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DRIVERS OF ECONOMIC PERFORMANCE: DO INSTITUTIONAL QUALITY AND FINANCIAL LIBERALIZATION MATTER? EVIDENCE FROM SANE AND ASIAN TIGERS

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ABSTRACT

The aim of this study is to examine the impact of financial liberalization and institutional quality on the economic performance of the Asian Tigers and the SANE countries. The study used

annual series that spanned the period from 1996-2020 under the framework of FMOLS. Findings of the study revealed that in the Asian Tigers, FDI inflows, FDI outflows, capital account openness and governance effectiveness had a positive and significant impact on the GDP per capita, but the impact of political stability was negative and significant. Results for the SANE countries indicated that both FDI inflows and trade openness impacted positively and significantly on the GDP per capita, while the impact of capital account openness was negative and significant. Consequently, the study is of the view that while it will be necessary for the SANE countries to upgrade their institutions in order to reap the benefits of financial openness, the Asian Tigers should stabilize their polity to improve their economy.

Keywords: Institutional quality, FDI, GDP per capita, Financial development, Trade openness, Asian Tigers

JEL Classification: E02, F21, F43

INTRODUCTION

Background to the Study

In recent times, financial liberalization and strong institutions have been noted to stimulate the economy. For instance, as a country's financial system matures and becomes sophisticated; it becomes more closely integrated with foreign financial system. Apart from strengthening the domestic financial sector, financial liberalization encourages capital inflows which serve as a source of revenue to a country. In another vein, strong institutions have been associated with economic growth as observed by North (1990), Aron (2000), Robinson and Acemoglu (2012.) and other scholars. Strong institutions have been argued to stimulate consumption and investment, allocate resources efficiently, protect property right and encourage freedom of choice. Recent studies have found that strong institutions enhance capital inflows, especially foreign direct investment (Fakher, 2014; Beirne & Panthi, 2022) For institutions and financial liberalization to enhance economic growth, Kose, Prasad, Rogoff and Wei (2009) observed that this requires good institutional arrangements, well-developed and functional financial system and sound macroeconomic policies.

In this study, we investigated the impact of institutional quality and financial liberalization on the economic performance of Asian Tigers and the SANE (South Africa, Algeria, Nigeria and Egypt) countries. These two economic blocs control a large share of the gross domestic product (GDP) and are destinations for large capital inflows in their respective regions. For instance, while Nigeria and South Africa are dominant economies in the sub-Saharan African, the four Asian Tigers (Hong Kong, Singapore, South Korea and Taiwan) have been enjoying high growth rate in the East Asian economies over some decades. What perhaps demarcates these two blocs in terms of growth factors is that; while countries that comprise the SANE bloc are mainly primary export producers, the Asian Tigers have developed manufacturing and financial sectors that give them comparative advantage. With these different sources of growth factors, it is important to investigate the contributions of institutions and financial liberalization to the economic performance of these blocs.

This study is important because without an empirical knowledge of the role of institutions and financial liberalization on the performance of the economy of the selected economic blocs, policy making could be haphazardly done. This is because the actual impact of both financial openness and institutional quality is yet resolved in the regions of these two economic blocs.

For instance, in the Central African Economic and Monetary Community (CEMAC) countries, recent study by Seppo (2020) observed that institutional quality variables such as regulatory quality and control of corruption did not contribute to economic growth. Also, while study by Ibrahim and Nuruddeen (2015) did not find financial openness to contribute to growth in Nigeria, Seyingbo and Adeniyi (2018) observed that institutional quality contributed little to growth in sub-Saharan African. In Asia, Nawaz, Iqbal and Khan (2014) observed that while institutions played major role in developed Asian countries, the impact was less in developing Asian countries. To corroborate this, Ngo and Nguyen (2020) found that institutional factors did not contribute to growth in middle-income countries in Asia. Wei (2015) also showed that for Asian countries, while *de facto* measures of financial openness improved economic growth, *de jure* measures did not. Our study differs from existing studies as it combines two important economic blocs in Africa and Asia in order to evaluate how institutional arrangement and financial liberalization shape their economic performance. Findings of the study will provide an insight into the actual contributions of institutions and financial openness in the economies of these two blocs, thus providing policy direction to member countries.

Profile of the Asian Tigers

The growth history of the Asian Tigers could be traced to their effort at industrialization between the early 1960s and 1990s that later led to their rapid growth rate. Several features are common to the countries comprising the bloc such as high rate of savings, a literate populace and an export oriented policy. In terms of factors that gave them comparative advantage, while Singapore and Hong Kong have strong and sophisticated financial system, Taiwan and South Korea rely heavily on the manufacture of automobile, information technology and electronic components. A report in 1993 by the World Bank identified factors that contributed to the astronomical growth of the Asian Tigers to include liberal policies, low taxes and export-oriented policies. Historically, among the four Asian Tigers, Hong Kong was the first to embrace industrialization in the 1950s through the development of the textile industry which was followed by the manufacture of electronics and plastics in the 1960s. As Singapore gained independence, it established industrial estates which served as avenue for the attraction of foreign investment. Around mid-1960s, South Korea and Taiwan embraced industrialization through government intervention that encouraged export-oriented policies. Other strategies that gave the countries growth advantage are that, while Singapore and Hong Kong linked the domestic prices of their commodities to the international prices owing to their limited domestic markets, Taiwan and South Korea incentivized the export of their traded-goods sector.

Profile of the SANE Countries

The South African economy is regarded as the second largest in Africa just as it is relatively industrialized. The country raises a large chunk of her revenue from the extraction of natural resources, mainly diamond and gold. The economy of South Africa has been diversified in recent times, especially into the services sector. The economy of Algeria revolves around the exploitation and export of natural resources such as natural gas and petroleum. These resources have aided rapid industrialization of the country. Just like most countries, before the advent of the discovery of the petroleum sector, agriculture used to be the mainstay of the country's economy. After independence, the first two decades saw the country nationalizing major industries albeit operating a centrally planned economy. In the early 1980s, the country embraced privatization policy, thus modifying the hitherto socialist stance of the country.

