

An Empirical Assessment of the Monetary Policy Credibility and Economic Growth Relationship: A GMM Approach on COMESA and ECOWAS Regions

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Abstract

The study aims to highlight the effect of the credibility of monetary policy on economic growth concerning the COMESA compared with the ECOWAS economies. Those groups of countries are reached throughout the monetary policy credibility measurement to get an insight into whether the monetary policy is at the origin of the economic growth level of the country. The dynamic panel data consists of 5 years, from 2015 to 2020, for 11 countries of COMESA and ECOWAS. The findings from the two-system-GMM approach show a significant positive effect of the monetary policy credibility on economic growth in the COMESA region. On the other hand, the monetary policy credibility has an insignificant impact on the economic growth in the ECOWAS region. The findings lead us to recommend to the policymakers of central banks to ensure that they choose the appropriate monetary policy to return to growth, full employment and price stability.

Keywords: economic growth, monetary policy, credibility, economic growth, GMM.

JEL classification : E51, E52, E47

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1. INTRODUCTION

Based on the principle that a policy based on rules of conduct is more credible and effective than a discretionary policy, an academic trend has appeared in the economic literature seeking to identify the operational practices of monetary policy, likely to limit as much as possible, or even eliminate the use of discretion (Taylor, 1993). According to the literature, the credibility of monetary policy is assessed, on the one hand, concerning the capacity of the central bank to respect the rules of conduct that it has set and that it has previously announced and, on the other hand, concerning the effectiveness of these rules, taking into account the objectives set. Hence, monetary policy would be more effective when

markets and economic agents can easily anticipate its orientations based on purposes clearly stated by the authorities and the assessment of the relationship between the objectives set and the measures adopted. The credibility of monetary policy can be sought mainly at two levels: monetary policy rules and the central bank's independence. Monetary policy rules can be defined as guides containing recommendations for the conduct of this policy (Chaparro Guevara & Escot, 2021). The adoption of rules constitutes a guarantee of the effectiveness of monetary policy to the extent that they are clearly announced and effectively implemented (Chen et al., 2017). This new architecture of monetary policy aims to reduce uncertainty regarding the future directions of

these policies while strengthening the credibility and responsibility of the central bank. Monetary policy credibility is needed to achieve economic targets and maintain equilibrium interest rates, monetary policy is used to guard against adverse shocks to the economy and to maintain real output (Dawood, 2019).

Following the recent work of (Bandaogo, 2021), central bank independence is seen as the most effective institutional posture for establishing the credibility of monetary policy. The nature of the debate no longer rests solely on the context of the intertemporal interplay between the authorities and the public. The question is what practical steps must be taken to preserve price stability. The objective is achieved when the rules find the means to conduct the most effective monetary policy without fanning the inflation fears of private agents. The latter should not consider this a possible return to discretionary policy in an uncertain environment. In this context, central banks must seek a compromise between their short-term decisions and their more distant objectives. Information Transparency is a significant issue for the functioning and regulation of the economy in general and a particular case when implementing a policy to support credibility.

A recent theoretical development on expectations highlights the credibility factor as a guarantee of the effectiveness of monetary policy (Della Posta & Morroni, 2022). The role and significance of monetary policies are most often analyzed regarding economic rules whose general objective is to improve populations' well-being through stabilizing the economy in its long-term equilibrium. It is assumed that this equilibrium is unaffected by monetary policy and depends only on structural variables such as the natural unemployment rate.

(Savolchuk & Grujić, 2022) addresses the issue of monetary policy credibility in a semi-structural new Keynesian model. Their research measures the loss of credibility of monetary policy and the production cost of seeking credibility when it has been lost through simulations. Results show low policy credibility makes economic stabilization costlier and expansionary policy

counterproductive. In the search for credible monetary policy during the COVID-19 pandemic, (Harjes et al., 2020) state that unconventional monetary policies tend to pose more significant risks in emerging markets where safe assets are often scarce, and governance risks can be considerable. A relaxation of monetary policy is advisable only if longer-term inflation expectations remain aligned with central bank targets. Furthermore, (Vasicek et al., 2023) suggest a greater emphasis on the financial independence of the central bank. In the same way, the empirical results of (Motie & Hall, 2020) suggest that more transparent central banks face higher disinflation costs.

At the same time, a commitment to a more credible monetary policy may reinforce structural factors likely to contain inflationary pressures. Still, while long-term inflation expectations are better anchored around the target, we can observe a slowdown in economic activity and growth rate inflation. Central banks may need to act more and faster than markets are pricing to keep inflation under control, which could push policy rates above neutral levels. They must return inflation to its target rate, considering that excessively tightening global financial conditions harms economic growth. Hence, the central bank must be independent of the government to determine its monetary policy because an independent central bank must openly and clearly explain the reasons for its decisions.

