Revisiting Macroeconomic News And Exchange Rate Yield: An Empirical Analysis For Nigeria

Adekunle Ahmed Oluwatobi
Department of Accounting and Finance, Kwara State University, Malete, Nigeria
ayoka2309@yahoo.com

Abstract
The effect of macroeconomic news on exchange rate yield in Nigeria is important for financial stability and provides a basis for the overall monetary policy framework. Similar to stocks, bonds and other financial assets, the exchange rate responds to news from monetary authorities play a significant role in any economy This study re-examined the effects of macroeconomic news on the exchange rates yield in Nigeria. Event driven models were employed to analyse how the expectation of daily log-exchange rate and its daily log-return respond to all the 88 MPC meetings and selected CBN's announcements that contained information on exchange rate stabilisation from January 03, 2006 to December 25, 2020. The study considered news that involve direct intervention via the WDAS\RDAS\BDCs, long-term interest rate and inflation rate, and balance of trade positions. We establish that the log-exchange rate responds to the announcements, with and without the MPC meetings. The exchange rate is expected to depreciate in all the three days before, on the announcement day, and all the three days after the announcement. There is no sufficient evidence that either the MPC meeting or CBN announcement affects the behaviour of the log-return. Hence, unlike the MPC meetings, the announcements affect the exchange rate but not its return. We recommend amongst others that the monetary should unified all foreign exchange windows of exchange rates. A uniform exchange rate, as against the multiple regimes currently in place should be implemented. The multiple regimes cause wide band and fluctuations which may be detrimental to the real sector.

Keywords: Macroeconomic news, Exchange rate yield

1. Introduction

Changes in macroeconomic news affect yield and therefore the values of internationally and local active investors. This exchange rate yield varies over time, and is not directly observable, and therefore is challenging to estimate. Essentially, the nexus between macroeconomic news and the exchange rate yield is important for financial stability, reserve managements, market control, and the overall monetary policy framework. Similar to stocks, bonds and other financial assets, the exchange rate responds to news from monetary authorities (Hausman, & Wongswan, 2011; Chatrath, Miao, & Ramchander, 2014; Ben-Omrane, & Savaser, 2016; Boudt, Neely, Sercu, & Wauters, 2019; Boudt *et al.*, 2019; Gbadebo, Adekunle, Akande & Olanipekun, 2021; Pyo & Lee, 2020; Indriawana, Jiao, & Tsec, 2021). Macroeconomics news in forms of scheduled, unscheduled, regular or periodic macroeconomic news from the central banks contain information that may cause a drift on the mean behaviour of the exchange rate. News releases are major source of information for foreign exchange market participants (Ekincia, Akyildirim & Corbet, 2019).

Some authors (Boudt *et al.*, 2019; Ekincia *et al.*, 2019; Tamgac, 2021) argue that the

exchange rate's respond to news surprises depends on whether the news is positive or negative. Tamgac (2021) shows that news associated to the domestic country have a more effect on the USD\Turkish lira exchange rate in relation to surprises associated with the US. There is an asymmetry response, with bad news on US having greater impact than good news, and good news for domestic country having more effects than bad. As noted by (Boudt *et al.*, 2019), news creates a large shift in the joint distribution of stock and exchange rate returns. A positive surprise raises the value of the low exposure domestic activities causing persistent decline in foreign exchange exposure.

The macroeconomic news, which includes releases on inflation, unemployment, Gross Domestic Product (GDP), as well as on the monetary policy rate, money supply, and the balance of payments are then announced by the constituted authorities to inform the public about the state of the economy. This news is made public via scheduled and unscheduled announcements.

Existing literature on this issue is mixed till date, with ample evidence from advanced economies and few studies on emerging markets. It has been observed that despite the importance of exchange rate to most developing countries, particularly in Africa and Nigeria, macroeconomic news and exchange rate yield has not attracted much research attention. In Nigeria, despite periodic news made by the Central Bank of Nigeria (CBN), the economy is still puzzled with the wave of foreign exchange scarcity and excessive exchange rate fluctuation, which has caused a large gap between the official rate and the parallel market rate and affect the yield an investor could gain. Essentially, this paper is novel by connecting and linking foreign exchange yield dynamics to news on macroeconomic conditions and deviate from the previous study such as Gbadebo et al (2021) which combine MPC meetings and macroeconomics announcement in their study which could lead to multicorrelinearity, hence, this current study avoid such past error and revisit the study. Several macroeconomic news systematically affects foreign exchange exposure, including nonfarm payroll (NFP) and Federal Open Market Committee (FOMC) target announcements. Foreign exchange exposure decreases persistently following positive NFP and FOMC target surprises because both signal a strengthening domestic economy and therefore an increase in the relative importance of the domestic and import activities of the firm and investors. In contrast, price index surprises, such as those from export and producer prices, have a significant transitory impact on exposure. A positive price index surprise, for instance, temporarily decreases foreign exchange exposure. Sectors exhibit some variation, although most conclusions hold generally. This motivate the need to confirm whether such regular and periodic news is effective to cause volatility in the behaviours of exchange rate and its yields.