The Nigerian economy is among the largest in sub-Saharan Africa with the oil sector playing a major role in the economy; contributing a large percentage to the country's GDP. In 2014, the rebasing exercise which factored in the contributions of some sectors to the GDP, such as the telecommunications; placed the country's economy to the first position in Africa with South Africa attaining the second position. Notwithstanding this feat, the country is still beset with many obstacles that hamper her growth path, resulting into high rate of unemployment and poverty. Prior to her independence in 1960, the Nigerian economy was propelled by the agricultural sector but the discovery of oil in commercial quantity led to the neglect of the sector. The Egyptian economy used to be highly centralized with import substitution as the major policy thrust. However, reforms that began since the 2000s including monetary, fiscal and other policies pushed the economy of the country to a more market-oriented. By embracing a market-oriented policy, the macroeconomic environment of the country has been improved over the years and this has aided the attraction of foreign investments into the country. The country's proximity to Europe has been among the factors that are responsible for her political stability. Notwithstanding these achievements, unemployment and poverty rates in the country remain high.

Annual Changes in Some of the Variables

The per capita income for the SANE countries in Figure 1 shows that South Africa had the highest per capita income among the countries in all the years sampled. This is followed by Algeria with a second position, while Nigeria had the least per capita income among the countries. For the Asian Tigers, among the three countries sampled, Figure 2 indicates that Singapore had the highest per capita income within the sample period, while Hong Kong had the second highest position. The country with the least per capita income is Egypt within the period sampled. By comparison, while South Africa and Singapore had the highest per capita income in the two economic blocs respectively, Nigeria and Egypt had the least per capita income in each of the blocs.

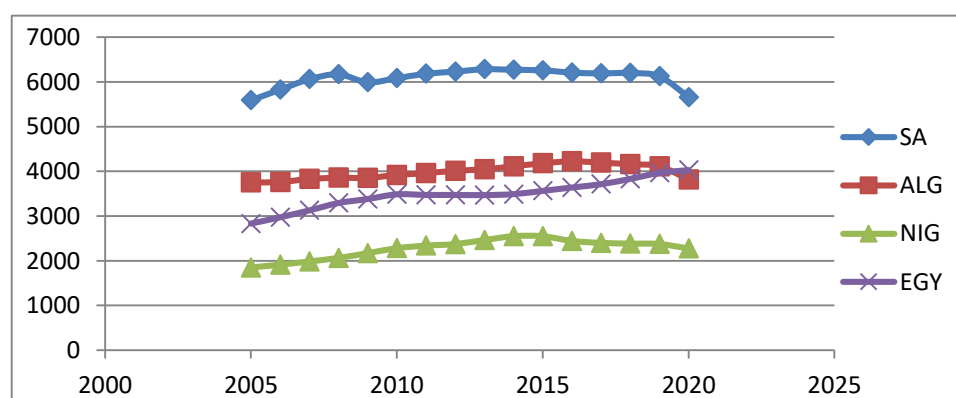


Figure. 1 Movement in Per capita Income in the SANE Countries

Authors' compilation

Note: SA =South Africa, ALG = Algeria, NIG = Nigeria, EGY = Egypt

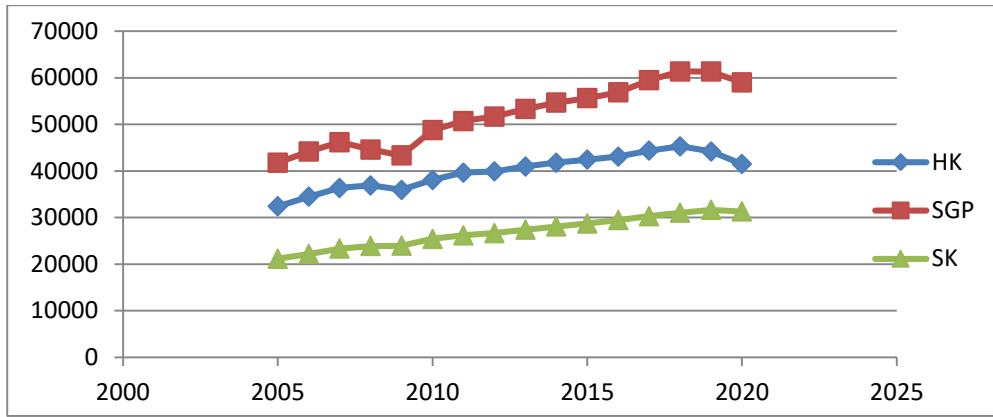


Figure. 2 Movement in Per Capita Income in Asian Tigers

Authors' compilation

Note: HK = Hong Kong, SGP = Singapore, SK = South Korea

Since South Africa and Singapore are the countries with the highest per capita income in each of the blocs, the study went ahead to compare the changes in institutional quality variables in these two countries. In Figure 3, evidence shows that South Africa had lower political stability and governance effectiveness compared to Singapore within the sample period. The movement of the institutional quality variables indicates that strong institutions could be a factor that improves the economy of Singapore compared to South Africa. In another vein, in Figure 4, the movement of foreign direct investment inflows and outflows shows that the trends for South Africa were higher compared to that of Singapore. However, the trend for South Africa experienced much volatility in the two variables within the period sampled, while those for Singapore were relatively stable.

