Eco-currency: Proposition of a monetary policy design for a unitary currency program of a frailty economic zone.

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1 February 2021

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ABSTRACT

The desire to rule a system has never been the interest of a contemporary civilize man rather than to successfully govern. The discoverable tool of a modern man as the greatest invention, to centrally manage a complex market system, dynamically evolving in it, the interaction process of agents, has been a quality policy design and application, which is often guided by an advanced theoretical inductive inference, deduce from historic experience in a framework of assumptions relating to a working system. The constructive foundation of this paper does appreciate the fact that in the practice of policy for unitary currency program involving sovereign nations, is not entirely new epistemology in the field of monetary economics, however, this very study is a complete unique in its deduction because it involves fragile economies managing soft currencies against hard currency economies, to promote sustainable growth, and compel for a competitive development using natural rate of interest as a policy sign-post.

Keywords: Monetary economics, policy, Eco-currency, Kalman Filter, Wicksellian, Fragile economy
Jel Codes: E42, E43, E44, E47, E52

[A] The history and background of unitary currency proposition for ECOWAS region of Africa

Ever since, the idea of establishing a single currency for the Economic Community of West African States (ECOWAS) was first launched in Conakry, Guinea in 1983 after ECOWAS was founded in 1975 and operationalized from 1979 to bring together fellow Africans of the Portuguese-speaking countries, French-speaking countries, and English-speaking countries together. There have been varied submitted intellectual works to argue 'for' and 'against' the success of a single currency union proposal, which hasn't found the daylight yet. With estimated evidence of 58% of quality papers on this subject submitted by independent scholars based in Europe and USA, an estimate of 30% of the independent scholars from the francophone countries within the ECOWAS region, 10% among the Anglophone countries within the ECOWAS region led by Nigerian authors and the remaining 2% from the Asian Universities led by China. When the single currency union was lunched, a monetary cooperation program was proposed, which was subsequently validated in July 1987 according to the account of (Amato & Nubukpo, 2020). In other to implement the idea of a single currency at the level of the entire ECOWAS, the new West Africa Monetary Agency (WAMA) was formed in 1996 to replace the Monetary Cooperation Program (MCP) tasked to accomplish the following;

 [I] In the short term period, the agency (WAMA) was charged to strengthen the currency payment mechanism of the West Africa clearing house by removing outstanding payment arrears.

[II] Introduction of new payment instrument such as travellers' cheque.

[III] The introduction of credit guarantees funds to support the clearing mechanism and remove all non-tariff barriers that limit the use of national currencies for payments of certain transactions, such as hotel bills, airline tickets, etc.

[IV] In the medium term period, the agency was to oversee the limited conversion of national currencies, which must be eliminated to avoid restrictions in inter-currency exchange.

[V] In the long term period, it was the agency's focus to create a single ECOWAS currency monetary area that modifies the use of a single convertible currency.

The Political commitment to renewed monetary cooperation was carried out by Ghana and Nigeria after December 1999 and subsequently accepted by Guinea, the Gambia, Sierra Leone, and Liberia, constituting a new league of Anglophone countries to transform the idea of an acceleration approach towards monetary integration into actualize actions in a realistic and achievable proposal, and collaborate with the francophone counterpart to create a successful monetary union with a unitary currency agenda. The crystallization of this idea led to the formation of the West Africa Monetary Zone (WFMZ) on April 20, 2000, in Accra, Ghana. In the 2nd Summit of the African Conference of Heads of State and Government on the 15th December 2000; the statute of the future Central Bank of the West Africa Monetary Zone was drafted. The next effort was to be pooling of foreign reserves, as well as negotiate the convertibility of the foreign currency guarantee with an appropriate international agency. Which required members' State to implement economic reform programs to achieve macroeconomic convergence including political reform agenda.

