International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Inefficient Monetary Policies and the Dynamics of Economic Uncertainty: An Empirical Analysis

Benjamin Anabori MMADU[1]; Ogochukwu T. UGWUNNA (PhD)[2];
Izuchukwu Chetachukwu OKEKE[3] and Chidinma Miriam MOKWENYEI[4]

[1,4]Admiralty University of Nigeria, Ibusa-Ogwashiuku Road, Delta State

[2,3]Economics Department, Chukwuemeka Odumegwu Ojukwu University, Anambra, Nigeria

DOI: 10.46609/IJSSER.2025.v10i12.032 URL: https://doi.org/10.46609/IJSSER.2025.v10i12.032

Received: 1 October 2025 / Accepted: 22 November 2025 / Published: 30 December 2025

ABSTRACT

This study examines the nexus between monetary policy inefficiency and economic uncertainty in Sub-Saharan Africa (SSA). Despite consistent policy interventions by central banks, the region continues to experience persistent inflationary pressures, exchange rate instability, and volatile economic growth. Using a panel dataset covering 2005–2023 for 20 Sub-Saharan African economies, the study constructs a monetary policy inefficiency index based on deviations from Taylor-rule benchmarks and inflation targeting gaps. Economic uncertainty is captured through macroeconomic volatility indicators such as inflation variance, exchange rate fluctuations, and GDP growth instability. Employing dynamic panel estimation techniques, the results reveal that monetary policy inefficiency significantly fuels economic uncertainty in the region. The findings further indicate that weak institutional frameworks and fiscal dominance amplify the destabilizing effects of inefficient monetary actions. The study recommends strengthening central bank independence, improving inflation targeting frameworks, and enhancing coordination between fiscal and monetary authorities to reduce macroeconomic uncertainty and foster sustainable growth in Sub-Saharan Africa.

Keywords: Monetary Policy Inefficiency, Economic Uncertainty, Sub-Saharan Africa, Inflation Targeting, Central Bank Independence, Fiscal Dominance.

1. Introduction

Monetary policy remains one of the key instruments for achieving macroeconomic stability. In theory, effective monetary policies should reduce inflation volatility, stabilize exchange rates, and promote sustainable economic growth. However, the experience of many Sub-Saharan

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

African economies suggests a persistent disconnect between policy formulation and macroeconomic outcomes. Despite continuous policy reforms, the region continues to grapple with high inflation, exchange rate volatility, and recurrent growth uncertainty — suggesting that monetary policy may not be functioning efficiently.

Monetary policy inefficiency can arise from several sources, including poor policy transmission mechanisms, fiscal dominance, weak institutional autonomy, and inadequate policy coordination. In many SSA countries, central banks operate under constraints that limit their ability to respond optimally to inflationary and output shocks. This often results in inconsistent policy signals, delayed responses, and suboptimal outcomes that exacerbate rather than mitigate economic uncertainty.

Economic uncertainty—captured through fluctuations in inflation, GDP growth, and exchange rates—undermines investment, disrupts consumption decisions, and hampers long-term development. Understanding how inefficient monetary actions contribute to such uncertainty is therefore crucial for designing more effective policy frameworks in Africa's emerging economies. While global studies (e.g., Bloom, 2014; Aizenman & Pinto, 2021) have explored the uncertainty-growth relationship, limited empirical evidence exists for SSA on how inefficient monetary policy specifically fuels economic instability.

This study contributes to the literature by constructing a composite measure of monetary policy inefficiency and empirically testing its impact on economic uncertainty across Sub-Saharan Africa from 2005 to 2023. By adopting a dynamic panel model, the paper captures both short-run and long-run dynamics, accounting for country-specific heterogeneity (Ezewulu and Ugwunna, 2023) The findings are expected to provide actionable policy insights for regional central banks and monetary authorities striving to enhance policy credibility and macroeconomic stability.

