# Effect of Monetary Policies on Economic Performance of Anglophone ECOWAS

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## Abstract
*Although there have been efforts to advance the ECOWAS monetary cooperation agenda, political issues, and other economic concerns in some of the region's nations have hampered the progress to date. Part of the disagreement is associated with inadequate literature that lends experimental proof to monetary policy management for optimal gains. Therefore, this study seeks to examine the relationship between monetary policy strategies and economic performance in Anglophone ECOWAS. The study employed an ex-post facto research design. Secondary annual panel data from 1986 to 2020 for all the five (5) Anglophone ECOWAS were used for this study and sourced from World Development Indicators of the World Bank. The data were analysed using Panel Nonlinear Autoregressive Distributed Lag (PNARDL) to explain the relationship and establish the effect of expansionary and contractionary monetary policies on economic performance. The monetary policies model estimated using the PNARDL revealed that the long-run estimated coefficients of the proxy for contractionary and expansionary monetary policy (decrease and increase in the money supply) are both positive and statistically significant. However, the short-run estimates revealed that both have a negative effect on economic performance. Monetary authorities in the Anglophone ECOWAS could consider implementing regulations and controls on expansionary monetary policy to stimulate economic performance. The research is limited to Anglophone ECOWAS. It appears that no ECOWAS country-specific or cross-country study has investigated the asymmetry relationship of the monetary policy-economic performance nexus; this heightened the need to address the blur in the extant literature and clarify the asymmetry relationship between monetary policy and economic performance in ECOWAS Anglophone.*

***Keywords:*** Contractionary Monetary Policy, Expansionary Monetary Policy, PNARDL, ECOWAS, Economic Performance Index

***JEL Classifications:*** E52, E63, O47

## Introduction

The Economic Community of West African States (ECOWAS) grapples with the intricate task of evaluating and enhancing economic performance, particularly in the Anglophone nations of the sub-region (Sanya & Tosin, 2022). These countries, reliant on imports, find themselves particularly susceptible to external economic shocks and a myriad of socio-economic challenges. In response, they have adopted a diverse range of monetary policies aimed at mitigating these external shocks and fostering sustainable economic growth. A pivotal point of contention within the region lies in the ongoing debate over the choice between rule-based and discretionary monetary policies. Rule-based strategies advocate for a steadfast adherence to predetermined guidelines, whereas discretionary policies allow for a more flexible approach contingent on prevailing economic conditions.

Monetary policy, as a potent driver of economic activities and performance, is subject to a longstanding debate between commitment and discretion (McCallum, 2000). Advocates of rule-based policies argue that such approaches effectively achieve long-term objectives, including the mitigation of inflation and the promotion of sustained real economic growth (Arestis et al., 2002; Dotsey & Duarte, 2008). Frameworks like the Taylor rule and the K-Percent Rule play a prominent role in guiding central banks by providing specific directives in response to key economic indicators (Taylor, 1996). On the flip side, discretionary monetary policies offer the advantage of flexibility, allowing swift responses to emerging economic situations. However, this flexibility does raise questions about the overall direction and reliability of such policies (Barro & Gordon, 1983).

The Anglophone ECOWAS countries have historically followed a regime of targeting monetary aggregates. In order to attain the inflation and growth objectives, they endeavour to maintain suitable growth in the money supply over a period of time while retaining the flexibility to modify monetary policy in accordance with prevailing economic circumstances as and when deemed necessary. Adjustments are likely to be executed through an increase or a decrease in money supply (M2) around its long-term growth path (Hayat, 2013).

The inability to predict the reaction of economic performance to monetary policy frameworks from a macroeconomic perspective as well as from a microeconomic perspective has been a fundamental intergenerational social welfare issue in Anglophone ECOWAS (Gough et al., 2004). This research intends to employ novel indicators of monetary policy, and economic performance to conduct a

reliable empirical examination based on a methodological framework congruent with Hayat et al. (2018). Since monetary policy indicators are dynamically connected, it is crucial to account for endogeneity and test common factor restrictions using an estimation approach that addresses the cross-sectional dependency problems seen in the ordinary panel data estimation.