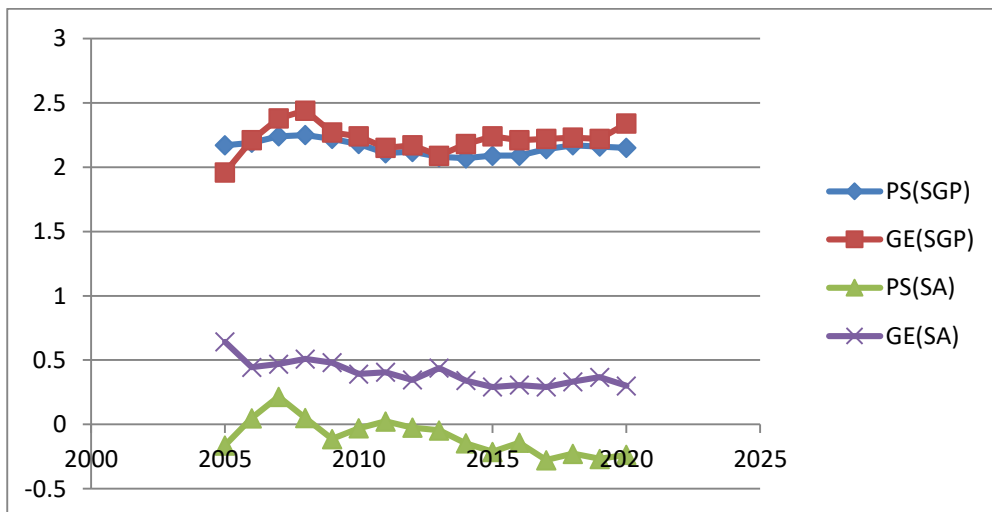


Figure. 3 Movement in Institutional Quality Variables in SA and SGP

Authors' compilation

Note: PS = Political stability, GE = governance effectiveness

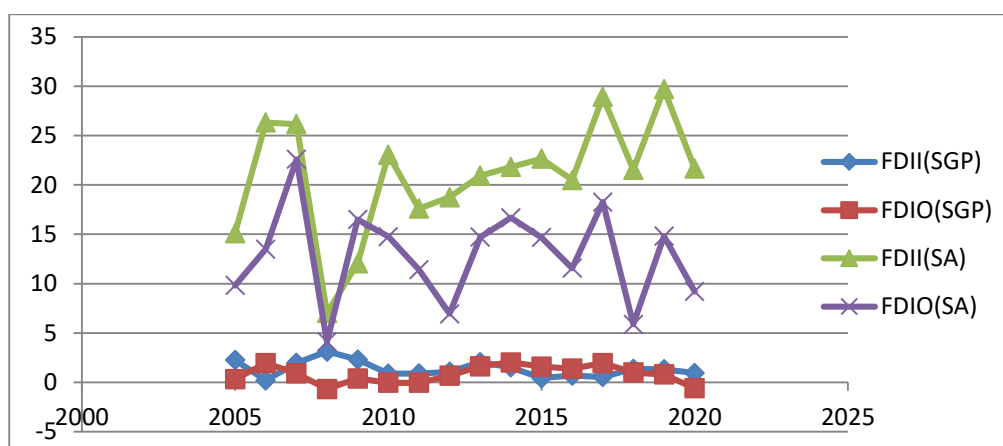


Figure. 4 Movement in FDII and FDIO in SA and SGP

Authors' compilation

Note: FDII = Foreign direct investment inflows,
FDIO = foreign direct investment outflows

Empirical Literature

Empirical study in Sudan by Alexiou, Tsaliki and Osman (2014) used the autoregressive distributed lag (ARDL) bounds test to show that the quality of the institutions is an important determinant of economic prosperity. Also, a study for Egypt by Fakher (2014) revealed that institutional quality has a positive and significant impact on foreign direct investment and trade. In a cross-country study involving selected Asian countries, Nawaz, Iqbal and Khan (2014) used the generalized method of moments (GMM) technique to show that institutions contributed positively to the long run economic growth, even though the results differ across countries. In Asian countries, Wei (2015) revealed that while *de facto* indicators of financial openness raised economic growth, *de jure* indicators did not. Estrada, Park and Ramayandi (2015) employed the GMM to reveal that the financial openness effect on growth tended to be weaker in developing countries, but some evidence showed that developing Asian countries are exempted.

For Nigeria, Ibrahim and Nuruddeen (2015) applied the vector error correction model (VECM) and Granger causality tests to indicate that a negative relationship existed between real GDP and financial openness. For 28 European Union member states and 8 prospective members of the union, Siyakiya (2017) used the GMM to reveal that institutional quality contributes more to the economy in developed countries than in the less developed countries. Nguyen, Su and Nguyen (2018) employed the GMM to reveal that institutional quality supported growth in 29 emerging economies. In sub-Saharan African countries, Seyingbo and Adeniyi (2018) used the GMM to provide evidence that the quality of institutions had little effect on economic growth. Olanrewaju, Tella and Adesoye (2019) used Toda-Yamamoto (TY) Granger non-causality test to reveal that institutional quality is a major determinant of inclusive growth in Nigeria. Also, Fasanya and Olayemi (2020) found a strong link between the indicators of financial liberalization and economic growth in Nigeria. In Nigeria also, Abubakar (2020) revealed that economic growth responded positively and significantly to institutional quality which finds support in Olanrewaju *et al.* (2019). In a study for the South East European (SEE) countries, Minović, Aleksić and Stevanović (2020) found evidence that institutional quality variables led

to higher economic growth. Using the GMM, Ngo and Nguyen (2020) showed that, for Asian countries, institutional variables did not have a positive impact on economic growth in middle-income countries.

For the Central African Economic and Monetary Community (CEMAC), Seppo (2020) used the GMM to reveal that all the indicators of institutional quality were positively related to economic growth except quality of regulation and control of corruption. For Asian countries, Goh, Ranjanee, And and Leong (2020) used the non-linear ARDL to show that an asymmetric effect of FDI inflows on economic growth exists. A study involving the European Union (EU) countries by Saritaş and Özmen (2021) showed that the higher the institutional quality, the higher the growth of the economy. In a study for Cote d'Ivoire, Kouadio and Gakpa (2021) used the dynamic ordinary least squares (DOLS) and the fully modified ordinary least squares (FMOLS) to reveal that financial openness had a positive impact on total factor productivity. In a country-specific study, Olanrewaju, Okwu and Obiakor (2021) used the ARDL to reveal that institutional quality impacted positively on the real GDP per person employed in Nigeria. In a panel of 12 Asian economies, Beirne and Panthi (2022) revealed that for countries that have strong institutions, institutional quality improved real GDP per capita and net FDI inflows. However, in countries with weak institutions, institutional quality may stabilize portfolio debt in period of crisis.

Theoretical Matters

The impact of financial liberalization or openness on economic growth has spurred divergent views in recent times with some scholars contending that financial openness stimulates growth, while some are of the view that the impact is not too clear. Vanassche (2004) contended that financial openness encourages efficient allocation of resources, diversification of portfolio and domestic firms' access to foreign funds which later stimulates economic growth. McLean and Shrestha (2002) observed that financial openness promotes improvement in FDI and the promotion of technology transfer by removing obstacles to free movement of capital. Carmignani and Chowdhury (2007) noted that in literature, several arguments have been raised to show the impact of financial openness on the indicators of per-capita income one of which lays emphasis on the possibility of technological spillovers.

