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A Vector Error Correction Model Analysis of the Interrelationships among Globalization, Health and Macroeconomic Outcomes in Nigeria

Francis Ilenloa Igberaese[1] & Onyinye Ifeoma Ochuba[2]
[1]&[2]Department of Economics, University of Africa, Toro-Orua, Bayelsa State
Corresponding Email: francisilenloa@yahoo.com

Abstract
The study ascertains the effects of interrelationships and linkages among the three concepts of globalization, health, and macroeconomic outcomes in Nigeria using the Vector Error Correction Model. It also finds among others that openness, FDI, which are measures of globalization and malaria prevalence, a direct measure of health and economic growth has no significant effect on the exchange rate, and that economic growth, exchange rate, measures of macroeconomic outcomes, FDI, and malaria prevalence have no significant impact on trade openness. It recommends among others that attempts to grow one sector should not lose foresight of the others and that efforts to make Nigeria's economy benefit from globalization should focus more on stimulating FDI than participating in trade openness. More vigorous efforts should be put into the fight against, and treatment of malaria in the country
Keywords: Economic Growth, Exchange Rate, Trade Openness, Malaria
JEL Classification: I150, F61, F31

1. Introduction

Globalization, health and macroeconomic outcomes are three age-long inevitable phenomena the world at large must experience. No developing countries can completely separate itself from the interconnectedness, called globalization with other countries of the world, since no nation can be self-sufficing (Obadan, 2003). Whereas, it is true that the health system in Nigeria lacks adequacy, the people have no choice than to live with the available system. Macroeconomic outcomes are parts of our human existence (Igberaese & Onogbosele, 2020). Hence, we need to study them for better policies around them, in the face of scarce resources.

Globalization gained more strength and has played unprecedented part in world economies through trade and financial flows in the decades of the 1990s (Aremu & Aiyegbusi, 2011; World Economic Forum, 2019). The activities of the Breton-Wood institutions publicized globalization across Nigeria. The methods of achieving health

and its impacts on productivity have differed from one age to the other. In these modern days, men have had the benefits of the orthodox health system, which adds more values to life expectancy. Macroeconomic outcomes have been objectives of Nigeria to ensure economic stability since independence, in order to improve the welfare of its citizens.

No country operates in autarky, and being in good health for macroeconomic outcomes stability is desirable (Aremu & Aiyegbusi, 2011; Igberaese & Onogbosele, 2020). Therefore, there is the need to study the effects of these three concepts on one another because many researchers have not focused on, or provide a link the three in one study. Economic growth alone, as most studies on macroeconomic outcomes have focused (Inekwe, 2013; Loto 2001; Roser, 2021), without complementary stability in the other macroeconomic outcomes cannot lead to high standard of living. We seek to cover this gap by including exchange rate because, particularly, economic growth/output and exchange rate are both pointers to economic performance and are the most closely monitored by economic agents who operate across borders. In health, whereas Noronha, Figueiredo and Andrade (2010) have selected some of the highly prevalent diseases as variables affecting economic growth in states of Brazil, it is not to our knowledge that even with the high rate of tropical diseases in Nigeria, authors have deemed it fit to consider the contribution of such disease consequence in the Nigerian economy. We therefore, account for the epidemiological effects (morbidity) of malaria, as a health indicator, a disease that weakens the labor force and productivity, since it has the highest prevalence in Nigeria (World Health Organization [WHO], 2020).

Thus the study brings in new innovations into the study of globalization, health and macroeconomic outcomes in Nigeria. The objective of the study, therefore, is to empirically determine the interrelationships or links existing among globalization, health and macroeconomic outcomes in Nigeria. It seeks to evaluate the impacts of the three concepts on one another in Nigeria. The general question that seeks answer is whether or not there are interrelationships among globalization, health and macroeconomic outcomes in Nigeria. Specifically, shall find out whether or not globalization, as measured with Trade Openness and Foreign Direct Investments (FDI); and whether or not health, as measured with malaria prevalence and macroeconomic outcomes, as measured with economic growth and exchange rate, have impacts on one another?

This study focuses wholly on the economic globalization. We use time series data between 1980 and 2018. These periods include the years before and during liberalization and openness, as well as when the stimulation of FDI became a major issue in the country's economic

policy down to when FDI nosedives in the country.