2. Literature Review

Tamgac (2021) & Indriawana, Jiao, and Tsec, (2021) verify the impact of announcements of domestic and US-based news on policy-related fundamentals on the USD\Turkish lira exchange rate. The results shows that announcements associated to the domestic country have a more effect on the exchange rate in relation to surprises associated with the US. There is an asymmetry response, with bad news on US having greater impact than good

news, and good news for domestic country having more effects than bad.

Ayadi et al. (2020) examine the simultaneous effect of OPEC production decisions and press releases, oil and gasoline inventory surprises, as well as US and Canadian macroeconomic news announcements on oil and Canadian dollar volatilities around US and European financial crises. They use a multivariate volatility model and implement an impulse response analysis to decompose the exogenous impacts into direct and indirect effects induced by volatility spillover. They find evidence of context-specific impacts and show that 67% of the total accumulated effect of OPEC decision to maintain production on oil volatility is induced by volatility spillover from the Canadian foreign exchange rate.

Mujahid and Ben-Omrane. (2020) analyze the impact of US macroeconomic news announcements on the Canadian benchmark stock index return and volatility using high-frequency 5-min data. They found that several US news releases exert a statistically significant influence on the Canadian stock market return and volatility. They show that during the 2008 US recession, slightly more US news announcements exhibit significant impacts on the Canadian equity returns, with relatively pronounced effects. The results support suggests that US macroeconomic fundamentals form a linkage between Canadian and US financial markets.

Caruso (2019) monitors a massive flow of macroeconomic news every day and react to the unexpected component of each release. The paper shows that a "Nowcasting Surprise Index", constructed by aggregating forecast errors from a now casting model using model-based weights, resembles the surprise indexes proposed in the recent literature or constructed by practitioners, which cumulate survey-based forecast errors weighted by using the average effect of news on asset prices. This suggests that market operators and a nowcasting model filter the macroeconomic data flow similarly and confirms the link between news about macroeconomic indicators and asset prices. The paper shows that recent cumulated news in macroeconomic data accounts for a non-negligible part of asset price behaviour.

Omrane et al. (2019) investigate the intraday reaction of euro-dollar exchange rate returns to the US and European macroeconomic news during a period that spans the global financial crisis and the Euro-zone debt crisis, from November 1st, 2004 and March 31st, 2014, using intraday data. They assess whether announcements' impact is stable over time. They use time-varying parameter path analysis to investigate whether the currency return response to macroeconomic news is sensitive to changes in market risk and interest rates. The study find that news impact coefficients vary significantly over time. Our results also show that higher market risk measured by VIX dampens the effect of US news on euro-dollar returns. The study find that the impact coefficients of macroeconomic news vary significantly over time.

Corbet, Dunne, and Larkin (2019) find significant increases in stock volatility and market returns prior to FOMC quantitative easing announcement. The increase in volatility is substantial when the market is forewarned of an announcement. Also, any surprise announcement causes longer short-term volatility persistence. Lyócsa, Molnár and Plíhal (2019) examines the impact of policy rate and quantitative easing

ISSN: 2714-2671 (Print), 2714-268X (online)

announcements on stock realized volatility before, during, and after the event in Canada, France, Germany, Italy, Japan, the U.K., and U.S volatility. They find that during announcement of the domestic central bank, volatility increases, but there is decline in volatility five days after an interest rate announcement in countries sampled. The result further show that quantitative easing announcements have no impact on stock market volatility not only at but also five days before and five days after the announcement date.

Ekincia, Akyildirim and Corbet (2019) investigate the effects of macroeconomic announcements made in the United States on trading activity of stocks listed in Borsa Istanbul. The influence of these releases on the selected variables are an important source of information for market participants. The results show a clear negative impact on weighted bid, ask and mid-prices in the five-minute period post-release. The results also present implications for market dynamics and signal that liquidity consumption (through market orders) largely dominates liquidity provision (through limit orders) in the five-minute period following the release.

