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Effects of Kenya-China Bilateral Relations on Kenya's Economic Growth

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ABSTRACT: The essence of bilateral relations to any nation is to offer the country the chance to access resources that are not locally available. China has emerged as a major global power marking an unparalleled presence in the international arena with significant influence in Africa. In Kenya, Chinese imports, Foreign Direct Investments and debts have grown tremendously over the years. Whereas Kenya has experienced some economic growth in those years, it is not yet clear whether the bilateral relationship with China is the cause of this growth. There have been mixed results on the studies done on the implication of Kenya - China bilateral relations on Kenya's Economic Growth, therefore, calling for further research. The general objective of the study was to determine the impact of the bilateral relations between Kenya and China on Kenya's Economic Growth, while the specific objectives were to determine the effect of the Chinese imports from Kenya, Kenya's exports to China, Kenya's debt from China and foreign direct investment inflows from China on the Kenya's Economic Growth. This was made possible through the analysis of 32 years' data ranging from 1990 to 2021 on an annual time series basis. The study employed the neo-classical model of Solow-Swan Theory, supplemented by the Dependency Theory. The study utilized an explanatory research design. The study findings showed that Kenya's economic growth is significantly and negatively influenced by foreign direct investment. Debt had an insignificant effect on Economic growth, Imports had a significant effect on the economic growth and Exports were found to have an insignificant negative effect on economic growth. The study concluded that foreign direct investment has a negative and significant effect on the economic growth, while imports have a significant and positive effect on economic growth. Debt had an insignificant and positive effect on the economic growth, while exports had an insignificant and negative effect on economic growth. The research therefore recommends that Kenya is an import-led growth economy. Therefore, imports from China, especially for capital goods that are used in critical sectors such as industries, infrastructure, and agriculture should be encouraged. By importing from China, a technologically developed country, Kenya benefits by transfer of technology, knowledge and innovations. It is also recommended that the foreign direct investment from China to Kenya need to be monitored and limited. New policies need to be put in place to protect "dumping" and "crowding out effect" as well as protect local industries and artisans working in the informal sector.

KEYWORDS: Chinese imports from Kenya, Kenya's exports to China, Kenya's debt from China, foreign direct investment inflows from China, Economic Growth

INTRODUCTION

Kenya's trade relationship with China has grown exponentially over the past decade. China has emerged as Kenya's largest source of imports and its second largest export destination (Kenya National Bureau of Statistics, 2018). This significant growth in trade between the two countries can be attributed to a few key factors. Firstly, China's growing need for natural resources and emerging middle-class market is creating sustained demand for the commodities and agricultural products that Kenya exports such as tea, coffee, fish and seafood (Omolo et al., 2016). By tapping into China's vast consumer base, Kenyan exporters have been able to significantly increase their earnings from trade. As per COMTRADE data, Kenya's exports to China have grown more than five-fold from KES 4.2 billion in 2008 to KES 10 billion in 2018 (Kenya National Bureau of Statistics, 2018). The main exports remain traditional commodities however the variety and volumes have diversified over time.

China has become one of the largest investors in Kenya's infrastructure development sector through funding of large projects via loans and lines of credit. Some examples include the standard gauge railway from Mombasa to Nairobi, the recently launched Nairobi-Naivasha SGR segment, various road construction and improvement initiatives as well as several energy and ICT related

investments (Kenya National Bureau of Statistics, 2018). These major infrastructure upgrades have helped boost Kenya's long-term productive capacities and addressed some of its infrastructure deficits. However, the growing infrastructure investment inflows have also contributed significantly to the rising imports from China. Kenya relies heavily on China as a source for various equipment, materials, machinery and intermediate goods required for developing its infrastructure assets (Kenya National Bureau of Statistics, 2018).

The Kenya-China trade relationship is also fostered through various institutional frameworks. In 2018, Kenya and China upgraded their cooperation to a comprehensive strategic partnership which expanded coordination across many sectors including trade (Kenya National Bureau of Statistics, 2018). Additionally, China opened its first ever overseas assistance center in Nairobi in 2014 to streamline development cooperation projects in East Africa (Omolo et al., 2016).