1.1 Trends in GDP Growth Rate and Exchange Rate

According to Trading Economics (2016), the Gross Domestic (GDP) in Nigeria slighted 13.70% in the first quarter of 2016 and 13.90 ***i***n 2021. Growth rate in GDP hooved by 0.30% between 2013 and 2016. "It reached a record high of 9.19 % in the third quarter of 2015 and a record low of -13.70 % in the first quarter of 2016" and 0.5% in the first quarter of 2021.

The USD/NGN increased to 83.18 or 41.81% during the 12 months from 198.95 in July of 2015. The Naira got up to an unprecedented "high of 359.50 in June 2020" and "a record low of 0.53 in September 1980" (Trading Economics, 2021). The Central Bank of Nigeria (CBN) announced a flexible "exchange rate for the naira" in 2020, which in relation to the US dollar currently stands at 282.13. Data from the various issues of CBN and National Bureau of Statistics (NBS) bulletins show that deteriorating exchange rate started around 1987 after the implementation of SAP in Nigeria. Exchange rate versus U.S. Dollar was NGN155.2, NGN167.5, NGN195.6, NGN304.5 and NGN 350 50 in 2013, 2014, 2015, 2016 and 2020 respectively. The implications for an import dependent economy are imported inflation and hardship for the citizens.

1.2 Health System in Nigeria

Nigeria has a poorly developed healthcare system that suffers several milieus, particularly at the lowest level of government. It has insufficient and inefficient system of scrutiny. It has no system of tracking to monitor the outbreak of major and communicable diseases (Osain, 2011), except of recent during the coronavirus pandemic (Corona Tracker, 2021; Nigeria Centre for Disease Control, 2021). Health access in Nigeria is only 43.3% despite the various reforms. About 55% of Nigerian rural dwellers have no access, and private vendors provide about 70% of the healthcare while government provides only 30% (Igberaese & onogbosele, 2020). 70% of drugs dispensed are substandard. There is poor referral system among the different tiers of healthcare providers and this speaks volume of the poor state and management of the healthcare system delivery.

The reason for this sorry state of health is not far fetch; of all the improved models of healthcare, only the poorest, which is the Out-of-Pocket, in which patients pay for health right from their pocket subsists abundantly in Nigeria. National Health Insurance (NIH) model has only covered about 4% of the whole inhabitant while the informal sector employing about 52% to 60% is not covered. The best two, the

Beveridge and Bismark models, in which medical expenses are not shifted to the patient but to the government and insurance respectively, are totally absent. The consequent is that many citizens man not have be denied access to doctors and resort to patronizing herbalists or rely locally brewed herbs with efficacies not guaranteed.

2. Review of Empirical Literature

2.1 Globalization and Economic Growth

Obadan (2003), using a descriptive analysis, reveals that globalization has positive effects on economic growth. Uwatts (2004), based on stylized facts, notes that globalization has potential gains for the African economies. Mutascu and Fleischer (2011), using the unrestricted Vector Autoregressive (VAR) model, show that globalization and growth has positive impact in Romanian (Kyove, Odibo & Giuseppe, 2021). Alimi and Atanda (2012) employ "autoregressive model" and find that globalization has positive and significant impact on Nigerian economic growth in the short-run but negative on the long-run (Odo, Abgo & Agbaji, 2020). Loto (2011) had adopted the "Mundel Fleming Model of open macroeconomics", with the "Ordinary Least Squares" (OLS) technique and reveals that openness indicator is negative in Nigeria. Sulaiman and Aluko (2014) also employing Ordinary Least Squares, find that globalization is significant and have positively affected the economic performance/economic growth in Nigeria (George-Anokwuru, 2018).

2.2 Health and Economic Growth

Addison and Wodon (2007) posit the relationship between health and economic growth in Nigeria and conclude that health is rightly significant on an economy (Urhie, Afolabi, oluwatoyin, Osabohien & Ewtan, 2020). Babatude (2011), using three Stage Least Square (3SLS), finds that life expectancy is positively and significantly related to the growth of the economy. Usman and Adebayo (2011, WHO, 2020) show that malaria infection has negative effect on productivity, and malaria infection has a positive effect on mortality rate. Jaiyeoba (2015), employing ECM, shows that human capital improvement, an indirect health indicator, significantly exhibits positive effect on output level in Nigeria. Jaiyeoba (2015) also finds a weak causal relationship between health status and productivity in the Nigeria (Ibukuni, 2019).