In the literature, the credibility of an economic institution is supposed to promote economic growth in two (02) ways: credible institutions act on the level of investments by reducing transaction costs through the reduction of risks and the neutralization of rigidities which alter markets (Ameli et al., 2020). On the other hand, credible institutions make it possible to reduce the uncertainties inherent in human relations (Ruppel et al., 2022). So far, (Coenen et al., 2017) specify that the gradual construction of the credibility of a Central Bank is one of the channels through which the maturity of Central Banks can act on economic growth.

Monetary policy is seen as a solid supporting element of economic growth in financially

developed economies with relatively independent central banks while seen as weaker in developing economies with structural weaknesses and underdeveloped financial markets (Twinoburyo & Odhiambo, 2018). (Tan et al., 2020) use an Autoregressive Distributed lag (ARDL) approach to assess the long-run relationship of monetary and fiscal policy on economic growth. The findings pointed out that monetary policy contributes the most to economic growth in Malaysia and Singapore. The outcomes of (Islam et al., 2022) on a developing country (Bangladesh) and a developed country (the United Kingdom) prove that in both countries, in the long run, monetary policy has a significant relationship with economic growth.

Nevertheless, there is stable economic growth when the money supply grows at a fixed rate, not being regulated and changed by monetary authorities. The study by (Ani & Onu, 2021), showing the effect of monetary policy on economic growth in Nigeria, proves that broad money supply positively and significantly impacts economic growth. A country may consider its financial stability by looking at macroeconomic stability, such as the money supply, interest rates and inflation. Based on (Buthelezi, 2023), the money supply has a high multiplier effect on economic growth and inflation. The study shows a decrease in economic growth for increased money supply. Along the same lines, the study of (Madurapperuma, 2023) confirms that the money supply and economic growth are disentangled, and the money supply dramatically affects economic growth. An excessive increase in the money supply can push prices above an unexpected level (high inflation) and can disrupt economic growth in the long term (Gharehgozli & Lee, 2022). The reason is that more money is chasing the same number of goods. (Retnasih & Herdianti, 2023) find that money supply significantly affects *inflation and the unemployment rate at lags 1 and 2*. Historical examples such as the US confederacy 1862-65, German Hyperinflation 1923, Zimbabwe 2008, and the US economy 2020-21 have shown an increase in inflation due to the money supply.

On the contrary, an increase in money supply does not always cause inflation (Hicham, 2020). Suppose monetary creation makes it possible

to fuel consumption or investment in a country where factors of production are underutilized. In that case, it is, in theory, not inflationary since it makes it possible to increase global demand (Nadirah et al., 2022).

Generally, the study of commerce openness on economic growth is not a new research. Despite this, there are still complex views about its influence in the existing empirical literature. (Bunje et al., 2022)), using the POLS, FE, and GMM estimation approaches to assess the effect of commerce openness on economic growth in Africa, show that commerce openness has a negative and statistical impact on economic growth, as per the fixed-effects model. Even (Tho Tran & Thi Cam Nguyen, 2018) proved in their study that the direct effect of trade openness on economic growth is negative. Unlike those assessments, when different indicators for trade are taken into account, a moderately positive impact of openness to business on growth can be raised. The empirical findings on the GMM approach of (Aremo, Adeleke Gabriel† and Arambada, 2021) disclose a positive impact of commerce openness on economic growth in the low-income countries of Sub-Saharan Africa.

Other variables, such as financial development, have been explored to detect their effect on economic growth. Through a panel ARDL model, (Abbas et al., 2022) reveal that financial development significantly contributes to lower-middle and upper-middle-income countries in the long run. The estimation by (Bist, 2018) indicates a positive and significant impact of financial development on economic growth. However, those results reveal that policymakers must further emphasize policies that provide favorable financial openness and growth environments.

In the African regions, such an investigation is large-scale with the ambition of contributing to a recent debate on central banks' monetary policy. This article will thus contribute to the literature on the role of Central Banks by constructing an indicator of Monetary Policy Credibility to assess the effects of its action on economic performance, particularly in explaining economic growth. Concretely, it's a matter to evaluate if credibility can improve the effectiveness of monetary policy.

Otherwise, the article examines whether the monetary policy of the COMESA and ECOWAS countries is credible or favorable to economic growth.