In another vein, the role of institutional quality variables on the economy has been emphasized by several scholars. In the opinion of Acemoglu and Robinson (2010), quality institutions are the bedrock of economic growth and the reason for the differences in development across countries. This finds support in North (1981) who noted that institutions shape the incentive structure in the society in such a way that it may raise or constrain economic activities. As further observed by Murphy, Shleifer and Vishny (1993), weak institutions could lower economic activities by encouraging economic agents to be busy with redistributive politics that has lower economic returns instead of economic activities that promote growth. North (1990) contended that strong institutions have the tendency to encourage incentive structure that supports greater economic growth via the reduction in uncertainty. Seen from another perspective, Hall and Jones (1999) were of the argument that strong institutions have much bearing on a country's productivity of factors of production as labour can be directed to productive use instead of channeling it into rent-seeking ventures that retard growth.

DATA AND METHODOLOGY

This paper utilized annual series that span the period from 1996-2020 to investigate the impact of institutional quality and financial liberalization on the economic performance of two economic blocs, namely: SANE and Asian Tigers. The data on GDP per capita, FDI inflows and FDI outflows for all the countries in each bloc were sourced from the World Development Indicators (WDI). Trade openness was calculated as the ratio of the sum of export and import to GDP. In calculating trade openness, the paper used GDP, export and import measured in constant 2015 US Dollars for all the countries, except Nigeria whose GDP, export and import were measured in constant 2010 US Dollars. The study proxied economic performance with GDP per capita. Financial openness indicators were decomposed into *de facto* and *de jure* measures. Two *de facto* indicators were used, namely: FDI inflows and FDI outflows. *De facto* indicators are quantity based measures that focus on actual flows. As observed by Kose *et al.* (2009), gross flows are given preference over net flows, because they are less volatile and also present a more accurate picture of financial integration. The paper included capital account openness (KAOPEN) index introduced by Chinn and Ito (2006) as *de jure* indicator. Data on KAOPEN for all the countries was sourced from Chinn and Ito (2006). In another vein, the study considered five different institutional quality variables, namely: political stability, rule of law, regulatory quality, control of corruption and governance effectiveness. However, by applying the principle component analysis (PCA), political stability and governance effectiveness were selected. The study obtained data on institutional quality variables from the Worldwide Governance Indicators (WGI).

The Dynamic ordinary least squares (DOLS), fully modified ordinary least squares (FMOLS) and the pooled mean group (PMG) were used in the study. For the test of stationarity in the series, the paper employed two panel unit root tests, namely: Levin, Lin & Chu (LLC) and Im, Pesaran and Shin (IPS). While the LLC test for stationarity for the countries in each bloc pooled together, IPS tests for individual countries in each bloc. To investigate the presence of co-integration among the variables in each bloc, Johansen Fisher panel cointegration test was employed by the study.

The FMOLS Model

As noted by Phillips and Loretan (1991), the FMOLS as the name implies, is based on the use of OLS and it is a single-equation method with semi-parametric correction that takes care of the presence of serial correlation and endogeneity. If we assume that x_t is an n -vector $I(1)$ process and μ_t is assumed to be an n -vector stationary time series. These vectors can be separated in equation 1 as follows:

$$x_t = \begin{bmatrix} x_{1t} \\ x_{2t} \end{bmatrix}_m, \quad \mu_t = \begin{bmatrix} \mu_{1t} \\ \mu_{2t} \end{bmatrix}_m \dots\dots\dots (1)$$

where $n = m + 1$

Let the following cointegrated system serve as the generating mechanism for x_t :

$$x_{1t} = \eta^1 x_{2t} + \mu_{1t} \dots\dots\dots (2)$$

$$\Delta x_{2t} = \mu_{2t} \dots\dots\dots (3)$$

Now, with respect to the above procedure, one is confronted with how to modify the OLS estimator

$$\eta^* = (X_2' X_2)^{-1} X_2' x_1 \dots \dots \dots (4)$$

$$\text{But } \delta_{21} = \sum_{k=0}^{\infty} E(\mu_{20} \mu_{1k})$$

If it is satisfied that $\hat{\delta}_{21}$ is a consistent estimator of δ_{21} , it then shows that the following modified OLS estimator is possible

$$\eta^{**} = (X_2' X_2)^{-1} (X_2' x_1 - T \hat{\delta}_{21}) \dots \dots \dots (5)$$

In equation 6 below, the FMOLS estimator that uses both the serial correction and endogeneity corrections is stated as follows:

$$\eta^+ = (X_2' X_2)^{-1} (X_2' x_1^+ - T \hat{\delta}^+) \dots \dots \dots (6)$$

where

$$x_{1t}^+ = x_{1t} - \hat{\delta}_{21} \sum_{22}^{-1} \Delta x_{2t} \dots \dots \dots (7)$$

$$\hat{\delta}^+ = \hat{\Delta} \left| \begin{array}{c} 1 \\ - \sum_{22}^{-1} \hat{\delta}_{21} \end{array} \right| \dots \dots \dots (8)$$

$$\text{Here } \Delta = \sum_{k=0}^{\infty} E(\mu_{20} \mu_{1k})$$

$\hat{\Delta}$ is a consistent estimate of Δ

Also, \sum is consistent estimator of \sum

RESULTS AND INTERPRETATIONS FOR THE ASIAN TIGER

In table 1 below, the results of the correlation matrix of the institutional quality variables considered in the study show that governance effectiveness has a strong positive correlation with all the other variables. Next to governance effectiveness is political stability which has a strong positive correlation with regulatory requirement, rule of law and control of corruption. While regulatory requirement has a relative positive correlation with rule of law and control of corruption, rule of law has a strong positive link with control of corruption

Table 1
Correlation Matrix of the Institutional Quality Variables

Components	GOVEFF	POLSTAB	REGQ	RLAW	CONTRCOR
GOVEFF	1				
POLSTAB	0.83	1			
REGQ	0.63	0.65	1		
RLAW	0.94	0.70	0.55	1	
CONTRCOR	0.93	0.87	0.82	0.86	1

