Macroeconomic stability factors and trade competitiveness Nexus Kenya

Magomere M. Jefferson[1]
Peter Omboto[2]
Isaac Kemboi[3]

[1*]jmagomere6@gmail.com

[1,2,3]Moi University, Kenya

https://doi.org/10.51867/ajernet.6.4.27

ABSTRACT

This study investigates the influence of key macroeconomic stability factors—exchange rate, inflation, foreign direct investment (FDI), and gross domestic product (GDP)—on trade competitiveness in Kenya. Using annual time-series data from 1993 to 2023 sourced from the World Bank and the Central Bank of Kenya, the study employs a quantitative research design guided by the New Open Economy Macroeconomics (NOEM) framework. The data were analyzed using descriptive statistics, Augmented Dickey-Fuller (ADF) unit root tests, Johansen cointegration, Granger causality, and regression analysis. The findings indicate that all variables are integrated of order one and share a long-run equilibrium relationship. Granger causality tests show that there is a two-way relationship between the exchange rate and trade competitiveness and between GDP and competitiveness. There is only one way for FDI to affect competitiveness. Regression estimates demonstrate that a 1% depreciation in the exchange rate and a 1% rise in inflation reduce trade competitiveness by 0.642% and 0.488%, respectively. Conversely, a 1% increase in FDI and GDP enhances competitiveness by 0.521% and 0.491%, respectively. The study concludes that macroeconomic stability is a critical determinant of Kenya's trade performance. Policy recommendations include maintaining a stable and competitive exchange rate, anchoring inflation expectations, attracting targeted FDI, and fostering GDP growth through economic diversification to bolster Kenya's position in regional and global markets.

Keywords: Co-integration, Exchange Rate, Foreign Direct Investment, GDP, Inflation, Kenya, Macroeconomic Stability, Trade Competitiveness

I. INTRODUCTION

Trade competitiveness has become a pressing concern for both developed and developing nations in an era of shifting trade dynamics, technological advancements, and global economic volatility. Countries that strengthen their trade competitiveness are better positioned to attract foreign capital, expand market access, and withstand international shocks (Krugman, 2009). Export diversification, technological innovation, and supportive macroeconomic conditions have therefore emerged as central policy priorities worldwide (Carbaugh, 2005; Acaravci & Ozturk, 2012; World Bank, 2021).

In the African context, regional initiatives such as the East African Community (EAC) and the African Continental Free Trade Area (AfCFTA) have sought to enhance intra-African trade and reduce dependence on global commodity cycles. Yet, African economies remain vulnerable to price volatility, infrastructural gaps, and heavy reliance on primary exports (Matiy & Matundura, 2020). For countries like Kenya, these vulnerabilities are particularly acute. Historically dependent on tea, coffee, and horticultural products, Kenya's export structure has shifted only marginally toward diversification. High production costs, underdeveloped manufacturing capacity, and weak investment in value-added sectors continue to constrain long-term competitiveness (Wagacha, 2000; Karuraa, 2017).

Although prior studies have examined elements of Kenya's trade performance, they often focus on individual macroeconomic variables—such as the exchange rate or inflation—or limited time horizons (UNCTAD, 2021). This fragmented approach has left a critical gap: the combined and long-term influence of key macroeconomic stability factors on Kenya's trade competitiveness remains underexplored.

This study addresses this gap by analyzing the impact of four macroeconomic variables—exchange rate, inflation, foreign direct investment (FDI), and gross domestic product (GDP)—on Kenya's trade competitiveness over a 30-year period (1993–2023). Guided by the New Open Economy Macroeconomics (NOEM) framework, which highlights the interplay between policy, macroeconomic stability, and trade performance in small open economies, the study pursues the following objectives: (i) to analyze the relationship between exchange rates and trade competitiveness, (ii) to assess the influence of inflation, (iii) to determine the impact of FDI, and (iv) to measure the effect of GDP.

The contribution of this study is twofold. Academically, it enriches the literature by providing an integrated, long-term analysis of multiple macroeconomic variables within a coherent framework. From a policy perspective, the

findings will help identify which macroeconomic levers are most critical for enhancing Kenya's export performance and deepening its integration into regional and global markets.

