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EXPLORING THE MODERATING EFFECT OF ENTREPRENEURIAL ACTIVITY ON THE FINANCE-GROWTH NEXUS IN AFRICA?

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ABSTRACT

The paper uses data from 12 African countries to examine whether entrepreneurial activity moderates the relationship between financial development and economic growth. Using panel Generalized Method of Moments (GMM) technique, the results show that entrepreneurial activity does not moderate the relationship between finance and economic growth. The study also finds that economic openness of the study countries is inimical to their growth. To the extent that the interaction between finance and entrepreneurial activity does not significantly influence economic growth, we strongly recommend that African countries should review their financial systems and entrepreneurship-development programs.

Keywords: Entrepreneurial activity, Finance, Economic growth, Economic openness, Africa

INTRODUCTION

The contention of Schumpeter (1911) is that financial liberalization that culminates in the removal of repressive policies such as interest rate ceiling in the financial sector paving way for a well-developed financial system portends a good omen for an economy. This is because a developed financial system fuels technological innovation and economic growth through the provision of financial services and resources to those entrepreneurs who demonstrate evidence of successfully producing innovative products and processes. On the face of it, therefore, one is grounded to assert that entrepreneurial activity, in the contemplation of Schumpeter (1911), serves as the conduit through which finance positively affects economic growth. It is, therefore, not surprising that Global Entrepreneurship Monitor (GEM) finds that 70 percent of the difference in economic growth among industrialized nations can be explained by their levels of entrepreneurial activity and that the United States remains one of the leading entrepreneurial countries in the world. It is estimated that each year, at least 700,000 new businesses are started in the United States.In the endogenous model of Bencivenga and Smith (1991) one key function of financial intermediation for the development process is mentioned. The prognosis is that by enhancing liquidity and

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attenuating idiosyncratic risk through risk diversification and pooling, the development of financial intermediaries culminates in the reduction of households' unproductive reserves of liquid assets, as such funds can be directed toward illiquid but more productive activities. Thus, the development of the financial intermediary sector immensely promotes economic growth. In addition, the importance of portfolio diversification and risk sharing through stock markets in stimulating sustained growth is also investigated in a number of studies (e.g. Levine, 1991; Saint-Paul, 1992). These works provide compelling evidence that suggests that financial development could influence long run growth via different channels and various dimensions of innovation or productive activities.

It can be observed from the above that finance needs entrepreneurship to positively affect growth. Unfortunately, the discourse on the finance-growth connection has been done with a rebuttable presumption that availability of funds automatically guarantees economic growth. It is the considered view of this paper that availability of funds is a necessary but not sufficient condition for economic growth. The funds mobilized by the financial sector must be productively utilized by entrepreneurs for an economy to grow. This postulation is encapsulated in the position of Schumpeter (1911) which has become the fulcrum around which most of the wheels of empirical scrutiny of the finance-growth nexus revolve. Consequently, this paper develops an interactive model in which the level of entrepreneurial activity is treated as moderating variable, moderating the finance-growth nexus. The intuition is that as the financial sector (which in this paper is represented by the banking sector) provides more funds to multiples of entrepreneurs that result in the establishment of more productive businesses, all things being equal, the economy is likely to experience growth.

REVIEW OF LITERATURE

This section is divided into: evidence from around world and Evidence from Africa

Evidence from around the world

The dynamic nature of the relationship between real and financial sectors may partially explain the inconclusiveness of finance-growth causality (Chow and Fung, 2013). Patrick (1966) argues that financial development can stimulate real innovation-type investment and economic growth principally at the early stage of economic development, and the effect of financial development on economic growth contracts as sustained economic growth gets under way. His argument has since been supported empirically by the findings of Deidda and Fattouh (2002), Rioja and Valev (2004) and Aghion *et al.* (2005), but contradicted by the findings of Xu (2000). Contrary to the postulation of Patrick (1966), Saint-Paul (1992) argues that financial development enhances productivity by facilitating a greater specialization of resources and demonstrates that, if there are fixed costs in developing financial markets, financial markets will develop only when income is above a critical

