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Not all that glitters is gold: political stability and trade in Sub-Saharan Africa

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Abstract

This study examines linkages between political stability and trade openness dynamics in a panel of 44 countries in SSA from 1996 to 2016. The empirical evidence is based on the generalized method of moments. From the findings, the negative relationship between political stability and merchandise trade is not significant while the negative relationship between political stability and trade openness (exports plus imports) is significant. Hence, the findings do not validate the tested hypothesis that political stability/no violence increases trade in the sub-region. The perspective that some forms of political stability can slow down and prevent international trade is consistent with Oslon in Rise and Decline of Nations (RADON) and recent contributions to the economic development literature which have shown that not all forms of political stability are development friendly because much depends on the extent to which stability translates into, *inter alia,* good governance. The principal policy implication is that standards of political governance need to be boosted in order to improve the anticipated effects of political stability on trade, especially in the light of the ambitious African Continental Free Trade Area (AfCFTA). Other policy implications are discussed.

Keywords: Political Stability; Trade; Sub-Saharan Africa
JEL Classification: F52; K42; O17; O55; P16

1. Introduction

There are three main motivations for focusing this study on the linkage between political stability and trade in Sub-Saharan Africa (SSA), notably: (i) the threat of political instability in economic development prospects of the sub-region; (ii) the importance of trade in the light of evolving development paradigms in the sub-region such as the African Continental Free Trade Area (AfCFTA) and (iii) gaps in the attendant literature. These motivational elements are substantiated in the following passages.

First, political instability has been a main threat to economic and human developments in SSA over the past decades. To put this narrative into perspective, the newest republic in the world (or South Sudan) is increasingly marred by political unrests (Asongu & Nwachukwu, 2016a). Since independence from colonial powers, countries in SSA have been characterized by a plethora of political stalemates which have substantially curtailed economic development prospects in the regions. Some notable examples according to Asongu and Nwachukwu (2016a) include: Angola (1975 to 2002); Chad (2005 to 2010), well known issues in the Congo Democratic Republic, Liberia (1999 to 2003), Burundi (19993 to 2005), the Central African Republic (1996 to 2003, 2004 to 2007 and 2012 to present), Sierra Leone (1991 to 2002), Côte d'Ivoire (2002 to 2007 and 2010 to 2011), Somalia and Sudan with the Darfur crisis. From intuition, these underlying spades of civil wars and political unrests represent, *inter alia*, serious economic liabilities that can severely constrain the ability of a country to engage in a number of economic activities such as trade.

Second, over the past decades, Africa's contribution to global trade has dropped from 3.8% in the 1950s to about 1.5% (Asongu & Acha-Anyi, 2020). The African Continental Free Trade Area (AfCFTA) which was recently launched will be the largest free trade area in the world once it is running. Accordingly, a goal of the AfCFTA is to establish a single market for commodities (i.e. goods and services) across the 54 countries making-up Africa, allow for the free movement of capital and travellers, attract long-term investment as well as create a customs union for the continent (Cloete, 2019). In the light of these contemporary insights, it is reasonable for scholars and policy makers to be concerned about how political stability affects trade in order to better plan towards the running of the AfCFTA. Such concerns are even more relevant because contemporary literature that has focused on the link between political stability and trade in the African sub-region is scant.

Third, the contemporary trade literature can be discussed in two main strands, namely: determinants of trade and the relevance of trade in development outcomes. Concerning the latter strand on the importance of trade on development prospects, Sakyi and Egyir (2017)

have investigated the impacts of foreign investment and trade on economic growth in Africa; Onanuga (2016) examines whether trade and financial openness lead to financial sector development while Law (2017) assesses linkages between openness dynamics and financial development at various stages of the economic development process; Ajayi and Aluko (2019) have tested the validity of the simultaneous openness hypothesis in development outcomes while Abdallah (2016), Karimu and Marbuah (2017) and Al-Fayoumi and Abuzayed (2014) evaluate how openness affects financial development.

Contemporary studies covered in the former strand on drivers of trade include: Kaminchia (2019) who has examined determinants of trade cost in the East African Community; Uysal and Mohamoud (2019) who have determined export performance in East African countries; Dary and James (2018) have explored trade credit supply in the African agro-food manufacturing sector from perspectives of motives and determinants while Blanas and Seric (2018) are concerned with drivers of intra-firm trade in SSA; Asongu and Kodila-Tedika (2017) have investigated linkages between trade, aid and terror; Cipollina, Demaria and Pietrovito (2016) focus on the role of innovation in boosting trade within the framework of quality standards; nexuses between international trade and exchange-rate are investigated by Bahmani-Oskooe and Gelan (2018) while Fonchamnyo and Akame (2017) examine drivers of export diversification in SSA. This study is closer to the second strand in its focus on the nexus between political stability and trade. The corresponding research question is the following: how does political stability influence dynamics of trade in SSA?

The rest of the study is structured as follows. The next section develops the testable hypothesis in the light of theoretical underpinnings. Then, the data are presented, and the methodology is discussed. This is followed by the empirical results section that discloses and discusses the results and implications, while the final section concludes with future research directions.

2. Theoretical underpinnings

It is important to clarify that within the context of these theoretical underpinnings, ‘trade openness’, ‘international trade’ and ‘economic development’ are used interchangeably because some of the theoretical foundations on which the study is underpinned (i.e. Olson’s (1963) Rise and Decline of Nations (RADON)) are based on the suggestion that there are some dimensions of political stability that engender a negative impact on economic prosperity or economic development. Hence, in order to partly rely on the underpinnings of Olson’s RADON, there is also an underlying assumption in the study that trade openness can be

considered as a dimension of economic prosperity, not least, because trade openness is theoretically a component of gross domestic product (GDP) growth or economic prosperity (Jokubaitis, Celov & Leipus, 2020).

