover their average variable cost thus shut down in most cases. Studies have ignored the imported inflation stemming from Chinese FDI and other bilateral trade that exist between host countries and the visitor. This study is significant due to the number of countries brought under study and the fact that it deals with unobserved individual heterogeneity, it also supports more statistical efficiency through degree of freedom, in addition, allows the study of dynamic relationships over time. Employing Chinese FDI data is crucial in explaining the dynamics of global trend, how it imports growth and macroeconomic instabilities stemming from disruptions and turbulence in global economy. The growing trend reveals the pattern of Africa's trade and investment as well as the development of Chinese economy.

The justification of using Chinese FDI data is the substantial influx of this investment into Africa and the consensus that it drives home opportunities for

growth, such data is tractable and comprehensive. Secondly, The activities of the Chinese FDI is scaling up in the market with spread distribution in several investments, thus this further emphasizes the advantages that indigenous firms would derive from foreign technology and low cost production. However, how this has aided the stability of macroeconomic indicators continues to question the strategy and mutual growth of African continent and China. It is also a general belief that inflation targeting is a monetary issue addressed by money indices. Technology, efficiency in production, managerial skills may scale up supply price of raw materials since the large or foreign firms benefits from economies of scale or even buy off materials making it scare in the market. The idea is that foreign firms strategically impede the existence of indigenous firms to produce at low cost thus accelerating prices of products.

Empirical studies have modeled inflation a function of endogenous variables, some of which are addressed to exchange rate volatility and other macroeconomic indicators. Inflation is exogenously determined through external source and not as modelled by several studies. One of the significances of this study is that it is focused on exogenous determinants of inflation in African countries. The following are research questions: Does increased FDI inflow from Chinese economy affects inflation? What is the nature of the relationship, does it amount to long or short run? Is there any causality between inflation and Chinese FDI?

Literature Review
Theoretically, several channels have been identified to explain the relationship between foreign direct investment (FDI) and inflation. One prominent channel is the demand-pull effect, which suggests that inflows of FDI stimulate aggregate demand, thereby exerting upward pressure on prices. Morshed and Hossain (2022) argue that when FDI enhances economic activity and increases the volume and circulation of money, demand for goods and services rises, consequently generating inflationary tendencies. Another channel is the cost-push effect, which posits that FDI may elevate production costs, particularly in the manufacturing sector, thereby intensifying inflationary pressures. This scenario is more likely where FDI introduces advanced technology and managerial practices that improve domestic firms' productivity but simultaneously drive up wages and other input costs (Zaleski, 1992). By contrast, the supply-side effect suggests that FDI can exert a deflationary influence by expanding supply capacity. In this view, technology transfer and modern management techniques introduced by foreign investors enhance efficiency and productivity among domestic enterprises, thereby reducing production costs and contributing to lower prices (Koka et al.,

2013). Nachega et al. (2024) reported that global inflation tends to drive inflation for Gambian economy. The nonlinear auto regressive regression is used and ordinary least square regression approach.

Albahouth (2024) employed quarterly data and applied the autoregressive and non-autoregressive distributed lag model to estimate the causes of inflation in Saudi Arabia spanning from 2005 to 2023. The result revealed a positive and significant effect of connection between inflation and broad money supply. Melati and Setyowati (2024) used data on Indonesia spanning from 2021 to 2023 to investigate the determinant of inflation, the outcome of the study showed that broad money devours a positive and statistically weighty effect on inflation.

Ayal Aynalem and Bekalu (2024) analyzed secondary data from Ethiopia covering the period of 2012–2023 to examine the key drivers of inflation using the autoregressive distributed lag (ARDL) framework. Their findings revealed that the expansion of money supply, a higher import-to-GDP ratio, fiscal deficits, and increased public spending significantly heightened inflationary pressures in both the short and long run. Conversely, the ratios of external debt to GDP, the official exchange rate, and real GDP growth exhibited negative long-term effects on inflation.