level. King and Levine (1993a, b) and Levine *et al*. (2000) have found a positive relationship between financial development and economic growth. Tran (2008) examines the finance-growth nexus in Vietnam and shows that financial development has a positive impact on economic growth. The study by Waqabaca (2004) in Fiji reveals a positive relationship between financial development and economic growth. Chow and Fung (2013) examine the relationship between financial development and economic growth in 69 countries using a regime switching panel vector autoregression model. They also perform a clustering analysis to identify the presence of convergence clubs based on data properties. The study finds that most countries have been switching between two states: one way causality from growth to financial development but not the other way round, and coexistence of bi-directional causality. Lianga and Reichert (2012) expand the frontiers of the finance-growth nexus by introducing the non-bank financial institutions (NBFIs) to the discourse. Using cross-country data for both emerging and advanced countries, their study reveals that NBFIs have a statistically significant negative impact on economic growth and attribute the finding to the loose regulations for NBFIs that may allow them to introduce an excessive level of risk into the financial sector and the general economy. They argue that their finding is consistent with the current global financial crises where NBFIs, such as investment banks and insurance companies, introduced an excessive level of risk into the global economy. Ram (1999) investigates the relationship between financial development and economic growth in 95 countries and reports that financial development does not promote economic growth. The study rather finds a negligible or weakly negative covariation between financial development and growth of real GDP per capita.

Shan *et al*. (2001) employ a Granger causality procedure to probe the finance-growth nexus in nine OECD countries and China by estimating a vector autoregression (VAR) model. Their study shows that five out of ten countries have bidirectional causality Granger causality; three of them have unidirectional causality running from economic growth to financial development whilst two countries do not have a causal effect at all. Arestis *et al*. (2001) investigate the relationship among stock market development, credit market development and economic growth, using time series methods and data from five developed countries. They report that bank-based financial systems may be better placed to promote long-run growth than capital-market-based ones.Sinha and Macri (2001) examine the relationship between financial development and economic growth for eight Asian countries. The study produces mixed empirical results: namely there is a bilateral causality between financial development and economic growth for India, Malaysia, and Sri Lanka; a unidirectional causal relationship between financial development and economic growth for Japan and Thailand; and a reverse causality; namely, from economic growth to financial development for Korea, Pakistan and the Philippines.Shan and Morris (2002) apply Toda and Yamamoto's (1995) model to quarterly data for the period 1985I–1998IV in their investigating of the causal relationship among the following variables: real GDP, ratio of total credit to GDP, spread of borrowing and lending interest rates, productivity, ratio of gross investment to GDP, ratio of total trade to GDP,

consumer price index, official interest rate, stock market price index for 19 OECD countries. The authors contend that financial development leads to economic growth either directly or indirectly through the remaining examined variables. Evans *et al*. (2002) delve into the contribution of human capital and financial development to economic growth in a panel of 82 countries employing the translog production function as a framework for estimating the relationships among economic growth and factor inputs such as labor, physical capital, human capital and monetary factor (money or credit). The results show that financial development is as important as human capital in the growth process.

Deidda and Fattouh (2002) explore a non-linear relationship between financial development and economic growth, based on a threshold regression model of King and Levine's (1993) study. The results of their study suggest that in low-income countries there is no significant relationship between financial development and economic growth, whereas in high-income countries there is a positive and statistically significant relationship between financial development and economic growth. Mazur and Alexander (2001) investigate the relationship between financial development and economic growth in New Zealand. Four proxies of financial development are used: the ratio of liquid liabilities of the financial system to GDP; the ratio of deposit money bank domestic assets to deposit money bank domestic assets plus central bank domestic assets; the ratio of domestic credit to private firms to GDP; and the ratio of claims on the non-financial private sector to total domestic credit. The study measures the size of the New Zealand Stock market by the ratio of the NZSE Capital Index to GDP. Two measures of stock market liquidity are constructed by the authors. These are Turnover which is the ratio of the value of trades of shares on the exchange to the market capitalization value and Value traded which is defined as the ratio of the value of trades of domestic shares to GDP. The study uses two measures of economic growth: growth in real per capita GDP, and output level which is real per capita GDP. No cointegrating relationship is found between any of the indicators of banking development and output growth. However, the level of output has one cointegrating relationship with financial development measured by the ratio of deposit money bank domestic assets to deposit money bank domestic assets plus central bank domestic assets. Similarly, no cointegrating relationship is found between any of the stock market indicators and output level. However, the study finds a cointegrating relationship between all three of the stock market indicators and output growth. In Bangladesh, Hye and Islam (2013) use principal component analysis technique and the Autoregressive Distributed Lag (ARDL) approach to cointegration to explore the existence of a long-run relationship between financial development and report that the impact of financial development on economic growth isnegative.