On the 21st December 2019, this union defined its latest step of execution, which was to conclude the credibility of the monetary integration of the ECOWAS made up of 15 countries as a whole, instead of 16 countries. These countries were Sierra Leone, Ivory Coast,

Nigeria, Benin, Ghana, Guinea-Conakry, Gambia, Burkina Faso, Niger, Liberia, Togo, Cape Verde, Senegal, Guinea-Bissau, Mali, and Togo. Which the 16th Country Mauritania with a minor misunderstand redrew from the membership of ECOWAS on 26th December 2000. With the paper holding a strong conviction of her return soon as a founding member of this Union. In the community, unanimous understanding that to attain credibility of the monetary integration of the ECOWAS area strictly depends not only on monetary stability but also on the implementation of a mechanism to support a strong, inclusive, and development centered growth. Which had monetary integration as the integral component of the ECOWAS vision 2020. The aim of this vision is the intensification of the integration process through the promotion of the West African identity and community, within the populations of the continent of Africa and the world as a whole. Therefore, the regional strategic plan of the ECOWAS was to see the intensification of economic and monetary integration as an important pillar for the development of the community. Meanwhile, (Saxegaard, 2006: Buchs & Mathisen, 2005: Senzu, 2019), they were very pessimistic and argued that the success of single currency union of ECOWAS for vision 2020 was likely impossible because the community is having many monetary problems, in particular, the immediate non-convertibility between their currencies and poorly developed financial systems and payment channels as well as ineffective monetary policy's transmission channels. To crown, it all was an observation of strong imbalances between the exchange rates of different member State currencies in play within the region, including high national debt to GDP as an effect.

Nevertheless, the single currency union was not a mission impossible beyond ECOWAS vision 2020. Which is a complete extract of (Senzu, 2020c) works on advanced architecture of Eco-currency. However, recent papers published from 2020 thereof on the

subject of Eco-currency upholding an optimistic view of a unitary currency community strive as an effort to chart a new theoretical pathway for ECOWAS 2020 onwards. One of such publication (Senzu, 2020c) submit axioms in accomplishing such an objective in the shortest possible time.

However, the radical empiricists, observing, the fragile nature of the ECOWAS region in terms of internal and external trade imbalances, as well as the weak nature of it financial system development, continue to reasonable object the unitary currency union on the basis of sustainability, even if, the convergence of member state economy becomes possible. These critics uphold the critical view on the damage this initiative may cause to the members State economy comparable to current performance as an individual sovereign States, with respect to the management of their natural resources and financial system relative to the global trading community, if it fails to sustain the unitary currency program agenda. A consequence, which is irreparable and unrecoverable, when the economic convergence fails to sustain as union of monetary zone. The tenet upon which heightens the fear of the objectivists is lack of clarity in the monetary policy framework to duly follow and administer successfully, in other to govern the aspired monetary zone characterized in frailty, which is a difficult condition to easily address shocks and risk while maximizing the potential benefits as advantages to the members' sovereign State.

Though (Senzu, 2020c), outline the structure design of how the proposed Central Bank of ECOWAS could function towards convergence of all sovereign member States economy, as well in successfully undertaking structural management approach in post convergence era. Yet the policy framework design and application for such a financial market is still under contention. Which the premise of this paper is to solve the question and the

equation in large extent on the critical management of the financial market as a unitary currency zone in terms of market contraction, expansion and quantitative easing to stabilize the price level of the open market towards production and promotion of industries as a monetary zone and establish a foundation to instruct a policy framework towards effective financial market communication, to be adopted as a tool by the inspired ECOWAS Central Bank, intended to be instituted.