Njoku et al. (2023) investigated the effect of inflation on FDI using time series data on Nigeria spanning from 1995 to 2020 and applying the VECM and causality test. The results revealed that FDI does not cause inflation and inflation does not cause FDI as well. Baffour and Yebiah (2023) estimate the long run association among imports, inflation and FDI inflow in Ghana spanning from 1990 to 2019. This study employed the VECM and Johansen cointegration test model and the results showed no relationship between GDP and FDI. In addition, there is a short run effect from import to FDI. Inflation also has a short run relationship with FDI inflow. However, there is no short run between import and inflation.

Hossain, Hosen, Thaker, Sharma, Masih and Pek (2023) investigated the causal flow between FDI and inflation using time series data for 1973 to 2017 for Bangladesh economy applying the VECM and VDC tests. The results revealed that in long run and short run, FDI has a statistically significant role in increasing inflation and economic growth. Thus, FDI is an exogenous predictor in the causality equation and the causality runs from FDI to inflation.

Baffour and Yebiah (2023) used Ghana to investigate the dynamism among, Import, Foreign Direct Investment inflow, Inflation and Covid-19 on Economic Growth spanning from 1990 to 2019, the Johansen and granger causality test was employed and the results showed that inflation affects GDP, import and FDI.

Molnar and Yusha Li (2021) found that Chinese outward direct investment (ODI) generally exerts a negative impact on domestic employment across most sectors. Their study further revealed that ODI slows the pace of labour market adjustment toward long-run equilibrium and heightens the domestic price elasticity of labour demand. Although sectoral variations exist, the overall effect of ODI on domestic fixed asset investment was predominantly negative. Riaz and You (2020) employed the autoregressive distributed lag model to estimate the effect of Chinese inward FDI on economic growth and the role of inflation on Pakistan economy spanning from 2000 to 2018. The results of the study shown–ed that Chinese FDI has a positive and significant effect on GDP in the short run. Inflation is positively related to GDP but not statistically significant in the long run.

Gold, Rasiah Kwek and Muhammad (2020) employed panel data set on 18 oil exporting countries spanning from 2003 to 2017 to estimate the determinants of FDI flow into African countries. The authors employed the OLS, random effect generalized least square regression and also two stage least square regression technique and the results revealed that oil/minerals have positive and statistically significant effect on FDI flow. Chinese FDI is located around oil/mineral area. However, the coefficient institutional quality has a negative and statistically significant effect on FDI flow into African economy.

Miao et al. (2020) employed the two GMM approach to test the effect of Chinese African trade and Chinese FDI on African economic growth. The period of study spanned from 2003 to 2017. The results of their study revealed a negative relationship between Chinese FDI and Africa's economic growth. Inflation, trade and interest rate all posit a negative and significant effect on economic growth. However, this study has large sample size and spanned 17 years and the methodology works for small time period and large number of countries under investigation.

Diallo, Luan and Diallo (2019) employed 37 SSA countries spanning from 2003 to 2011 and applied static effect estimation test, this study found that Chinese FDI positively affect economic growth. In the same vein, Akuma and Owusu-Afriyie

(2017) employed 20 African countries spanned 2003 to 2012 employing fixed effect model, the study showed a positive relationship between Chinese FDI and economic growth. Although the technique solves for heteroskedastic issue, these studies only identified the effect of Chinese FDI on growth and not on inflation. In addition to that, the time frame for these studies is small.

Shetewy and Jiang (2019) used panel data set sampled from 2003 to 2015 to investigate the effect of Chinese FDI on economic growth, this study used fixed effect estimation and findings revealed no significant effect relationship between Chinese FDI and growth. In another study, Iqbal, Sami and Turay (2019) examined the determinants of FDI span 2006 to 2015, the data used in this study is a panel data covering 27 host countries in Asia. The results of the study showed that r inflation rate is positively and significantly associated with OFDI. An economy with relatively low inflationary rate or macroeconomic stability attracts FDI. Export is positive but not statistically significant. However, import coefficient has a positive and significant effect on Chinese FDI. The coefficients s corruption and geographic distance are negatively and significantly related to China's OFDI.