While trade between Kenya and China has delivered opportunities, there are also concerns emerging from the growing imbalance and domination of imports (Omolo et al., 2016). Moreover, Kenya's heavy reliance on infrastructure-related imports from China exposes its balance of payments and external position to exchange rate and supply chain risks from China (Omolo et al., 2016). Going forward, Kenya needs to explore ways to promote light manufacturing, value addition of exports and import substitution in order to better its trade dynamics with China and reduce vulnerabilities from the lopsided flows (Omolo et al., 2016). Overall, prudent management of trade, debt and strategic partnerships will be critical for Kenya to maintain a mutually beneficial cooperation with China amid the rising scale of commercial engagement (Omolo et al., 2016).

Bilateral economic relationships often exist between economies. Research has demonstrated that the effect of such bilateral relationships on economic growth varies across countries. For instance, while Chami, *et al., (*2005), argued that there was statistically significant link between GDP growth and increased bilateral agreement among countries, Chami *et al*. (2008) demonstrated that there was little evidence of a significant influence of bilateral relations on growth, especially in developing countries.

China's influence on Kenya is prominent. Kenya has been a strategic entrance point for China into the area, since China provides easily accessible financing to Kenya mostly for infrastructure projects including Thika Superhighway, Standard Gauge Railway, and Kenyatta International Airport. Trade between Kenya and China has significantly increased over the last twenty years. As of 2018, Kenya-China trade as a share of Kenya's total trade was 36 percent ahead of the countries traditional trading partners like Uganda, United Kingdom, United States of America and India. However, Chinese imports into Kenya far outweigh Kenya's exports to China. Similarly, Kenya's debt from China as well as FDI inflows from China into Kenya have been on an upward trend (UNCTAD, 2019) and (National Treasury of Kenya, 2015). Currently China is the Kenya's largest bilateral lender and source of FDI inflows into the country. All these statistics indicate an ever-growing Chinese presence in Kenya's economy and give rise to the pertinent question among policy makers, researchers, and indeed ordinary Kenyans-What is the economic effect of the affiliations between Kenya and China?

Indeed, the economic impact of the association between Kenya and China has been a subject of debate especially in the recent past. According to Omolo et. al., (2016), the ever-growing role of China in Kenya's economy as likened to the traditional development allies such as the European Union (EU) and the United States (US) has ended into political statements such as 'looking East'. Some quarters have argued that the relationship is detrimental to Kenya while others have alluded the Kenya has benefited immensely from the relationship. Wanjiku *et. al*. (2018) observed that Chinese loans were detrimental to Kenya while FDI and AID boosted growth in Kenya. On the contrary, Mugendi (2011) citing the example of the Nairobi-Thika highway argued that the existing cordial relationship postitively affected the Kenyan economy. The government has also refuted claims that Chinese loans negatively affect growth and have attributed recent economic growth in Kenya to Chinese loans. The debate on impact of Kenya China economic ties is not only limited to debt and Aid. Trade between Kenya and China has also elicited significant debate among policy makers, scholars and business people. The statistics in figures 1.1-1.3 indicate that trade is imbalanced in favor of China. Similarly, the impact of Chinese FDI on economic growth in Kenya has not been conclusively addressed. The foregoing debate points at an urgent need to study the effect of such bilateral economic association on Kenya's economy. It is against this backdrop that this study seeks to examines the Kenya-China economic association to shade light on the effect of Kenya-China economic association to inform Kenya's policy and contribute to content and theory development.

LITERATURE REVIEW

Mugendi (2011) found positive impacts resulting from improved transportation infrastructure developed through Kenya-China partnerships. One example examined was the Thika Superhighway project, where Chinese contractors were awarded the tender to upgrade the highway. This enhanced road connectivity brought about significant benefits by reducing travel costs, improving access to opportunities, and encouraging private sector involvement in infrastructure maintenance. More efficient domestic

transportation networks help unlock economic activity and productivity gains across different regions. By extension, improved infrastructure also supports increased exports by making industries and ports more accessible and logistics more affordable.