To put the underlying perspective into more emphasis, in accordance with the attendant literature (Olson, 1963; Hunitngton, 1968), economic growth can be associated with an impact on political systems that is destabilising such that, political stability is not necessarily associated with positive macroeconomic outcomes such as the development of international trade and economic growth. This is also the premise for the perspective that "not all that glitters is gold", as apparent in the title of this study. Accordingly, as recently substantiated by Hussain (2014), not all types of political stability engender positive macroeconomic outcomes.

Apart from Olson's RADON discussed above, the theory underpinning the nexus between political stability and development outcomes is also consistent with the attendant literature on linkages between political systems and development outcomes (McGuire & Olson, 1996; Zureiqat, 2005). In accordance with the underlying literature, the nexuses are underpinned by three main forms of political organisation, notably: democracy; dictatorship and anarchy. These three main forms of political organisation are in accordance with the conception of political stability used in this study because political stability encompasses political governance which is defined as the election and replacement of political leaders (Asongu & Nwachukwu, 2016b, 2017a). Hence, the manner in which political leaders are elected and replaced can lead to the three main forms of political organisations. For instance, anarchy is characterised by "roving bandits" who make the laws of the land and are not interested in delivering public commodities because in such anarchies, armies are used to increase the income of a few elite while citizens have little incentive to engage in productive processes (Zureiqat, 2005). By extension, in such a political organisation, trade is expected to be very low.

According to McGuire and Olson (1996), an autocracy with the primary object of monopolising theft is often created by "stationary bandits". In essence, given that rules have some stake in how their people produce; some public commodities are provided by these rulers in exchange for some moderate taxes. The consequence is that people are left with some productive incentives which can increase trade beyond that expected from a political organisation dominated by anarchy. It follows that whereas autocrats would increase the personal income and substantially extract rent from citizens via taxation, they nonetheless

provide citizens with comparative better incentive to produce and trade compared to anarchists.

According to arguments from McGuire and Olson (1996), democracies are associated with comparatively more public goods relative to the other forms of political organisations. Moreover, since this form of political organisation has been documented to be linked with more political stability (Asongu & Nwachukwu, 2016c), it follows that trade and by extension, economic development are higher in a democratic form of political organisation compared to autocracies and anarchies. According to the narrative, more public commodities are delivered by the government in exchange for more taxation and hence, citizens have more incentives to produce for international trade and domestic economic development.

The nexuses between political stability and these forms of political organisations are that, such political organisations are associated with some degree of political stability which provides incentives for trade and economic development. The theoretical perspective of the linkage between instability and economic growth and by extension, international trade is documented in Olson (1991). According to the author, political instability is negatively associated with development outcomes. The negative linkage is consistent with De Haan and Siermann (1996) and Alesina, Ozler, Roubini and Swagel (1996) who also disclose theoretical arguments on why political stability is positively linked to macroeconomic outcomes.

Narrowing the outcome to trade, Alesina et al. (1996) and Asongu and Nnanna (2019) argue that political instability is associated with uncertainty about policies and hence provides less incentives for investors to engage in investments that facilitate economic activities and international trade. This is also because economic agents have been documented to prefer more stable macroeconomic environments (Kelsey & le Roux, 2017, 2018). The position of De Haan and Siermann (1996) is consistent with those discussed in this paragraph because according to them, such instances are linked to a reduction in the supply of labor and capital, which is obviously associated with lowers levels of trade. According to the authors, political instability is associated with capital loss, less domestic investment, capital flight and brain drain, *inter alia*; which are necessary in production processes and international trade. In the light of the above discussion, the following main testable hypothesis is engaged in the empirical section of this study.

Hypothesis 1: Political stability/no violence increases trade in Sub-Saharan Africa

3. Data and methodology

3.1 Data

The data are from 44 countries in SSA from 1996 to 2016[1]. The two main sources of the variables are World Development Indicators (WDI) and World Governance Indicators (WGI) of the World Bank. The political stability/no violence indicator is obtained from the WGI while the other variables are sourced from WDI. Two main dependent variables are used, notably: merchandise trade and trade openness while the main independent variable of interest is political stability/no violence. The choices of the dependent and independent variables are motivated by contemporary Africa trade and governance literature (Ajide & Raheem, 2016a, 2016b; Pelizzo, Araral, Pak & Xun, 2016; Nwokora & Pelizzo, 2018; Asongu & Kodila-Tedika, 2017; Opeyemi, Uchenna, Asongu & Osabuohein, 2019). It is relevant to emphasize that while political stability is largely linked to three types of phenomena, *inter alia*, government instability, stability of political regimes and instability within regimes (Goldstone et al., 2010; Pelizzo, R., & Nwokora, 2016, 2018; Asongu, Nnanna & Tchamyou, 2020), political stability as operationalized in this study broadly entails all three underlying phenomena because it is "*measured as the perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional and violent means, including domestic violence and terrorism*" (Asongu & Nwachukwu, 2016a, p. 162).

In order to account for variable omission bias, three control variables are taken on board in the estimation exercises, notably: inflation, taxes on international trade and foreign direct investment (FDI). The choice of these variables is also motivated by contemporary international trade and economic development literature (Cipollina et al., 2016; Fonchamnyo & Akame, 2017; Dary & James, 2018; Blanas & Seric, 2018; Asongu & Kodila-Tedika, 2017; Bahmani-Oskooe & Gelan, 2018; Kaminchia, 2019; Shobande & Shodipe, 2019; Uysal & Mohamoud, 2019). In what follows, their expected signs are discussed.

It is expected that inflation and FDI would decrease and increase trade, respectively while the anticipated sign from taxes on international trade is ambiguous because the incidence of taxes on international trade is contingent on whether the average tax rate is high or low. Accordingly, a moderate tax rate would provide incentives for more investment

[1] The sampled 44 countries are: "*Angola; Benin; Botswana; Burkina Faso; Burundi; Cabo Verde; Cameroon; Central African Republic; Chad; Comoros; Congo Democratic Republic; Republic of Congo; Cote d'Ivoire; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; South Africa; Tanzania; Togo; Uganda; Zambia and Zimbabwe*".