Note: GOVEFF = governance effectiveness, POLSTAB = political stability
REGQ = regulatory quality, RLAW = rule of law, CONTRCOR = control of corruption

Usually, as observed by Adams, Bamanga and Mbusube (2019), the approach adopted in the selection of the appropriate variables under the PCA is to consider only the variables with eigen-values equal to or greater than one or alternatively the ones with at least 80% cumulative. However, considering that only governance effectiveness passed this test, the study decided to consider the next variable with the highest eigen-value and cumulative. This is to improve the number of institutional quality variables in the study. The results of the PCA shown in table 2 below indicate that the two institutional quality variables with the highest eigenvalues are governance effectiveness with an eigenvalue of 4.1 and political stability with an eigenvalue of 0.5. These results are supported by the results of the correlation matrix, thus indicating that these two variables are the most effective components and are therefore selected for the study. As a way to further support the choice of the selected variables, we plotted the scree plot of the variables as shown in figure 5. The results show that governance effectiveness which has the highest eigen-value of 4.41 has a variability of 82.9%. In another vein, political stability which is the second component with an eigen-value of 0.5 has a variability of 10.5%. In figure 6, the plot of orthonormal loading indicates that both governance effectiveness and political stability are the dominant variables.

Table 2

Extraction Method: Principal Component Analysis

Institutional Variables	Eigen values	Proportion (%)	Cumulative (%)
GOVEFF	4.1	82.9%	4.1%
POLSTAB	0.5	10.5%	4.7%
REGQ	0.3	5.5%	4.9%
RLAW	0.04	0.71%	4.9%
CONTRCOR	0.02	0.39%	5.0%

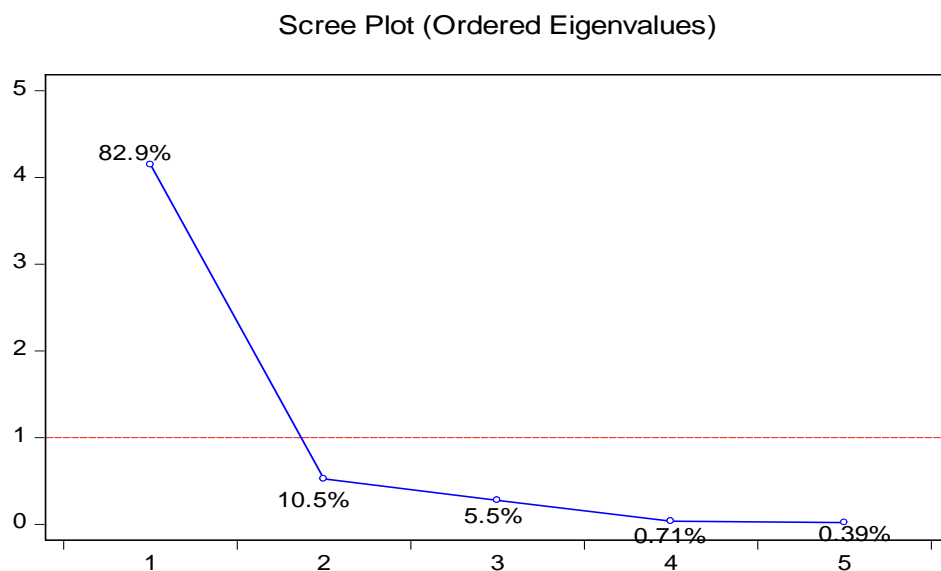


Figure. 5. Scree plot of institutional quality variables

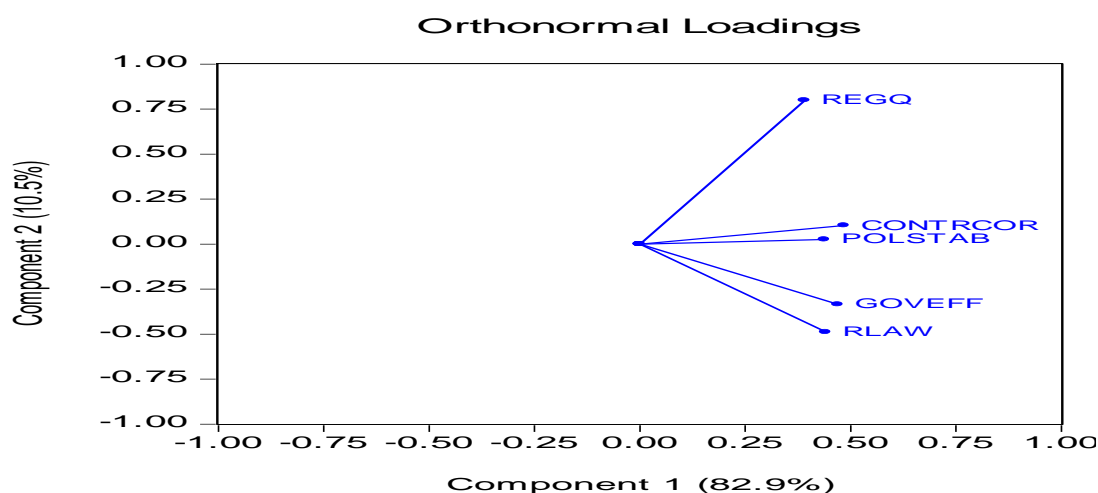


Figure. 6 Plot of Orthonormal Loadings

The descriptive statistics results displayed in table 3 indicate that the mean and the median of each of the series are very close, proving that they are less variable and are symmetric as well. On the average findings show that the value of FDI inflows is higher than FDI outflows and this is a healthy development because as FDI inflows represents resource penetration into the economy of the bloc, outflows represent an outflow of resources. The value of the GDP per capita is equally higher than that of FDI inflows and outflows.