Onisanwa (2014) examine the impacts of health indicators on Nigeria's economic growth, using the Co-integration analysis and Granger Causality methods on Nigeria and find that economic growth is affected positively in the long run by health indexes (Igbinedion, 2021).

2.3 Globalization and Health

Inegbedion (2021) believe that globalization remains a major issue in public healthcare because of the links between globalization concept and healthcare. Díaz-Bonilla, Babinard, Pinstrup-Andersen and Thomas, (2002) are explicit that globalization affects health universally, and that it may ameliorate or deteriorate the health of the LDCs. They identify important two broad pathways; globalization connects the overall outcomes of the economy, and that globalization connects directly with health, through its effects on the environment, nutrition and institutions (Inegbedion, 2021).

3. Theoretical Framework and Methodology

The process of globalization itself is driven by a wide range of theories. Busse and Königer (2012) hold that the textbook Solow (1956) model or its augmented version, is the starting point of many analyses of differences in growth rates of output per worker across countries. Accordingly, Solow's augmented version model measured growth, as the difference between the logarithm of output per worker in period t and its initial value ($\ln y_t - \ln y_0$). The level of technology (A_t), the rate of technological progress (g), the initial output per worker (Y_0), the saving rate (S_k), the share of capital/human capital in output (α)/(β), the rate of convergence to the steady state (λ), the depreciation rate (d), the growth rate of the labor force (n) and investment in human capital (S_h) determine growth.

The level of technology depends on every country's initial level of technology (A_o) at any given point in time, while technological growth rate remains constant across all countries (Mankiw et. al. 1992 cited in Busse & Königer, 2012).

Then:

$$A_t = A_o e^{gt} \quad \ldots\ldots (1)$$

However, following Solow (2007), the assumption of constant technology is not adequate for Nigeria, being a developing country (Mert, 2021). From the view point of Gundlach (2005), we can accommodate the trade impact by making a different assumption of a country specific progress in the level of technology, $A_{it.}$ Then:

$$A_{it} = A_o e^{gt} e^{\emptyset}{}_j X_{ij} \quad \ldots\ldots (2)$$

Where:

^{X}ij = Factors leading to the advancement in technology (say trade), that is different across countries (Gundlach, 2005; Diebolt & Hippe, 2018).

If we insert this into the augmented Solow, we have:

$$Iny_t - Iny_o = -\left(1 - e^{-\lambda t}\right) Iny_o + \left(1 - e^{-\lambda t}\right)(InA_o + gt) + \left(1 - e^{-\lambda t}\right)\alpha/1 - \alpha - \beta Ins_k + \left(1 - e^{-\lambda t}\right)\beta/1 - \alpha - \beta Ins_h - \left(1 - e^{-\lambda t}\right)\alpha + \beta/1 - \alpha - \beta In(n + g + \delta) + (1 - e^{-\lambda t})\emptyset_j^X X_{ij} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

(Gundlach, 2005).

This permit blending of the characteristics of the augmented Solow model and more realistic assumptions of specific country advancement in technology. Then:

$$Iny_{it} - Iny_{it-1} = \alpha + \beta_1 Iny_{it-1} + \beta_2 Ins_{k,it} + \beta_3 Ins_{h,it} + \beta_4 In(n_{it} + g + \delta) + \emptyset_j{}^X ij_{,it} + \mu_t + n_i + v_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

(Gundlach, 2005).

However, it is difficult to estimate this model. The independent variables are theoretically dependent and come with error. To solve this problem, Gross Domestic Product Per Capita can be used in place of Real Gross Domestic Product as the dependent variable (Karras, 2006; Rogoff, 1985).

Noronha, Figueiredo and Andrade (2010) believe that the status of a population's health is capable of affecting macroeconomic outcomes.

Let "i" refer to the Nigerian economy, and let "t" represent years. The econometric model modifies Barro (1991) works on the impact of health on economic growth in the states of Brazil. The modified version is as follows:

$$\dot{Y}_{it} = \beta_1 + \beta_2 y_{it-1} + \beta_3 \text{HEALTH}_{it-X} + \Sigma_t \beta_t year_t + \mu_{it} \ldots\ldots\ldots\ldots (5)$$

where:

$\acute{Y}_{it}$= percentage growth rate of the real gross domestic product (GDP) per capita;

y_{it-1} = initial real GDP per capita with a one-year lag;

$HEALTH_{it-x}$ = average health condition of the population with lag of x years;

β_2, β_3, and β_t= parameters of the model to be estimated, and where:β_1 is the constant term;

μ_{it}= random shocks.