(domestic and foreign) and by extension, more trade associated with the underlying investments. This narrative is also consistent with the expectation that FDI should promote trade. Accordingly, most foreign investments in the sampled African countries are largely in the primary and/or extractive sector of the economy. The commodities in this sector are also largely meant for export purposes. Inflation should intuitively be negatively associated with trade because it increases uncertainty and investors have been documented to invest (and by extension, trade) in economic environments that are less ambiguous (Kelsey & le Roux, 2017, 2018).

It is important to articulate that the restriction of the conditioning information set to three control variables is because of the imperative to avoid concerns about instrument proliferation in post-estimation diagnostic tests. The use of limited control variables in order to avoid instrument proliferation in Generalised Method of Moments (GMM) is in line with the attendant GMM-centric literature that has employed no control variable (Osabuohien & Efobi, 2013; Asongu & Nwachukwu, 2017b) and two control variables (Bruno, De Bonis & Silvestrini, 2012; Asongu & Odhiambo, 2020a) for the same purpose of avoiding instrument proliferation. Appendix 1 provides the definitions and sources of variables; Appendix 2 discloses the summary statistics while the correlation matrix is presented in Appendix 3.

3.2 Methodology

3.2.1 GMM: specification, identification and exclusion restrictions

The choice of the estimation technique is in line with literature on the imperative for an estimation approach to be consistent with behavior of data (Kou et al., 2012, 2014, 2016, 2019a, 2019b; Li et al., 2014, 2016; Zhang et al., 2019; Asongu & Odhiambo, 2020b, 2020c). Following Tchmyou (2019, 2020), the adopted GMM empirical approach in this study is motivated by four main factors. First, it is apparent from the data structure that the available number of years in each cross section is lower than the total number of cross sections. Accordingly, the sample from 1996-2016 entails 21 years and 44 countries are taken on board. Second, the trade variables are persistent: the correlation between the level and first-lag series of the merchandise trade variable is 0.953 while the corresponding correlation between the level and first-lag series for trade openness is 0.930. It follows that both correlation coefficients are higher than 0.800 which is the rule of thumb for appreciating persistence in the GMM-centric literature (Meniago & Asongu, 2018; Tchamyou et al., 2019a, 2019b). Third, because the data structure is panel, it is apparent that cross-country differences are considered in the regression framework. Fourth, last but not the least, some dimensions of

endogeneity are addressed by: accounting for the unobserved heterogeneity via time-invariant variables and internal instruments are taken on board in order to control for simultaneity or reverse causality in the estimation exercise.

In the light of contemporary GMM-centric literature (Asongu & Nwachukwu, 2016d; Boateng et al., 2018), the study adopts the Roodman (2009a, 2009b) extension of Arellano and Bover (1995) which has been established to limit the proliferation of instruments that can bias estimated results.

The following equations in level (1) and first difference (2) summarise the standard *system* GMM estimation procedure.

$$T_{i,t} = \sigma_0 + \sigma_1 T_{i,t-\tau} + \sigma_2 P_{i,t} + \sum_{h=1}^{3} \delta_h W_{h,i,t-\tau} + \eta_i + \xi_t + \varepsilon_{i,t} \quad (1)$$

$$\begin{aligned} T_{i,t} - T_{i,t-\tau} &= \sigma_1 (T_{i,t-\tau} - T_{i,t-2\tau}) + \sigma_2 (P_{i,t} - P_{i,t-\tau}) \\ &+ \sum_{h=1}^{3} \delta_h (W_{h,i,t-\tau} - W_{h,i,t-2\tau}) + (\xi_t - \xi_{t-\tau}) + (\varepsilon_{i,t} - \varepsilon_{i,t-\tau}) \end{aligned} \quad (2)$$

where, $T_{i,t}$ is the trade variable of country i in period t, σ_0 is a constant, σ_1 is the parameter corresponding to trade, P represents political stability, σ_2 is the parameter corresponding to political stability, W is the vector of control variables (inflation, taxes on international trade and FDI), δ_h denotes parameters corresponding to three control variables adopted in the conditioning information set and hence h varies from 1 to 3 (i.e. δ_1 for inflation, δ_2 for taxes on international trade and δ_3 for FDI), τ denotes the coefficient of auto-regression which is one in this study because a year lag is enough to capture information of the past, ξ_t is the time-specific constant, η_i is the country-specific effect and $\varepsilon_{i,t}$ is the error term.

3.2.2 Identification and exclusion restrictions

A robust GMM specification exercise should entail a narrative on identification and exclusion restrictions. The identification process consists of clarifying the outcome variables, the endogenous explaining variables and the strictly exogenous variables while exclusion restriction is an assumption that the strictly exogenous variables affect the outcome variable exclusively through the exogenous components of the endogenous explaining variables. Therefore, the identification and exclusion restrictions adopted for this study build on contemporary GMM-centric literature, notably: Tchamyou and Asongu (2017), Meniago and Asongu (2018), Tchamyou (2019, 2020), Asongu and Nwachukwu (2016e), Boateng et al.

(2018) and Tchamyou et al. (2019b). In accordance with the relevant literature, time invariant indicators are the strictly exogenous variables while the independent variable of interest (i.e. political stability/no violence) and control variables are considered as endogenous explaining or predetermined. Roodman (2009b) is sympathetic to this approach of identification because according to the author, it is not feasible for the considered strictly exogenous variables to become endogenous upon a first difference[2].

Given the insights into the identification narrative, the hypothesis corresponding to the exclusion restriction is assessed with the Difference in Hansen Test (DHT) for instrument exogeneity. Hence, the test should not be rejected in order to the attendant hypothesis to be valid. Accordingly, the alternative hypothesis is the position that the adopted strictly exogenous variable elucidates the outcome variable beyond the exogenous components of the predetermined variables. This identification process as well as the procedure for its validation is consistent with classical instrumental variable (IV) estimation approaches (Beck et al., 2003; Asongu & Nwachukwu, 2016f).