Maserumule and Alagidede (2018) explore the intraday reaction of South African (SA) rand-dollar returns to the US macroeconomic news with 10-minute bid-ask quotes from 2 January 2014 to 31 December 2015. They found that exchange volatility rises after the release of news information, whether surprised the market or not. They also establish that both SA and US news affect the rand-dollar volatility, although negative news impinge greater impact on the volatility relative to positive news.

Boudt et al. (2019) use intraday data to estimate the daily foreign exchange exposure of U.S. multinationals and show that macroeconomic news affects these firms' foreign exchange exposure. The News creates a substantial shift in the joint distribution of stock and exchange rate returns that has both a transitory and a persistent component. For example, a positive domestic demand surprise, as reflected in higher-than-expected nonfarm payroll, increases the value of the low-exposure domestic activities and results in a persistent decrease in foreign exchange exposure.

Cheung, Fatum, and Yamamoto (2018) examine the time- and state-dependent nature of US and Japanese macro news on the yen-dollar rate before, during, and after the financial crisis, using a 5-minute quotes spanning the 1 January 1999 to 31 August 2016. They find that while the US news impact the exchange rate after the crisis than before the crisis, the after-crisis influence of Japanese news is irrelevance.

Mueller, Tahbaz-Salehi, and Vedolin (2017) investigate the effect of FOMC news on the five-minute high-frequency spot exchange rate data for "G10" currencies[1] spanning from January 1, 1994, to December 31, 2013. They established the exchange rate dynamics are linked to fundamentals. The trading strategy "short the USD" and "long other currencies" is significantly affected by the FMOC scheduled announcements. The result confirm that exchange rate returns are higher for currencies with higher interest rate differentials vis-a-vis the USD.

Evans and Speight (2010) applied standard regression techniques to examine the foreign exchange market reaction of short-

run euro-dollar, euro-sterling and euro-yen exchange rates returns volatility to macroeconomic announcements using 5-min returns windows, from January 2002 to July 2003. The study simultaneously controls for the distinct calendar effects, intraday volatility pattern and a latent volatility factor. They establish that news emanating from the US observed to cause statistically significant influences on volatility. Also, they found significant response of large responses for the Euro-Sterling and Euro-Yen rates volatility to UK Industrial Production and Japanese GDP news shocks.

3. Methodology

In order to assess the influence of MPC meetings and CBN announcements on the dynamics exchange rate, we model contemporaneous and past of announcements days on the log-exchange rates (equations 29 and 32) and log-returns (equations 30 and 31). In accordance with some studies (Indriawana, Jiao & Tsec, 2021), we set up event driven models to analyse how news surprises on three days before the announcement day (t-3, t-2 and t-1), on the announcement D-day (t) and on three days after the announcement day (t+1, t+2 and t+3) explain the dynamics of exchange rate and its returns. The first set of models analyse the 'stable' effects of announcements on the log-exchange rate (29) similar to Li *et al.* (2015) and the 'unstable' effects for exchange rate log-return (30) in line with Ben Omrane *et al.* (2019) and Pyo and Lee (2020).

$$\text{LEXRT}_t = \alpha_0^{\bullet} + \sum_{i=-3}^{3} \alpha_{t+i}^{STAB} D_{t+i}^{\text{STAB}} + \sum_{i=-3}^{3} \alpha_{t+i}^{INTR} D_{t+i}^{\text{INTR}} + \sum_{i=-3}^{3} \alpha_{t+i}^{BofT} D_{t+i}^{\text{BofT}} + \varepsilon_t \quad (3.1)$$

$$\text{LRETN}_t = \beta_0^{\bullet} + \sum_{i=-3}^{3} \beta_{t+i}^{STAB} D_{t+i}^{\text{STAB}} + \sum_{i=-3}^{3} \beta_{t+i}^{INTR} D_{t+i}^{\text{INTR}} + \sum_{i=-3}^{3} \beta_{t+i}^{BofT} D_{t+i}^{\text{BofT}} + \varepsilon_t \quad (3.2)$$

The second sets of models, (31) and (32) provide the stable and unstable effects of the exchange rate' responds to the combined effect of both MPC meeting and macroeconomic announcements on log-return and on log-exchange rate

$$\text{LRETN}_t = \beta_0^{\bullet\bullet} + \sum_{i=-3}^{3} \beta_{t+i}^{\text{MPCM}} D_{t+i}^{\text{MPCM}} + \sum_{i=-3}^{3} \beta_{t+i}^{\text{STAB}} D_{t+i}^{\text{STAB}} + \sum_{i=-3}^{3} \beta_{t+i}^{\text{INTR}} D_{t+i}^{\text{INTR}} + \sum_{i=-3}^{3} \beta_{t+i}^{\text{BofT}} D_{t+i}^{\text{BofT}} + \varepsilon_t \quad (3.3)$$