In recent years, a noteworthy trend has emerged in Anglophone ECOWAS countries, where central banks have been granted institutional autonomy, placing a heightened emphasis on inflation targeting to achieve price stability (Croce & Khan, 2000). Despite a historical reliance on monetary aggregates, these nations are experiencing a discernible shift towards the adoption of contractionary and expansionary monetary policies. It is noteworthy that, within the research landscape, limited attention has been directed towards investigating the impact of monetary policy on the economic performance of Anglophone ECOWAS countries. This research aims to address this gap by employing novel indicators, facilitating a comprehensive examination of the relationship between monetary policy and economic performance in the region.

The structure of the paper is as follows: A literature review concerning monetary policy and economic performance is provided in Section 2. The methodology and procedure of the empirical investigation are detailed in Section 3. The discussion and findings are presented in Section 4. In Section 5, the paper's conclusion is presented.

**Literature Review**

Several studies have investigated the effects of monetary policies on economic performance in other parts of the world. For example, Bahmani-Oskooee and Bhol (2001) analyzed the stability of M3 money demand function in Germany, finding volatility within it. Bahmani-Oskooee (2001) studied M2 monetary aggregate in Japan and found stability in its relationship with income and interest rate. Canova (2005) observed US monetary shocks significantly affecting macroeconomic growth in Latin America. Sousa and Zaghini (2007) formulated an international monetary aggregate, showing production declining briefly following a monetary policy shock. Rafiq and Mallick (2008) found varying impacts of monetary policy innovations across Germany, France, and Italy. Senbet (2011) concluded that monetary policy influences real output more effectively than fiscal policy in the US. Milani and Treadwell (2012) demonstrated that output is significantly affected by anticipated policy shocks. Chen et al. (2015) found US quantitative easing helped advanced economies avoid

prolonged recession. Aastveit et al. (2017) discovered lower sensitivity to US monetary policy shocks during periods of heightened uncertainty. Hanisch (2017) found marginal impact of monetary policy shocks on output in Japan. Abhoff et al. (2021) found ECB's unconventional monetary policy raised inflation expectations but had no beneficial effect on GDP. Meng and Huang (2021) observed varying effects of monetary policy on the macro economy at different frequencies and times. Hayat (2013) analyzed the impacts of discretionary monetary policy on inflation and output targets, finding bias towards inflation in the long term with marginal short-term benefits for output. Discretionary welfare gains were minimal and short-lived, overshadowed by significant long-term welfare losses.

Several other studies have delved into the impact of monetary policies on the economic performance of the Anglophone Economic Community of West African States (ECOWAS). For instance, Salisu's (1993) examination revealed a lack of significant correlation between interest rates and the demand for real cash balances. This finding suggests that altering interest rates as a means to influence cash balance demands might prove futile within this economic context. Ajisafe and Folorunso (2002) shifted focus towards the relative efficacy of monetary and fiscal policies in Nigeria. Their study indicated a significant influence of monetary policy over fiscal actions on the country's economic activity, suggesting a reevaluation of policy emphasis.

Nkoro research in 2005 shed light on Nigeria's economic challenges, attributing excessive liquidity and rising inflation to factors such as financial instability, poor management, and policy discord between fiscal and monetary authorities. Folawewo and Osinubi (2006) echoed the importance of well-targeted monetary policy, warning against the potential adverse consequences of poorly directed efforts, including inflation and exchange rate fluctuations. Dele's findings in 2007 revealed a negative correlation between government credit, money supply, and national output, challenging conventional assumptions regarding interest rate policy's direct impact on GDP. Chimobi and Uche (2010) emphasized the pivotal role of money supply in driving output and inflation within Nigeria's economic framework, advocating for monetary stability to maintain price equilibrium. Adefeso and Mobolaji's analysis in 2010 established a long-term correlation between economic expansion, public expenditure, and broad money supply in Nigeria, further highlighting the intertwined nature of fiscal and monetary policy with economic growth. Okwo, Eze, and Nwoha's study in 2012, however,

indicated a lack of significant impact of monetary policy on price stability within the Nigerian context, raising questions about the effectiveness of prevailing policy measures in achieving desired outcomes.

Most empirical studies conducted in ECOWAS Anglophone countries concerning monetary and economic growth differ in scope and content as they do not assess the factors causing economic performance in a cross-country analysis of this type or either fail to explain a cross country-specific nature of growth adequately as induced by asymmetric effect and cyclical fluctuations emanating from monetary policy objectives of their central banks.