[B] Monetary Policy framework for frailty Economic zone

As the study of (Senzu, 2020c), outlined the following axioms in favour of primary and secondary convergence criteria, as an operational scope for the existence and sustenance of the proposed Central Bank of ECOWAS. The below stipulation characterize laid down rules for policy design for both pre-convergence and post-convergence of Member States economy;

i.   Public debt nominal GDP ratio of $\leq 70\%$

ii.   Tax revenue to nominal GDP ratio of $\geq 20\%$

iii.   Mean annual inflation rate $\leq 3\%$

iv.   Public sector wage bill to tax revenue $\leq 35\%$

v.   Primary deficit to nominal GDP ratio $\geq -3\%$

Most of these above listed axioms fall within the fiscal management space of Member States to disciplinary comply with. However, among these outlined rules, the aspect of the rules that seems impossible towards it fulfilment by ECOWAS member States, hence, heightens the doubt in the corridor of certain scholars about the unitary currency union are highly monetary policy sensitive, like, the mean annual inflation rate of a member State, is empirically

suggested being pegged less than and equal to 3%, while the primary deficit to nominal GDP ratio greater than equal to -3%. Therefore, the empirical foundation of this paper is to resolve that challenge as a proposition of the way forward in policy wise.

The paper hereby argue, when the ECOWAS Central Bank is instituted, different policy approaches adopted by individual Member States Central Banks to govern it, domestic inflation of the market, management of contraction and expansion of the business industrial cycle, and the swift approach to quantitative easing to stimulate domestic growth will be required to be brought to a halt. And adopt a new policy tool as 'Natural Rate of Interest' as a hypothetical targeting indicator, in a form of open market policy gauge, to guide monetary policy communication and quantitative easing.

Wicksell Knut in 1898 defined the [natural rate of interest] as the interest rate that is compatible with a stable price level of the market. Subsequent associated mainstream inductive theories establishes how the (r-star), the natural rate of interest deduced, would keep the economy to operate at full employment and stable inflation, with the ability to bring the economy to aggregate price equilibrium at a short term target, while lending within the market is done without reference focus to money as a quantity of supply and possibly the velocity of circulation. In the theoretical exposition of Wicksellian natural rate of interest, it is admitted that, by comparing the money rate of interest of an economy to it natural rate of interest, an equilibrium of a credit economy could be ascertained. Which in modern terms could be exemplified as a comparison between the cost of capital and the return on capital. Which further deduces that, economies where the natural rate of interest is higher than the monetary rate of interest, credit growth will drive a positive disequilibrium. Then, in a situation, where the natural rate of interest is lower than the monetary rate, the demand for credit dries-up

leading to a negative disequilibrium and capital destruction. This proposition leads to a basic Wicksellian differential formula stipulated below;

$$(WD*) = \text{Natural rate of interest} - \text{Monetary rate of interest}$$

Notwithstanding, this study acknowledges all other sophisticated extended mathematical models developed over the years on the foundation of [Natural rate of Interest] as a policy implication in advanced economies, especially with the USA Federal Reserve Bank's forecasting Units. Then considering the theoretical works of Hicks (1904-1989) and that of Hansen (1887-1975) given birth to the Hicks-Hanson model, which seeks to show the relationship between interest rates and the assets market. Then followed by the works of J. B. Taylor approach to the measurement of natural rate of Interest, Taylor (1993), which became the Taylor rule. With a recent measurement approach to (r-star) by Laubach and Williams (2003), applying Kalman filter to data for empirical deduction. The various empirical evidences brings to a single conclusion, the estimation of (r-star) of any economy is a very difficult task to achieve as exact forecasting figure of equilibrium, due to other none measurable factors, theoretically observed to have effect on the hypothetical (r-star) rate as argued in the report of (Eggertsson et.al, 2015: International Monetary Fund, 2014). However, the critical concern of this very study for a careful proposition is as follows;

Q1. Is the existing decomposing variables adopted by the advanced economy as dependency variable of the (r-star) suitable for fragile economies, and is the data of such variables reliable and consistent to the dynamic and evolutional constraint of developing economies for quality deduction?

Q2. If the response to Q1 is no, is there any replaceable variables as a modification of the existing model, which will depict the r-star accurately in a credit based fragile economy?