This also means that health can affect any of the macroeconomics outcomes Usman & Adeyinka (2019).

The study employs the Vector Error Correction Model (VECM) regression technique, using secondary data obtained from various sources. VECM itself is a cointegrated VAR. It has advantages of ECM, which is only for single equation. But in VECM, system equations can be estimated with all variables as dependent, just like in VAR. But unlike VAR, VECM also gives the ECM results of the equations, showing us

the speed of adjustment to equilibrium in the event of shocks. With VECM, the permanent shocks are assumed to be uncorrelated with each other, and uncorrelated with all of the transitory shocks, all the equations are identified, as VECM vector imposes over identifying restrictions on the steady-state multipliers for each of the permanent shocks (Plosser, Stock & Watson, 1991). Therefore, low R^2 in the equations do not invalidate the VECM result.

Following Hauser (2010), we specify our five VECM models as follows:

$$\text{In}\Delta\text{PCI}_t = \beta_{11}\text{In}\Delta\text{PCI}_{t-1} + \beta_{12}\text{In}\Delta\text{FDI}_{t-1} + \beta_{13}\text{In}\Delta\text{EXRT}_{t-1} + \beta_{14}\text{In}\Delta\text{OPENI}_{t-1} + \beta_{15}\text{In}\Delta\text{MALC}_{t-1} + v_t^{\Delta\text{PCGDP}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (6)$$

$$\text{In}\Delta\text{EXRT}_t = \beta_{21}\text{In}\Delta\text{PCGIDP}_{t-1} + \beta_{22}\text{In}\Delta\text{FDI}_{t-1} + \beta_{23}\text{In}\Delta\text{EXRT}_{t-1} + \beta_{24}\text{In}\Delta\text{OPENI}_{t-1} + \beta_{25}\text{In}\Delta\text{MALC}_{t-1} + v_t^{\Delta\text{EXRT}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7)$$

$$\text{In}\Delta\text{OPEN}_t = \beta_{31}\text{In}\Delta\text{PCI}_{t-1} + \beta_{32}\text{In}\Delta\text{FDI}_{t-1} + \beta_{33}\text{In}\Delta\text{EXRT}_{t-1} + \beta_{34}\text{In}\Delta\text{OPENI}_{t-1} + \beta_{35}\text{In}\Delta\text{MALC}_{t-1} + v_t^{\Delta\text{OPEN}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (8)$$

$$\text{In}\Delta\text{FDI}_t = \beta_{41}\text{In}\Delta\text{PCI}_{t-1} + \beta_{42}\text{In}\Delta\text{FDI}_{t-1} + \beta_{43}\text{In}\Delta\text{EXRT}_{t-1} + \beta_{44}\text{In}\Delta\text{OPENI}_{t-1} + \beta_{45}\text{In}\Delta\text{MALC}_{t-1} + v_t^{\Delta\text{FDI}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (9)$$

$$\text{In}\Delta\text{MALC}_t = \beta_{51}\text{In}\Delta\text{PCI}_{t-1} + \beta_{52}\text{In}\Delta\text{FDI}_{t-1} + \beta_{53}\text{In}\Delta\text{EXRT}_{t-1} + \beta_{54}\text{In}\Delta\text{OPENI}_{t-1} + \beta_{55}\text{In}\Delta\text{MALC}_{t-1} + v_t^{\Delta\text{MALC}} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (10)$$

Where: OPEN = Trade Openness
FDI = Foreign Direct Investments
MALC = Malaria Prevalence
PCI = GDP Per capita
EXRT = Exchange Rate

4. Results and Discussion

Table 1: Pairwise Correlation Matrix

	LNPCI	LNEXRT	LNOPEN	LNFDI	LNMALC
LNPCI	1	0.733158	-0.52559	0.859852	0.910864
LNEXRT		1	-0.12888	0.758566	0.890022
LNOPEN			1	-0.20568	-0.31928
LNFDI				1	0.861347
LNMALC					1

Source: Author's computation using Eviews 9, 2021.