4. Results and Discussion

Table 1 below presents how log-exchange rate (LEXRT) respond to announcements, if no MPC meeting was held. The process reflects 4230 observations after adjustments. As shown, the exchange rate responds well to CBN news disseminated for intervention, interest rate and inflation control, and trade balance. The intercept $\alpha_0^{\bullet}$ shows that the expected value of the log-exchange rate is approximately 1.2357/213NGN when CBN does not release circular related to the exchange rate. The estimates α_{t+i}^{STAB} show that the mean of log-exchange rate appreciate on expectation of intervention on announcement day and day after WDAS/RDAS/BDCs auction. The exchange rate is expected to appreciate by 5.8% on the day of intervention announcement but the expectation of this announcement on the exchange rate reduces

to 8% and 5.2% on two day and three day after. All past, present and future released announcement related on BOT, α_{t+i}^{BofT} cause appreciation shock. The CBN announcements related on interest rate/inflation, α_{t-i}^{INTR} are positive signed, cause exchange rate depreciation. All the variables are identified as significant. Disseminated news on interest rate/inflation is significant at 5%, while others are highly significant at 1%.

On the log-return, while Table 2 shows how log-return (LRETN) respond to announcements, if no MPC meeting was held. The data could not establish evidence that the log-return could be explained by these events. As indicated except for a day, β_{t-1}^{BofT} and two days, β_{t-2}^{BofT} before announcements, all past, contemporaneous and lead dates for the various announcements do not explain the behaviour of the log-returns series, as well as not statistically significant.

Table 1: LEXRT without MPCM announcement

Parameters	Estimates	σ_α	t_α	$p(t_\alpha)$
α_0^*	1.235730	0.002919	423.3401	0.0000
α_{t-3}^{STAB}	-0.028968	0.026925	-1.0759	0.0000
α_{t-2}^{STAB}	-0.067110	0.027173	-2.4697	0.0000
α_{t-1}^{STAB}	-0.076471	0.026187	-2.9202	0.0000
α_t^{STAB}	-0.070962	0.026334	-2.6947	0.0000
α_{t+1}^{STAB}	-0.075928	0.026188	-2.8833	0.0000
α_{t+2}^{STAB}	-0.060175	0.027163	-2.2153	0.0000
α_{t+3}^{STAB}	-0.052354	0.007924	-6.6070	0.0000
α_{t-3}^{INTR}	0.048299	0.029074	1.7086	0.0114
α_{t-2}^{INTR}	0.049676	0.029067	1.7090	0.0092
α_{t-1}^{INTR}	0.044851	0.029064	1.5432	0.0187
α_t^{INTR}	0.046304	0.029063	1.5932	0.0152
α_{t+1}^{INTR}	0.047282	0.029075	1.6262	0.0132
α_{t+2}^{INTR}	0.053014	0.026076	2.0331	0.0055
α_{t+3}^{INTR}	0.041412	0.023077	1.7945	0.0066
α_{t-3}^{BofT}	-0.038366	0.020018	-1.9166	0.0003
α_{t-2}^{BofT}	-0.026100	0.020588	-1.2677	0.0004
α_{t-1}^{BofT}	-0.045271	0.020592	-2.1985	0.0004
α_t^{BofT}	-0.045131	0.020263	-2.2273	0.0003
α_{t+1}^{BofT}	-0.039570	0.023562	-3.7382	0.0002
α_{t+2}^{BofT}	-0.052361	0.020536	-2.5497	0.0002
α_{t+3}^{BofT}	-0.062080	0.0205061	-3.0274	0.0007
ω_0	0.0002	0.0000031	34.4517	0.0000
ω_1	1.1060	0.0309	26.0226	0.0000
Ω	0.1648	0.0103	16.9772	0.0000
$\bar{R}^2$		0.4295		
F-statistic		93.5782		
Prob(F-stat)		0.0000		

Source: Author Calculation, 2022

The statistics – σ_α, t_α and $p(t_\alpha)$ are the standard error, the t - value and probability of t value for α, respectively. The same apply for each β parameter estimates.