Q3. If the response to Q2 is yes, could r-star be used as a quality monetary policy indicator for a credit based fragile economy within its operating framework of both exogenous and endogenous forces of an economic system for a sovereign nation?

Under the guide of the above established premises, the paper wholly accept the definition of a fragile economic zone as posits by (Senzu, 2019b), as he defined it, as an economy experiencing weakness in it currency, making it difficult to finance its account deficits towards growth projections, resulting to a performance slow down and vulnerability in it welfare functioning.

In spite of the exclusive focus of the paper to address the technical questions raised in the introduction section for policy implications, the objective of the paper boisterously thrive on a central tenet, succinctly posits by Lubik and Mathes (2015), that state, 'it should be the desire of monetary policymakers to have a deep appreciation to the level of the [natural interest rate] because it presents a guide post as to whether a monetary policy is too tight or loose. In that essence, the Wicksellian view as policy implication does adduce that, an increase of the market interest rate (real interest rate) above its natural rate (r-star), causes the activity of that economic zone to contract and lower prices as an expectation. Whereas, a decline of the market interest rate below the natural interest rate, the activity of such an economic zone expand, resulting to higher prices. Therefore, when the interest rate of the market hypothetically equate to the natural interest rate, the exact economic zone is expected to attain to a stable price system and progressive growth.

It is observed in the ex-post factor of any economic zone, the movement of real interest rate in the context of inter-temporal choice does affect consumption and investment allocation, on such basis, this study hereby uphold such postulation as a basic assumption to guide the new model development and hypothetical prediction of [natural rate of interest] for fragile economies. The second assumption of the predictive model, which instruct r-star model design, is a record of attaining a high threshold of foreign exchange reserve level of the Central Bank, operating within a fragile economic zone as argued by (Senzu, 2021a), which is the standard policy rule in guiding the Central Bank on it limitless capacity to quantitative easing that lay the foundation for the monetary stock level of the targeted economic zone. An attempt to respond to the question (Q1) as one of the premise of this paper, a controlled Normality test was conducted on the independent variables relative to the dependent variable (r-star) according to the theoretical proposition of Laubach and Williams (2013), which they adopted the Kalman filter approach for (r-star) prediction for the advanced economy like USA and Canada. With the objective application of the model to a sample country that fall within a fragile economic zone. A careful posterior evidences from a fragile economic setting of some of the Individual Member States of the sixteen (16) countries that form the ECOWAS region, became the sample population, which was used to establish the empirical basis. The R-square study outcome was certain with a 90% degree of confidence interval of the choice of independent variables adopted by the original model for the dependent variable (r-star), and observed, some of the variates does have a weak correlation test, inferring to a fragile economic setting. Therefore, the researcher proceeded to improve on the choices of independents variables as best fit for the (r-star) prediction in fragile economic settings, with a 95% degree of confidence interval, as a goodness of fit for the prediction of hypothetical

[10]

[natural rate of interest]. In the experimental study to respond to question (Q2) of this paper, the decomposing variables as a goodness of fit for (r-star) prediction for fragile economic zone above 95% confidence interval, taken into consideration both exogenous and endogenous factor implication of real economic system, the following variables became ideal for modelling and determination of the formula for (r-star) of a fragile economic setting;

i.   Central Bank base rate (Monetary Interest rate)

ii.   Exchange rate of the adopted legal currency of economic zone against it base currency

iii.   Consumer Price Index

iv.   Gross Domestic Product

v.   Credit to the private sector per percentage of GDP

vi.   Real interest rate of the open market

The essence of the application of advanced level statistical testing to the various variables, which were observed to be relevant and objective to the study, is to obtain a very sensitive formula, which has the efficacy to determine the hypothetical [natural interest rate] from a frailty economic zone, having a high degree of confidence level for policy application as an inference on available data of a particular market settings. Below is the submission of the brief explanation of the adopted variables to form the basis of the model formation.