In the Middle East, Al-Awad and Harb (2005) investigate the relationship between financial development and economic growth and report that in the long run financial development and economic growth may be related to some level. However, in the short run, the panel causality tests point to real economic growth as the force that drives changes in financial development The results

of the individual country's causality tests fail to give a clear evidence of the direction of causations. In Singapore, Murinde and Eng (1994) investigate the causal relationship between financial development and economic growth using econometric techniques to test for stationarity, cointegration, and Granger causality and provide evidence that largely supports the supply-leading hypothesis for Singapore.The finance-growth discourse has also received attention in Taiwan. Chang and Caudill (2005) examine the relationship between financial development and economic growth in Taiwan from 1962 to 1998 using a four-variable VAR model. Their results from Granger causality tests based on vector error-correction models (VECM) show unidirectional causality running from financial development (measured as the ratio of M2 to GDP) to economic growth, meaning financial development promotes economic growth in Taiwan. In China, Liang (2005) empirically examines the relationship between finance and growth in the context of an endogenous growth model with government regulation and intervention. Using the Generalized Method of Moments (GMM) techniques in analyzing a panel data set covering 29 Chinese provinces over the period of 1990 2001, the author reports that financial development supports economic growth in China. However, Jalil and Ma (2008) report that both deposit liability ratio (DLR) and credit to private sector (CPS) as measures of financial development have no significant impact on economic growth in China. In Pakistan, Jalil and Ma (2008) adopt bounds testing approach to cointegration with DLR and CPS as proxies for financial development to investigate the finance-growth report that both DLR and CPS have a significant impact on economic growth. This finding has been confirmed byJalil and Feridun (2011) who investigate the effects of financial sector development on economic growth using data that span from 1975 to 2008. They use Principal Component Analysis (PCA) to build a composite financial depth indicator which they employ in the Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration. Thestudy finds a positive statistically significant relationship between financialdevelopment and economic growth.

In Russia, Ono (2012) investigates the finance-growth nexus using the ratio of money supply (M2) to nominal GDP and the ratio of loans to private and non-financial public sectors to nominal GDP as indicators of financial development. Real per capita GDP is used to represent economic growth. The study finds that money supply leads GDP whilst economic growth leads loans. In Greece, contradictory results prevail. Shan and Morris (2002) fail to establish any causal relationship between financial development and economic growth in Greece. Using VAR model, Hondroyiannis *et al*. (2004) empirically investigate the relationship between the development of the banking system and stock market and economic performance in Greece over the period of 1986-1999 and provide evidence to the effect that both bank and stock market financing can promote economic growth. However, Dritsakis and Adamopoulos (2004) contradict this finding. The authors empirically investigate the causal relationship between the degree of openness of the economy, financial development and economic growth by using a multivariate autoregressive VAR model in Greece for the period 1960:I–2000:IV. The results of cointegration analysis indicate that there is one cointegrated vector among GDP, financial development and the degree of openness of

the economy. Granger causality tests based on error correction models provide evidence that there is a causal relationship between financial development and economic growth. In Northern Cyprus, evidence exists on the finance-growth connection. Guryay *et al*. (2007) study the finance-growth nexus and report that financial development has an insignificant positive effect on economic growth.