4. Empirical results

4.1 Presentation of results

This section discloses the empirical findings in Table 1 which is divided into two main sub-sections: the first provides regressions on merchandise trade while the second discloses regressions pertaining to trade openness. Each sub-section entails three main specifications in which the variables in the conditioning information set are increased from one specification to another. Four main information criteria are used to assess the post-estimation validity of the specifications[3]. In the light of these criteria, the estimations related to merchandise trade are not robust because the null hypothesis of the Hansen test is rejected. Moreover, the corresponding political stability estimates are not significant. This concern of the Hansen test extends to the first specification of trade openness involving only one element in the conditioning information set (i.e. inflation). However, the last-two specifications are overwhelmingly valid because they pass the corresponding post-estimation diagnostic tests.

[2] Hence, the procedure for treating *ivstyle* (years) is 'iv (years, eq(diff))' whereas the *gmmstyle* is employed for predetermined variables.

[3] "*First, the null hypothesis of the second-order Arellano and Bond autocorrelation test (AR (2)) in difference for the absence of autocorrelation in the residuals should not be rejected. Second the Sargan and Hansen over-identification restrictions (OIR) tests should not be significant because their null hypotheses are the positions that instruments are valid or not correlated with the error terms. In essence, while the Sargan OIR test is not robust but not weakened by instruments, the Hansen OIR is robust but weakened by instruments. In order to restrict identification or limit the proliferation of instruments, we have ensured that instruments are lower than the number of cross-sections in most specifications. Third, the Difference in Hansen Test (DHT) for exogeneity of instruments is also employed to assess the validity of results from the Hansen OIR test. Fourth, a Fisher test for the joint validity of estimated coefficients is also provided*" (Asongu & De Moor, 2017, p 200).

Table 1: Political stability, merchandise trade and trade openness

	Merchandise Trade (Mert)			Trade Openness (Trop)		
Constant	**3.463***	**5.024****	**6.433*****	**5.652*****	**10.125*****	**9.406*****
	(0.058)	**(0.023)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Merchandise Trade (-1)	**0.935*****	**0.889*****	**0.880*****	---	---	---
	(0.000)	**(0.000)**	**(0.000)**			
Trade Openness (-1)	---	---	---	**0.915*****	**0.793*****	**0.779*****
				(0.000)	**(0.000)**	**(0.000)**
Political Stability	-0.363	-0.191	-0.303	**-1.086****	**-1.852*****	**-1.850*****
	(0.605)	(0.590)	(0.277)	**(0.020)**	**(0.001)**	**(0.000)**
Inflation	**-0.010*****	**-0.010*****	**-0.011*****	**-0.009*****	**-0.015*****	**-0.014*****
	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Taxes on International Trade	---	0.145	0.029	---	**0.444*****	**0.554*****
		(0.139)	(0.706)		**(0.006)**	**(0.000)**
Foreign Direct Investment	---	---	**0.091*****	---	---	0.028
			(0.000)			(0.361)
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes
AR(1)	(0.000)	(0.004)	(0.004)	(0.058)	(0.002)	(0.002)
AR(2)	**(0.839)**	**(0.736)**	**(0.798)**	**(0.496)**	**(0.133)**	**(0.131)**
Sargan OIR	(0.000)	(0.000)	(0.000)	(0.014)	**(0.130)**	**(0.185)**
Hansen OIR	(0.006)	(0.012)	(0.030)	(0.030)	**(0.117)**	**(0.181)**
DHT for instruments						
(a)Instruments in levels						
H excluding group	(0.000)	(0.000)	(0.001)	(0.005)	(0.026)	(0.022)
Dif(null, H=exogenous)	**(0.766)**	**(0.941)**	**(0.901)**	**(0.582)**	**(0.635)**	**(0.837)**
(b) IV (years, eq(diff))						
H excluding group	---	(0.004)	(0.039)	---	(0.014)	**(0.140)**
Dif(null, H=exogenous)	---	(0.097)	(0.115)	---	**(0.374)**	**(0.303)**
Fisher	**251.83*****	**2118.63*****	**18483.6*****	**290.81*****	**835.31*****	**11660.4*****
Instruments	22	26	30	22	26	30
Countries	44	34	34	43	33	33
Observations	739	361	361	696	330	330

***,**,*: significance levels at 1%, 5% and 10% respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Wald statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan and Hansen OIR tests.

It is important to clarify the distinction between Sargan and Hansen OIR tests motivating the narrative in the previous paragraph. The Hansen test takes precedence over the Sargan test because the former is robust but affected or weakened by instrument proliferation whereas the latter is not robust but not weakened by instrument proliferation. Accordingly, the rule of thumb is to prefer the Hansen test and then control for instrument proliferation by ensuring that in each specification, the number of groups or countries is higher than the corresponding number of instruments. This concern of instrument proliferation is overwhelmingly not apparent in all the specifications. It is apparent from the last-two specifications that political stability negatively affects trade openness. Most of the significant control variables have the expected signs.

4.2 Further discussion of results and policy implications

In the light of the results presented in the previous section, it is apparent that the tested hypothesis is not valid because political stability, instead of increasing trade openness has the opposite effect. The corresponding implication is that conditions for political stability have to be improved for the anticipated effects to be apparent. Accordingly, political stability by measurement entails both negative and positive values. Hence, in a scenario where the indicator is negatively skewed, it could be conceptually more appropriate to conceive it as political instability instead of political stability. The negative skewness is traceable to the fact that in the light of information disclosed in the summary statistics: the mean value of political stability is negative and the minimum negative magnitude in the range far exceeds the maximum positive magnitude. It follows that the findings can be logical and intuitive in the light of the negative skewness of the independent variable of interest. This explanation is consistent with Asongu and Odhiambo (2020d) who have established that governance standards need to be improved in SSA in order for government quality to promote the green economy in the sustainable development era.