1.2 Research Objectives

The main purpose of this paper is to empirically analyze the Nexus between selected Macroeconomic Variables and Trade Competitiveness in Kenya. To achieve this objective, the paper specifically sought to:

i) Analyze the nexus between Exchange rates and Trade Competitiveness in Kenya,
ii) Assess the nexus between Inflation and Trade Competitiveness in Kenya
iii) Determine the nexus between Foreign Direct Investment and Trade Competitiveness in Kenya
iv) Measure the nexus between GDP and Trade Competitiveness in Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Review

The concept of trade competitiveness extends beyond the ability to sell goods abroad; it encompasses a nation's capacity to improve domestic living standards through efficient export performance (World Bank, 2015). Classical trade theories, such as Ricardo's principle of comparative advantage, provide the foundation for explaining trade gains from specialization. However, these models largely assume stable macroeconomic environments and neglect the role of shocks, capital flows, and policy.

Firm-level approaches and New Trade Theory (Krugman, 2009) emphasize economies of scale, product differentiation, and productivity as determinants of trade outcomes. These models explain how innovation and efficiency drive competitiveness but often treat macroeconomic instability such as inflation volatility or exchange rate shocks as exogenous, rather than integral, to competitiveness dynamics.

The NOEM framework emerged in the 1990s to address limitations in traditional open economy models. It integrates Keynesian nominal rigidities with micro-founded models of international trade and finance (Obstfeld & Rogoff, 1995). Its key assumptions include: Nominal rigidities**:** Prices and wages adjust sluggishly, making economies vulnerable to short-run shocks. Policy transmission**:** Monetary and fiscal policies directly affect macroeconomic stability and, by extension, trade outcomes. Capital mobility: Open economies face spillovers from global capital and financial flows. This framework is particularly suited for analyzing the influence of exchange rates, inflation, FDI, and GDP on trade competitiveness. Unlike comparative advantage or firm-level models, NOEM explicitly incorporates both the short-term effects of stability shocks and the long-term linkages of global integration.

Kenya, as a small open economy, is highly exposed to global and domestic macroeconomic shocks. Exchange rate volatility, persistent inflationary pressures, and fluctuating capital inflows have historically constrained its export performance. Structural dependence on primary commodities further amplifies these effects. The NOEM framework, therefore, provides a robust lens to evaluate Kenya's competitiveness by linking macroeconomic policy, stability, and trade outcomes in both the short and long term.

2.2 Empirical Review

Macroeconomic stability fosters an environment conducive to investment and export growth (Montiel & Serven, 2008). Exchange rates are central to this process. In Kenya, Karuraa (2017) found a positive relationship between exchange rates and export earnings, while Aldan et al. (2012) demonstrated that trade flows are highly sensitive to exchange rate changes. International evidence remains mixed: Saygılı (2010) in Turkey reports that exchange rate flexibility supports competitiveness, while Lotfalipour (2014) finds limited effects in Iran. Kiptui (2017) specifically highlights the adverse impact of volatility on Kenyan manufactured exports, underscoring the vulnerability of developing economies to exchange rate shocks.

High and unpredictable inflation erodes competitiveness by distorting relative prices as well as raising production costs. Kabundi (2012) identifies both domestic and external inflationary pressures in South Africa, while Kiptui (2013) shows similar dynamics in Kenya's agricultural exports. Some studies note that moderate inflation, when accompanied by productivity growth, may not severely harm competitiveness. However, the prevailing consensus is that persistent inflation undermines export performance in developing economies.

FDI can strengthen competitiveness through technology transfer, market access, and capital inflows. Mijiyawa (2017) confirms a positive FDI–exports relationship in multiple African economies, while Gamariel & Hove (2019) find similar results in Zimbabwe. Conversely, Drama et al. (2014) report a negative correlation in Sub-Saharan Africa, attributing it to resource-seeking rather than efficiency-seeking FDI. Kenya reflects this tension: while FDI inflows have supported growth in services and horticulture, structural bottlenecks have limited broader spillovers into competitiveness.

Trade and GDP are often mutually reinforcing. Musila (2015) argues that higher GDP facilitates export growth through scale economies, while Mohammed (2023) finds bidirectional causality in several Sub-Saharan economies. In

Kenya, Miriti (2024) shows that GDP fluctuations particularly tied to agriculture—translate into volatility in export performance. This suggests that sustained competitiveness requires not just growth but also structural transformation.