Evidence from Africa

Agbetsiafa (2004) examines the finance-growth nexus using data from eight Sub-Saharan countries (Ghana, Ivory Coast, Kenya, Nigeria, Senegal, South Africa, Togo, and Zambia) and reports that financial development and economic growth are cointegrated in the long run. The study produces evidence that there is mostly a unidirectional causality running from financial development to economic development in Ghana, Nigeria, Senegal, South Africa, Togo, and Zambia. Under different measures of financial development, the study reports a bi-directional causality in Kenya, Zambia, Zambia, South Africa, Nigeria, Ghana, and Togo. The study also shows that economic development seems to lead financial development in Ivory Coast and Kenya. Esso (2010) investigates the finance-growth nexus in Africa with focus on Burkina Faso, Cape Verde, Cote d'Ivoire, Ghana, Liberia and Sierra Leone and establishes a long-run relationship between the two variables. In terms of causality, the study reports that financial development precedes economic growth in Ghana and Mali, growth leads finance in Burkina Faso, Cote d'Ivoire and Sierra Leone, and finance and growth cause each other in Cape Verde and Liberia. Using three proxies of financial development (the ratio of M2 to GDP, the ratio of currency to narrow money and the ratio of bank claims on the private sector to GDP) with real GDP per capita as proxy for economic growth, Odhiambho (2004) delves into the role of financial development on economic growth in South Africa and finds that economic growth leads financial development. Odhiambo (2010) revisits the finance-growth nexus in South Africa by focusing on the dynamic causal relationship between financial development, investment and economic growth and finds evidence that confirms demand-following hypothesis (i.e. economic growth leads financial development). However, a study by Adusei (2012) using time series data ranging from 1965 to 2010 with domestic credit as a share of GDP and broad money supply as a share of GDP as measures of financial development reports that finance undermines growth in South Africa and that there is a unidirectional causal relationship that runs from financial development to economic growth.In Tanzania, has received attention. Odhiambho (2005) studies the finance-growth relationship in Tanzania. His study shows that there is a bi-directional causality between financial development and economic growth.

In Ghana, Quartey and Prah (2008) examines the finance-growth relationship and reports that whereas there is some evidence in support of demand-following hypothesis when growth in broad money to GDP ratio is used as a measure of financial development, there is no significant evidence to support either the supply-leading hypothesis or demand-following hypothesis when growth in domestic credit to GDP ratio, private credit to GDP ratio and private credit to domestic credit ratio

are used as proxies for financial development. However, this finding has been contradicted by Adusei (2013a) who reports that financial development undermines economic growth in Ghana.In Kenya, Odhiambo (2009) investigates the direction of causality between financial development and economic growth by examining the effect of inflation on the finance-growth nexus and reports that economic growth Granger-causes financial development in Kenya irrespective of whether the causality is tested in a bivariate framework or in a trivariate setting. The paper contends that the financial sector development in Kenya to a very extent depends on the demand for, rather than the supply of, financial services. In Nigeria, conflicting evidence seems to exist regarding the finance-growth nexus. Chukwu and Agu (2009) use multivariate VECM to test the causality between financial depth and economic growth from 1971 to 2008. The test suggests that financial depth and economic growth have a stable long-run relationship. The paper provides evidence in support of demand-following hypothesis when financial depth is proxies by banking sector's private sector credit and real broad money supply and supply-leading hypothesis when loan deposit ratio and bank deposit liabilities are used as proxies for financial depth. However, Ndako (2010)'s study on the finance-growth connection in Nigeria finds that there is a unidirectional causality from financial development to economic growth (supply-leading) when bank credit to the private sector (LBCP) is used as the measure of financial development and bidirectional relationship between financial development and economic growth when domestic credit to the private sector (LDCP) and bank deposit liabilities (LBDL) are used to proxy financial development.

In Botswana, conflicting evidence on the finance-growth exists. Akinboade (1998) examines the causal relationship between financial development and economic growth for the 1972-1995 using non-mineral real GDP per capita as proxy for economic growth as well as ratio of bank claims on the private sector to nominal non-mineral GDP and ratio of bank deposit liabilities to non-mineral GDP as proxies for financial development. The study finds bidirectional causality between financial development and economic growth. Eita and Jordaan (2010) also investigate the causal relationship between financial development and economic growth for the period 1977-2006 and demonstrate that there is a stable long-run relationship between financial development and economic growth. The study provides evidence of supply leading and demand-leading views of finance-growth nexus. Adusei (2013b) also studies the finance-growth nexus in Botswana using Fully Modified Ordinary Least Squares regression and Pairwise Granger Causality test techniques and reports that when domestic credit to the private sector as a share of GDP is used to proxy financial development, there is a negative, significant relationship between financial development and economic growth in Botswana. However, when the ratio of liquid liabilities (M3) to GDP is used to measure financial development, a positive, significant relationship is found. His Pairwise Granger Causality test results reveal that economic growth Granger-causes a reduction in financial development when domestic credit to GDP ratio is used to proxy financial development. On the other hand, when M3 to GDP is used to proxy financial development, finance precedes growth.