It follows from the above clarification that political governance should be boosted in the sub-region, notably by: (i) improving conditions for electing and replacing political leaders; (ii) diminishing possibilities for incidences that favorably influence the likelihood of governments in the sub-region to be overthrown via unconstitutional channels and violence which entail terrorism and political strife and (iii) improving the rate at which citizens are involved in the choice of government officials as well as the enjoyment of citizenry freedoms such as access to media, liberty of expression and freedom to choose associations.

The improvement of political governance standards should be complemented with the other governance dynamics that are relevant in improving trade, notably, economic governance and institutional governance. On the front of economic governance, substantial ameliorations are required in the formulation and implementation of mechanisms and policies that deliver public goods and services which, among others, improve trade prospects. For example, good information and communication technology infrastructure and public road networks can improve within-country as well as cross-country trading activities (Karakara & Osabuohien, 2019; Vu & Asongu, 2020; Beecroft, Osabuohien, Efobi, Olurinola & Osabohien, 2020). Therefore, governments of sampled countries should, *inter alia*, improve public services, boost regulation quality, favour private sector competition and development. With regard to institutional governance, the rule of law and corruption-control are essential in

boosting a doing business environment. In essence, more should be done to enhance the respect by the State and citizens of institutions that govern interactions between them.

It is also relevant to link this discussion with the theoretical underpinnings discussed in Section 2. It is important to recall that these underpinnings have been articulated by three main forms of political organisations, notably: democracy; dictatorship and anarchy. Hence, the invalidity of the tested hypothesis can also be elucidated with the time and level assumptions related to the benefits of democracy. This is essentially because the favorable incidence of political governance has been independently tested and established to be non-linear in less developed economies (Sung, 2004; Asongu, 2014). With regard to the level of political governance assumption, the benefits of political governance are most apparent in countries in which democracy is firmly established, medium in countries characterized by authoritarianism and least in countries that are only partially democratized (Sung, 2004; Back & Hadenius, 2008; Asongu & Nwachukwu, 2016c). Concerning the time of exposure assumption, young democracies are associated with political governance standards that are worse than their counterparts characterised by authoritarian regimes. However, older democracies are associated with the best standards of political governance (Keefer, 2007). These time and level assumptions for the benefits of democracy can be used to explain the unexpected nexus between political stability and trade in SSA because, political stability is a component of political governance and democracies SSA are still young (i.e. time assumption) and weak (level assumption). The governments of engaged countries can however fast-track their democratisation processes by implementing the recommended measures designed to boost political governance as well as institutional and economic governance standards.

Moreover, the findings are also consistent with Olson (1963) within the framework of RADON because we have established that political stability does not necessarily engender positive macroeconomic externalities such as improvements in international trade. While we have clarified that the failure of political stability to promote international trade could be contingent on some other factors such as good governance (see Hussain, 2014), the findings in this study are worth reporting nonetheless because they have confirmed a strands of the theoretical literature.

5. Conclusion and future research directions

This study has examined linkages between political stability and trade openness dynamics in a panel of 44 countries in SSA from 1996 to 2016. The empirical evidence is based on the

generalized method of moments. From the findings, the negative relationship between political stability and merchandise trade is not significant while the negative relationship between political stability and trade openness (exports plus imports) is significant. Hence, the findings do not validate the tested hypothesis that political stability/no violence increases trade in the sub-region. This unexpected finding is traceable to the fact that the political stability indicator is negatively skewed since it has both negative and positive values. It follows that the recommendations are not contrary to the findings of the study, as based on the result that political stability is inversely related with trade.

The principal policy implication is that standards of political governance need to be boosted in order to improve the anticipated effects of political stability on trade, especially in the light of the ambitious African Continental Free Trade Area (AfCFTA). Accordingly, boosting political stability would improve the positive skewness of the variable and by extension, enhance the anticipated outcome on trade. Hence, policy implications surrounding the improvement of political governance and other complementary governance standards have been discussed. Moreover, we have discussed how enhancing such governance standards can also improve other macroeconomic conditions that are relevant for the promotion of trade. The results have also been clarified in the light of the time and level hypotheses underpinning the benefits of democracy.

The findings are consistent with Olson (1963) and Hunitngton (1968) who establish that economic growth engenders a political destabilising impact on political systems. In essence, Olson on his Rise and Decline of Nations (RADON) suggested that there are some dimensions of political stability that engender a negative impact on economic prosperity. Hence, the perspective that "not all that glitters is gold" or that some forms of political stability can slow down and prevent international trade is consistent with Oslon in RADON and recent contributions to the economic development literature which have shown that not all forms of political stability are development friendly because much depends on the extent to which stability translates into, *inter alia*, good governance (Hussain, 2014).

The established findings in this study can be extended by assessing if they withstand empirical scrutiny within cross-specific settings. This future research direction builds on the fact that African countries are heterogeneous and not all are fragile states that are characterized by recurrent political instability. Country-specific effects could not be taken on board because of the adopted empirical strategy that is not consistent with country-specific effects. This is essentially because these country-specific effects are eliminated in order to prevent their correlation with the lagged dependent variable which is a cause of endogeneity.

Hence, by using data with more time series properties, country-specific cases can be considered in the light of examples from the attendant country-specific literature (Begum et al., 2015). Moreover, in the light of the limitations of existing databases such the World Governance Indicators of the World Bank that this study has relied upon, it is worthwhile for future studies to consider other dimensions of good governance in order to assess how the established nexus changes when these alternative governance indicators are used. This is essentially because the corresponding governance indicators from the World Bank are perception-based measures which could be influenced by perception and media biases.

Appendices

Appendix 1: Definitions of Variables

Variables	Signs	Definitions of variables (Measurements)	Sources
Merchandise Trade	Mert	Merchandise Trade (% of GDP)	WDI
Trade	Trop	Imports plus Exports of Commodities (% of GDP)	WDI
Political Stability	PS	"Political stability/no violence (estimate): measured as the perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional and violent means, including domestic violence and terrorism"	WGI
Inflation	Infl	Inflation, GDP Deflator (% of annual)	WDI
Taxes on Trade	Tinr	Taxes on International Trade (% of revenue)	WDI
Foreign Investment	Fodi	Foreign direct investment, net inflows (% of GDP)	WDI

WGI: World Governance Indicators. WDI: World Bank Development Indicators of the World Bank.