2. MONETARY POLICY CREDIBILITY MEASURES

A highly credible monetary policy reduces uncertainty surrounding monetary policy objectives (Kabundi & Mlachila, 2019). Thus, when the policy implemented by the central bank enjoys great credibility, the fluctuations recorded in inflation, interest rates, production and employment in reaction to given shocks should be less pronounced than in the opposite case. Furthermore, high credibility allows monetary authorities to better gauge the capacity of the economy to produce goods and services and generate jobs without automatically risking fueling fears of inflation. This is a significant advantage given the high uncertainty surrounding estimates of potential output and the output gap.

According to (Montes & Curi, 2017), the fight against inflation, compatibility, and pre-commitment identifies credibility in the academic literature. An indirect measure often used in the literature to assess the overall benefit of a credibility gain over periods of disinflation is the cost of lost production induced by disinflation, also called the sacrifice ratio. The latter can be measured as the cumulative difference in GDP (its level achieved compared to its potential level) compared to the inflation differential over the considered period.

(Lee & Kim, 2019) have provided an exciting alternative. These authors retain the anchoring of long-run inflation expectations as a criterion of the MPC from the point of view of its determination to achieve the price stability announced objective. They consider that long-term expectations are correctly anchored if they exhibit the following two observable characteristics: a low degree of volatility around the given level, corresponding to the official inflation target or in the middle of the target band when the Central Bank quantifies its objective, as well as a low correlation with

movements in realized inflation and short-term expectations.

Therefore, (Al-mashat et al., 2018) propose a simple measure of the monetary policy credibility in the light of a long-term interest rate transformation, which compares the current rate with its highest and lowest historical levels over the selected period. It is formally presented as follows:

$$Cr_{it} = \frac{(R_{it} - R_{i,max})^2}{(R_{it} - R_{i,max})^2 + (R_{it} - R_{i,min})^2} \quad [1]$$

Hence, for each country i at sample period t , the indicator is obtained by transforming the nominal long-term interest rate R_{it} . The minimum and maximum values $R_{i,min}$ and $R_{i,max}$ correspond to the extrema of this variable for each country throughout data availability. The justification for this approach is taken from (Goodfriend, 1993) work, according to which the variation in long-term nominal rates provides a good approximation of inflationary fears.

The underlying idea is that the yield on long-term government bonds contains an inflation premium, which can help identify periods of low, medium and high credibility. Credibility is more likely to be strong when long rates are close to their minimum and weak when they are at a historically high level. Since the nominal interest rate is composed of the real interest rate and inflation, Goodfriend assumes that a long-term variation in nominal rates is due more to the inflation variation than to the real interest rates. This strong hypothesis, which assumes that variations in inaccurate interest rates and risk premiums explain only a tiny proportion of the volatility of long-term nominal rates, is more likely for periods when the anti-inflationary commitment of monetary policy is less intense.

(Argov et al., 2007) use this formulation of the MPC by replacing the nominal long-term interest rate with the inflation rate, which approximates the previous formulation. We have the following new formulation:

$$Cr_{it} = \frac{(\pi_{i,max} - \pi_{i,t})^2}{(\pi_{i,min} - \pi_{i,t})^2 + (\pi_{i,max} - \pi_{i,t})^2}, \quad 0 \leq Cr_{it} \leq 1 \quad [2]$$

Where π_{it} represents the inflation rate of a country i at a given time t , $\pi_{i,min}$ and $\pi_{i,max}$ representing its maximum and minimum values. When the index Cr_{it} approaches 0 point, monetary policy loses credibility because the Central Bank moves away from the inflation objective or target that it had announced. Conversely, when the Cr_{it}

index approaches 1 point, monetary policy gains credibility because the central bank is getting closer to its objective or target regarding inflation.

The previous theoretical development leads us to conjecture a decreasing relationship between credibility and inflation. Proceeding to the derivative of this formulation with π_{it} , we have:

$$\begin{aligned}\frac{\delta Cr_{it}}{\delta \pi_{it}} &= \frac{-2\pi_{i,t}[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2] - [(-2\pi_{i,t} - 2\pi_{i,t})(\pi_{i,max} - \pi_{i,t})^2]}{[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2]^2} \\ &= \frac{-2\pi_{i,t}[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2] + 4\pi_{i,t}[(\pi_{i,max} - \pi_{i,t})^2]}{[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2]^2} \\ &= \frac{-2\pi_{i,t}[(\pi_{i,max} - \pi_{i,t})^2 - 2\pi_{i,t}(\pi_{i,min} - \pi_{i,t})^2 + 4\pi_{i,t}(\pi_{i,max} - \pi_{i,t})^2]}{[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2]^2} \\ \frac{\delta Cr_{it}}{\delta \pi_{it}} &= \frac{-2\pi_{i,t}[(\pi_{i,min} - \pi_{i,t})^2 + (\pi_{i,max} - \pi_{i,t})^2]}{[(\pi_{i,max} - \pi_{i,t})^2 + (\pi_{i,min} - \pi_{i,t})^2]^2}\end{aligned}$$