Table 2: LRETN Equation without MPCM announcement

Parameters	Estimates	σ_β	t_β	$p(t_\beta)$
β_0^*	0.0000067	0.000087	0.07701	0.0757
β_{t-2}^{BofT}	0.000584	0.000089	6.56179	0.0001
β_{t-1}^{BofT}	0.000321	0.000089	3.60674	0.0000
β_t^{BofT}	0.000235	0.000089	2.64044	0.0786
β_{t+1}^{BofT}	-0.000035	0.000089	-0.3932	0.6267
ω_0	0.000004	0.0000003	25.0000	0.0000
ω_1	8.4986	0.1886	45.0548	0.0000
Ω	0.2335	0.0031	79.3200	0.0000
$\bar{R}^2$		0.0302		
F-statistic		1.0234		
Prob(F-stat)		0.0923		

Source: Author Calculation, 2022

Table 3 present the result when we access the combined effects of MPC meetings and the CBN announcements for log returns. The result was inconsistent with some study by Lucca and Moench (2015) on how the returns for global stock indices respond to FOMC and US macroeconomic news. Our result shows that the log-returns does not respond to both announcement from MPC Meeting and CBN released macroeconomic announcements. Like with log-returns without MPC meetings, in absence of surprises from both meeting and announcements, the parameter estimates for the intercept, β_0^* indicates that the expected value of the log-return series is meagre of 0.000035%.

The Forex intervention announcement impinge mixed effects on the expected value of exchange rate for announcement day and day before or after as the exchange rate respond with appreciation or depreciation shocks. Not surprisingly, all the variables are insignificant except dummy for the BofT announcement for a day before, β_{t-1}^{BofT} and two days before, β_{t-2}^{BofT}, which are both highly significance. The combined effects for both as reported from the Wald test is not significant. The overall event model lacks explanatory power and the combined effects for all past, contemporaneous and leads announcement shocks are insignificant. The data evidence is not strong to support that both MPCM meetings- and macroeconomic announcements influence the return.

Table 3: The Log-return (LRETN) with MPCM Announcement

Parameters	Estimates	σ_β	t_β	$p(t_\beta)$
β_0^*	0.000045	0.000029	1.578286	0.1146
β_{t-3}^{MPCM}	-0.000042	0.000123	-0.345836	0.7295
β_{t-3}^{BofT}	-0.000086	0.000100	-0.858956	0.3904
β_{t-2}^{BofT}	0.000399	0.000100	4.002995	0.0001
β_{t-1}^{BofT}	0.000406	0.000100	4.076629	0.0000
β_t^{BofT}	0.000179	0.000100	1.793510	0.0730
ω_0	-0.000003	0.000001	-0.718925	0.4722
ω_1	11.376510	0.477246	23.837840	0.0000
Ω	0.186635	0.003942	47.346850	0.0000
$\bar{R}^2$		0.013079		
F-statistic		1.018844		
p(F-statistic)		0.075441		

Source: Author Calculation, 2022

The statistics – σ_α, t_α and $p(t_\alpha)$ are the standard error, the t - value and probability of t-value for α, respectively. Same apply for each β parameter estimates

4.3. Diagnostic Tests

Unlike the MPC meetings, the announcements influence the exchange rate behaviours but not its return. These results have implications for forex market dynamics and monetary policy direction in future. Hence, some robustness test was conducted for the exchange rate models to validate the adequacy of the estimations. The results, presented in Table 4, show that the Breusch-Pagan-Godfrey test with the null of No ARCH effect is not significant. The p values of approximately 32% and 41% for the model with and without MPC meetings, respectively, suggest evidence on the absence of heteroscedasticity in the models' residuals. The Breusch-Godfrey test is also insignificant. With p values of 0.11 and 0.07 for the model with and without the MPC meetings, respectively, the result provides no basis to reject the null of no serially correlation. The Jarque-Bera statistics indicate that the residuals are not significant, hence, we could not reject the normality null. The Theil inequality coefficients [0.0214] for both models (with and without) log of exchange rate forecasts is not very close to 1, suggesting the model is capable of generating better forecasts.

Table 4: Diagnostic Tests

Statistics	Heteroskedasticity[a]	Autocorrelation[b]	Heteroskedasticity	Autocorrelation
R^2	15.424	15.442	16.275	14.694
F-statistic	0.7922	1.3861	0.8315	1.0620
Prob.(F)	0.3206	0.2501	0.4112	0.1813
Prob.(X^2)	0.1151	0.0717	0.1051	0.0441
	Normality[c]		Normality[c]	
Prob.(JB)	0.0888		0.1300	
Theil	0.0324		0.0214	

Source: Author Calculation, 202

5. Conclusions and Recommendations

5.1 Conclusions

The relationship between macroeconomic announcements and the exchange rates is important for financial stability and provides a basis for the overall monetary policy framework. Such regular or periodic macroeconomic announcements from the central banks convey information that may cause a drift on the value behaviour of the exchange rate expected from fundamentals. Some previous studies Indriawana *et al.* (2021) examines a post-FOMC announcement drift on long-term US and German bonds, some others (Ben Omrane *et al.*, 2019) analyse the 'stable' effects of central bank announcements on the exchange rate, (Cheung *et al.*, 2019) and Ben Omrane *et al.* (2019) investigate the announcement effects on exchange rate returns, and Ben Omrane and Savaser (2017) on the exchange rate volatility. We confirm the effect of announcements and MPC announcements under a unified framework for both the exchange rate and the exchange rate returns.