**Research Methodology**

This study aims to analyze the long run and short run nonlinear impact of money supply on Economic Performance Index (EPI). Shin *et al*. (2014) have presented a framework for nonlinear ARDL (NARDL) which is based on the linear ARDL model proposed by Pesaran and Shin (1999), and Pesaran *et al*. (2001). The study conducted by Shin et al. (2014) employed the Granger and Yoon (2002) techniques to decompose a stationary variable into its negative and positive fluctuations. The study adopted this approach for three reasons. First, it estimates the data nonlinear asymmetries. Secondly, the heterogeneity effect is analyzed in the data. Lastly, it is more appropriate when the order of integration of variables are mixed.

In achieving the objective of this study, a simple model of economic performance with an extended broad monetary policy as independent variable which was segregated into the contractionary ($MS^-$) and expansionary monetary policy ($MS^+$) in order to account for the influence of contractionary and expansionary monetary policies on economic performance was adopted. $MS^-$ and $MS^+$ are scalers of decomposed partial sum. Stated differently, it is anticipated that EPI will not be affected in the same manner by positive and negative changes in money supply. The following expression represents the asymmetric equation as stated below:

$$\Delta EPI_{it} = \beta_{0i} + \beta_{1i}^{+}\ {MS^{+}}_{it-1} + \beta_{1i}^{-}\ {MS^{-}}_{it-1} + \beta_2 EXCR_{it} + \beta_3 INTR_{it} + \sum_{J=1}^{N1} \lambda_{ij} \Delta r_{it-j} + \sum_{j=0}^{N2} (\gamma_{ij}^{+} \Delta p_{t-j}^{+} + \gamma_{ij}^{-} \Delta p_{t-j}^{-}) + \mu_i \ + \varepsilon_{it} \quad (1)$$

Where $p_t^+$ and $p_t^-$ represent the positive and negative money supply. The long run coefficients for $p_t^+$ and $p_t^-$ are calculated as $\frac{\beta_{1i}^+}{\beta_{0i}}$ and $\frac{\beta_{1i}^-}{\beta_{0i}}$. They are respectively computed as positive and negative partial sum decompositions of money supply changes as defined below:

$$p_t^+ = \sum_{u=1}^{t} \Delta p_{iu}^+ = \sum_{u=1}^{t} \min(\Delta p_{iu}, 0)\,;\; p_t^- = \sum_{u=1}^{t} \Delta p_{iu}^- = \sum_{u=1}^{t} \min(\Delta p_{iu}, 0) \quad (2)$$

$$ECT_{it} = \phi_i \varphi_{it-1} + \sum_{J=1}^{N1} \lambda_{ij} \Delta r_{it-j} + \sum_{j=0}^{N2} (\gamma_{ij}^+ \Delta p_{t-j}^+ + \gamma_{ij}^- \Delta p_{t-j}^-) + \mu_i + \varepsilon_{it} \quad (3)$$

The error correction term $\phi_i \varphi_{it-1}$ captures the long run equilibrium. Data for this study spans 1986 to 2020. Data for each variable, their description, measurement, and sources are described in Table 1.

**Table 1: Data Description**

| Abbreviation | Description | Measurement | Source |
|---|---|---|---|
| $EPI$ | Economic Performance Index is a metric for evaluating a nation's economic performance dynamics across time. The variables used in computing EPI are budget deficit, inflation rate, real gross domestic product growth, and unemployment rate. Inf*, Unem*, ΔGDP*, and $\frac{Def}{GDP}*$ are the desired level of inflation, Unemployment rate, real GDP, and budget deficit as percentage of GDP $EPI = 100\% - \{Inf\ (\%) - Inf^*\} - \{Unem\ (\%) - Unem^*\} - \left\{\frac{Def}{GDP}\% - \frac{Def}{GDP}*\right\} + \{\Delta GDP(\%) - \Delta GDP^*\}$ | Composite Variable | Computed |
| $BMS$ | It is the total volume of money in circulation within an economy. | Money Supply | WDI |
| $MS^+$ | It denotes the expansionary monetary policy. It is the total increase in money supply | Money Supply | Computed |
| $MS^-$ | It denotes the contractionary monetary policy. It is the total decrease in money supply. | Money Supply | Computed |
| $INT_{RATE}$ | Cost of Borrowing | Interest Rates | WDI |
| $EXCH_{RATE}$ | Exchange Rate is the rate at which one currency is exchanged for another. | Nominal Exchange rate | WDI |

*Source:* Authors' compilation, 2024

**Presentation and Analysis of Results**

The outcomes of the descriptive statistics used for this study are shown in Table 2. The variable names EPI, BMS, DCMP, EXCR, INFR, and INTR, as well as the statistical measures mean, median, maximum, minimum, standard deviation, skewness, kurtosis, Jarque-Bera probability, and observations, are found in the first row and first column, respectively.