Anwar and Sun (2016) employed generalized methods of moments (GMM) approach to estimate whether FDI crowds out domestic firms particularly for local sales revenue and the export intensity in China's region, this is more specifically to leather shoes manufacturing industry coupled with textile and garment manufacturing industry. The findings of the study revealed a positive relationship between FDI and indigenous firms, sales revenue and export intensity in both industries. Ndikumana and Verick (2008) reported that FDI crowds in domestic investment in Sub Saharan African countries, the authors applied OLS and fixed effect estimation.

Amoah, Nyarko and Asare (2015) reported that FDI does not granger cause inflation but a bi-directional relationship exist between exchange rate and inflation in Ghana economy between 1980 to 2013. This study employed Vector Error Correction Model (VECM) and Structural Analysis by Granger Causality. Zhang, Alon and Chen (2014) estimated the effect Chinese foreign direct investment (FDI) on GDP growth in Sub-Saharan Africa (SSA) for sample of 44 countries span 2003 to 2010. The authors employed OLS, Fixed effect and dynamic GMM model and the result revealed that FDI has a positive and statistically significant effect on economic growth.

Dreger and Zhang (2013) estimate economic integration of China, how it affects growth and inflation in industrial countries apply Global VAR (GVAR). The results showed that impact of economic cooperation on GDP growth in the advanced economies is statistically significant for Asian region. However, the effect on US and the euro area are not much thus substantially lower as a result of rising inflation pressure. Lin, Liu and Zhang (2009) investigated whether or not domestic firms benefits from FDI. The authors applied the emi-parametric estimation methods and the results showed that Firms located in OECD countries benefit from FDI as horizontal spillovers in China as explained by the activities of foreign firms.

Research Methodology
This study used panel data set covering the period 2016 to 2023. The justification of employing panel data set is based on availability of data set on African countries inform of non-probability sampling procedure.

$$INFLA_{it} = \beta_0 + \beta_1 INFLAC_{t-1} + \beta_1 CFDI_{t-1} + \beta_2 CEXPORT_{it} + \beta_3 CIMPORT_{it} + \beta_4 USIMPORT_{it} + \beta_5 USEXPORT_{it} + \beta_6 GOVEFFEC_{it} + \beta_7 BROADM_{it} + \beta_8 govrev_{it} + \varepsilon_{it} \qquad (1)$$

The specification of dynamic model takes form of autoregressive process

$$\ln Y_{it} = \phi \ln Y_{it-1} + YZ'_{it} + \beta X'_{it} + d_t + \varepsilon_{it} \qquad (2)$$

where Z' Implies control variables, X' means predictor or explanatory variables $\ln Y_{it-1}$ implies the lagged value of dependent variable which is included as an additional instrument in the GMM model. The differenced GMM is expressed as follows:

$$Y_{it} = \sum_{j=1}^{p} \alpha_j y_{i,t-1} + x_{it}\beta_1 + W_{it}\beta_2 + V_{it} + \mu_{it} \qquad (3)$$

i=1 ,…, N; t=1,..T; The α_j are P parameters to be estimated in the model; x_{it} is a

$1 \times K_j$ vector of strictly exogenous covariates; β_1 is a $K_j \times 1$ vector of parameters to be estimated; W_{it} is a $1 \times K_2$ vector of predetermined and endogenous covariates; V_{it} are the panel level effect which maybe correlated with covariates. μ_{it} Imply the i.i.d over the whole sample with variance σ_{ϵ}^2. The V_{it} and the μ_{it} are

assumed to be independent for each I over all t. The justification of applying the GMM technique is that it resolves for endogeneity and Maximum Likelihood Estimation (MLE) problem and those of classical linear assumptions associated with ordinary least square regression (OLS) technique. GMM also takes care of complex data structures such as panel data set, time series and cross-sectional data set. Lastly, it supports for flexible model specification and application of several options providing variances in coefficients, standard errors, number of instruments and AR (1) and AR(2) etc.