The basic thrust of this study is to verify that macroeconomic announcements published regularly in form of circulars affect the behaviours of the exchange rate in the Nigeria. We focus on the announcements that convey news on stabilising the exchange rate, and apply event driven analysis to confirm the impact of both MPC meetings' and CBN's announcements on the log of exchange rate and its returns. Since the Nigerian exchange rate is sensitive to forex reserves, financial assets, and official interventions (Dayyabu *et al.*, 2016; Bala-Sani and Hassan, 2018; Kalu, *et al.* 2019), we considered announcements that involve direct intervention via the WDAS\RDAS\BDCs (STAB); long-term interest rate and inflation rate (INTR); and balance of trade (BofT) positions. We found that although the MPC meeting is insignificantly, the exchange rate responds significantly to announcements. Contrary; we observe that both the MPC meetings and the CBN's announcement do not have impact on the exchange rate return. We conclude that the announcements convey information that have impact on the exchange rate but not its return.

5.2. Recommendations

In general, this study has shown that macroeconomic announcements could cause sporadic swings in the exchange rates beyond fundamentals. Market participants and

monetary authorities would consider this finding invaluable. In order for government to ensure that the exchange rate does not fluctuate beyond fundamental needed to attain objective of macroeconomic policies, authorities should embark on policies that would influence the exchange rate in order to adjust it in the desired direction and to stabilize it.

Hence, we make the following recommendations to ensure exchange rate stabilization.

- Monetary authorities should invest in overseas assets altogether. This will help increase in reserve and also provide foreign exchange to mitigate undue fluctuation in the exchange rates. This nature of exchange rate stabilization may help build the reserves both in short-term or long-run and ensure naira arrive at an acceptable rate of exchange with other foreign currencies
- The CBN can reduced exchange rate fluctuations by ensuring intervention is guided and properly monitored to avoid divergence of the funds. Since intervention influence the monetary funds transfer rate of the national currency, usually with its own reserves, the central bank may engage the commercial bank to take active and participatory in the forex direct intervention, rather than committing such to BDC which are known to divert (launders) the funds.
- For central bank to exert any influence and turn the tide in favour of the naira attaining a favourable exchange rate, the apex bank should be more stable with policies. Stability helps announcement to have consistent effect on the exchange rate through the monetary channel, otherwise the exchange rate is likely to move in favour of more stable, developed countries.
- Both fiscal and monetary authorities must have strong economic base- in terms of capacity to produce for exports, in addition to having a robust and diversified source of revenue, driven by functional infrastructure, among other. The naira exchange rate cannot be done in isolation of other considerations, for example, the stock of the reserves and the country's capacity to earn sufficient foreign exchange revenue from exports of goods and services.
- The monetary should unified all forex windows of exchange rates. A uniform exchange rate, as against the multiple regimes currently in place should be implemented. A multiple regime causes wide band and fluctuations which may be detrimental to the real sector.
- There should be special support for export-oriented companies. Foreign and Indigenous conglomerates that are willing to locate their factories in Nigeria and engage in producing for exports should be given special consideration in terms of tax holiday and policy relief.
- The central bank should ensure measures for more stable environment for international economic flows. A basic effect of the exchange rates stabilisation is a higher level of certainty in international flows. A low degree of national currency's value fluctuations causes those entities maintaining economic relations with foreign countries

may take long-term decisions less burdened with the exchange rate risk.

Adoption of common currencies, for instance the proposed "Eco" may also help stabilized the regional exchange rate as with the euro in the European Union. Judging from the length of stay in the system of countries that have already adopted the common currency, by signals coming from the authorities of the member states only aspiring to join the euro area, and also referring to the experience of the early nineties' currency cri sis, this policy may help stabilising the exchange rate.

References

Amblera, S., & Rumlerb, F., (2019). The effectiveness of unconventional monetary policy announcements in the euro area: An event and econometric study. *Journal of International Money and Finance*, Volume 94, June 2019, Pages 48-61. https://doi.org/10.1016/j.jimonfin.2019.02.007.

Bala-Sani, A. R., & Hassan, A. (2018). Exchange rate and stock market interactions: Evidence from Nigeria. *Arabian Journal of Bossiness Management Review,* 8(1), 334.