Table 3

Results of Descriptive Statistics

	GDPPC	FDII	FDIO	KAOPEN	TOPEN	GOVEFF	POLSTAB
Mean	5547.07	2.24	0.90	-0.82	0.38	0.02	-0.49
Median	6125.7	2.02	0.69	-1.23	0.40	0.00	-0.39
Maximum	10370.3	5.36	3.77	1.12	0.59	1.02	0.32
Minimum	652.5	0.20	-2.59	-1.92	0.14	-0.72	-1.51
Std. Dev.	2926.7	1.30	0.96	0.70	0.13	0.31	0.45
Skewness	-0.27	0.37	0.68	1.08	-0.25	0.39	-0.43
Kurtosis	1.84	2.06	4.84	3.13	1.70	3.20	2.10
Jarque-Bera	8.51	7.50	27.44	24.47	10.10	3.41	8.05
Probability	0.01	0.023	0.000	0.000	0.006	0.18	0.01
	693384.						
Sum	6	280.7	112.86	-102.34	48.49	3.37	-62.34
Sum Sq. Dev.	1.06	212.23	115.28	61.42	2.18	12.50	25.19

The results of stationarity (unit root) as shown in table 4 show that GDP per capita achieved stationarity at first difference under both the LLC and IPS. That is to say that it became I(1) after taking the first difference. However, FDI inflows achieved stationarity at level under both LLC and IPS. While FDI outflows achieved stationarity at level under IPS, it achieved stationarity at first difference under LLC. Capital account openness achieved stationarity at first difference only under LLC, but trade openness became stationary at level under LLC and stationary at first difference under IPS. Both political stability and governance effectiveness achieved stationarity at first difference under LLC and IPS respectively.

Table 4
Results of Panel Unit Root

	Level				First Difference			
	LLC	O/I	IPS	O/I	LLC	O/I	IPS	O/I
GDPPC	-1.07(0.14)	-	1.2(0.9)	-	-4.6(0.0)	I(1)	-5.3(0.0)	I(1)
FDII	-3.5(0.0)	I(0)	-2.7(0.0)	I(0)	8.9(0.0)	-	-8.2(0.0)	-
FDIO	-1.2(0.12)	-	-1.6(0.05)	I(0)	-5.8(0.0)	I(1)	-6.1(0.0)	-
KAO	0.5 0.6)	-	-0.6(0.2)	-	-2.9(0.0)	I(1)	-0.5(0.3)	
TOPEN	-1.7(0.04)	I(0)	-0.1(0.5)	-	-3.9(0.0)	-	-3.2(0.0)	I(1)
POLSTAB	2.3(0.9)		0.4(0.6)		-5.4(0.0)	I(1)	-3.0(0.0)	I(1)
GOVEFF	-0.4(0.3)	-	-0.5(0.3)	-	-6.9(0.0)	I(1)	-5.0(0.0)	I(1)

The co-integrating relationship among the variables was evaluated using the Johansen-Fisher panel co-integration test. Finding in table 5 below shows that 6 co-integrating equations are obtained. In a nutshell, the probability values of both the Trace and the Maximum Eigenvalue tests are less than the 5% level. This proves that the series are co-integrated or have a long-run association.

Table 5
Johansen-Fisher Panel Cointegration Test
Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)

Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	Prob.	Fisher Stat.* (from max-eigen test)	Prob.
None	119.6	0.00	96.48	0.00
At most 1	92.03	0.00	48.33	0.00
At most 2	49.23	0.00	23.18	0.00
At most 3	33.16	0.00	11.77	0.01
At most 4	24.77	0.00	15.25	0.004
At most 5	13.82	0.007	7.880	0.09
At most 6	12.37	0.01	12.37	0.01

In table 6, the results of the estimated parameters of the FMOLS model indicate that FDI inflows have a positive and significant impact on GDP per capita. If FDI inflows rose by one unit, GDP per capita increased by 0.09. By implication, the economy of the Asian Tigers performed well within the study period as FDI penetrated the economy. The positive impact of FDI inflows on the economy of the Asian Tigers finds support in a study by Goh *et al.* (2020) for the Asian countries. The study finds that FDI outflows impacted positively and significantly on the GDP per capita within the study period. One unit rise in FDI outflows led to an increase in the GDP per capita by 0.10. This result shows that even as FDI outflows remains a withdrawal of resources from the domestic economy, the Asian Tigers were able to benefit from such resource outflow. Capital account openness was equally found to contribute positively and significantly to GDP per capita. If capital account was liberalized by one unit, this led to an increase in GDP

per capita by 0.08. The study has thus shown that all the financial openness indicators employed had positive and significant impacted on the economic performance of the Asian Tigers. We are of the view that this could be because; in a relative sense the financial system of the bloc is developed. As noted by Estrada, Park and Ramayandi (2015), the financial systems of the advanced economies are in a better position to allocate foreign capital inflows to productive uses. The study did not however find trade openness to contribute to GDP per capita; instead it retarded growth though the result is not significant. This finding contradicts the result by Ho, Pham and Nguyen (2021) in a study involving the ASEAN countries. The results of the two selected institutional quality variables indicate that, while governance effectiveness impacted positively and significantly on GDP per capita, political stability had a negative and significant impact on the GDP per capita. The results show that by improving governance in the Asian Tigers, the economy of the bloc improved but political instability affected the performance of the economy.

Table 6

Results of Panel Fully Modified Least Squares (FMOLS)

Variable	Coefficient	t-Statistic	Prob.
LOG(FDII)	0.09	2.26	0.02
LOG(FDIO)	0.10	2.72	0.008
KAOPEN	0.08	3.25	0.001
TOPEN	-0.08	-1.04	0.30
GOVEFF	0.43	7.04	0.00
POLSTAB	-0.27	-4.29	0.00
R-squared	0.89		
Adjusted R-squared	0.87		

Results and Interpretations for the SANE Countries

The results of the correlation matrix of the institutional quality variables displayed in table 7 show that; just like the Asian Tigers, governance effectiveness has a strong positive correlation with all the other variables. Also, political stability is found to positively correlate with regulatory requirement, rule of law and control of corruption. It is also found that while regulatory requirement has a strong positive correlation with rule of law and control of corruption, rule of law has a strong positive link with control of corruption

Table 7

Correlation matrix of the Institutional Quality Variables

Components	GOVEFF	POLSTAB	REGQ	RLAW	CONTRCOR
GOVEFF	1				
POLSTAB	0.80	1			
REGQ	0.86	0.80	1		
RLAW	0.88	0.82	0.84	1	
CONTRCOR	0.94	0.75	0.83	0.86	1

In table 8, the results of the PCA reveal that governance effectiveness has the highest eigenvalue of 4.4, while the variable with the second highest eigenvalue is political stability with an

eigenvalue of 0.3. The correlation matrix results supported this finding and the scree plot in figure 7 further lays credence. The scree plot reveals that governance effectiveness with an eigen-value of 4.4 has a variability of 87.57%. The plot of orthonormal loading corroborates the choice of the two variables. In a nutshell, the study finds that governance effectiveness and political stability are the two significant institutional quality variables in the two blocs.