Presentation and Analysis of Results
All GMM estimate such as differenced and system GMM are short run estimates. However, the long run estimates is generated using significant coefficients in the short run to generate long run estimates. The estimates also constitute several robust options for flexibility and variances in parameters and standard errors.

Table 1: Differenced GMM

variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
l.infla	-.1271***	-.4129***	-.421775**	-.4129***	-.412928**	-.0545***
	.0502403	.1811461	.4956005	.1811461	.3454523	.0239035
Broadm	-1.9737**	-6.05172**	-5.42893*	-6.05172**	-6.05172***	-.3906736*
	1.876746	4.834578	20.03042	4.834578	3.621544	.6300654
Gfcf	-4.098575*	12.89346*	-9.136423*	12.89346*	12.89346*	-10.74***
	6.109057	23.83519	113.7699	23.83519	27.93341	2.39256
Govrev	-20.237**	-85.39***	-124.090***	-85.3965**	-85.396***	3.119898**
	17.40742	47.6952	66.47491	47.6952	32.81997	3.216781
Chifdi	.0626775**	.2731741**	.4588383***	.2731741**	.2731741***	.0519866**
	.0644756	.1908806	.1643193	.1908806	.1566423	.0415968
Usimpo	.0110696**	.044282**	.0656174***	.044282**	.044282**	-.0013414*
	.0098291	.0316012	.0373827	.0316012	.0348452	.0064241
Usexpo	.0009574*	-.061103*	-.142094*	-.061103*	-.061103*	-.048952**
	.0230326	.1306219	.2304399	.1306219	.1495176	.0485441
chiimpo	-.0017706*	.0207297**	.0118931**	.020729**	.0207297**	-.003429**
	.0035709	.022758	.1237421	.022758	.0304591	.00331
chiexpo	.0003602*	.0119548*	.0488446**	.0119548*	.0119548*	-.0037599*
	.0059122	.0292816	.061982	.0292816	.0385083	.0096577
No. of instr.	36	16	11	16	16	19
No. of groups	23	23	23	23	23	23
AR(1)	0.328	0.203	0.119	0.203	0.084	0.430
AR(2)	0.219	0.859	0.783	0.859	0.855	0.266
Hansen test	1.000	0.378	0.866	0.378	0.553	0.945

Source: Authors' Computation using STATA 17

The differenced model comprises six models in this specification. In model 1, using specification without the collapse option, the instruments is more than the number of groups indicating that there is instrument proliferation. It is far less than the number of groups 36 while the number of group is 23. Including the collapse/robust option, the number of instruments dropped as low as 16 compared to number of groups 23. model 2, in addition, with inclusion of collapse option in the specification, the lag value of the dependent variable is also statistically significant at one percent which signifies that it can be an instrument for inclusion in the model. The statistical value shows that lag value of inflation is negative and statistically significant at one percent point. A change in current inflation is driven by previous value of inflation by .41 percent point under ceteris paribus assumption and the sign of the coefficient is negative. AR (1) is not statistically significant which is not a limitation. However AR (2) must not be statistically significant and incase it does, it indicates the problem of second order serial correlation. Thus, this model does not suffer this problem. Broad money is native and significant at 5%. Government revenue is negative and statistically significant at 1%. The coefficients Chinese FDI, Chinese import and U.S import are positive and statistically significant on inflation at 5%. In model 3, adding broad money and inflation in GMM equation, government revenue is negative and statistically significant at 1%. However, Chinese FDI and U.S import are statistically significant at 1% level of significance

With collapse option, without nodiffsargan option, there is noticeable change in the results of model 4, 2 and 5 wherein standard errors differ. The number of instruments remain the same. The last models in differenced GMM revealed with collapse option and without nodiffsargan option and the result revealed that AR (1) and AR(2) value are perfect not statistically significant and did not suffer the issue of second order serial correlation. In addition, with collapse option the number of instruments is small thus less than the number of groups. The variable Chinese FDI is positive although not statistically significant in some model particularly those without collapse option.