Appendix 2: Summary statistics (1996-2016)

	Mean	SD	Minimum	Maximum	Observations
Merchandise Trade	72.633	36.450	20.722	311.354	855
Trade Openness	55.716	29.290	7.805	225.412	910
Political Stability	-0.455	0.879	-2.844	1.282	792
Inflation	19.436	184.903	-31.565	4800.532	908
Taxes on Trade	16.968	12.156	0.094	49.845	414
Foreign Investment	5.045	10.430	-8.589	161.823	906

S.D: Standard Deviation.

Appendix 3: Correlation matrix (uniform sample size: 344)

	Mert	Trop	PS	Inflation	Taxes	F. Investment
Mert	1.000					
Trop	0.775	1.000				
PS	0.415	0.320	1.000			
Inflation	-0.094	-0.067	-0.188	1.000		
Taxes	-0.029	0.089	-0.148	-0.002	1.000	
F. Investment	0.164	0.309	0.073	-0.023	0.052	1.000

Mert : Merchandise Trade. Trop : Trade Openness. PS : Political Stability. Taxes: Taxes on Trade. F. Investment: Foreign Investment.

Compliance with Ethical Standards

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This article does not contain any studies with human participants or animals performed by the authors.

References

Abdallah, Z. T., (2016). "An Evaluation of Simultaneous Openness Hypothesis in the Context of Stock Market Development: Evidence from a Panel of Fifty Three Countries Based a GMM Study". *Modern Economy,* 7(2), pp. 153-163.

Ajayi, M. A., & Aluko, O. A., (2019). "Testing the Validity of the Simultaneous Openness Hypothesis in Nigeria (1990–2015)", *African Development Review,* 31(1), pp. 58-70.

Ajide, K. B, & Raheem, I. D., (2016a). "Institutions-FDI Nexus in ECOWAS Countries", *Journal of African Business,* 17(3), pp. 319-341.

Ajide, K. B, & Raheem, I. D., (2016b). "The Institutional Quality Impact on Remittances in the ECOWAS Sub-Region", *African Development Review,* 28(4), pp. 462–481.

Al-Fayoumi, N., & Abuzayed, B., (2014). "Does openness enhance financial sector development? The experience of the Arab world", *EuroMed Journal of Business,* 9(3), pp. 318-332.

Alesina, A., Ozler, S., Roubini, N., & Swagel, P., (1996). "Political Instability and Economic Growth", *Journal of Economic Growth,* 1(2), pp. 189–211.

Arellano, M., & Bover, O., (1995). "Another look at the instrumental variable estimation of error components models". *Journal of Econometrics,* 68(1), pp. 29-52.

Asongu, S. A., (2014). "Finance and Democracy in Africa". *Institutions and Economies,* 6(3), pp. 92-118.

Asongu, S. A. & Acha-Anyi, P. N., (2020). "A survey on the Washington Consensus and the Beijing Model: reconciling development perspectives", *International Review of Economics,* 67(2), pp. 111-129.

Asongu, S. A., & De Moor, L., (2017). "Financial globalisation dynamic thresholds for financial development: evidence from Africa". *European Journal of Development Research,* 29(1), pp. 192–212.

Asongu, S. A., & Kodila-Tedika, O., (2017). "Trade, aid and terror", *International Journal of Development Issues,* 16(1), pp. 2-24.

Asongu, S. A., & Nnanna, J., (2019). "Foreign Aid, Instability, and Governance in Africa", *Politics & Policy,* 47(4), pp. 807-848.

Asongu, S. A., Nnanna, J., & Tchamyou, V. S., (2020). "Finance, Institutions and Private Investment in Africa", *Politics & Policy*, Forthcoming.

Asongu, S. A., & Nwachukwu, J. C., (2016a). "The role of lifelong learning on political stability and non violence: evidence from Africa". *Journal of Economic Studies,* 43(1), pp. 141-164.

Asongu, S. A., & Nwachukwu, J. C., (2016b). "Revolution empirics: predicting the Arab Spring". *Empirical Economics*, 51(2), pp. 439-482.

Asongu, S. A., & Nwachukwu, J. C., (2016c). " Law, Politics, and the Quality of Government in Africa", *Politics & Policy*, 44(5), pp. 916-944.

Asongu, S. A., & Nwachukwu, J. C., (2016d). "The Mobile Phone in the Diffusion of Knowledge for Institutional Quality in Sub-Saharan Africa". *World Development* , 86 (October), pp. 133-147.

Asongu, S. A., & Nwachukwu, J. C., (2016e). "The Role of Governance in Mobile Phones for Inclusive Human Development in Sub-Saharan Africa". *Technovation* 55-56 (September-October), pp. 1-13.

Asongu, S. A., & Nwachukwu, J. C., (2016f). "Foreign aid and governance in Africa". *International Review of Applied Economics*, 30(1), pp. 69-88.

Asongu, S. A., & Nwachukwu, J. C., (2017a). "The Impact of Terrorism on Governance in African Countries". *World Development*, 99 (November), pp. 253-270

Asongu, S. A., & Nwachukwu, J. C., (2017b). "Foreign Aid and Inclusive Development: Updated Evidence from Africa, 2005–2012". *Social Science Quarterly*, 98(1), pp. 282-298.

Asongu, S. A., & Odhiambo, N. M., (2020a). "Insurance Policy Thresholds for Economic Growth in Africa", *European Journal of Development Research*, 32(3), pp. 672–689.

Asongu, S. A., & Odhiambo, N. M., (2020b). "Economic Development Thresholds for a Green Economy in Sub-Saharan Africa". *Energy Exploration & Exploitation*, 38(1), pp. 3-17.