[C] Model derivation and empirical analysis of r-star in frailty economic zone

The essence towards the adoption of Kalman Filter method as the foundation in the model design for the calculation of hypothetical [natural rate of interest] in frailty economic zone, is the admission that r-star derivation is a model premised as a tracking indicator of the

open market, hence, requires a methodical approach appropriate to track it hypothetical location, as an inference of appropriate data available. Secondly, the Kalman filter is an unbiased estimator and linear in observed measure. Thirdly, it holds the lowest variance among all other estimators. And fourthly, it systemic error fall within the Gaussian distribution.

The paper hereby submit an a prior estimation model in conformity to the methodical rule of Kalman filter as follows;

An apriori estimation model of the hypothetical natural rate of interest

$$\hat{r}_k^* = \alpha_k \hat{x}_{k-1} + \beta_k U_k + \omega_k \dots \dots \dots \dots \dots \dots Eq. 1$$

Holding the assumption that the stochastic noise of the system (ω_k) obeys the Gaussian distribution, then the formula of $(\hat{r}_k^*)$ becomes;

$$\hat{r}_k^* = \alpha_k \hat{x}_{k-1} + \beta_k U_k \dots \dots \dots \dots \dots \dots \dots Eq. 1a$$

Experimental measurement or estimation of the hypothetical natural rate of interest

$$\ddot{r}_k^* = C_k \hat{r}_k^* + \varepsilon_k \dots \dots \dots \dots \dots Eq. 2$$

The 'C_k' in the Eq.2 represent [CPI] Consumer Price Index, which act as a factor to transition $(\hat{r}_k^*)$ to generate the accurate value of $(\ddot{r}_k^*)$. Hence, the stochastic noise of the actual measurement of the hypothetical natural rate of interest will be $\varepsilon_k = (\ddot{r}_k^* - C_k \hat{r}_k^*)$

When the theoretical estimation error and the experimental estimation error are assumed to be equal as in performance tracking tool, then $\varepsilon_k = \omega_k$

Then Eq. (1 and 2) will merge as a correctional process approach for accurate and complete system estimation using the Kalman Gain index to generate equation (3) as an algorithm or

[12]

recursive estimation of natural rate of interest in the open market tracking system for monetary policy guidance.

$$\bar{\bar{r}}_k^* = \alpha_k \hat{x}_{k-1} + \beta_k U_k + KG \left(\ddot{r}_k^* - C_k \hat{r}_k^* \right) \dots \dots \dots \dots Eq.\,3$$

In other for the paper to conduct model evaluation, a sample population framework has to be adopted for the empirical study. Hence, the researcher relied on the economic structure of Nigeria as a sovereign nation for the analysis based on the following conditions. The current population of West Africa, as an economic zone for empirical study, has a population estimate, according to the United Nations report, as at February 2021 was 408,375,454. Out of this figure, Nigeria as a sovereign nation holds 50.48% as the highest populous nation and the highest weighted economic average among the 17 West Africa countries. Followed by Ghana as the second highest populous nation of 7.61%. Finally, the third ranking is Cote d'Ivoire with 6.46%. Therefore, considering the varied choices available, Nigeria as a nation became an ideal sample framework for the designed model evaluation for a unitary currency economic zone, since it has (36) Federal State as the architecture of it economic zone.

The following are variables relied upon for the r-star model computation and evaluation based on Eq.1, 2 &3.