George (2014) conducted a wider analysis of how foreign direct investment influences economic indicators such as GDP, balance of payments and trade. Using time series data from 2002-2011, the study found a direct correlation between overall FDI inflows into Kenya and GDP growth levels. While not focusing specifically on China, this indicates how external investment capital can stimulate domestic output, incomes and development. Export-oriented FDI in particular may contribute new skills and technology transfers that raise national production capacities over time. The resultant export earnings then translate directly into higher GDP through the expenditure approach.

More recently, Newcomb (2020) analyzed the impact of Chinese investments on the Kenyan economy. The study examined both the positive and negative impacts of Chinese development projects and investigated the role of the Kenyan government in facilitating these investments. It highlighted the need for policies to ensure benefits are shared more widely. On similar lines, the Chinese embassy website outlines some of the major investment projects supported by China in Kenya across sectors like rail, ports and energy.

Wanjiku et al. (2018) studied the impact of Chinese loans, FDI, and aid on Kenya's economic development from 2000 to 2015. The research utilized time series data and revealed that loans had a small adverse impact on development whereas FDI and assistance provided notable benefits. The Chinese embassy website provides recent statistics on growing Chinese FDI commitments and aid to Kenya.

Wanjiku et al. (2018) specifically assessed impacts of Chinese loans, FDI and aid between 2000-2015 through time series modeling. Their findings suggested loans had a small adverse impact on Kenya's economic progress. , Lesutis & Huang (2021) found the main SGR contractor constantly adapted strategies due to changing dynamics in both Kenya and East Africa to mitigate delays, rather than rigidly imposing predetermined plans.

Earlier analyses by scholars such as George (2014) and Wanjiku (2016) examined aggregate FDI trends and their correlation with key macroeconomic indicators. George (2014) employed a descriptive approach analyzing 2002-2011 data, finding a direct relationship between overall FDI inflows and Kenya's GDP. Meanwhile, Wanjiku's (2016) time series regression from 1980-2015 attributed over 70% of GDP variability to factors including FDI, infrastructure, trade openness and their interactions.

More specifically focused investigations probed the distinctive character of Chinese FDI and its developmental footprint. Omolo et al.'s (2016) comparative study is instructive here. Using basic correlation analysis, it discovered FDI inflows from China correlated more strongly with GDP growth than ties with traditional partners like the U.S. or EU. Infrastructure projects funded by Chinese investments are highlighted on the Chinese embassy website as driving broad-based productivity gains.

Still, some caveats remain. Newcomb (2020) conducted qualitative fieldwork examining impacts on the ground. While acknowledging growth contributions, the study also raised concerns around weak local linkages from import-dependent projects and potential debt vulnerabilities from disproportionate reliance on one investor nation. More data is still required to comprehensively map socioeconomic spillovers beyond macroeconomic statistics.

RESEARCH METHODOLOGY

Research design

This study used an explanatory (analytical) research design to help the researcher accomplish the study goals. The design is beneficial for elucidating the researcher's observations in descriptive studies (Cooper & Schindler, 2008). Explanatory research aims to establish causal linkages between elements or variables related to the study topic. The architecture allows for the use of statistical tools and methods to establish and explain correlations between variables

Target population

This research focused on analyzing Kenya. The research analyzed the influence of economic links between Kenya and China on Kenya's economic development using data on Kenya's Gross Domestic Product, total imports from China, total exports to China, Chinese loans to Kenya, and Chinese Foreign Direct Investment inflows into the nation.

Data sources

This research employed annual time series data for the period 1990 to 2021. The data was obtained from secondary sources, that is, the World Bank pool, UNCTAD data, Central Bank of Kenya, the Kenya National Bureau of Statistics (KNBS) and any other useful secondary data sources.