The reviewed literature reveals three key gaps. First, existing studies tend to analyze individual macroeconomic variables in isolation, with limited evidence on their combined and long-term effects on trade competitiveness. Second, while Kenya is a textbook case for applying the NOEM framework, few empirical studies explicitly adopt it. Third, findings on the role of FDI and exchange rate volatility remain inconsistent, underscoring the need for updated, context-specific evidence. This study addresses these gaps by applying the NOEM framework to Kenya over a 30-year period (1993–2023), empirically examining how exchange rates, inflation, FDI, and GDP jointly shape trade competitiveness.

III. METHODOLOGY

3.1 Research Design and Data Sources

This study adopted an explanatory (causal) research design, which seeks to determine cause–effect relationships between independent variables and the dependent variable (Walliman, 2011). The design was chosen because it enables the analysis of how exchange rate, inflation, foreign direct investment (FDI), and gross domestic product (GDP) influence Kenya's trade competitiveness.

The analysis relied exclusively on annual secondary data covering the period 1993–2023. Data on exchange rate, inflation, foreign direct investment, and gross domestic product were obtained from the World Bank Development Indicators (WDI) and publications of the Central Bank of Kenya (CBK). Trade competitiveness indicators were collected from the Kenya National Bureau of Statistics (KNBS). These sources were selected due to their credibility, consistency, and international comparability.

3.2 Sampling Strategy

The study did not employ primary sampling techniques, as it relied on secondary time-series data. The target population comprised annual macroeconomic data between 1993 and 2023, including exchange rates, inflation, FDI, GDP, and trade competitiveness. This period was selected to ensure sufficient observations for reliable econometric analysis while capturing recent macroeconomic developments in Kenya.

3.3 Data Collection

The data were collected exclusively from secondary sources, namely the World Bank Development Indicators (WDI), Central Bank of Kenya (CBK) publications, and Kenya National Bureau of Statistics (KNBS) reports. These institutions provide reliable, standardized, and publicly accessible economic data. The variables considered include:

Exchange Rate: Current US$

Inflation: Annual percentage change in consumer prices

Foreign Direct Investment (FDI): Current US$ inflows

Gross Domestic Product (GDP): Current US$

Trade Competitiveness (Exports): Value of products and services produced in Kenya and sold abroad (Current US$).

3.4 Data Analysis

The analysis employed a combination of descriptive and inferential statistical techniques utilizing EViews version 14. Initially, descriptive statistics such as means, minima, maxima, and standard deviations were used to summarize the data and provide an overview of the variables under consideration. To ensure the robustness of the econometric models, stationarity tests including the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests were conducted to detect the presence of unit roots and prevent spurious regression results. The Johansen cointegration test was then applied to identify any long-run equilibrium relationships among the variables, indicating potential cointegration. To explore the directional relationships between macroeconomic factors and trade competitiveness, Granger causality tests were performed. Additionally, correlation analysis was used to assess the linear associations between variables and to detect potential multicollinearity issues. Finally, ordinary least squares (OLS) regression analysis was employed to estimate the magnitude and statistical significance of the explanatory variables' effects on trade competitiveness.

The functional model specified is:

$$COM_t = \beta_0 + \beta_1 ER_t + \beta_2 INF_t + \beta_3 FDI_t + \beta_4 GDP_t + \varepsilon_t$$

Where:

(COM_t) = Trade Competitiveness at time t

(ER_t) = Exchange Rate

(INF_t) = Inflation

(FDI_t) = Foreign Direct Investment

(GDP_t) = Gross Domestic Product
(ε_t) = Error term

3.5 Ethical Considerations

The study relied exclusively on secondary data drawn from reputable and publicly available sources, namely the World Bank, the Central Bank of Kenya, and the Kenya National Bureau of Statistics. All data sources were duly acknowledged in line with academic integrity and ethical research practices. Additionally, the researcher obtained authorization from Moi University and a research license from the National Commission for Science, Technology and Innovation (NACOSTI), ensuring compliance with institutional and national research ethics requirements.

IV. FINDINGS & DISCUSSION

4.1 Descriptive Statistics and Preliminary Tests

The descriptive statistics highlight notable volatility in FDI (Std. Dev. = 34.27) and GDP (Std. Dev. = 33.92) over the study period, alongside wide swings in inflation ranging between 1.6% and 54.7% (Table 1). Such variability reflects Kenya's exposure to both domestic and external shocks. In the NOEM framework, these fluctuations illustrate the challenges of achieving nominal stability in a small open economy, where global shocks are rapidly transmitted into domestic markets.