The correlation matrix is presented in Table 1. The result shows a positive relationship among GDP per capita, exchange rate, FDI and malaria prevalence. This implies that an improvement in these variables would be advantageous to GDP per capita of the country. However, trade openness correlates negatively with GDP per capita, which suggests that a more liberal trade correlates unfavorably with GDP per capita. This can be clearly explained; too liberal trade can encourage dumping and unhealthy competition with local industries.

The results, as shown in appendix 1, show that mix interrelationship exit among the three concepts of globalization, health and macroeconomic outcomes in Nigeria, Trade openness and FDI have positive relationship with economic growth, FDI is also positive with exchange rate but Trade openness has negative relationship with exchange rate. Hence, globalization has mixed relationship with macroeconomic outcomes. Economic growth and exchange rate have positive relationship with FDI, but exchange rate has negative relationship with trade openness. Hence, macroeconomic outcomes also have mixed relationship with globalization. Malaria prevalence has positive relationship with economic growth and a negative relationship with the exchange rate. Hence, health has mixed relationship with macroeconomic outcomes in Nigeria**.** Trade openness has positive relationship with malaria prevalence and FDI has negative relationship malaria. Hence, health has mixed relationship with globalization. One implication is that is that efforts to make the Nigeria's economy benefit from globalization should focus more on stimulating FDI than participating in trade openness.

The results of equation .6 show that all the explanatory variables have positive and insignificant coefficients with economic growth. The positive but insignificant relationship between exchange rate and economic growth may be due to the role of remittances from the many Nigerians resident abroad, but which loss value at home because of the

continuous depreciation of the Naira. The positive and insignificant relationship of FDI with economic growth can be explained; most of the foreign investors are only brief case investors whose activities contribute little to economic growth. The positive effect of malaria prevalence on economic growth could be due to the effects of the funds from the many external aids usually associated with the fight against malaria, but insignificant because of the misappropriation of these funds. For equation 7, all explanatory variables have coefficients that are not significant even at the 10 percent level. This implies that efforts to stabilize the Dollar/Naria rate should be focused elsewhere rather than rely on economic growth, FDI, openness and the fight against malarial epidemic. Results of equation 8 show that all explanatory variables have no significant impact on trade openness. This, therefore, implies Nigeria is not making impact in world trade. This is not surprising, as the country is only an import dependent and not a manufacturing country. This has been worsened by the low non-oil exports for the country. The result of equation.9 indicates that all explanatory variables are positive but have no significant impacts on FDI. Nigeria's economic growth rate has been too slow to attract FDI, the Naira has suffered depreciation and malaria funds are also misappropriated.

Finally, for equation.10, all explanatory variables other than D(LNOPEN(-1)) have negative coefficients. The positive relationship of trade openness with epidemiology in Nigeria means that the more the Nigeria opens border to participate in trade, the more the disease is imported with goods and humans inflow and the lesser the health status of the citizens. However, economic growth, exchange rate, FDI and trade openness have no significant effect on malaria. This implies that neither economic growth effort nor the effort to stabilize the Naira has adequately focused health. Only D(LNMALC(-1)) coefficient easily pass significance test at the 5 percent level. Therefore**,** past malaria prevalence has negative effects on current malarial. This is clear, as medical experts have revealed that past malaria attack that is well treated can build immune response in patients, when ensures resistance to future malaria attack and therefore improves health status. Recall that low R^2 in the equations do not invalidate the VECM result.

· The coefficient of adjustment of equation 6 is positive and insignificant. Hence, the speed of adjustment is not reasonable. Equation 7 has adjustment coefficient that is rightly signed and significant at the 5 percent level. The speed of adjustment to equilibrium in case of temporary disturbances is 86.87 percent. Though the coefficient of adjustment for equation 8 is negative, it fails to be significant even at the 10 percent level as required by theory. Thus, its adjustment speed is unreasonable. The adjustment coefficient of equation 9 is positive and

greater than one. This does not make economic sense. A temporary shock may result to further explosion of the economy away from equilibrium. Finally, the VECM results reveal that equation 10 has a significant but positive coefficient of adjustment. This does not align with theory and hence the speed of adjustment is considered irrational in economic parlance.

5. Conclusion and Recommendations

The evaluation of the impacts of three age long inevitable phenomena – globalization, health and macroeconomic outcomes on one another in Nigeria, as well as the interrelationships among the three concepts are the principal objectives of the study. Using the Vector Error Correction Model of econometric technique, it is found that globalization, health and macroeconomic outcomes have mixed impacts in Nigeria.