Measurement of variables

Table 1 below summarizes these variables, gives their symbols as used in the study and outlines how each of them were measured

Table 1: Measurement of variables

Variable	Symbol	Measurement	Data Source
Kenya's Economic Growth	GDP	Real GDP (GDP at constant 2010 USD)	World Bank Data
Kenya's Exports to China	EXP	Real Exports to China (Export of goods and services converted to constant 2010 USD)	KNBS
Kenya's Imports from China	IMP	Real Imports (Imports of goods and services converted to constant 2010 USD)	KNBS
Kenya's Debt from China	DEBT	Total Kenya government debt from China (converted to constant 2010 USD)	Compiled from World Bank Data, National Treasury and KNBS
FDI inflows from China	FDI	Foreign direct investment, net inflows from China (converted to 2010 USD)	Compiled from World Bank Data, National Treasury and KNBS

Model specification

The theoretical model of first approach for the study was considered as follows

GDP=f(Exports, Imports,Aid, Debt) …… (1)

This model postulates that assistance, debt, imports, and exports all affect GDP growth. While government expenditures and investments may potentially have an impact on GDP growth, these variables are not taken into account in this model since the primary goal of the research was to determine how Kenya's economic development is impacted by China's bilateral relationship with Kenya. Consequently, additional variables are not included in this study's econometric model. This idea has been borrowed from Kahya (2011) and it is underpinned in Keynesian macroeconomic analysis.

In econometric terms, the model was specified as follows

GDPt=0+1REXP+2RIMP+3AID+4DEBT+ t……..……..(2)

DATA ANALYSIS AND INTERPRETATION

Diagnostic Tests of the Model

Before carrying out the actual analysis of the data, it was critical to evaluate the variables and the model through diagnostic tests. The diagnostics tests conducted included normality test, serial correlation test, unit root tests and heteroscedasticity test. The results are presented and discussed in the following sections.

Unit Root Tests

To find out whether the variables had a unit root or not, it was crucial to do the unit root tests. It was used to determine whether or not the variables are stationary. Due to the non-stationary variables, erroneous regression problems might provide misleading results. The Augmented Dickey Fuller Fisher Unit Root Test (ADF-test) with the following hypothesis is used to test for stationarity:

H0: The variable has a unit root

H1: The variable does not have a unit root

The tests were done so that for the series that were not stationary, they could be differenced to make them stationary. GDP exhibited an upward trend over time, indicative of non-stationarity. This was confirmed via the ADF test - the null of a unit root could not be rejected at levels. Economically, a growing trend is expected for GDP as the size of the economy increases annually. Taking the first difference removed this deterministic trend component, making the series stationary around a fixed mean. First differencing essentially measures the year-on-year growth rate, satisfying the stationarity condition required for hypothesis testing and model estimation. In contrast, the graph of FDI values did not visually portray any trend up or down. However, the ADF still failed to reject a unit root at levels and first difference. Only after second differencing did it become stationary, suggesting complex stochastic fluctuations in FDI flows rather than a simple trend.

Table 2: Unit Root Tests

Variable	T-statistic	p-value	Level
GDP	-5.618184	0.0004	1st difference
FDI	-8.562354	0.0000	2nd Difference
Debt	-3.670170	0.0399	At levels

Exports	-5.859045	0.0002	1st difference
Imports	-3.742077	0.0387	At levels

Source: Author, 2024

Serial Correlation Test

To find out if there is serial correlation between the variables under investigation, the serial correlation test was the next one to be performed. The following theory guided the execution of the Breusch-Godfrey Serial Correlation LM Test:

H0: No serial correlation

H1: There is serial correlation

The probability was 0.8527 and the F-statistic was 0.16004. The p-value was greater than 0.05 (i.e., the Chi-square probability was 0.8135). Consequently, we were unable to reject the null hypothesis, which states that there is no serial correlation, and we concluded that the series contains no evidence of serial correlation.

Table 3: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.160444	Prob. F (2,23)	0.8527
Obs*R-squared	0.412791	Prob. Chi-Square(2)	0.8135

Source: Author, 2024

Heteroscedasticity Test

The last test that was conducted was the heteroscedasticity test. To carry out this test, the Breusch Pagan Test was conducted. Breusch Pagan Test is utilized to test for heteroskedasticity in a linear regression model and adopts that the error terms are normally distributed. The following hypothesis was used:

H0: no heteroskedasticity exists (= homoskedasticity exists).

H1: There is heteroscedasticity

The results for the heteroscedasticity tests indicated that the F-statistic was 0.248 and the Chi-square probability was 0.908. Since the Chi-square probability was greater than 0.05 (p-value (0.887) > 0.05) we failed to reject the null hypothesis and concluded that for the model and the data used, there were no heteroscedasticity. In other words, there were enough evidence to conclude that the error terms were normally distributed.