Table 1
Descriptive Statistics

	ER	FDI	GDP	INF	COM
Mean	2.728620	24.96864	49.14010	8.912903	27.15655
Median	2.761302	10.52500	41.05800	6.600000	23.85400
Maximum	2.865693	136.9200	114.7330	54.70000	43.28700
Minimum	1.496880	0.000000	10.47900	1.600000	11.17800
Std. Dev.	0.113883	34.27077	33.92150	9.392860	10.73288
Observations	31	31	31	31	31

Stationarity tests (ADF) confirmed that all variables were integrated of order one, I(1). The Johansen cointegration test revealed four cointegrating equations at the 5% level (Table 2), implying a stable long-run equilibrium among macroeconomic variables and trade competitiveness. This finding validates the theoretical expectation that macroeconomic fundamentals and trade performance move together over time.

Table 2
Johansen Cointegration Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.980244	175.1657	69.81889	0.0000
At most 1 *	0.892384	96.67940	47.85613	0.0000
At most 2 *	0.811391	52.09576	29.79707	0.0000
At most 3 *	0.600704	18.73421	15.49471	0.0157
At most 4	0.018486	0.373187	3.841466	0.5413

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

4.2 Granger Causality and Correlation Analysis

Granger causality results show bidirectional causality between exchange rate and trade competitiveness, and between GDP and trade competitiveness (Table 3). This reinforces the mutual feedback predicted by NOEM, where trade shocks influence macro stability, and vice versa. The unidirectional causality from FDI to trade competitiveness suggests that foreign inflows drive export capacity but are not significantly shaped by Kenya's trade outcomes—consistent with Drama et al. (2014), who noted resource-seeking FDI dominance in Sub-Saharan Africa.

Table 3
Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob
Exchange Rate does not Granger Cause Competitiveness	31	1.81214	0.0218
Competitiveness does not Granger Cause Exchange Rates		0.9620	0.0486
FDI does not Granger Cause Competitiveness	31	0.3402	0.0016
Competitiveness does not Granger Cause FDI		0.0721	0.4720
Inflation rate does not Granger Cause Competitiveness	31	0.9286	0.0008
Competitiveness does not Granger Cause Inflation rates		1.2824	0.0047
GDP does not Granger Cause Competitiveness	31	8.4581	0.0002
Competitiveness does not Granger Cause GDP		4.3902	0.0072

The correlation analysis (Table 4) strengthens these insights. Trade competitiveness is negatively associated with exchange rates ($r = –0.591$, $p < 0.05$) and inflation ($r = –0.455$, $p < 0.05$), while positively associated with FDI ($r = 0.734$, $p < 0.05$) and GDP ($r = 0.693$, $p < 0.05$). In practical terms, this means macroeconomic instability—via currency depreciation and rising prices—erodes competitiveness, while stronger growth and foreign investment enhance it.

Table 4
Correlation Matrix

	COM	INF	GDP	FDI	ER
COM	1				
INF	-0.45536	1			
	0.0014				
GDP	0.69270	-0.21852	1		
	0.0000	0.000			
FDI	0.73395	-0.15163	0.80298	1	
	0.0001	0.0016	0.000		
ER	-0.59097	-0.28355	0.96801	0.74108	1
	0.0028	0.0139	0.00134	0.0016	

4.3 Regression Results

The OLS regression results for the individual relationships are summarized in Table 5.

Table 5
Summary of Regression Results

Independent Variable	Coefficient (β)	R-squared	t-statistic	p-value	Relationship
Exchange Rate (ER)	-0.642	0.247	7.101	0.000	Negative & Significant
Inflation (INF)	-0.488	0.209	6.383	0.000	Negative & Significant
FDI	0.521	0.255	7.256	0.000	Positive & Significant
GDP	0.491	0.160	5.409	0.000	Positive & Significant

The regression findings (Table 5) provide further evidence.

Exchange Rate ($\beta = –0.642$, $p < 0.01$): A 1% depreciation in the Kenya shilling is associated with a 0.64% decline in trade competitiveness. Rather than improving exports, depreciation worsens performance because Kenya relies heavily on imported intermediate inputs, raising production costs. This contradicts the "expenditure-switching" benefits assumed by traditional trade theories but aligns with NOEM's emphasis on nominal rigidities and imported inflation.