Asongu, S. A., & Odhiambo, N. M., (2020c). "Governance, CO2 emissions and inclusive human development in sub-Saharan Africa". *Energy Exploration & Exploitation*, 38(1), pp. 18-36.

Asongu, S. A., & Odhiambo, N. M., (2020d). "Enhancing Governance for Environmental Sustainability in Sub-Saharan Africa", *Energy Exploration & Exploitation*. DOI: 10.1177/0144598719900657.

Back, H., & Hadenius, A., (2008). "Democracy and State Capacity: Exploring a J-Shaped Relationship". *Governance*, 21(1), pp. 1-24.

Bahmani-Oskooee, M., & Gelan, A., (2018). "Exchange-rate volatility and international trade performance: Evidence from 12 African countries", *Economic Analysis and Policy*, 58(June), pp. 14-21.

Beecroft, I., Osabuohien, E. S., Efobi, U. R., Olurinola, I., & Osabohien, R. A. (2020). "Manufacturing export and ICT infrastructure in West Africa: investigating the roles of economic and political institutions". *Institutions and Economies*, 1–36.

Beck. T., Demirgüç-Kunt, A., & Levine, R., (2003). "Law and finance: why does legal origin matter?" *Journal of Comparative Economics*, 31(4), pp. 653-675.

Begum, R. A., Sohag, K, Abdullah, S. M. S., & Jaafar, M., (2015). "CO2 emissions, energy consumption, economic and population growth in Malaysia". *Renewal and Sustainable Energy Reviews*, 41(January), pp. 594-601.

Blanas, S., & Seric, A., (2018). "Determinants of intra-firm trade: Evidence from foreign affiliates in Sub-Saharan Africa", *Review of International Economics*, 26(4), pp. 917-956.

Boateng, A., Asongu, S., Akamavi, R., & Tchamyou, V., (2018). "Information asymmetry and market power in the African banking industry". *Journal of Multinational Financial Management*, 44(March), pp. 69-83.

Bruno, G., De Bonis, R., & Silvestrini, A., (2012). "Do financial systems converge? New evidence from financial assets in OECD countries". *Journal of Comparative Economics*, 40(1), pp. 141-155.

Cipollina, M., Demaria, F., & Filomena Pietrovito, F., (2016). "Determinants of Trade: the Role of Innovation in Presence of Quality Standards", *Journal of Industry, Competition and Trade*, 16(4), pp. 455–475.

Cloete, K. (2019). "Africa's new free trade area is promising, yet full of hurdles", World Economic Forum, https://www.weforum.org/agenda/2019/09/africa-just-launched-the-world-s-largest-free-trade-area/ (Accessed: 05/01/2020).

Dary, S., & James Jr, H., (2018). "Trade credit supply in African agro-food manufacturing industry: determinants and motives", *Agricultural Finance Review*, 78(3), pp. 312-329.

de Haan., J., & Siermann, C. L. J., (1996). "Political Instability, Freedom, and Economic Growth: Some Further Evidence", *Economic Development and Cultural Change*, 44(2), pp. 339-350.

Fonchamnyo, D. C., & Akame, A. R., (2017). "Determinants of export diversification in Sub-Sahara African region: a fractionalized logit estimation model", *Journal of Economics and Finance*, 41, pp. 330–342.

Goldstone, J. A., Bates, R. H., Epstein, D. L., Gurr, T. R., Lustik, M. B., Marshall, M. G., Ulfelder, J., & Woodward, M., (2010). "A Global Model for Forecasting Political Instability." *American Journal of Political Science*, 54(1), pp. 190–208.

Huntington, S. P. (1968). Political Order in Changing Societies. New Haven: Yale University Press.

Hussain, Z., (2014). "Can political stability hurt economic growth?" *World Bank Blogs*, https://blogs.worldbank.org/endpovertyinsouthasia/can-political-stability-hurt-economic-growth (Accessed: 02/11/2020).

Jokubaitis, S., Celov, D., & Leipus, R., (2020). "Sparse structures with LASSO through principal components: Forecasting GDP components in the short-run", International Journal of Forecasting, DOI: 10.1016/j.ijforecast.2020.09.005.

Kaminchia, S. M., (2019). "The Determinants of Trade Costs in the East African Community", *Journal of Economic Integration*, 34(1), pp. 38-85.

Karakara, A. A., & Osabuohien, E. S., (2019). "Households' ICT access and bank patronage in West Africa: Empirical insights from Burkina Faso and Ghana", *Technology in Society*, 56(February), pp. 116-125.

Karimu, A., & Marbuah, G., (2017). "Re-examining the financial development-openness nexus: nonparametric evidence for developing countries", *Journal of Applied Economics*, 20(2), pp. 373-394.

Keefer, P., (2007). "Clientelism, Credibility, and the Policy Choices of Young Democracies". *American Journal of Political Science*, 51 (4), pp. 804-821.

Kelsey, D., & le Roux, S., (2017), "Dragon Slaying with Ambiguity: Theory and Experiments". *Journal of Public Economic Theory*, 19(1), pp. 178–197.

Kelsey, D., & le Roux, S., (2018). "Strategic Ambiguity and Decision-making. An Experimental Study". *Theory and Decision*, 84(3), pp. 387–404.

Kou, G., Chao, X., Peng, Y., & Alsaadi, F. E., (2019a). "Machine learning methods combined with financial systemic risk". *Technological and Economic Development of Economy*, DOI: https://doi.org/10.3846/tede.2019.8740 (accessed 01 December 2019).

Kou, G., Yang, P., Xiao, F., Chen, Y., & Alsaadi, F. E., (2019b). "Evaluation of feature selection methods for text classification with small datasets using multiple criteria decision-making methods". *Applied Soft Computing*, DOI: https://doi.org/10.1016/j.asoc.2019.105836. (accessed 01 December 2019).