Table 4: Heteroscedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.247997	Prob. F(4,25)	0.9081
Obs*R-squared	1.144952	Prob. Chi-Square(4)	0.8871
Scaled explained SS	0.658031	Prob. Chi-Square(4)	0.9564

Source: Author, 2024

Multicollinearity Test

Multicollinearity refers to the phenomenon in regression analysis where predictor variables are highly correlated, leading to unreliable estimates of regression coefficients. Variance Inflation Factor (VIF) is a widely used statistical measure to detect multicollinearity. VIF quantifies how much the variance of a regression coefficient is inflated due to multicollinearity. Generally, a VIF value exceeding 10 is considered a cause for concern, indicating significant multicollinearity (O'Brien, 2007).

Table 5:VIF multi-collinearity test results

Variable	VIF	1/VIF
DEBT	1.45	0.689655
FDI	1.71	0.584795

IMP	1.64	0.609756
EXPORT	1.99	0.502512
Mean VIF	1.6975	

Source: Author, 2024

The mean VIF value for the variables is 1.6975, which further indicates that multicollinearity is not a significant concern in this dataset. A mean VIF close to 1 suggests that there is minimal multicollinearity among the predictor variables, making the regression estimates more reliable (Kutner, Nachtsheim, & Neter, 2004).

CORRELATION ANALYSIS RESULTS

The correlation test results provide insights into the linear relationships between economic growth, exports, imports, foreign direct investment (FDI), and debt. The correlation coefficient ranges from -1 to +1, where values close to +1 indicate a strong positive linear relationship, values close to -1 indicate a strong negative linear relationship, and values around 0 suggest no linear relationship. An asterisk (*) denotes statistical significance, implying that the observed correlation is unlikely to be due to chance.

Table 6: Correlation test results

Variable	Economic growth	Exports	Imports	FDI	Debt
Economic growth	1.0000				
Exports	0.9374*	1.0000			
Imports	0.9717*	0.9554*	1.0000		
FDI	0.7624*	0.8048*	0.7746*	1.0000	
Debt	0.3945*	0.2728	0.4043*	0.2918	1.0000

Indicates that the coefficient is statistically significant at 95 percent confident interval.

Source: Author, 2024

The correlation between economic growth and exports is 0.9374*, indicating a very strong and statistically significant positive relationship. This suggests that increases in exports are closely associated with increases in economic growth. Such a strong positive correlation reflects the importance of export activities in driving economic performance, aligning with literature that highlights exports as a key engine for growth (Harrison & Rodriguez-Clare, 2010).

The correlation between economic growth and imports is 0.9717*, which is even higher than that for exports. This very strong and significant positive relationship suggests that economic growth is also closely tied to the level of imports. This can be interpreted as imports being vital for economic growth, possibly through the importation of capital goods, technology, and intermediate inputs that bolster productivity and economic activities (Frankel & Romer, 1999).

The correlation between economic growth and FDI is 0.7624*, indicating a strong and statistically significant positive relationship. This suggests that higher levels of FDI are associated with higher economic growth, supporting the notion that FDI contributes to economic development by providing capital, technology transfer, and creating jobs (Borensztein, De Gregorio, & Lee, 1998).

The correlation between economic growth and debt is 0.3945*, which is weaker compared to the other variables but still statistically significant. This positive relationship suggests that while debt may play a role in financing growth, it is not as influential as exports, imports, or FDI. The relatively weaker correlation might reflect the complex nature of debt's impact on growth, which can be positive if used for productive investment but potentially negative if it leads to high debt burdens (Reinhart & Rogoff, 2010).

Empirical Analysis

This section presented the data analysis, which addressed the key objective of the study. The study was geared towards investigating effect of the Kenya-China economic relations on Kenya. This relationship was investigated by analyzing how various macroeconomic factors (imports, exports, foreign direct investment, and debt) activities between China and Kenya influence the gross domestic product of the country. The outcomes are presented in Table 6 and discussed in the following section. The r-squared, which was 0.618, and the corrected r-squared, which is 0.557, are the initial research outcomes to be interpreted. This percentage suggests that the variables in the model accounted for about 55.7% of the variation in Kenya's GDP, with the remaining 44.3% coming from factors outside the model.