Note that the sign of the derivative depends on the sign of:

$$[(\pi_{i,min} - \pi_{i,t})^2 - (\pi_{i,max} - \pi_{i,t})^2];$$

If we have $[(\pi_{i,min} - \pi_{i,t})^2 - (\pi_{i,max} - \pi_{i,t})^2] > 0$ we can then conclude that $\frac{\delta Cr_{it}}{\delta \pi_{it}} < 0$ under the theoretical development underlying the formulation of credibility.

Applying equation (2), it is possible to have the values of the MPC included between 0 and 1 point, which correspond respectively to zero and perfect credibility thresholds.

3. RESEARCH METHOD

The economic growth equation is estimated by the GMM instead of traditional panel methods, such as fixed effects and random effects panel models. According to Arellano and Bond (1991)/Bundle and Bond (1998), the GMM method can circumvent the endogeneity problem. However, this method makes it possible to correct endogeneity in the weak but not in the strong

sense. Using Monte Carlo simulations, Blundell and Bond (1998) show that the System-GMM estimator performs better than the difference GMM estimator, which only uses the moment conditions of the first difference equation. We used the two-step system-GMM estimator to estimate the equation for these reasons. The two-step system GMM combines the equation in first differences with the level for each period, in which the variables are instrumented by their first differences. The determination of the GMM estimator also depends on the validity of the assumption that the error terms are not autocorrelated and the instrumental variables used are valid. To ensure compliance with these hypotheses, Blundell and Bond (1998) propose two essential tests, namely the Sargan/Hansen tests, which make it possible to analyze the model over-identification and the validity of the instruments used for the estimation, and the usual test for the absence of autocorrelation of the error terms.

The study aims to evaluate the effect of monetary policy credibility level, broad money supply, financial development, and commerce

openness on the economic growth in the selected countries of COMESA and ECOWAS regions between 2015 and 2020. COMESA countries concern Burundi, Kenya, Rwanda, Egypt, Ethiopia, Malawi, Mauritius, Tanzania, Tunisia, Uganda, and Zambia. ECOWAS include Ghana, Nigeria, Senegal, Benin, Burkina Faso, Liberia, Mali, Sierra Leone, Gambia, Ivory Coast, and Togo. A level of MPC allowing us to quantify by year and by country the MPC has been put up in the first model. The dynamic panel data model to be estimated is presented as follows:

$$GDPC_{i,t} = \theta_0 + \theta_1 GDPC_{i,t-1} + \theta_2 MPC_{i,t} + \theta_3 COP_{i,t} + \theta_4 MS_{i,t} + \theta_5 FDEV_{i,t} + \delta_i + \Delta_{it} \quad [3]$$

Where i represents each country in the panel and t the period.

As for the econometric aspects linked to the lagged dependent variable with a lag of one period $GDPC_{i,t-1}$, the analysis will send us back to studying the degree of economic convergence between the two groups. Economic convergence is a phenomenon where rich countries catch up with low-income countries due to the latter's rapid growth, thus closing their gap with more developed or prosperous countries (Lopez et al., 2021). The variable is used to observe the real convergence, which is a mechanism for rich countries to catch up with low-income countries in terms of their standard of living.

Table 1. Description of research variables

Variable	Explanation	Measure
$GDPC_{i,t}$:	Real growth rate of gross domestic product per capita	Economic growth indicator
$GDPC_{i,t-1}$:	Growth rate of lagged real GDP per capita	Lagged value for one period of the economic growth rate that serves as a proxy for initial per capita income
$MPC_{i,t}$:	Level of monetary policy credibility;	Formulated and calculated
$MS_{i,t}$:	Broad money supply (M2)	Level of liquidity of the economies
$COP_{i,t}$:	Trade openness	Ratio to GDP of the sum of exports and imports
$FDEV_{i,t}$:	Financial sector development	Credits to the private sector as a percentage of real GDP