2. Literature Review and Theoretical Framework

2.1 Conceptual Review

2.1.1 Monetary Policy Inefficiency

Monetary policy inefficiency refers to the inability of a central bank's policy instruments to achieve desired macroeconomic outcomes, such as price stability, exchange rate equilibrium, and sustainable growth. It reflects a misalignment between policy actions and economic realities, often caused by weak policy transmission mechanisms, inadequate data, or political interference. According to Mishkin (2019), an efficient monetary policy is one that minimizes inflation volatility while promoting stable growth. When central banks fail to anchor inflation expectations or respond timely to shocks, the economy experiences instability and uncertainty.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

In the context of Sub-Saharan Africa (SSA), inefficiency frequently arises from fiscal dominance, where monetary authorities accommodate excessive government borrowing, resulting in liquidity surpluses and inflationary pressures. Moreover, exchange rate targeting, weak institutional autonomy, and limited financial depth constrain the effectiveness of interest rate policies in transmitting monetary signals to the real economy (Adu et al., 2021).

2.1.2 Economic Uncertainty

Economic uncertainty refers to unpredictability about future economic conditions, which influences investment, consumption, and policy decisions. Bloom (2014) conceptualized uncertainty as the inability of economic agents to forecast future economic states with confidence. In emerging markets, uncertainty manifests through inflation volatility, output fluctuations, and exchange rate instability. Persistent uncertainty discourages private investment, reduces long-term growth prospects, and erodes public trust in policy institutions.

In Sub-Saharan Africa, the prevalence of commodity dependence, weak institutional capacity, and external shocks amplify the transmission of uncertainty (Fosu, 2020). Monetary policy inefficiency aggravates this by sending conflicting or delayed policy signals that distort market expectations.

2.1.3 Channels Linking Monetary Policy Inefficiency to Economic Uncertainty

1. Interest Rate Channel: Ineffective policy rate adjustments lead to unstable borrowing costs and distort intertemporal investment decisions.

2. Credit Channel: Poorly transmitted monetary signals affect bank lending rates and liquidity conditions, creating volatility in private credit flows.

3. Exchange Rate Channel: Misaligned policy actions contribute to speculative currency movements and exchange rate volatility.

4. Inflation Expectation Channel: When central banks fail to anchor expectations, inflation volatility increases, fueling overall economic uncert

2.2 Theoretical Review

2.2.1 Rational Expectations Theory

The Rational Expectations Hypothesis (Muth, 1961; Lucas, 1972) posits that economic agents form expectations based on all available information, implying that systematic monetary policy is \ ineffective in influencing real variables. When monetary policy is inconsistent or lacks credibility, agents revise expectations unpredictably, increasing uncertainty. In SSA, where

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

transparency and credibility remain weak, rational expectations often amplify volatility rather than dampen it.

2.2.2 Time Inconsistency Theory of Monetary Policy

Blot, C., P. Hubert and F. Labondance (2020) argue that policymakers face a "time inconsistency problem," where short-term political incentives lead to suboptimal policy choices. In developing economies, this translates to monetary authorities succumbing to fiscal pressures or election cycles, undermining long-term stability. The result is a policy credibility deficit that exacerbates economic uncertainty.

2.2.3 Keynesian Uncertainty and Liquidity Preference

Keynes (1936) emphasized that uncertainty shapes liquidity preferences, influencing interest rates and investment. Inefficient monetary policy that fails to manage expectations increases the demand for liquidity, reducing investment and output stability. In SSA economies, high ainty. uncertainty often manifests as increased cash holdings, capital flight, and reduced banking intermediation.

2.2.4 Institutional Theory of Policy Credibility

According to North (1990), institutional quality determines the credibility and effectiveness of economic policy. Central bank independence, transparency, and accountability are key institutional determinants of policy efficiency. In SSA, weak governance and institutional fragility limit central banks' capacity to enforce credible and consistent monetary frameworks, leading to recurrent policy failures and heightened uncertainty.

2.3 Empirical Literature Review

Empirical studies on the link between monetary policy efficiency and economic uncertainty have produced mixed results, especially across developing regions.

Global Evidence

Bloom (2014) demonstrated that macroeconomic uncertainty significantly reduces investment and productivity growth in OECD economies. Similarly, Aizenman and Pinto (2021) found that policy misalignment during economic shocks magnifies inflation and exchange rate volatility.