METHOD OF STUDY

Economic growth is the dependent variable in the study and is represented by GDP per capita (GDPPC). Four measures of financial development are used: M3 as a percentage of GDP(M3); credit provided to the private as a share of GDP (CPS); total domestic credit provided by the banking sector as a share of GDP (DC); and M2 as a share of GDP(M2). The interactive term is, thus, four in number. That is, each measure of financial development multiplied by the number of new businesses registered in a fiscal year, the proxy for entrepreneurial activity (ENTREACT). Thus, we have M3ENTREACT; CPSENTREACT; DCENTREACT and M2ENTREACT as interactive terms. The control variables are inflation (INFL) proxies by GDP deflator; Human Capital (HC) proxies by average years of schooling; economic openness (OPEN) represented by imports plus exports as a share of GDP and capital formation (CFORM). The definitions of these variables from the perspective of the World Bank have been given in Table 1.Four GMM models are estimated due to four measures of financial development used for the study. The model is generally stated as:

$$y_{it}=\beta_{1}+\beta_{2}FE_{it}+\beta_{3}Z_{it}+\mu_{i}+\varepsilon_{it} \qquad (1)$$

Where y is the natural logarithm of GDP per capita GDP; *FE* represents the interaction between financial development and entrepreneurial activity; Z represents other explanatory variables, $\mu_{i}+\varepsilon_{it}$ represent the unobserved country-level effects and the error term respectively.We adopt the panel GMM estimator. It has been widely used in recent empirical work, particularly in macroeconomics and finance (Liang, 2005). This is because it has a number of advantages. According to Saci *et al.* (2009), GMM controls for unobserved country-specific effects, first-difference non-stationary variables, overcome the endogeneity of the explanatory variables by using instruments and test for the presence of autocorrelation. GMM approach is a more effective and suitable technique for panel data analysis (Loayza and Ranciere, 2006). Our GMM estimation uses the lagged variables as well as the first-differenced variables as instrumental variables. All variables are log-transformed to ensure standardization (Sarel, 1996). We use eight-year data (2004-2011) from 12 African countries (Ghana; Algeria; Botswana; Egypt; Gabon; Lesotho; Mauritius; Senegal; South Africa; Togo; Zambia; and Nigeria). Selection of countries is based on availability of the metrics required for the study. The restriction of the study to 2004-2011 has been dictated by the limited data on the number of new businesses registered in a fiscal year. The source of our data is the World Development Indicators (www.worldbank.org) of the World Bank.

ESTIMATION RESULTS

The results of the estimation are reported in Table 2. As can be observed from the table, the adjusted R^2 in all our models is around 99% suggesting a tight fit. It is observable that there is a positive relationship between each of the interactive terms and economic growth. However, it is

evident that these positive relationships are not statistically significant. The robustness of this finding is tested by re-estimating our interactive models without the control variables. The results (not reported) confirm that finance does not interact with entrepreneurial activity to significantly affect economic growth.

Table 1: Definitions of variables

Variable	Definition
Dependent Variable	
Economic Growth (GDP per capita)	GDP per capita is gross domestic product divided by midyear population.
Measures of Financial Development	
1. M3 as a percentage of GDP (Liquid liabilities of the financial system) M3	Currency plus demand and interest- bearing liabilities of bank and non-bank financial intermediaries divided by GDP (M3/GDP)
2. Credit to private sector (CPS)	Credit to private sector as a share of GDP
3. Domestic credit (DC)	Domestic credit provided by the banking sector as a share of GDP
4. M2 as a percentage of GDP (M2)	Money and quasi money comprise the sum of currency outside banks, demand deposits other than those of the central government, and the time, savings, and foreign currency deposits of resident sectors other than the central government.
Moderating Variable	
Entrepreneurship Activity (ENTREACT)	Natural logarithm of number of new businesses registered in a country in a fiscal year. We assume that all newly registered businesses will engage in growth-promoting activities.
Interactive Terms	
1. M3ENTREACT	M3 multiplied by entrepreneurial activity
2. CPSENTREACT	CPS multiplied by entrepreneurial activity
3. DCENTREACT	DC multiplied by entrepreneurial activity
4. M2ENTREACT	M2 multiplied by entrepreneurial activity
Control Variables	
Inflation(INFL)	The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency. Inflation as measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole.
Economic openness (OPEN)	Imports of goods and services plus exports of goods and services as a share of GDP
Human Capital (HC)	Average years of schooling
Gross Capital formation (CFORM)	Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories.