We recommend as follows:

i. It is seen that there are interrelationships among the three concepts of globalization, health and macroeconomic outcomes in Nigeria. Therefore, attempts to grow one sector should not loose foresight of the others in Nigeria. This connotes the idea of "Big Push". It can be done if corruption is reduced to its minimum.

ii. Efforts to make the Nigeria's economy benefit from globalization should focus more on stimulating FDI than participating in trade openness. Therefore, Conducive environment for such investments to thrive, in the form of attracting the "flying geese" should be provided.

iii. The country should be more involved in international monetary politics, as an alternative to stabilize exchange rate. There should also be deliberate manipulation of interest rate to attract international banks to invest foreign exchange in Nigeria, thus increasing the supply of foreign exchange (particularly the Dollar) in Nigeria.

iv. More vigorous efforts should be put into the fight against, and treatment of malaria in the country. With the huge population in the country that is located in the tropic, monitoring, tracking, insurance and treatment methods should be made adequate.

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Appendix 1: Vector Error Correction Mechanism (VECM) Estimates

		System Equations			
Explanatory Variables	*D(LNPCI)*	*D(LNEXRT)*	*D(LNOPEN)*	*D(LNFDI)*	*D(LNMALC)*
Constant	0.015769	0.147324	-0.025248	-0.03995	0.110696
	(0.01545)	(0.07061)	(0.06028)	(0.08233)	(0.04068)
	[1.02076]	[2.08642]	[-0.41884]	[-0.48527]	[2.72107]
D(LNPCI(-1))	0.254076	-0.907917	-0.230759	1.034233	-0.26945
	(0.23031)	(1.05272)	(0.89873)	(1.22739)	(0.60651)
	[1.10320]	[-0.86245]	[-0.25676]	[0.84263]	[-0.44427]
D(LNEXRT(-1))	0.013175	-0.026898	0.032271	0.227316	-0.029241
	(0.04076)	(0.18629)	(0.15904)	(0.21721)	(0.10733)
	[0.32326]	[-0.14438]	[0.20291]	[1.04655]	[-0.27244]
D(LNOPEN(-1))	0.054550	0.084211	-0.348911	-0.413251	0.223987
	(0.05502)	(0.25147)	(0.21469)	(0.29320)	(0.14488)

	[0.99154]	[0.33487]	[-1.62520]	[-1.40946]	[1.54600]
D(LNFDI(-1))	0.019812	-0.079857	0.062339	-0.431241	-0.045484
	(0.02602)	(0.11892)	(0.10152)	(0.13865)	(0.06851)
	[0.76152]	[-0.67154]	[0.61405]	[-3.11034]	[-0.66389]
D(LNMALC(-1))	0.014172	0.239134	-0.08958	0.546775	-0.38367
	(0.06872)	(0.31409)	(0.26815)	(0.36621)	(0.18096)
	[0.20624]	[0.76135]	[-0.33407]	[1.49307]	[-2.12019]
ECM	0.069361	-0.868718	-0.15623	1.763174	0.532899
	(0.09528)	(0.43550)	(0.37180)	(0.50776)	(0.25091)
	[0.72799]	[-1.99476]	[-0.42020]	[3.47245]	[2.12389]
		Summary Statistics			
R-squared	0.200414	0.383366	0.152904	0.570978	0.584725
Adj. R-squared	-0.052086	0.188639	-0.1146	0.435497	0.453585
Sum sq. resids	0.065191	1.362042	0.992717	1.851532	0.452102
S.E. equation	0.058576	0.267743	0.228579	0.312168	0.154256
F-statistic	0.793718	1.968738	0.571595	4.214458	4.458798
Log likelihood	40.95851	1.446045	5.557875	-2.545322	15.78287
Akaike AIC	-2.612193	0.427227	0.110933	0.734256	-0.675605
Schwarz SC	-2.273474	0.765946	0.449651	1.072974	-0.336887
Mean dependent	0.027511	0.125503	-0.025785	0.018702	0.067288
S.D. dependent	0.057107	0.297243	0.216509	0.415485	0.208680

Note: Standard Errors are in parenthesis and t- values are in brackets [ ].
Source: Author's computation using Eviews 9, 2021.