**Table 2: Descriptive Statistics**

| | EPI | BMS | EXCR | INTR |
|---|---|---|---|---|
| Mean | 85.657 | 23.203 | 619.394 | 10.838 |
| Median | 89.973 | 23.212 | 46.439 | 12.964 |
| Maximum | 243.717 | 31.285 | 9829.927 | 45.000 |
| Minimum | -71.469 | 15.297 | 0.000 | -51.617 |
| Std. Dev. | 27.976 | 4.278 | 1635.391 | 16.274 |
| Skewness | -0.228 | 0.087 | 3.493 | -1.282 |
| Kurtosis | 15.799 | 2.066 | 15.836 | 5.689 |
| Jarque-Bera | 1202.859 | 6.620 | 1566.267 | 101.246 |
| Probability | 0.000 | 0.037 | 0.000 | 0.000 |
| Observations | 176 | 176 | 176 | 176 |

*Source: Author's Computation, 2024*

The second and third rows provide the mean and median of the variables utilised in the research. The mean and median are measures of central tendency that describe the central position of the data series. The mean is the arithmetic average of a data series derived by dividing the series' total sum by the number of observations. It is the most commonly employed and preferred central tendency measure, because it incorporates the actual values of all observations in the series. The median is the middle value when the data series is arranged in ascending or descending order for an odd number of observations and the average of the sum of the two middle numbers for an even number of observations. The mean values of EPI, BMS, DCMP, EXCR, INFR, and INTR are 85.657, 23.203, 619.394, 16.334 and 10.838 while the median values are 89.973, 23.212, 46.439, and 12.964 respectively.

The standard deviation, a measure of variability, is displayed in the sixth row. It is obtained by squaring the differences between the mean and each series, after which the average of the summed value is calculated. The obtained value is known as the variance, while the square root of the variance is the standard deviation. It measures how far apart the series are from the mean. A large standard deviation indicates that the data series is widely dispersed around the mean, whereas a small standard deviation indicates that the data series is tightly

clustered around the mean. The standard deviation values for EPI, BMS, EXCR, and INTR are 27.976, 4.278,1635.391, and 16.274, respectively.

The seventh and eighth rows contain the probability distribution or position of the data series, as measured by skewness and kurtosis. Skewness measures the degree to which a data series is symmetrical or asymmetrical. If one tail is longer than the other, the data series is asymmetrical. When one tail precisely reflects the other, a symmetric distribution is present. The standard value for a normal distribution is zero (0). When the calculated value is less than zero (0), it is said to have negative skewness, and positive skewness is when the computed value is greater than zero (0). Three of the variables, namely, EPI, and INTR, with skewness values of -0.228, and -1.282, exhibit negative skewness, indicating a left long tail. BMS and EXCR with skewness values of 0.087 and 3.493, exhibit positive skewness, indicating a right long tail. On the other hand, kurtosis measures whether the data series is heavy-tailed or light-tailed. The expected value of kurtosis is three, denoting a mesokurtic distribution with a normal distribution. When the expected value is greater than three, the distribution is leptokurtic, representing peakedness of the distribution, that is, a higher concentration of data series at the upper part, and when it is less than three, the distribution is platykurtic, representing a higher concentration of data series at the lower part of the distribution. The statistical significance of the distribution is measured by the Jacque-Bera (JB) statistic, as well as the probability associated with it. None of the variables used in the study is normally distributed judging by the significance of the p-value of the JB statistics.