4. RESULTS

4.1. Statistics description

Table 2 and Table 3 present descriptive statistics of COMESA's and ECOWAS's selected countries. On the GDP per capita growth rate, the chosen countries of the ECOWAS have been growing immensely, as the maximum growth rate is estimated to be 18.01% higher than those in the sample of COMESA (10.2%). The weaker growth rate is observed at a negative rate of 22.38% in the selected countries of the ECOWAS, with a negative rate growth of 14.59% in the selected countries of the COMESA. The minimum and maximum rates of the level of monetary policy credibility (MPC) are all the same in the chosen countries [0-1]. However, the average level of monetary policy credibility

for the sample of COMESA countries is 0.68%, whereas the ECOWAS sample has 0.61%. The intermediate broad money supply is higher in the selected countries of the COMESA, with 42.37% than in the selected countries of ECOWAS, with 22.05%. It has been demonstrated that the lead of monetary policy is dissimilar in those countries. On average, commerce openness and financial development are 47.03% and 15.6%, respectively. Moreover, the number of commerce openness is high in the selected countries of the COMESA (119.5%) compared to those in the selected countries of the ECOWAS (82.97%). Financial development presents a higher rate of 104.89% in the selected countries of the COMESA than that of 34.13% in the selected countries of ECOWAS.

Table 2: Descriptive statistics for selected COMESA countries

VARIABLE	Mean	Std. Dev.	Min	Max
GDP	3.9057	3.216683	-14.5974	10.29822
MPC	0.6865393	0.3731325	0	1
MS	42.37307	30.96983	15.20234	156.8433
COP	55.72759	26.6006	22.24029	119.5001
FDEV	30.35231	26.93652	6.816652	104.8942

Table 3: Descriptive statistics for selected ECOWAS countries

VARIABLE	Mean	Std. Dev.	Min	Max
GDP	1.734067	4.121484	-22.38331	18.01465
MPC	0.6139691	0.3621043	0	1
MS	33.05174	16.48109	17.52056	98.13613
COP	47.40074	12.73461	16.23662	82.9783
FDEV	17.72316	8.807437	0.0047693	34.13486

Table 4: Correlation coefficient matrix for selected ECOWAS countries

	GDP	MPC	MS	COP	FDEV
GDP	1.0000				
MPC	0.1412	1.0000			
MS	0.1103	0.1358	1.0000		
COP	0.2959	-0.0580	-0.1546	1.0000	
FDEV	0.1154	0.0532	0.4489	0.2246	1.0000

Table 5: Correlation coefficient matrix for selected COMESA countries

	GDP	MPC	MS	COP	FDEV
GDP	1.0000				
MPC	0.0389	1.0000			
MS	-0.4032	0.0014	1.0000		
COP	-0.1675	-0.1422	0.5693	1.0000	
FDEV	-0.3237	-0.0688	0.8329	0.8142	1.0000

Tables 4 and 5 present the correlation coefficients for selected countries of the COMESA and ECOWAS. Commerce openness shows a positive correlation with financial development in the COMESA-selected countries, with a value of 0.81, which is relatively high. It indicates that those countries present a suitable environment for trade that tends to develop the financial sectors. A positive correlation exists between broad money supply with financial development (0.83) and commerce openness (0.56). On the other hand, as presented in Table

4, the correlation between commerce openness and financial development is lower (0.22) in the selected countries of ECOWAS, which means that those countries present an environment that does not promote international trade. Meanwhile, the broad money supply positively correlates with financial development with a value of 0.44.

4.2. Empirical results and discussion

The two-step GMM results were carried out to examine the effect of our independent

variables (Monetary policy credibility level, growth per capita. The regression results for the broad money supply, commerce openness and COMESA and ECOWAS selected countries of financial development) on our dependent variable the two-step-GMM are reported in Table 6.

Table 6: Dynamic panel-data GMM two- steps estimation

Exogenous variables	Dynamic panel-data GMM estimation	
	(Endogenous variable)	
	Group of COMESA	Group of ECOWAS
	0.4155476*	-0.4134475*
	(0.003)	(0.016)
	1.970714**	-1.057097
	(0.011)	(0.378)
	0.0035224	0.0242961
	(0.567)	(0.762)
	0.0483946*	0.0580835**
	(0.000)	(0.081)
	-0.0657967 *	-0.0091567
	(0.000)	(0.705)
Robustness test results		
Sargan/Hansen	0.861	0.169
Arellano-Bond test:		
AR(1) p-value	0.066	0.0297
AR(2) p-value	0.957*	0.190*
No. of observation	83	96
No. groups	11	11

Note: * and**denote significance at 5%, 10%levels.