Inflation ($\beta = –0.488$, $p < 0.01$): Inflation significantly reduces competitiveness, consistent with Kabundi (2012) and Kiptui (2013). Rising domestic prices undermine relative price stability, discourage long-term contracts, and reduce Kenya's reliability as a trading partner. This supports the NOEM prediction that instability in domestic monetary conditions weakens external competitiveness.

FDI ($\beta = 0.521$, $p < 0.01$): The positive and significant coefficient suggests that foreign capital inflows enhance competitiveness through technology transfer and expanded production. However, the magnitude also reflects the structure of investment: without targeting tradable sectors, FDI's impact remains limited compared to economies with stronger manufacturing bases.

GDP (β = 0.491, p < 0.01): Economic growth contributes positively to competitiveness by enabling scale economies and boosting production capacity. This confirms Musila (2015), who observed a mutually reinforcing relationship between output growth and trade. Yet, as Miriti (2024) noted, growth concentrated in agriculture exposes Kenya to volatility, limiting the sustainability of these gains.

4.3 Discussion

4.3.1 Descriptive Statistics and Preliminary Tests

The descriptive statistics revealed notable volatility in FDI (Std. Dev. = 34.27) and GDP (Std. Dev. = 33.92), while inflation fluctuated widely between 1.6% and 54.7% over the study period. These patterns highlight the macroeconomic instability that often characterizes developing economies such as Kenya. Consistent with prior findings by Karuraa (2019), macroeconomic volatility provides a challenging environment for sustaining trade competitiveness. The stationarity tests confirmed that all variables were I(1), and the Johansen cointegration results established the existence of four long-run cointegrating relationships, underscoring a stable long-run interaction among trade competitiveness, exchange rate, inflation, FDI, and GDP. This aligns with the New Open Economy Macroeconomics (NOEM) framework, which emphasizes the long-run linkages between domestic policy variables and external trade performance.

4.3.2 Granger Causality and Correlation Analysis

The Granger causality tests provided insights into the directionality of relationships. The bidirectional causality between exchange rate and trade competitiveness confirms NOEM's prediction that currency fluctuations influence external trade while trade performance can also feed back into exchange rate dynamics. Similar patterns have been documented by Mijiyawa (2017) in West African economies, suggesting that Kenya's experience is part of a broader regional trend. The unidirectional causality from FDI to trade competitiveness is consistent with Drama et al. (2020), who found that foreign investment enhances export capacity by injecting capital and technology. The correlation analysis reinforced these findings, showing strong positive associations of FDI and GDP with competitiveness, and negative associations of inflation and exchange rate volatility, all statistically significant.

4.3.3 Regression Results and Interpretation

The OLS regression results (Table 5) provide robust evidence that macroeconomic variables significantly influence trade competitiveness.

Exchange Rate (β = -0.642, p<0.01): The significant negative relationship suggests that currency depreciation undermines competitiveness. While theory often predicts that weaker currencies should boost exports, Kenya's import-dependent industries face rising input costs, which offset gains. This finding resonates with NOEM, which highlights how imperfect pass-through and structural rigidities can alter expected outcomes. Comparable evidence was reported by Karuraa (2019), who observed that exchange rate depreciation in Kenya tends to raise production costs, reducing export competitiveness.

Inflation (β = -0.488, p<0.01): Inflation's negative impact aligns with both theoretical predictions and empirical results by Drama et al. (2020), who found that high inflation erodes export competitiveness in Sub-Saharan Africa. This underscores NOEM's emphasis on nominal rigidities, where price instability reduces the predictability of real exchange rates, thereby undermining competitiveness.

FDI (β = 0.521, p<0.01): The positive effect of FDI supports the literature (e.g., Mijiyawa, 2017), which emphasizes its role in improving technological capacity and integration into global value chains. Within the NOEM framework, FDI expands productive capacity and lowers marginal production costs, enabling exporters to compete internationally.

GDP (β = 0.491, p<0.01): The strong positive impact of GDP growth corroborates findings by Karuraa (2019), showing that broader economic growth strengthens export supply capacity. From a NOEM perspective, growth provides the infrastructure and human capital necessary for external competitiveness.