$\bar{\bar{r}}_k^*$ … … $hypothetical\ [Natural\ rate\ of\ interest] for\ a\ fragile\ economic\ system\ tracking$
$and\ policy\ guidance.$

$\hat{r}_k^*$ ….. $theoretical\ [Natural\ rate\ of\ interest]\ estimation\ guide$

$\ddot{r}_k^*$ ….. $Experimental\ [Natural\ rate\ of\ interest]\ measurement, taken\ as\ the$
$(Base\ rate\ of\ the\ Central\ Bank)$

α_k ….. $GDP\ growth\ rate\ annually\ as\ a\ model\ 'State'\ transition$

$\hat{x}_{k-1}$ ….. $Real\ Interest\ rate\ annually\ of\ the\ open-market$

β_k …..Credit to the private sector percentage in GDP annually

U_k …..Annual percentage change of the Exchange rate of a domestic currency with the base currency(USD) of the Economic Zone

C_k …..Annual percentage change in the Consumer Price Index of the Economic Zone

KG …..Kalman Gain Index for dynamic and evolving economic market system

ω_k …..Stochastic noise of the theortical estimation model

ε_k …..Stochastic noise of the experimental estimation formula

Table [1]. A raw data extract of (10) years on the Nigeria economy from the Nigeria Bureau of Statistics and World Bank for model computation

Years	α_k GDP growth rate in percentage annually	$\hat{x}_{k-1}$ Real interest rate of the open market	β_k Credit to the Private sector in percentage of GDP annually	U_k Annual percentage change in Exchange rate of the zone currency against it base-currency	C_k Annual percentage change in Consumer Price Index	$(\hat{r}_k^*)$ Theoretical r-star estimate	$(\ddot{r}_k^*)$ Experimental r-star measurement in a form of Central Bank base rate	(KG) Kalman Gain index of an economic system
2019	2.21%	4.52%	10.47%	0.008%	0.27%	10.07%	15.38%	0.4
2018	1.92%	6.06%	10.25%	0.003%	0.26%	11.67%	16.90%	0.5
2017	0.81%	5.80%	12.85%	0.523%	0.30%	11.42%	17.55%	0.4
2016	-1.62%	6.69%	14.61%	0.611%	0.25%	-1.91%	16.87%	0.1
2015	2.65%	13.60%	13.08%	0.339%	0.13%	40.47%	16.85%	0.8
2014	6.31%	11.36%	13.30%	0.013%	0.11%	71.85%	16.55%	0.9
2013	6.67%	11.20%	11.53%	-0.002%	0.11%	74.47%	16.72%	0.9
2012	4.23%	6.23%	10.61%	0.036%	0.14%	26.73%	16.79%	0.7
2011	5.31%	5.69%	11.04%	0.036%	0.11%	30.61%	16.02%	0.7
2010	8.01%	1.07%	13.49%	0.014%	0.12%	8.76%	11.59%	0.8

E. T. Senzu, (2021), statistical computation and model prediction

Since, any economic market deals with non-static agents, dynamically evolving in their interactions as a process for decision-making and choices, which uphold a lot of uncertainties towards the future, the Kalman Gain (KG) performance mechanism of an economic system, should range between (0 and 1) as the state of economic system performance and a definition of uncertainty minimization, based on the quality of systemic structures instituted.

The formula for Kalman Gain (KG)

$$KG = \left(\frac{\hat{r}_k^*}{\hat{r}_k^* + \varepsilon_k} \right) \dots \dots \dots \dots \dots \dots \dots \dots Eq.\,4$$

Therefore, the above Table 1, estimate the (KG) performance of the Nigeria Economy from 2010 to 2019.

In reference to Eq.3, which, the r-star ($\bar{\bar{r}}_k^*$) is the tracking model for determining the hypothetical [Natural rate of Interest] in a fragile economy zone to serve as sign-post for monetary policy administering, the equation is;

$$\bar{\bar{r}}_k^* = \alpha_k \hat{x}_{k-1} + \beta_k U_k + KG\,(\ddot{r}_k^* - C_k \hat{r}_k^*) \dots \dots \dots \dots Eq.\,3$$