The coefficient of the lagged variable gross domestic product per capita growth is positive and significant at 5% for our two groups: 11 countries of COMESA (0.4155476) and 11 countries of ECOWAS (-0.4134475). However, these coefficients of opposite signs show that the hypothesis of real convergence between the economies of these two groups is respected. In this case, the long-term catch-up effect between the countries of our total sample, those of COMESA and those of ECOWAS, could be verified.

The credibility of the monetary policy has a significant positive impact in the COMESA zone. This implies that an increase of one additional unit of the MPC leads to an increase of 0.4155476 in GDPC times this unit in the COMESA zone. Yet, its negative coefficients show no significance in the ECOWAS zone. Nevertheless, this result goes against the hypothesis that we implied in the MPC measurement part, which assumed

that this variable would have a positive and significant effect on economic growth despite the majority of high credibility indicators, that is to say, between 0.5 points and 1 point over a long period, sign relatively good credibility in terms of price stability. These unexpected and insignificant results explain why the objectives of price stability and economic growth are opposed according to Keynesian theory; the enhancement of one leads to the decline of the other.

Consequently, instead of continuing to improve price stability, we must put this objective into perspective about the evolution of real variables in our samples, particularly economic growth, which remains insufficient. According to (King, 2022), this situation would also attest to the inadequacy of the final objective that the monetary authorities have attributed to the monetary policy with economic health. For example, in most Western African countries (ECOWAS-selected

countries), the primary mission of central banks is oriented toward the main objective of currency stability. However, even if these countries have continually emphasized the credibility factor in achieving the goal of price stability, we can affirm in our results that this final objective of monetary policy has no significant link with economic development. This seems inappropriate given that the policies implemented, including monetary policy, aim for economic growth in all worldwide economies. Therefore, a regulatory reform of the monetary policy applied to the ECOWAS countries would be plausible. It should focus firstly on consolidating the level of credibility in the development of monetary policy, a guarantee of the latter's effectiveness, and secondly, on alternating the main objective of price stability with the economic recovery objective depending on the evolution of the economic cycle.

It appears that monetary policy focused on the role played by broad money supply (MS) exerts an insignificant positive influence on economic growth in the COMESA and ECOWAS-selected countries. This result has been confirmed with those of (Omodero, 2019). Indeed, it seems that the financial system approximated by the money supply is little or not developed in the economies of those countries, hence its insignificant effect on economic growth.

Commercial openness has a positive and significant coefficient in our two groups. Trade openness has a positive effect on GDP in these groups of countries. This result, which corroborates with that of (Idan, 2023), can be explained by policies to dismantle foreign trade restrictions, which favor economic growth.

The coefficient of The financial development variable is significant but negative in the COMESA group. This variable remains negative and not crucial for the ECOWAS group. These non-significant results, therefore, agree with those of (Li & Frowne, 2020). According to the same author, the expansion of the financial sector cannot benefit growth only in the presence of sufficiently experienced supervisory authorities capable of successfully managing such development. Nevertheless, expertise within the

financial industry is acquired through learning by doing. A financial system must, therefore, promote better allocation of productive resources and be sufficiently developed to stimulate economic growth.

5. CONCLUSION

Maintaining price stability over the long run appears to be the best possible contribution of monetary policy to sustainable and non-inflationary economic growth. The study's main objective was to examine the effect of Monetary Policy Credibility on economic growth applied to the COMESA and ECOWAS sample. The methodology imposed the Monetary Policy Credibility level calculation study process based on (Argov et al., 2007). In light of the model used, the estimation of the economic growth equation emphasizes that monetary policy credibility has a negative and insignificant effect on economic activity in the ECOWAS countries, mainly due to the ineffectiveness of monetary policy transmission channels. The monetary policy transmission mechanism in the selected countries is highly uncertain, making the monetary policy conduct more difficult. Broad money supply, considered an insignificant variable in all our samples, would limit the influence of crucial rates and be at the origin of the difficulties in policy action on economic activity.

It would be particularly wise to pursue reforms aimed at improving the effectiveness of monetary policy both at the concerned central banks. Governments must then ensure they choose the appropriate monetary policy to return to growth, full employment and price stability. Consequently, to achieve this price stability objective, the central bank and its monetary policy must be credible, which refers to the notion of temporal inconsistency.