**Table 3: Correlation Matrix**

| | **EPI** | **BMS** | **EXCR** | **INTR** |
|---|---|---|---|---|
| EPI | 1.000 | | | |
| BMS | 0.017 | 1.000 | | |
| EXCR | 0.151 | 0.454 | 1.000 | |
| INTR | 0.431 | -0.239 | -0.079 | 1.000 |

*Source:* Author's Computation, 2024

Table 3 shows the correlation matrix, which evaluates linear joint movement rather than causation. The value ranges from plus one (+1) for perfect positive correlation to minus one (-1) for perfect negative correlation. Non-existence of a linear relationship between two or more variables is indicated by a correlation coefficient of zero (0). Collinearity arises when two variables' linear relationship is 0.8 or higher. When there is perfect collinearity among the independent

variables, this will result in a singular matrix issue, which will make parameters estimation impossible. Nonetheless, if this association exists between multiple independent variables, it becomes a case of multicollinearity, which is problematic for regression estimates. In the presence of multicollinearity, ordinary least squares estimates are likely to be inefficient, as variances will be larger than in the absence of multicollinearity. In addition, the large variances lead to the acceptance of the null hypothesis of non-significance of regressors when they were supposed to be rejected thereby causing type II error in estimation.

A careful observation of the correlation matrix contained in Table 3 reveals that BMS and EXCR have the highest correlation coefficient of 0.454 among the independent variables. The independent variables used in this study do not exhibit strong correlations. Thus, the absence of extremely higher correlation coefficient is indicative of the likelihood of absence of multicollinearity. The estimated coefficients of the PNARDL for the three estimators are presented in Table 4. The Hausman test results indicated that pooled mean group (PMG) is the most appropriate for result interpretation.

**Table 4: Asymmetric Dynamic Model: Dependent Variable: LNEPI**

| Variables | MG | PMG | DFE |
|---|---|---|---|
| **Long-run coefficients** | | | |
| $MS^-$ | 0.026 | 0.048** | 0.028 |
| | (0.016) | (0.021) | (0.029) |
| $MS^+$ | 0.024 | 0.049** | 0.046 |
| | (0.035) | (0.021) | (0.029) |
| LNEXCR | -0.037 | 0.451*** | -0.012 |
| | (0.098) | (0.088) | (0.053) |
| INTR | 0.0050 | 0.120*** | 0.007*** |
| | (0.0047) | (0.013) | (0.002) |
| **Short-run coefficients** | | | |
| ECT | -0.813*** | -0.808*** | -0.664*** |
| | (0.095) | (0.094) | (0.058) |
| $D.MS^-$ | -0.042 | -0.043 | -0.094** |
| | (0.29) | (0.026) | (0.045) |
| $D.MS^+$ | -0.178** | -0.216*** | -0.097** |
| | (0.081) | (0.053) | (0.045) |
| D.LNEXCR | -0.045 | 0.435*** | -0.008 |
| | (0.081) | (0.068) | (0.035) |
| D.INTR | 0.003 | -0.094*** | 0.005*** |
| | (0.004) | (0.013) | (0.001) |
| Constant | 3.064*** | 2.942*** | 2.266*** |
| | (0.222) | (0.443) | (0.393) |
| **Hausman:** | | | . |
| MG VS PMG | | 134.17(0.00) | |
| PMG VS DFE | | | 108.67(0.00) |
| **Test of Asymmetry** | | | |
| **LR** | 0.05(0.83) | 0.24(0.63) | 1.47(0.22) |
| **SR** | 0.95(0.33) | 5.16(0.02) | 0.01(0.94) |
| Observations | 165 | 165 | 165 |

*Source:* Author's computation, 2024

The long run estimated coefficients of the sudden decrease and sudden increase in money supply are both positive. This implies that both changes move in opposite direction. If there is a decrease in money supply, it would cause economic performance indicator to decrease whereas increase in money supply would lead to increase in economic performance indicator. In terms of magnitude, EPI would decrease by 0.048 units as a result of one unit decrease in money supply while increase in money supply would cause increase of 0.049 units in EPI [MS (-) = 0.048, t-test = 2.25, prob = 0.02 < 0.05 and MS (+) = 0.049, t-test =2.39, prob = 0.02 < 0.05]. Both decrease (-) and increase (+) money supply are statistically

significant at 5 percent. Therefore, increase and decrease in money supply are significant factors that influence changes in economic performance. Similarly, the control variables of exchange rate and interest rate are positively related to economic performance indicators. This means that EPI would increase because of increase in exchange rate and interest rate. Concerning the magnitude, one percent increase in exchange rate would lead to 0.451 percent increase in EPI ceteris paribus while one unit increase in interest rate would cause increase of 0.12 units in EPI [LNEXCR = 0.451, t-test = 5.12, prob = 0.00 < 0.00 and INTR = 0.120, t-test = 9.14, prob = 0.00 < 0.00]. Also, exchange rate and interest rate are statistically significant at 1 percent and hence are significant factors that affect economic performance indicators in the long run.