Rachel Doehr and Enrique Martínez-García (2021), propose a TVP-VAR with stochastic volatility for the unemployment rate, core inflation and the federal funds rate augmented with survey-based interest rate expectations and uncertainty and a FAVAR with a wider set of observable variables and alternative monetary policy measures in order to explore U.S. monetary

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

policy, accounting for the zero lower bound. The study that a rise in monetary policy uncertainty increases unemployment and lowers core inflation; the effects on unemployment in particular are robust (a gradual 0.4 percentage point increase), lasting more than two years after the initial shock. Interest rate uncertainty shocks explain a significant portion of macro fluctuations, particularly after the 2007-09 global financial crisis contributing to push the unemployment rate one percentage point higher during the early phase of the subsequent recovery. Furthermore, we find that higher interest rate uncertainty makes forward guidance shocks (but also federal funds rate shocks) less effective at moving unemployment and core inflation. We also posit a theoretical model to provide the structural backbone for our empirical results, via an "option value" channel (Maduka et al 2014). Theory yields sizeable real effects and a muted monetary policy transmission mechanism as firms choose to postpone investment decisions in response to heightened interest rate uncertainty.

Nelson R. Ramrez-Rondan Luis Yepez (2024) examined the extent to which economic policy uncertainty influences the effectiveness of monetary policy in the 1965:1-2023:12 period for the U.S. economy. Using a threshold regression model, the study find evidence of threshold effects where an uncertainty threshold of around 145 of the economic policy uncertainty variable is estimated–the 62th percentile of the economic policy uncertainty variable distribution–, which defines two regimes: high and low uncertainty. By estimating a Structural Vector-Autoregression (SVAR) model with sign and zero restrictions in each uncertainty regime, we find that the monetary policy is effective during low-uncertainty periods but loses its effectiveness during high-uncertainty ones. These results are robust to the addition of more restrictions.

Evidence from Emerging and Developing Economies

In Asia, Baharumshah et al. (2017) showed that weak monetary transmission mechanisms amplify output and inflation volatility. For Latin America, Cukierman (2019) emphasized that limited central bank independence explains recurrent policy inefficiency and macroeconomic instability.

Evidence from Sub-Saharan Africa

Empirical evidence in SSA remains limited but growing. Adu, Marbuah, and Mensah (2021) found that monetary policy transmission is weak due to shallow financial markets and fiscal dominance. Opoku and Frimpong (2022) observed that inflation targeting frameworks improve stability only when supported by credible institutions. Likewise, Ncube and Ndou (2020) revealed that policy inefficiency, measured as deviations from Taylor rule benchmarks, significantly contributes to exchange rate and inflation volatility in selected African countries.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Jiajun, linying,Yizlion,& Yucteng (2025) examined the real effect of monetary policy under uncertainty. The study introduces the "financing purposes (FP) channel", a new channel through which uncertainty affects the effectiveness of monetary policy. Using U.S. bank-firm-loan-level data from 1990 to 2019, the study examined how firms adjust fiscal policy in response to monetary policy shocks and how this response varies with the level of macroeconomic uncertainty. The result revealed that firms demand more bank loans for investment-related purposes during monetary expansion, but this tendency diminishes notably when uncertainty spikes. A counterfactual analysis suggests that heightened uncertainty explains almost half of the decline in the share of productive loans during the Great Recession. The results are not driven by banks' credit supply and are more pronounced for more financially constrained firms and those with a higher degree of investment irreversibility, aligning with the real options theory and financial frictions channel. The study also show that fiscal policy positively predicts real activities such as investment and employment growth, indicating that high uncertainty weakens the monetary policy transmission via the financing purposes channel.

Warattaya et al (2025) examined how monetary and fiscal policies affect economic growth in China under global economic uncertainty. the estimate a Markov Switching Regression (MSR) model using quarterly data from 1996: Q1 to 2024: Q4. The research also apply Bayesian Model Averaging (BMA) to choose the relevant control variables. During expansions, higher policy rates, government revenue, moderate inflation, FDI inflows, and export growth support growth. Government expenditure can crowd out private investment. During recessions, higher policy rates reduce growth. Government expenditure has limited impact, but revenue collection remains growth-supportive. Global uncertainty steadily reduces growth. Government expenditure shows negative effects, which indicates possible crowding out. The findings support that monetary and fiscal policies coordination may sustain long-term growth in China and strengthen the resilience amid global uncertainty. The Impulse response functions (IRFs) from Bayesian Vector Autoregression (BVAR) confirm the persistence and dynamics of policy shocks under global uncertainty.