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7. REFERENCE

- Abbas, Z., Afshan, G., & Mustifa, G. (2022). The effect of financial development on economic growth and income distribution: an empirical evidence from lower-middle and upper-middle-income countries. *Development Studies Research*, 9(1), 117–128. <https://doi.org/10.1080/21665095.2022.2065325>
- Al-mashat, R., Clinton, K., Laxton, D., & Wang, H. (2018). Czech Republic: Transition to the Frontier. In *Advancing the Frontiers of Monetary Policy*.
- Ameli, N., Drummond, P., Bisaro, A., Grubb, M., & Chenet, H. (2020). Climate finance and disclosure for institutional investors: why transparency is not enough. *Climatic Change*, 160(4), 565–589. <https://doi.org/10.1007/s10584-019-02542-2>
- Ani, K. J., & Onu, C. (2021). Effect of monetary policy on economic growth in nigeria in the post structural adjustment programme. *Independent Journal of Management & Production*, 12(8), 2364–2379. <https://doi.org/10.14807/ijmp.v12i8.1483>
- Aremo, Adeleke Gabriel† and Arambada, O. D. (2021). *African Journal of Economic Review*, Volume IX, Issue I, January 2021 Effect of Trade Openness and Financial Openness on Economic Growth in Sub-Saharan African Countries. Aremo, Adeleke Gabriel † and Arambada, Oluwaseun David ‡. IX(I), 109–130.
- Argov, E., Rose, D., Karam, P. D., Epstein, N. P., & Laxton, D. (2007). Endogenous Monetary Policy Credibility in a Small Macro Model of Israel. *IMF Working Papers*, 07(207), 1. <https://doi.org/10.5089/9781451867718.001>
- Bandaogo, M. A. S. S. (2021). Why central bank independence matters. *Research & Policy Briefs*, no. 53(53).
- Bist, J. P. (2018). Financial development and economic growth: Evidence from a panel of 16 African and non-African low-income countries. *Cogent Economics and Finance*, 6(1). <https://doi.org/10.1080/23322039.2018.1449780>
- Bunje, M. Y., Abendin, S., & Wang, Y. (2022). The Effects of Trade Openness on Economic Growth in Africa. *Open Journal of Business and Management*, 10(02), 614–642. <https://doi.org/10.4236/ojbm.2022.102035>
- Buthelezi, E. M. (2023). Impact of Money Supply in Different States of Inflation and Economic Growth in South Africa. *Economies*, 11(2). <https://doi.org/10.3390/economies11020064>
- Chaparro Guevara, G., & Escot, L. (2021). Monetary policy rules: An approach based on the theory of chaos control. *Results in Control and Optimization*, 4(July), 100038. <https://doi.org/10.1016/j.rico.2021.100038>
- Chen, H., Chow, K., & Tillmann, P. (2017). The effectiveness of monetary policy in China: Evidence from a Qual VAR. *China Economic Review*, 43, 216–231. <https://doi.org/10.1016/j.chieco.2017.02.006>
- Coenen, G., Ehrmann, M., Gaballo, G., Hoffmann, P., Nakov, A., & Nardelli, S. (2017). *Working Paper Series unconventional times*. 2080.
- Dawood, T. C. (2019). Foreign Interest Rate, Monetary Policy and Bank Credit. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, 19(2). <https://doi.org/10.23917/jep.v19i2.5244>
- Della Posta, P., & Morroni, M. (2022). The credibility of monetary policy and the fiscal response to the pandemic in the Eurozone. *Evolutionary and Institutional Economics Review*, 19(1), 77–96. <https://doi.org/10.1007/s40844-021-00226-0>
- Gharehgozli, O., & Lee, S. (2022). Money Supply and Inflation after COVID-19. *Economies*, 10(5), 1–14. <https://doi.org/10.3390/economies10050101>
- Goodfriend, M. (1993). Interest Rate Policy and the Inflation Scare Problem: 1979–1992. *Federal Reserve Bank of Richmond Economic Quarterly*, 79(1), 1–24.
- Harjes, T., Hofman, D., Nier, E., & Olafsson, T.