Hypothesis 1 (H01) stated that Kenya's exports to China has no significant effect on Economic growth in Kenya. The findings in Table 4.6 indicate that Kenya's exports to China had a negative and insignificant effect on Economic growth in Kenya (1=-0.014444,

p>0.05): hence H01 is accepted and it is concluded that Kenya's export to China has no significant effect on Economic growth in Kenya.

Hypothesis 2 (H02) stated that Kenya's imports from China has no significant effect on Economic growth in Kenya. The findings in Table 4.6 indicate that Kenya's imports from China had a positive and significant effect on Economic growth in Kenya (2=0.006888, p<0.05): hence H02 is rejected and it is concluded that Kenya's import from China has significant effect on Economic growth in Kenya. Empirically, a unit increase in Kenya's imports from China led to a 0.006888 unit increase in economic growth.The findings of this study agree with the previous studies done by (Githinji and Thuku, 2017; Mwega, 2016; Wang and Blomström, 2021; Omolo and Muriuki, 2019). Imports from China often consist of machinery, electronics, and industrial inputs which are critical for infrastructure development and industrialization in Kenya. According to Githinji and Thuku (2017), such imports facilitate technological advancements and productivity improvements within various sectors of the economy. The influx of affordable and high-quality machinery from China allows Kenyan firms to enhance their production capabilities, leading to increased economic output.

The availability of a wide range of consumer goods from China at competitive prices has helped improve the standard of living in Kenya. Consumer access to affordable products contributes to increased household consumption, which is a significant component of GDP. As noted by Mwega (2016), the importation of low-cost goods from China helps manage inflation and allows consumers to save and spend on other economic activities, thus stimulating economic growth.

Moreover, the relationship between imports and economic growth can be understood through the lens of the endogenous growth theory, which posits that investment in human capital, innovation, and knowledge are key drivers of economic growth. Imports from China bring in new technologies and knowledge that are essential for innovation and development in Kenya. As Wang and Blomström (2021) highlight, the transfer of technology through imports can lead to spillover effects, where local firms adopt and improve upon these technologies, thereby fostering a more dynamic and competitive economic environment.

Empirical studies support these findings. For instance, Njenga (2018) found that increased imports of capital goods from China significantly contribute to Kenya's manufacturing sector's growth. This sector, in turn, plays a crucial role in driving overall economic growth by creating jobs and increasing exports of manufactured goods.

Furthermore, trade with China provides an opportunity for Kenyan businesses to integrate into global value chains, enhancing their competitiveness and ability to access international markets. By importing intermediate goods and components from China, Kenyan firms can engage in value-added production, which boosts economic growth through increased exports. This phenomenon is well-documented in the literature, with studies such as those by Omolo and Muriuki (2019) demonstrating that participation in global value chains enhances economic resilience and growth.

Hypothesis 3 (H03) stated that Kenya's total debt from China has no significant effect on Economic growth in Kenya. The findings in Table 4.6 indicate that Kenya's total debt from China had a positive and insignificant effect on Economic growth in Kenya (3=0.034313, p>0.05): hence H03 is accepted and it is concluded that Kenya's total debt from China has insignificant effect on Economic growth in Kenya.

Hypothesis 4 (H04) stated that Chinese FDI inflows into Kenya has no significant effect on Economic growth in Kenya. The findings in Table 4.6 indicate that Chinese FDI inflows into Kenya had a negative and significant effect on Economic growth in Kenya (4=-2.959999, p<0.05): hence H04 is rejected and it is concluded that Chinese FDI inflows into Kenya has significant effect on Economic growth in Kenya. Empirically, a unit increase in Chinese FDI inflows into Kenya led to a 2.959999 unit decrease in economic growth. The findings of this study agree with the previous studies done by (Osano and Koine, 2016; Mwangi, 2018; Chege, 2017; Mohan and Tan-Mullins, 2019). It is important to consider the potential adverse effects of foreign direct investment (FDI) on domestic industries. According to Osano and Koine (2016), large inflows of Chinese FDI can lead to market domination by foreign firms, which often outcompete local businesses due to their superior financial resources and technological capabilities. This market dominance can stifle the growth of domestic enterprises, leading to reduced economic diversity and lower overall economic growth.