Table [2] Model Computation, Estimation and Empirical Analysis

Year	$(\alpha_k \hat{x}_{k-1})$	$(\beta_k U_k)$	(KG)	$(\ddot{r}_k^* - C_k \hat{r}_k^*)$	$(\bar{\bar{r}}_k^*)$ Hypothetical Natural rate of interest prediction in a fragile economic zone
2019	9.99	0.08	0.4	12.66	15.1%
2018	11.64	0.03	0.5	13.87	18.6%
2017	4.70	6.72	0.4	14.12	17.1%
2016	-10.84	8.93	0.1	17.35	-0.2%
2015	36.04	4.43	0.8	11.59	49.7%
2014	71.68	0.17	0.9	8.65	79.6%
2013	74.70	-0.02	0.9	8.53	82.4%
2012	26.35	0.38	0.7	13.05	35.9%
2011	30.21	0.40	0.7	12.65	39.5%
2010	8.57	0.19	0.8	10.54	17.2%

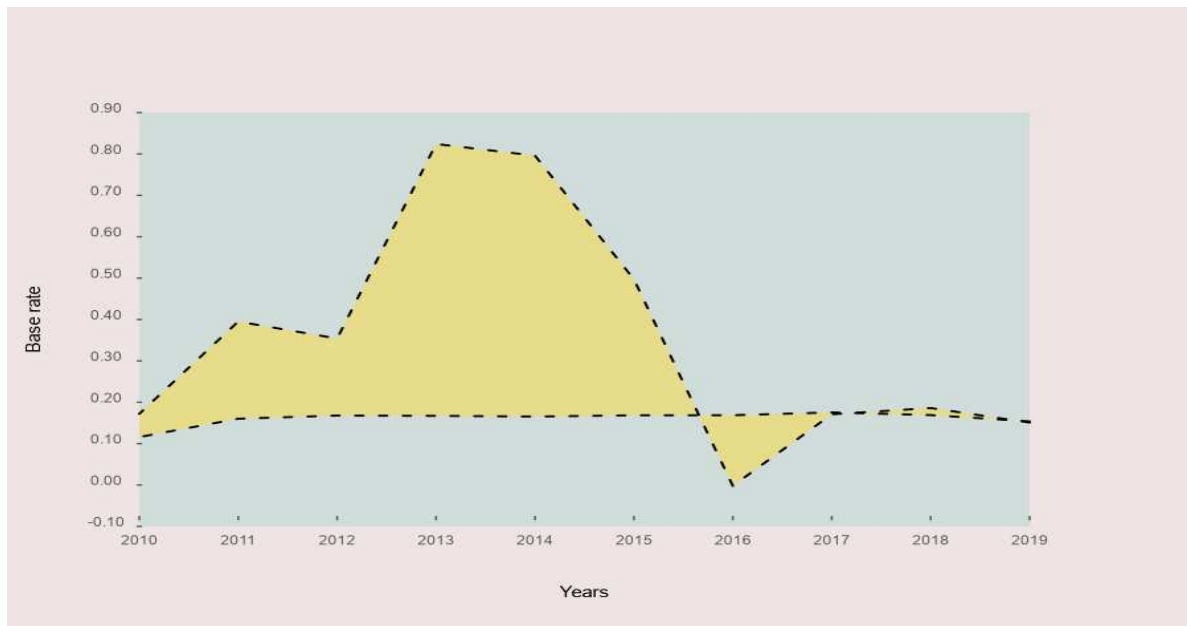*E. T. Senzu, (2021), statistical computation and model prediction*