Table 2: System GMM

variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
l.infla	-.4743369**	-.449780***	-.383446**	-.449780***	-.2640***	-.449780***
	.6314319	.1240067	.3060325	.1328062	.05734	.1328062
Broadm	-2.55113*	-3.501265*	-7.95221**	-3.501265*	-1.924976*	-3.501265*
	25.07867	10.11974	6.68973	10.83784	3.58675	10.83784
Gfcf	8.258154*	2.032204***	-.4398603*	2.032204*	-.6623755*	2.032204*
	153.9023	7.854275	6.348274	8.411613	2.834952	8.411613
Govrev	-132.6467**	-129.0139*	-75.24912*	-129.013***	-31.68224*	-129.013***
	92.17792	15.53305	219.4328	16.63527	27.90116	16.63527
Chifdi	.4273361***	.4313073***	.1053442*	.4313073***	.0577911*	.4313073***
	.1647148	.1251476	.4509934	.1340281	.0784483	.1340281
Goveffec	-1.486808*	-1.22708*	-.0765155*	-1.22708*	-.5736476*	-1.22708*
	9.684658	6.401456	8.011867	6.855702	2.427047	6.855702
Usimpo	.0618038**	.0619902**	.0379195*	.0619902**	.0121947**	.0619902**
	.0432925	.0384988	.0861665	.0412307	.0148173	.0412307
Usexpo	-.1124983*	-.1228551**	.0258255*	-.1228551**	.0159735*	-.1228551**
	.2967746	.1330437	.0784903	.1424845	.0482286	.1424845
chiimport		.0250716*	.0059918**	.0250716*	.0030336**	.0250716
		.018373	.0432267	.0196768	.0053921	.0196768
chiexport		.0434572*	-.002381**	.0434572*	.0001076**	.0434572**
		.032983	.0579704	.0353235	.0092854	.0353235
AR(1)	0.122	0.132	0.304	0.132	0.169	0.132
AR(2)	0.961	0.714	0.969	0.714	0.458	0.714
Hansen Stat.		0.967	0.118	0.967	0.308	0.967
No. of Instr.	11	12	18	12	22	12
No of Grp	23	23	23	23	23	23

Source: Authors' Computation

The two-step system GMM without the collapse option shows instrument proliferation with few coefficients with statistical significance. High AR(1) and AR(2). The model 1 shows that the lag value of dependent variable is not statistically significant at 1 % level of significant. Although the number of instruments are less than the number of groups, the AR(2) remain a concern due to the high value 0.961. in model 2, with inclusion of collapse option, the lag value of the dependent variable is statistically significant at 1% level of significance indicating that the lag value of dependent variable can be included in the equation as an instrument. In the same vein, the number of instruments is also less than number of groups. Broad money is negative at 10% level. Gross fixed capital formation (gfcf) is positive at1% level of significance. The coefficient Chinese FDI is also positive at 1% level of significance. Chinese import is positive at 5% level. U.S export has a negative effect on inflation at 5% level of significance. In model 4, government revenue and Chinese FDI are positive and

statistically significant at 1% level of significance. Similarly, the lag value of the dependent variable inflation is statistically significant at 1% level of significance. Although model 2 and model 4 have similar outcomes, they differ in standard errors. This is due to the employment of GMM options in the models.