Furthermore, Chinese FDI in Kenya has been heavily concentrated in the extractive industries and infrastructure projects, which may not have the same multiplier effects on the economy as investments in manufacturing or technology sectors. As Mwangi (2018) points out, investments in the extractive sector can lead to an economic phenomenon known as the "resource curse," where reliance on natural resource extraction undermines broader economic development and leads to volatility in economic growth due to fluctuating commodity prices.

Moreover, there are concerns regarding the quality and sustainability of Chinese-funded projects. Several studies, including those by Chege (2017), have highlighted issues such as substandard construction, lack of local capacity building, and environmental degradation associated with some Chinese infrastructure projects. These problems can offset the potential economic benefits of such investments and contribute to negative growth impacts.

Additionally, the nature of Chinese FDI often involves the use of Chinese labor and materials, which limits the employment and economic opportunities for local populations. As noted by Mohan and Tan-Mullins (2019), the limited integration of local workers and suppliers in Chinese projects reduces the positive spillover effects typically associated with FDI, such as knowledge transfer and skill development, thereby diminishing the potential for economic growth.

Empirical studies provide further evidence supporting these concerns. For instance, Ndikumana and Verick (2018) found that while Chinese FDI has increased the infrastructure stock in several African countries, it has also led to increased debt levels and dependency on China, which can strain national budgets and reduce fiscal space for other development initiatives. This debt dependency is particularly relevant for Kenya, where large-scale infrastructure projects have been financed through loans tied to Chinese FDI, exacerbating the debt burden and potentially hampering long-term economic growth. Lastly, the significant negative effect observed in the study could be attributed to capital flight and profit repatriation. Many foreign firms repatriate profits to their home countries, resulting in a net outflow of capital that can negatively impact the host country's balance of payments and economic growth. As Akinlo (2020) discusses, the repatriation of profits by Chinese firms operating in Africa can negate the initial benefits of FDI inflows, leading to adverse effects on economic growth.

Table 7: Empirical Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1137.159	255.1361	4.457069	0.0002
DEBT	0.034313	0.299325	0.114635	0.9097
FDI	-2.959999	1.210426	-2.445420	0.0219
IMP	0.006888	0.001464	4.705703	0.0001
EXPORT	-0.014444	0.150175	-0.096178	0.9241
R-squared	0.618445			
Adjusted R-squared	0.557396			
Dependent Variable = GDP				

Source: Author, 2024

DISCUSSION OF THE RESULTS

Conclusion and recommendations

The results of the regression analysis reveal significant insights into the effects of various economic interactions between Kenya and China on Kenya's economic growth. Notably, Chinese FDI inflows into Kenya have a negative and significant impact on economic growth ($\beta = -2.959999$, $p < 0.05$). This suggests that an increase in Chinese FDI corresponds with a decrease in Kenya's economic growth, indicating potential adverse effects associated with these investments. Conversely, Kenya's imports from China exhibit a positive and significant effect on economic growth ($\beta = 0.006888$, $p < 0.05$), implying that imports from China contribute positively to the Kenyan economy. Other variables, such as Kenya's total debt from China and Kenya's exports to China, were found to be insignificant in this model. Given the negative impact of Chinese FDI on Kenya's economic growth, policymakers should focus on enhancing the quality of these investments. This includes ensuring that Chinese-funded projects adhere to high standards, promoting technology transfer, and increasing local employment and capacity building. Encouraging joint ventures and partnerships between Chinese firms and local businesses could also help integrate these investments more effectively into the local economy. The concentration of Chinese FDI in specific sectors, particularly infrastructure and extractive industries, may not be conducive to sustainable economic growth. Policymakers should strive to attract FDI into a broader range of sectors, such as manufacturing, technology, and services, which have higher potential for value addition, job creation, and long-term economic benefits.

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