Table 2: Results of Interactive Models: Dependent Variable= GPD Per Capita

Variable	Coefficient	t-value	p-value	Adjusted R^2
Model 1				
Constant	9.6974	7.3397	0.0000***	0.99
M3ENTREACT	0.0294	0.5924	0.5573	
OPEN	-0.5744	-2.8938	0.0064***	
CFORM	-0.0906	-0.6339	0.5302	
HC	0.0307	0.1316	0.8960	
INFL	0.0263	0.6743	0.5044	
Model 2				
Constant	9.7114	7.3571	0.0000***	0.99
CPSENTREACT	0.0254	0.5650	0.5756	
OPEN	-0.5584	-2.8333	0.0075***	
CFORM	-0.0926	-0.6461	0.5223	
HC	0.0260	0.1110	0.9123	
INFL	0.0279	0.6855	0.4974	
Model 3				
Constant	9.6320	7.3025	0.0000***	0.99
M2ENTREACT	0.0364	0.7507	0.4577	
OPEN	-0.5761	-2.9156	0.0061***	
CFORM	-0.0917	-0.6436	0.5239	
HC	0.0274	0.1178	0.9069	
INFL	0.0288	0.7414	0.4633	
Model 4				
Constant	9.9370	7.8377	0.0000	0.99
DCENTREACT	0.0034	0.1543	0.8783	
OPEN	-0.5643	-2.8225	0.0077***	
CFORM	-0.0892	-0.6086	0.5466	
HC	0.0412	0.1766	0.8608	
INFL	0.0164	0.4636	0.6457	

Note: *** and ** represent 1% and 5% significance levels

Global Entrepreneurship Monitor (GEM) has found that 70 percent of the difference in economic growth among industrialized nations can be explained by their levels of entrepreneurial activity and that the United States remains one of the leading entrepreneurial countries in the world. It is estimated that each year, at least 700,000 new businesses are started in the United States (www.cpac.missouri.edu/topics/rural_entrepreneurship/rei_guidebook.pdf). Research shows that access to finance facilitates more start-ups (Klapper *et al*. 2006). Improved access to the financial system also makes it possible for existing firms to obtain a larger equilibrium size by enabling them to take advantage of growth and investment opportunities (Beck *et al*. 2006). Consequently, our postulation has been that finance interacts with entrepreneurial activity for an economy to grow. However, our data seem not to support this. What this finding suggests to us is that there is no guarantee that increasing financial access coupled with accelerating entrepreneurial activity will lead to economic growth in the study countries.The literature emphasizes the importance of openness to international trade, both as a means of affecting the transfer of technical progress and as an engine of growth **(**King and Levine, 1993a; Ghosh and Phillips, 1998; Zang and Kim, 2007;

Saci *et al*. 2009). However, evidence from data economic openness has a robust negative statistically significant relationship with economic growth, meaning that economic openness undermines growth in the study countries. This suggests to us that international trade between the study countries and the rest of the world does not favor the former. The other control variables have shown no statistically significant relationships with economic growth.

CONCLUSION AND POLICY IMPLICATIONS

The paper has examined whether entrepreneurial activity moderates the relationship between financial development and economic growth with data from 12 African countries. Using panel Generalized Method of Moments (GMM) technique, the results show that entrepreneurial activity does not moderate the finance-growth connection. The study also finds that economic openness of the study countries is inimical to the growth of the study countries. Consequently, we are predisposed to conclude that economic growth in Africa may not be dependent on the level or degree of financial intermediation. On the basis of the results, we can also argue that the current international trade architecture is anti-Africa. To the extent that the interaction between finance and entrepreneurial activity does not significantly influence economic growth we are tempted to believe that the current financial systems and the level of entrepreneurial activity lack the required potency to accelerate economic growth. We, therefore, strongly recommend that African countries should review their financial systems and entrepreneurship-development programs. The finding that economic openness jeopardizes economic growth implies that African leaders should begin to push for more international trade reforms. It is palpably clear that the existing international trade system superintended by the World Trade Organization (WTO) is at the whims and caprices of the developed nations who have succeeded in putting in place rules and regulations that have reduced Africa to a dumping site where inferior goods are dumbed. Interestingly, these same nations have erected impassable barriers that prevent African countries from exporting few goods they are able to produce for export with the excuse that African goods are inferior. This unfair trade practice has succeeded in reducing most African economies to import-dependent economies thereby stifling their growth.

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