Overall, the findings reinforce and extend existing empirical evidence while demonstrating the applicability of the NOEM framework to Kenya. This contribution helps bridge the gap between theory and policy, offering insights for both academic discourse and practical trade policy formulation.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study concludes that macroeconomic stability—captured through exchange rate movements, inflation, foreign direct investment (FDI), and gross domestic product (GDP)—plays a decisive role in shaping Kenya's trade competitiveness. The results demonstrate that all four variables are statistically significant determinants in both the short and long run. The Johansen cointegration results confirm the existence of a stable long-run equilibrium, implying that

these factors do not act in isolation but instead evolve together to influence the trajectory of Kenya's external trade performance. The findings align with the New Open Economy Macroeconomics (NOEM) framework, which emphasizes the interplay between macroeconomic policies, market rigidities, and international trade outcomes. The negative impacts of exchange rate depreciation and inflation highlight the vulnerabilities of an import-dependent economy, where cost-push pressures and price instability can erode export competitiveness despite theoretical expectations of gains from a weaker currency. At the same time, the positive contributions of FDI and GDP underscore the importance of investment-driven growth, technological spillovers, and productive capacity in enhancing global competitiveness.

5.2 Recommendations

Based on these findings, the study offers the following policy recommendations: The Central Bank of Kenya should pursue policies that minimize excessive exchange rate volatility. While flexibility is important, sharp depreciations can be harmful. A focus on maintaining a stable and competitive real exchange rate is essential. Anchoring inflation expectations through prudent monetary policy must remain a priority. Low and stable inflation preserves purchasing power and is critical for sustaining the price competitiveness of Kenyan exports.

REFERENCES

Acaravci, A., & Ozturk, I. (2012). Foreign direct investment, export and economic growth: Empirical evidence from new EU countries. *Romanian Journal of Economic Forecasting, 0*(2), 52–67. https://ideas.repec.org/a/rjr/romjef/vy2012i2p52-67.html

Aldan, A., Bozok, İ., & Günay, M. (2012). Short-run import dynamics for Turkey (Working paper No. 12/25). Central Bank of the Republic of Turkey.

Carbaugh, R. J. (2005). *The international economy and globalization.* Thomson Corporation.

Drama, B. G., Mzee, S. S., & Ngwali, J. (2014). The determinants of export performance: The case study of Zanzibar export. *International Journal of Economics and Finance, 6*(6), 220–228.

Gamariel, G., & Hove, S. (2019). Foreign direct investment and export competitiveness in Africa. *Journal of African Trade, 6*(1–2), 30–46.

Kabundi, A. (2012). The dynamics of inflation in Uganda: An error correction model (Working Paper No. 1-13). Bank of Uganda.

Karuraa, N. M. (2017). The impact of exchange rate fluctuation determinants on export earnings in Kenya. *International Journal of Economics, Commerce and Management, 5*(6), 486–518.

Kiptui, M. (2013). *Determinants of inflation in Kenya* (Master's thesis). University of Nairobi, Kenya.

Krugman, P. (2009). Increasing returns in comparative advantage. *World Journal of Economics & Finance.*

Lotfalipour, M. R., & Bazargan, B. (2014). The impact of exchange rate volatility on trade balance of Iran. *Advances in Economics and Business, 2*(8), 293–302. https://doi.org/10.13189/aeb.2014.020801

Matiy, A., & Matundura, E. (2020). Analysis of macroeconomic factors affecting the performance of manufactured exports in Kenya. *International Journal of Business & Management, 7*(9).

Mijiyawa, A. G. (2017). Does foreign direct investment promote exports? Evidence from African countries. *The World Economy, 40*(9), 1934–1957. https://doi.org/10.1111/twec.12465

Montiel, P. J., & Serven, L. (2008). Real exchange rates, saving and growth: Is there a link? (Policy Research Working Paper No. 4636). The World Bank.

Musila, J. W., & Yiheyis, Z. (2015). The impact of trade openness on growth: The case of Kenya. *Journal of Policy Modeling, 37*(2), 342–354. https://doi.org/10.1016/j.jpolmod.2014.11.002

UNCTAD (United Nations Conference on Trade and Development). (2021). *Beyond austerity: Toward a global new deal* (Report No. 2021). United Nations.

Wagacha, B. M. (2000). *Analysis of liberalization of the trade and exchange regime in Kenya since 1980* (Vol. 23). Institute of Policy Analysis and Research.

Waliullah, M. K., Kakar, R., Kakar, W., & Khan, W. (2010). The determinants of Pakistan's trade balance: An ARDL cointegration approach. *The Lahore Journal of Economics, 15*, 1–26.

World Bank. (2015). *World development report 2015: Mind, society, and behavior*. https://doi.org/10.1596/978-1-4648-0342-0