Table 8

Extraction Method: Principal Component Analysis

Institutional Variables	Eigen values	Proportion (%)	Cumulative (%)
GOVEFF	4.4	87.57%	4.4%
POLSTAB	0.3	5.47%	4.7%
REGQ	0.2	3.39%	4.8%
RLAW	0.1	2.65%	4.9%
CONTRCOR	0.05	0.92%	5.0%

Scree Plot (Ordered Eigenvalues)

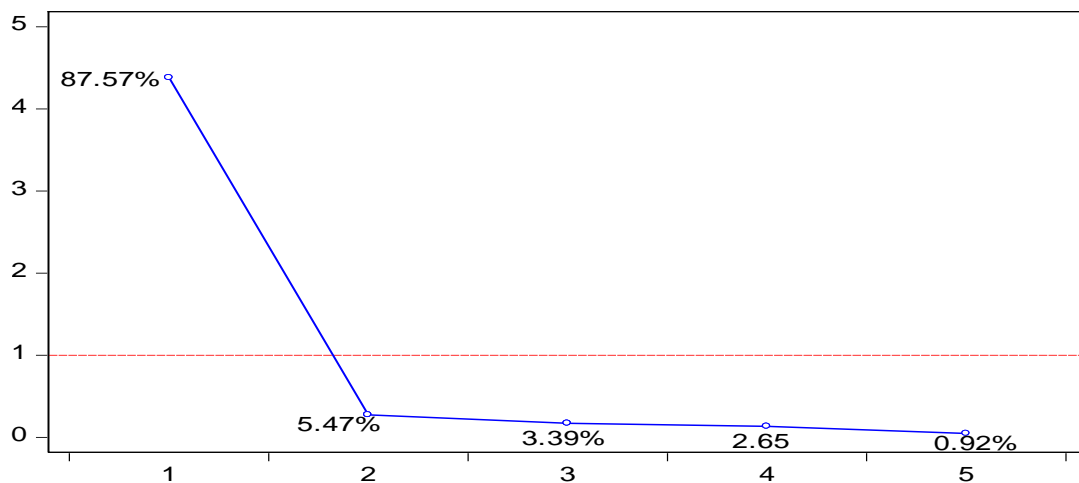


Figure. 7. Scree plot of institutional quality variables

Orthonormal Loadings Biplot

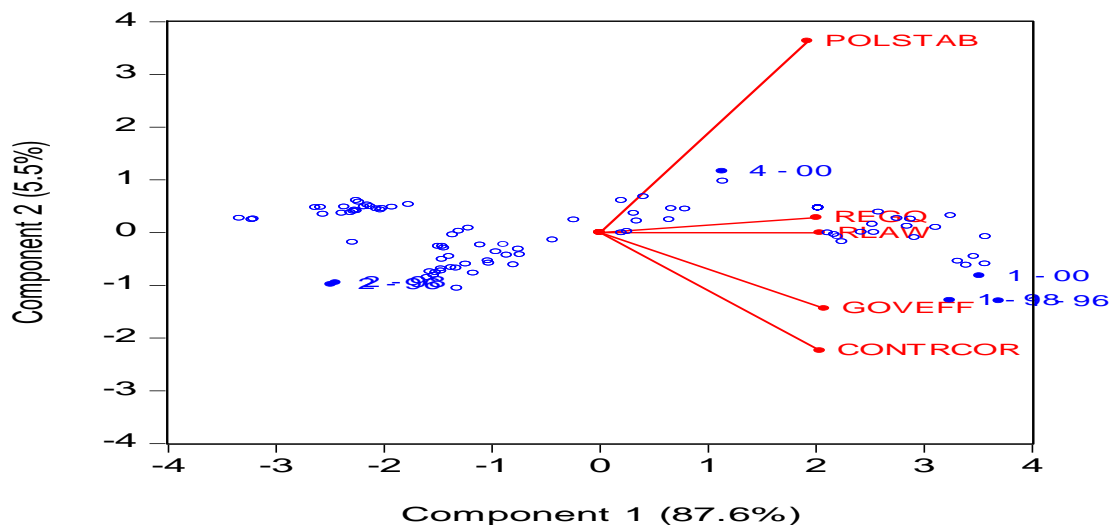


Figure. 8 Plot of Orthonormal Loadings

Findings in table 9 revealed that the mean and the median of each of the series are relatively close, thus indicating that they are less variable and also symmetric. Just like the results of the Asian Tigers, finding show that GDP per capita is higher than FDI inflows and outflows, FDI inflows is higher than FDI outflows. This shows that the SANE countries attracted more FDI inflows than the FDI that left their economies within the study period. At the 5% level, the Jarque Bera test reveals that the null hypothesis that the errors of the variables are normally distributed cannot be accepted for all the variables except GDP per capita.

Table 9

Results of Descriptive Statistics

	GDPPC	FDII	FDIO	KAOPEN	TOPEN	GOVEFF	POLSTAB
Mean	3638.0	1.61	0.28	-0.56	0.46	-0.35	-0.76
Median	3487.5	1.24	0.14	-1.22	0.50	-0.47	-0.91
Maximum	6284.8	9.34	2.01	2.32	0.66	1.02	0.21
Minimum	1343.9	-0.32	-2.59	-1.92	0.21	-1.21	-1.87
Std. Dev.	1441.4	1.54	0.57	1.11	0.13	0.56	0.57
Skewness	0.3963	2.88	-0.07	1.63	-0.48	0.43	0.10
Kurtosis	2.19	13.29	10.18	4.36	1.97	2.13	1.63
Jarque-Bera	5.23	568.9	210.8	51.3	8.13	6.02	7.79
Probability	0.07	0.00	0.00	0.00	0.01	0.04	0.02
Sum	35653	158.3	28.02	-54.92	45.65	-34.42	-74.61
Sum Sq. Dev.	2.02	232.74	32.01	121.5	1.79	30.73	32.20

In table 10, the stationarity results revealed that GDP per capita achieved stationarity at first difference only under the LLC. However, FDI inflows achieved stationarity at levels under both the LLC and IPS. While FDI outflows became stationary at level under IPS, it became stationary at first difference under the LLC. In the same respect, capital account openness achieved stationarity at level under the IPS and at first difference under the LLC. Trade openness achieved stationarity at first difference under both the IPS and LLC. While political stability achieved stationarity at first difference under the IPS, governance effectiveness became stationary at level under the IPS.