Kou, G., Ergu, D., Chen, Y., & Lin, C., (2016). "Pairwise comparison matrix in multiple criteria decision making". *Technological and Economic Development of Economy*, 22(5), pp. 738-765.

Kou, G., Lu, Y., Peng, Y., & Shi, Y., (2012). "Evaluation of Classification Algorithms using MCDM and Rank Correlation". *International Journal of Information Technology & Decision Making*, 11(1), pp. 197-225.

Kou, G., Peng, Y., & Wang, G., (2014). "Evaluation of clustering algorithms for financial risk analysis using MCDM methods". *Information Sciences*, 275(August), pp. 1-12.

Law, S. H., (2017). "Openness and Financial Development: Panel Data Evidence from Various Stages of Economic Development", *Journal of Emerging Market Finance*, 6(2), pp. 145-165.

Li, G., Kou, G., & Peng, Y., (2016). "A group decision making model for integrating heterogeneous information". *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, DOI: http://dx.doi.org/10.1109/tsmc.2016.2627050 (accessed 08 September 2019).

Li, G., Kou, G., Peng, Y., & Shi, Y., (2014). "Classifying With Adaptive Hyper-Spheres: An Incremental Classifier Based on Competitive Learning". IEEE Transactions on Systems, Man,

and Cybernetics: Systems, 1-12. DOI: https://doi.org/10.1109/TSMC.2017.2761360. (accessed 08 September 2019).

McGuire, M. C., & Olson, M., (1996). "The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force", *Journal of Economic Literature*, 34(1), pp. 72-96.

Meniago, C., & Asongu, S. A., (2018). "Revisiting the finance-inequality nexus in a panel of African countries". *Research in International Business and Finance*, 46(December), pp. 399-419.

Nwokora, Z., & Pelizzo, R., (2018). "Measuring Party System Change: A Systems Perspective", *Political Studies*, 66(1), pp. 100-118.

Olson, M., Jr. (1963). "Rapid growth as a destabilizing force," *Journal of Economic History*, 23(4), pp. 529-552.

Onanuga, O. T. (2016). "Do Financial and Trade Openness Lead to Financial Sector Development in Nigeria ?" *Zagreb International Review of Economics & Business*, 19(2), pp. 57-68.

Osabuohien, E. S., & Efobi, U. R., (2013). "Africa's money in Africa". *South African Journal of Economics*, 81(2), pp. 292-306.

Olson, M., (1991). "Autocracy, Democracy, and Prosperity", In Richard J. Zeckhauser (ed.), Strategy and Choice. Cambridge: MIT Press.

Opeyemi, A., Uchenna, E., Asongu, S., & Osabuohein, E. (2019). "Renewable Energy, Trade Performance and the Conditional Role of Finance and Institutional Capacity in sub-Sahara African countries". *Energy Policy*, 132(September), pp. 490-498

Pelizzo, R., Araral, E., Pak, A., & Xun, W., (2016). "Determinants of Bribery: Theory and Evidence from Sub- Saharan Africa", *African Development Review*, 28(2), pp. 229-240.

Pelizzo, R., & Nwokora, Z., (2016). "Bridging the Divide: Measuring Party System Change and Classifying Party Systems", *Politics & Policy*, 44(6), pp. 1017-1052.

Pelizzo, R., & Nwokora, Z., (2018). "Party System Change and the Quality of Democracy in East Africa", *Politics & Policy*, 46(3), pp. 505-528.

Roodman, D., (2009a). "A Note on the Theme of Too Many Instruments". *Oxford Bulletin of Economics and Statistics*, 71(1), pp. 135-158.

Roodman, D., (2009b). "How to do xtabond2: An introduction to difference and system GMM in Stata". *Stata Journal*, 9(1), pp. 86-136.

Sakyi, D., & Egyir, J., (2017). "Effects of trade and FDI on economic growth in Africa: an empirical investigation", *Transnational Corporations Review*, 9(2), pp. 66-87.

Shobande, O. A., & Shodipe, O. T., (2019). "Mechanics of Investment Drivers in Chinese Economy", *Review of Economic and Business Studies*, 12 (1), pp. 7-32.

Sung, H. E., (2004). "Democracy and political corruption: a cross-national comparison". *Crime, Law and Social Change*, 41(2004), pp. 179–194.

Tchamyou, V. S., (2020). "Education, Lifelong learning, Inequality and Financial access: Evidence from African countries". *Contemporary Social Science*, 15(1), pp. 7-25.

Tchamyou, V. S., (2019). "The Role of Information Sharing in Modulating the Effect of Financial Access on Inequality". *Journal of African Business*, 20(3), pp. 317-338.

Tchamyou, V. S., & Asongu, S. A., (2017). "Information Sharing and Financial Sector Development in Africa". *Journal of African Business,* 18(7), pp. 24-49.

Tchamyou, V. S., Erreygers, G., & Cassimon, D., (2019a). "Inequality, ICT and Financial Access in Africa". *Technological Forecasting and Social Change*, 139(February), pp. 169-184.

Tchamyou, V. S., Asongu, S. A., & Odhiambo, N. M., (2019b). "The role of ICT in modulating the effect of education and lifelong learning on income inequality and economic growth in Africa". *African Development Review,* 31(3), pp. 261-274.

Uysal, Ö., & Mohamoud, A. S., (2019). "Determinants of Export Performance in East Africa Countries", *Chinese Business Review,* 17(4), pp. 168-178.

Vu, K. M., & Asongu, S. A., (2020). "Backwardness advantage and economic growth in the information age: A cross-country empirical study", Technological Forecasting and Social Change, 159(October), 120197.

Zhang, H., Kou, G., & Peng, Y., (2019). "Soft consensus cost models for group decision making and economic interpretations". *European Journal of Operational Research*, 277(3), pp. 964-980.

Zureiqat, H. M., (2005). "Political Instability and Economic Performance: A Panel Data Analysis" (2005). Award Winning Economics Papers. Paper 1. http://digitalcommons.macalester.edu/econaward/1