Table 3: Bond Test Diagnostic

Variable	Coefficient
Fixed effect	.1873015
	.0380497
OLS	.4936978
	.3948364
DIFFERENCED GMM	-.1271
	.0502403
SYSTEM GMM	-.4743369
	.6314319

Source: Authors' Computation

Bond (2001) argued that if, after taken the coefficient of differenced GMM and the value is lower than that of fixed effect and closer to OLS, the system GMM is taken. The system GMM is most efficient. Chinese FDI has an insignificant effect on inflation. This is contrary to the findings by Hossain et al. (2023) and Miao et al. (2020) who reported a statistically significant effect relationship. Reasons may be attributed to the sample period under study although the techniques are the same, the period for Miao et al. (2020) begins 2003 to 2017 and this study focuses on 2016 to 2023 which covers the pandemic era and other economic rigidities. No doubt this period reported low economic activities, trade among nations and influx of investments.

The coefficient Broad money is negative at 10% level indicating that it does not affect inflation. However, government revenue has a negative effect on inflation indicating that it reduces inflation at 1% level of significance. Gross fixed capital formation (gfcf) is positive at 1% level of significance indicating that it stimulates inflation when it is large. The coefficient Chinese FDI is also positive at 1% level of significance indicating that it increases inflation. This result of Nachega, Kwende, Kemoe and Barroeta (2024) shows that global food prices move domestic prices upward. Chinese import is positive at 5% level. U.S export has a negative effect on inflation at 5% level of significance. In model 4, government revenue and Chinese FDI are positive and statistically significant at 1% level of significance. Similarly, the lag value of the dependent variable inflation is statistically significant at 1% level of significance.

Conclusion and Policy Recommendations

The coefficient of Chinese FDI is also positive at 1% level of significance implying that the period under study was not occasioned by a large inflow of Chinese FDI into Africa. The activities of these firms were not beneficial to the African economy because it fuels inflation. Thus, it is important for regime to focus on real factors that stimulate Chinese FDI to stimulate economic indices that could reduce the inflationary trend in Africa.

Import stimulates inflation positively. The rising cost of imported goods skyrockets the indigenous prices. Therefore, the rate of imports must be reduced to sustain the trade balance. This is possible by building a framework that is realistic and tractable to investing in manufacturing local contents thus thereby reducing the demand for imported goods in Africa. This also means that Africa must diversify on production with low cost coupled with improved technology and economic of scale to produce the most commodity that global market desire. This will make Africa exporting economy rather than importing economy.

References

Alvarado, R., Iniguez, M. and Ponce, P. (2017). Foreign direct investment and economic growth in Latin America. *Economic Analysis and Policy*, 56, 176–187

Amoah, E. Nyarko, E and Asare, K (2015). FDI, inflation, exchange rate and growth in Ghana: evidence from causality and cointegrated analysis.

Anwar, S. and Sun, S. (2016). Foreign direct investment, domestic sales and exports of local firms: a regional perspective from China. *Journal of the Asia Pacific Economy*, 21(3), 325-338.

Ayal, B. A., Aynalem, M. M., and Bekalu, K. Y. (2024). Macroeconomic drivers of inflation in Ethiopia: Evidence from ARDL Modelling. *Journal of Economic Business Innovation,* 1(3), 264-280

Badar, A. I., Shaista S. &Turay, A. (2019). Determinants of China's outward foreign direct investment in Asia: A panel data analysis, *Economic and Political Studies*, https://doi.org/10.1080/20954816.2019.1572354

Baffour, A. A. & Yebiah, E. (2023). The dynamism between import, foreign direct investment inflow, inflation and Covid-19 on Economic Growth: Evidence from Ghana. *Business and Finance Journal*, 8(1).

Brautigam, D. Xiaoyang, T., and Xia, Y (2019). What kinds of Chinese "geese" are flying to Africa? Evidence from Chinese manufacturing firms SAIS-CARI policy brief | no. 24 | www.sais-cari.org/publicationschina-africaresearchinitiative

diallo, M.S.K., Luan, J., & Diallo, H. (2019). Assessing the impact of Chinese foreign direct investment on economic growth in sub-Saharan Africa. *African Journal of Business Management*, 12(17), 536-541. https://doi.org/10.5897/AJBM2018.8610

Dreger, C., & Zhang, Y. (2014). Does the economic integration of China affect growth and inflation in industrial countries? *Economic Modelling*, *38*, 184-189. https://doi.org/10.1016/j.econmod.2013.12.018

Elijah, OK (2006). Determinants of foreign direct investment in Kenya. Ph.D. thesis, Institut African de Development Economique et de Planification Publication, Dakar, Senegal.