Table 10

Results of Panel Unit Root

	Level				First Difference			
	LLC	O/I	IPS	O/I	LLC	O/I	IPS	O/I
GDPPC	0.6(0.7)	-	0.08(0.5)	-	-2.0(0.02)	I(1)	1.2(0.8)	-
FDII	-2.2(0.01)	I(0)	-2.4(0.0)	I(0)	7.9(0.0)	-	-6.0(0.0)	-
FDIO	0.2(0.6)	-	-1.9(0.0)	I(0)	-3.8(0.0)	I(1)	-6.4(0.0)	-
KAOPEN	-0.7(0.2)	-	-1.4(0.07)	I(0)	-2.7(0.0)	I(1)	-3.2(0.0)	-
TOPEN	1.5(0.9)	-	0.9(0.8)	-	-3.7(0.0)	I(1)	-3.5(0.0)	I(1)
POLSTAB	0.3(0.6)	-	-1.04(0.1)	-	-6.7(0.0)	I(1)	-4.48(0.0)	I(1)
GOVEFF	2.2(0.9)	-	-1.4(0.07)	I(0)	-8.4(0.0)	I(1)	-6.06(0.0)	-

The result of the Johansen-Fisher panel co-integration test in table 11 show that of the 6 co-integrating equations, five equations of Trace test have values that are less than the 5% level, while four equations of the Maximum Eigenvalue tests are less than the 5% level. Consequently, the study concludes that the series are co-integrated.

Table 11

*Johansen-Fisher Panel Cointegration Test**Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)*

Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	Prob.	Fisher Stat.* (from max-eigen test)	Prob.
None	112.4	0.00	88.27	0.00
At most 1	78.44	0.00	44.45	0.0
At most 2	36.66	0.00	20.80	0.00
At most 3	18.84	0.00	9.656	0.04
At most 4	12.15	0.01	7.326	0.11
At most 5	8.942	0.06	4.303	0.36
At most 6	14.27	0.00	14.27	0.00

The estimated results of the parameters of the FMOLS model shown in table 12 reveal that FDI inflows impacted positively and significantly to GDP per capita in the SANE countries. If FDI inflows rose by one unit, GDP per capita improved by 0.28. Again, just like the result of the Asian Tigers, this result is in line with the growth-led hypothesis of FDI inflows. FDI outflows was found not to contribute significantly to GDP per capita within the study period. This outcome is an indication that the SANE countries did not gain from FDI outflows, perhaps because domestic investors in these countries hardly repatriate the proceeds from the investment unlike the investors in the Asian Tigers. The study found trade openness to positively and significantly impact on GDP per capita. One unit rise in trade openness led to an improvement in GDP per capita by 0.45. This result is a departure from the results of the Asian Tigers whose GDP per capita was not improved by trade openness. We are of the opinion that since the countries comprising the SANE bloc are mainly primary export producers, liberalizing their trade relation with other countries enhanced the sale of these commodities at the international market. Some studies in Africa support this finding (Wiredu, Nketiah & Adjei, 2020; Ibrahim & Nuruddeen, 2015). In another vein, finding of the study revealed that capital account openness impacted negatively and significantly on GDP per capita. If capital account was opened by one unit, GDP per capita reduced by 0.21. This result contradicts the positive result obtained for the Asian countries. The study therefore contend that a plausible reason for this outcome could be that by liberalizing the capital account, it encouraged more capital outflows and the proceeds are not repatriated. The results of the two institutional quality variables reveal that none of them contributed significantly to GDP per capita within the study period unlike the Asian Tigers where governance effectiveness impacted positively on GDP per capita. Weak institutions have been among the major factors that hinder development in Africa. Some studies such as Searingbo and Adeniyi (2018) have proved that institutional quality variables contributed little to growth in sub-Saharan African

Table 12

Results of Panel Fully Modified Least Squares (FMOLS)

Variable	Coefficient	t-Statistic	Prob.
FDII	0.28	2.50	0.01
FDIO	0.04	0.30	0.76
TOPEN	0.45	4.82	0.00
KAOPEN	-0.21	-1.76	0.08
GOVEFF	-0.09	-0.53	0.59
POLSTAB	0.04	0.47	0.63
R-squared	0.17		
Adjusted R-squared	0.03		

CONCLUSION

The outcome of this study revealed that in the Asian Tigers, FDI inflows, FDI outflows, capital account openness and governance effectiveness had a positive and significant impact on GDP per capita. However, while political stability had a negative and significant impact on GDP per capita, trade openness did not contribute to GDP per capita. The results for the SANE countries indicated that while both the FDI inflows and trade openness impacted positively and significantly on GDP per capita, capital account openness impacted negatively and significantly. By comparison, the study showed that while all the financial openness indicators improved economic performance in the Asian Tigers, only FDI inflows enhanced economic performance in the SANE countries. Consequently, the study contends that the reason could be because of the level of financial development in the two economic blocs. Financial system in the Asian Tigers is relatively more developed than that of the SANE countries and as such by liberalizing the financial sector, the economy of the Asian Tigers was in a better position to allocate foreign capital inflows to productive uses. Effective governance improved the economy of the Asian Tigers, while none of the institutional quality variables contributed to the economy of the SANE countries. This reveals the fact that countries with weak and ineffective institutions usually experience poor economic performance. The study therefore recommends that, while it will be necessary for the SANE countries to upgrade their institutions in order to reap the benefits of financial openness, the Asian Tigers should stabilize their polity to enhance the performance of their economy.

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