Bauwens, L., Laurent, S. and Rombouts, J.V.K. (2006), Multivariate GARCH Models: A Survey, Journal of Applied Econometrics, 21, pp. 79-110

Bauwens, L., & Giot, P. (2000). The logarithmic ACD model: An application to the bid–ask quote process of three NYSE stocks. *Annales d'Économie et de Statistique*, *60*, 117–149. https://doi.org/10.7494/manage.2016.17.1.77.

Ben Omrane, W., & Savaser, T. (2016). The sign switch effect of macroeconomic news in foreign exchange markets. *Journal of International Financial Markets Institutions and Money*, *45*, 96–114. https://doi.org/10.1016/j.intfin.2016.07.002.

Ben Omrane, W., & Savaser, T. (2017). Exchange rate volatility response to macroeconomic news during the global financial crisis. *International Review of Financial Analysis, 52*, 130–143. https://doi.org/10.1016/j.irfa.2017.05.006.

Ben Omrane, W., Savaser, T., Welch, R., & Zhou, X. (2019). Time-varying effects of macroeconomic news on euro-dollar returns. *The North American Journal of Economics and Finance,* 50 (C), 130–143. https://doi.org/10.1016/j.najef.2019.101001.

Ben Omrane, W. B., Welch, R., & Zhou, X. (2018). The dynamic effect of macroeconomic news on the euro/US dollar exchange rate. *Special Issue Article,* https://doi.org/10.1002/for.2615.

Boudt, K., Neely, C. J., Sercu, P., & Wauters, M. (2019). The response of multinationals' foreign exchange rate exposure to macroeconomic news.

Journal of International Money and Finance, 94, 32–47. https://doi.org/10.1016/j.jimonfin.2019.01.009.

Caruso, A., (2019). Macroeconomic news and market reaction: Surprise indexes meet nowcasting, International Journal of Forecasting. Volume 35, Issue 4, October–December 2019, Pages 1725-1734. https://doi.org/10.1016/j.ijforecast.2018.12.005.

Chatrath, A., Miao, H., & Ramchander, S. (2014). Currency jumps, co-jumps and the role of macro news. *Journal of International Money and Finance,* 40 (C), 42–62. https://doi.org/10.1016/j.jimonfin.2013.08.018.

Cheung, Y., Fatum, R., & Yamamoto, Y. (2019). The exchange rate effects of macro news after the global financial crisis. *Journal of International Money and Finance,* 95(C), 424–443. https://doi.org/10.1016/j.jimonfin.2018.03.009.

Corbeta, S., Dunnea, J. J., & Larkinb, C. (2019). Quantitative easing announcements and high-frequency stock market volatility: Evidence from the United States. *Research in International Business and Finance*, Volume 48, April 2019, Pages 321-334. https://doi.org/10.1016/j.ribaf.2019.01.007.

Corbeta, S., Dunnea, J. J., & Larkinb, C. (2020). Quantitative easing announcements and high-frequency stock market volatility: Evidence from the United States. *Research in International Business and Finance*, 48, 321–334.https://doi.org/10.1016/j.ribaf.2019.01.007.

Dayyabu, S., Adnan A., & Sulong, Z. (2016). Effectiveness of foreign exchange market intervention in Nigeria (1970 – 2013). *International Journal of Economics and Financial,* 6(1), 279–287. https://doi.org/10.13140/RG.2.2.15390.69445.

Ekincia, C., Akyildirim, E., & Corbet, S. (2019). Analysing the dynamic influence of US macroeconomic news releases on Turkish stock markets. *Finance Research Letters,* 31, 155–164. https://doi.org/10.1016/j.frl.2019.04.021.

Gbadebo, Adedeji D. Adekunle, Ahmed O., Joseph Akande & D. Wahid Olanipekun (2021). The MPC meetings, macroeconomic announcements and exchange rate behaviour in Nigeria, Cogent Economics & Finance, 9:1, 1952720, DOI: 10.1080/23322039.2021.1952720

Hausman, J., & Wongswan, J. (2011). Global asset prices and FOMC announcements. *Journal of Int. Money and Finance*, 30(3), 547–571.https://doi.org/10.1016/j.jimonfin.2011.01.008

Hussain, S. M. & Ben Omrane, W. (2020). The effect of US macroeconomic news announcements on the Canadian stock market: Evidence using high-frequency data. *Finance*

Research Letters. 38, 101450. https://doi.org/10.1016/j.frl.2020.101450.

Indriawana, I., Jiao, F., & Tsec, Y. (2021). The FOMC announcement returns on long-term US and German bond futures. *Journal of Banking & Finance*, 123, 106027. https://doi.org/10.1016/j.jbankfin.2020.106027.