Fig.3. Graphical Analysis of r-star performance relative to price level of the fragile economy
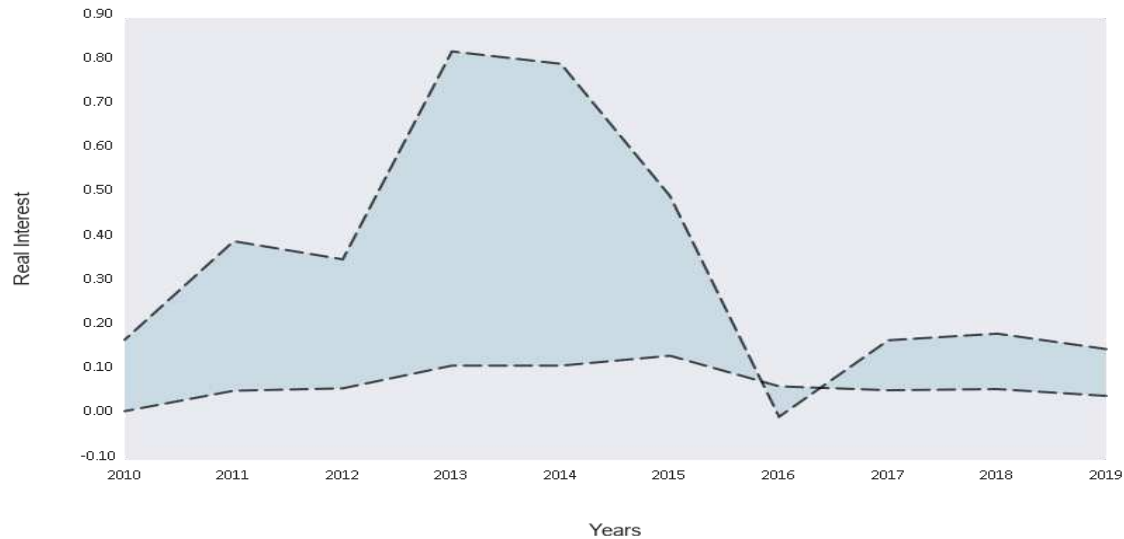
E. T. Senzu, 2021; data analysis

The graphical analytical performance of r-star tracking estimate relative to the Real interest rate

of the Nigeria economy as at 2010 to 2019 from the above fig.3, concludes, the real interest rate

was below the hypothetical natural rate of interest tracking indicator from 2010 to 2015. Hence,

the industrial market was on contraction, especially at it pick in 2013, limiting the state of

Industrial productivity and causing prices of the market to fall instead of expected stabilization.

It observed that a change of monetary policy stance gave some level of ease towards market

expansion and price recovery, which did continue up to 2016, whereby prices level rise

marginally, attracting an increase in production towards some level of economic growth and

reversed back to the state of marginal market contraction as a continuation challenge to the

economy up to 2019 per realities of the graphical deduction.

[18]

Fig.4 Graphical analysis of r-star performance relative to Base rate of fragile economy

Since 2010 according to the fig.4 above, the market performance of Nigeria economy has been in contraction state and maintained that condition up to 2015, however in it recovery process, the Central Bank carefully relax the control of credit supply internally. Which gave room for the 2016 monetary policy stance, and did promote sufficient credit supply to give room for marginal market expansion, which promoted some level of inflation. However, starting from 2017 up to 2019, the monetary policy stance of the Central Bank has successfully engineered a credit supply under a discretionary method using interest rate as a targeting indicator to stabilize inflation to a large extent according to the graphical deduction, which fortunately synchronize with the tracking pathway of the hypothetical natural rate of interest, as a result did stabilize the price value of the Naira within such time frame, and sustained production rate.

[D] Conclusion

The study hereby conclude, a reliable data inference for r-star derivation for a frailty economic zone, as a structured model, defined in the empirical analysis in the section 'C' of this paper, is capable to produce a tracking indicator as a sign post for monetary policy in that same economy. Which becomes a perfect tool to guide quantitative easing towards market contraction and expansion, while becoming a monitoring tool for inflationary management.

Therefore, the paper recommends the hypothetical natural rate of interest established on the proposed model above as an open market tracker, which is a reliable policy indicator or a 'sign post' for a proposed unitary currency economic zone of ECOWAS, expected to be adopted by the initiated proposed Central Bank towards price stabilization of the open market, to promote a consistent GDP growth rate among its member States, if only the disciplinary requirement of the zone fiscal management will be strictly complied with.

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