The purpose of this section is two-folds. First, to examine the degree of adjustment back to equilibrium using the error correction term (ECT). Second, to examine if the changes and statistical significance experienced in the long run also exists in the short run. The short run adjustment measured by ECT indicates how quickly adjustment emanating from shocks return to equilibrium. For stability, the coefficient of ECT must be negative and statistically significant. Given the ECT = -0.808, t-test = -8.56 and prob = 0.00 < 0.05, then adjustment to equilibrium is attained at 80.8 percent within a year.

The short run coefficients indicate that money supply decrease exhibit negative sign while money supply increase also exhibit negative sign. This means that EPI would increase because of money supply decrease (-) and decrease because of money supply increase (+). In terms of magnitude, EPI would increase by 0.043 units and decrease by 0.2160 units because of one-unit money supply decrease and increase respectively [MS - = -0.043, t-test = -1.63, prob = 0.10 > 0.05 and MS + = -0.216, t-test = -1.09, prob = 0.00 < 0.05]. Only money supply increase is statistically significant at 1 percent in the short run while money supply decrease is not significant. Thus, money supply increase is a significant factor that influences EPI. In the same vein, exchange rate and interest rate exhibit negative relationship with EPI. This implies that increase in exchange rate and interest rate would cause decrease in EPI in the short run. Concerning the magnitude, a one percent increase in exchange rate would lead to 0.435 percent decrease in EPI while one unit increase in interest rate would cause 0.094 units decrease in EPI [LNEXCR = -0.435, t-test = -6.37, prob = 0.00 < 0.05 and INTR = -0.094, t-test = -7.09, prob = 0.00 < 0.05]. Both the exchange rate and interest rate are statistically significant at 1 percent and hence are significant factors that affect EPI in the short run.

The monetary policy model result presented in Table IV revealed a positive relationship between the indicators of monetary policy (contractionary monetary policy and expansionary monetary policy) and the economic performance index in the long run and a negative relationship in the short run. The significance and positive relationship between EPI and expansionary monetary policy were in line with apriori expectations and imply that an increase in the expansionary monetary policy indicator has a significant effect on economic performance. The findings are consistent with those of Shultz (2014) in the United States and Hanisch (2017) in Japan. The negative and significant effect of expansionary monetary policy in the short run may be due to external shocks, global economic conditions, and different time lag between the implementation and its influence on the broader economy. The results contradict the conclusions reached by Amarasekara (2009) in Sri Lanka, Lashkary and Kashani (2011) in Iran, Kamaan and Nyamongo (2014) in Kenya, and Chimobi and Uche (2010) in Nigeria.

In this study, contractionary monetary policy has a positive effect on economic performance in the short run and a negative effect in the long run. The negative and significant effect of contractionary monetary policy on economic performance is in line with apriori expectations, and it implied that a decrease in money supply significantly reduced economic performance. Based on traditional Keynesian theory, it is anticipated that contractionary monetary policy will result in a rise in the cost of capital and the real interest rate. Consequently, there is a reduction in investment spending, resulting in a decline in overall demand and a decrease in output. Thus, when considering the dynamics of monetary policy, implementing a contractionary monetary policy would lead to a decrease in economic performance. The result corroborates that of Ebenezer and Andrew (2019) in a study conducted in ECOWAS on the regional effects of monetary policy on economic growth using data from 1980 to 2015. It also aligns with the report of Aigheyisi and Edore (2019) in a study conducted in Nigeria.

**Conclusion and Policy Recommendations**

The findings indicate that the monetary policy (contractionary and expansionary) have a positive effect on economic performance in the long run which implies that an increase in money supply (expansionary monetary policy) will lead to an increase in economic performance and a decrease in money supply (contractionary monetary policy) will have a negative effect on economic performance in the long run. Hence, monetary authorities in the Anglophone

ECOWAS could consider implementing regulations and controls on expansionary monetary policy in order to stimulate economic performance.

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