- (2020). Monetary and Financial Policy Responses for Emerging Market and Developing Economies. *International Monetary Fund*, 1–5.
- Hicham, A. (2020). Money Supply, Inflation and Economic Growth: Co-Integration and Causality Analysis. *Studia Universitatis Babes-Bolyai Oeconomica*, 65(2), 29–45. <https://doi.org/10.2478/subboec-2020-0008>
- Idan, A. M. (2023). the Role of Exports, Development, Imports, and Trade Openness on the Economic Growth in Iraq: Assessment Using the Ardl Cointegration Method. *International Journal of Economics and Finance Studies*, 15(1), 80–100. <https://doi.org/10.34109/ijefs.202315106>
- Islam, Md. S., Hossain, Md. E., Chakroborty, S., & Ema, N. S. (2022). Does the monetary policy have any short-run and long-run effect on economic growth? A developing and a developed country perspective. *Asian Journal of Economics and Banking*, 6(1), 26–49. <https://doi.org/10.1108/ajeb-02-2021-0014>
- Kabundi, A., & Mlachila, M. (2019). The role of monetary policy credibility in explaining the decline in exchange rate pass-through in South Africa. *Economic Modelling*, 79(June 2018), 173–185. <https://doi.org/10.1016/j.econmod.2018.10.010>
- King, M. (2022). Monetary policy in a world of radical uncertainty. *Economic Affairs*, 42(1), 2–12. <https://doi.org/10.1111/ecaf.12513>
- Lee, S., & Kim, Y. M. (2019). Inflation expectation, monetary policy credibility, and exchange rates. *Finance Research Letters*, 31(September 2018), 405–409. <https://doi.org/10.1016/j.frl.2018.12.006>
- Li, F., & Frowne, D. I. (2020). Financial development, institutional quality and economic growth: Evidence from ECOWAS countries. *Organizations and Markets in Emerging Economies*, 11(1), 6–17. <https://doi.org/10.15388/omee.2020.11.20>
- Lopez, A., Lucas, S. De, & Delgado, M. J. (2021). Economic convergence in a globalized world: The role of business cycle synchronization. *PLoS ONE*, 16(10 October), 1–20. <https://doi.org/10.1371/journal.pone.0256182>
- Madurapperuma, W. (2023). Money supply, inflation and economic growth of Sri Lanka: co-integration and causality analysis. *Journal of Money and Business*. <https://doi.org/10.1108/jmb-08-2022-0039>
- Montes, G. C., & Curi, A. (2017). The importance of credibility for the conduct of monetary policy and inflation control: theoretical model and empirical analysis for Brazil under inflation targeting. *Planejamento e Políticas Públicas*, 46, 13–37.
- Motie, G. B., & Hall, J. C. (2020). *The Effect of Transparency, Independence and Accountability of Central Banks on Disinflation Costs*.
- Nadirah, F., Manan, A., Albasri, S. H., Shahariza, N., & Hassan, A. (2022). The Effect of Money Creation in Increasing Demand and Generating the Economy. *International Journal of Advanced Research in Economics and Finance*, 4(1), 61–67. <https://doi.org/10.55057/ijaref.2022.4.1.7>
- Omodero, C. O. (2019). Effect of Money Supply on Economic Growth: A Comparative Study of Nigeria and Ghana. *International Journal of Social Science Studies*, 7(3), 16. <https://doi.org/10.11114/ijsss.v7i3.4137>
- Retnasih, N. R., & Herdianti, Y. M. (2023). Pandemic Shock and Economic Variables Responses in ASEAN Countries Using Panel Vector Autoregressive Model. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, 24(1), 95–111. <https://doi.org/10.23917/jep.v24i1.19850>
- Ruppel, C., Stranzl, J., & Einwiller, S. (2022). Employee-centric perspective on organizational crisis: how organizational transparency and support help to mitigate employees' uncertainty, negative emotions and job disengagement. *Corporate*

Communications, 27(5), 1–22. <https://doi.org/10.1108/CCIJ-04-2022-0045>

- Savolchuk, K., & Grujić, A. (2022). *Endogenous Monetary Policy Credibility in Ukraine*.
- Tan, C. T., Mohamed, A., Habibullah, M. S., & Chin, L. (2020). The Impacts of Monetary and Fiscal Policies on Economic Growth in Malaysia, Singapore and Thailand. *South Asian Journal of Macroeconomics and Public Finance*, 9(1), 114–130. <https://doi.org/10.1177/2277978720906066>
- Taylor, J. B. (1993). Discretion versus policy rules in practice. In *Carnegie-Rochester Conference Series on Public Policy* (Vol. 39, Issue C, pp. 195–214). [https://doi.org/10.1016/0167-2231\(93\)90009-L](https://doi.org/10.1016/0167-2231(93)90009-L)
- Tho Tran, D., & Thi Cam Nguyen, V. (2018). Impact of Globalization on Economic Growth in Vietnam: An Empirical Analysis. *Journal of Economics and Development*, 8(3), 32–47. <https://doi.org/10.33301/jed-p-2018-20-01-02>
- Twinoburyo, E. N., & Odhiambo, N. M. (2018). Monetary policy and economic growth: A review of international literature. *Journal of Central Banking Theory and Practice*, 7(2), 123–137. <https://doi.org/10.2478/jcbtp-2018-0015>
- Vasicek, O., Uhrova, N., Janickova, L. D., Wroblowsky, T., & Navratil, B. (2023). *Central Bank Independence : Where Do We Stand ?* 1–15.