Faeth, I (2009). Determinants of foreign direct investment-A tale of nine theoretical models. *Journal of Economic Surveys*, 23(1), 165–196.

Gold, Rasiah Kwek and Muhammad (2020). Export determinants of China<s FDI in Africa: Empirical evidence from oil/minerals exporting African countries. *Romanian Journal E4conomics Forecasting,* XX111(3).

Hossain, S., Hosen, M., Thaker, T., Sharma, G.D., Masih, M., & Pek, C. (2023). Is the association between FDI and inflation symmetric or asymmetric? evidence from ARDL and NARDL techniques. *The Singapore Economic Review*, 69(8), 2659-2685. https://doi.org/10.1142/S0217590823500455

Isaac, D., Akuma, J., and Owusu-Afriyie, J. (2017). Effect of Chinese foreign direct investment on economic growth in Africa, *Journal of Chinese Economic and Foreign Trade Studies,* 10(2),162-171, https://doi.org/10.1108/JCEFTS-06-2017-0014

Lin, P., Liu, Z., & Zhang, Y. (2009). Do Chinese domestic firms benefit from FDI inflow? Evidence of horizontal and vertical spillovers. *China Economic Review*, 20(4), 677-691. https://doi.org/10.1016/j.chieco.2009.05.010

Melati, Y., & Setyowati, E. (2024). Variable Determinants of Inflation Rate: A Study of BI Data Analysis 2021-2023. *Economic Education Analysis Journal*, 13 (3), 262-269.

Molnar, M., Yan, T., & Li, Y. (2021). China's outward direct investment and its impact on the domestic economy, Economics Department Working Papers No. 1685

Morshed, N., & Hossain, M.R. (2022). Causality analysis of the determinants of FDI in Bangladesh: Fresh evidence from VAR, VECM and Granger causality approach, *Business & Economics*, 2(7), 64

Nachega, J., Kwende, G., Kemoe, L., & Barroeta, F.M. (2024). The Gambia: Domestic and External Drivers of Inflation. IMF Selected Issues Paper SIP/2024/004

Ndikumana, L., & Verick, S. (2008). The linkages between FDI and domestic investment: unravelling the developmental impact of foreign investment in Sub-Saharan Africa, IZA Discussion Papers, No. 3296, Institute for the Study of Labour (IZA), Bonn

Njoku, C. O., Nwaomo, C. E., & Esseienette, I. B. (2023). Effects of inflation on foreign direct investment in Nigeria. *Journal of Commerce Management and Tourism Studies*, 2(2)

Qu, Y., & Wei, Y. (2017). The Role of Domestic Institutions and FDI on Innovation— Evidence from Chinese Firms. *Asian Economic Papers*, 16(2), 55-76. https://doi.org/10.1162/ASEP_a_00519.

Riaz, M and You, H (2019). Chinese FDI influence in the capital generation, trade and inflation with the perspective of economic development in Pakistan, *European Scientific Journal*, 16(22).

Shetewy, N and Jiang, L. J (2019). The Impact of Chinese FDI on Economic Growth in North Africa Journal of Poverty, *Investment and Development*, 48, 63-68

Zaleski, PA (1992). Industry concentration and the transmission of cost-push inflation: Evidence from the 1974 OPEC oil crisis. *Journal of Economics and Business*, 44(2), 135–141.

Zhang, J., Alon, I., & Chen, Y. (2014). Does Chinese investment affect Sub-Saharan African growth? *International Journal of Emerging Markets, 9*(2), 257–275. https://doi.org/10.1108/IJoEM-10-2013-0171