Kalu, E. M., Ugwu, O. E., Ndubuaku, V. C., & Ifeanyi, C. P. (2019). Exchange rate and foreign reserves interface: Empirical evidence from Nigeria. *The Economics and Finance Letters*, 6, 1–8. https://doi.org/10.18488/journal.29.2019.61.1.8.

Lahmiri, S., Bekiros, S. & Salvi, A. (2018). Long-range memory, distributional variation and randomness of bitcoin volatility. *Chaos, Solitons and Fractals*, 107, 43–48. https://doi.org/10.1016/j.chaos.2017.12.018.

Li, W., Wong, M., & Cenev, J. (2015). High frequency analysis of macro news releases on the foreign exchange market: A survey of the literature. *Big Data Research* 2(1), 33–48. https://doi.org/10.1016/j.bdr.2015.02.003.

Lyócsa, S., Molnár, P., & Plíhal, T. (2019). Central bank announcements and realized volatility of stock markets in G7 countries. *Journal of International Financial Markets, Institutions and Money*, 58, 117–135. https://doi.org/10.1016/j.intfin.2018.09.010.

Nwachukwu, N.E., Ali, A.I., Abdullahi, I.S., Shettima, M.A., Zirra, S.S., Falade, B.S., & Alenyi, M.J. (2016). Exchange rate and external reserves in Nigeria: A threshold cointegration analysis. *CBN Journal of Applied Statistics*, 7(1B), 233.

Oladapo, F., Adeyeye, P. O., Seyingbo, O. A., & Owoeye, S. D. (2017). Exchange rate volatility and stock market performance in Nigeria, *Nigerian Journal of Management Sciences*, 6(1), 3.

Omojolaibi, J.A., & Gbadebo, A. D. (2014). Foreign exchange intervention and monetary aggregates: Nigerian evidence. *Int. Journal of Economics, Commerce, and Management*, 2(10), 1–21.

Pyo, S., & Lee, J. (2020). Do FOMC and macroeconomic announcements affect Bitcoin prices? *Finance Research Letters*. 37, 101386 https://doi.org/10.1016/j.frl.2019.101386.

Tamgac, U. (2021). Emerging market exchange rates during quantitative tapering: The effect of US and domestic news. *Research in International Business and Finance*, 57, 101393. https://doi.org/10.1016/j.ribaf.2021.101393.

Walid Ben Omranea, Tanseli Savaserb Robert Welcha Xinyao Zhouc (2019). Time-varying effects of macroeconomic news on euro-dollar returns. The North American Journal of Economics and Finance. Volume 50, November 2019,

101001.https://doi.org/10.1016/j.najef.2019.101001.

Mohamed A. Ayadi_Walid Ben Omrane Skander Lazrak_Xusheng Yan (2020). OPEC production decisions, macroeconomic news, and volatility in the Canadian currency and oil markets Finance Research Letters Volume 37, November 2020, 101366. https://doi.org/1 0.1016/j.frl. 2019.101366.

Indriawana, I., Jiao, F., & Tsec, Y. (2021). The FOMC announcement returns on long-term US and German bond futures. *Journal of Banking & Finance.* Volume 123, February 2021, 106027. https://doi.org/10.1016/j.jbankfin.2020.106027.

Syed MujahidHussainaWalidBen Omranеb. (2020). The effect of US macroeconomic news announcements on the Canadian stock market: Evidence using high-frequency data. Finance Research Letters. Volume 38, 101450.

Tamgac, U. (2021). Emerging market exchange rates during quantitative tapering: The effect of US and domestic news. *Research in International Business and Finance,* Volume 57, October 2021, 101393. https://doi.org/10.1016/j.ribaf.2021.101393.

Kris Boudtabc Christopher J. Neelyd Piet Sercue Marjan Wautersf (2019). The response of multinationals' foreign exchange rate exposure to macroeconomic news. Journal of International Money and Finance. Volume 94, June 2019, Pages 32-47.

Lyócsa, S., Molnár, P., & Plíhal, T. (2019). Central bank announcements and realized volatility of stock markets in G7 countries. *Journal of International Financial Markets, Institutions and Money,* Volume 58, January 2019, Pages 117-135. https://doi.org/10.1016/j.intfin.2018.09.010.

Nowak, S., Andritzky, J., Jobst, A. and Tamirisa, N. (2011). Macroeconomic Fundamentals, Price Discovery, and Volatility Dynamics in Emerging Bond Markets, Journal of Banking & Finance, 35(10), pp. 2584-2597.