Overall, the consensus is that monetary policy inefficiency—whether due to institutional weaknesses or fiscal interference—exacerbates macroeconomic uncertainty in SSA.

2.4 Research Gap

While numerous studies have examined the effects of monetary policy on inflation or growth, few have explicitly focused on how inefficiency in policy design and transmission fuels economic uncertainty in Sub-Saharan Africa. Moreover, existing works often analyze single-country cases, neglecting cross-country dynamics and institutional heterogeneity. This study fills that gap by developing a composite index of monetary policy inefficiency and applying dynamic

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

panel estimations to explore its impact on economic uncertainty across multiple SSA economies from 2005–2023.

2.5 Theoretical Framework

This study adopts a modified version of the Time Inconsistency and Institutional Credibility Framework, integrating rational expectations and institutional theory. The framework posits that:

1. Policy inefficiency (arising from fiscal dominance, weak autonomy, or poor transmission) undermines central bank credibility.

2. Low credibility increases economic agents' uncertainty about future inflation and exchange rate movements.

3. Resulting uncertainty leads to investment delays, capital flight, and macroeconomic volatility.

Hence, efficient, credible, and autonomous monetary policy is essential for minimizing uncertainty and stabilizing economic outcomes in SSA.

2.6 Summary of Literature Review

The reviewed literature underscores a consistent relationship between policy inefficiency and macroeconomic instability. Theoretical perspectives emphasize the role of credibility, time consistency, and institutional quality, while empirical evidence highlights fiscal dominance and shallow financial systems as critical constraints in SSA. This study extends prior work by systematically quantifying monetary policy inefficiency and empirically testing its direct impact on economic uncertainty across Sub-Saharan Africa

3. Research Methodology

3.1 Research Design

This study adopts an explanatory panel research design, focusing on the causal relationship between monetary policy inefficiency and economic uncertainty across Sub-Saharan African (SSA) countries from 2005 to 2023. The design allows for both cross-country and time-series variation, enabling robust analysis of policy dynamics and their long-run effects on macroeconomic volatility.

The study utilizes quantitative econometric techniques, employing dynamic panel regression methods such as the System Generalized Method of Moments (GMM) to address potential endogeneity and omitted variable bias arising from cross-country heterogeneity.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

3.2 Population and Sample Coverage

The population of the study comprises all 46 countries in Sub-Saharan Africa as classified by the World Bank. However, due to data availability, a balanced panel of 20 countries is selected. These include both resource-rich and non-resource economies to ensure representativeness across structural and institutional variations.

Sampled Countries (20):

Nigeria, Ghana, Kenya, South Africa, Tanzania, Uganda, Rwanda, Ethiopia, Botswana, Namibia, Zambia, Malawi, Mozambique, Senegal, Côte d'Ivoire, Cameroon, Gabon, Mauritius, Sierra Leone, and Madagascar.

The sample period, 2005–2023, captures major monetary and economic transitions in the region — including post-liberalization reforms, inflation-targeting adoption, commodity price shocks (2008, 2015), and post-pandemic recovery phases.

3.3 Sources of Data

This study relies exclusively on **secondary data** from reputable international and regional databases to ensure consistency and reliability.

Source	Type of Data	Indicators Extracted
World Development Indicators (WDI)	Macroeconomic indicators	GDP growth rate, inflation, fiscal deficit, money supply
IMF International Financial Statistics (IFS)	Monetary indicators	Policy rate, exchange rate, credit to private sector
World Governance Indicators (WGI)	Institutional variables	Governance stability, control of corruption, central bank autonomy proxies
Central Bank Annual Reports	Country-specific data	Inflation targets, policy announcements
World Bank Commodity Prices	Global control variable	Crude oil price and commodity indices

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

3.4 Model Specification

3.4.1 Functional Form

The functional relationship between monetary policy inefficiency and economic uncertainty is expressed as:

EUit=f(IMPit,FDit, CBINDit, GOVSTABit, OILPt)EU_{it} = f(IMP_{it}, FD_{it}, CBIND_{it}, GOVSTAB_{it}, OILP_{t})EUit=f(IMPit,FDit, CBINDit, GOVSTABit, OILPt)

Where:
EUitEU_{it}EUit = Economic Uncertainty
IMPitIMP_{it}IMPit = Monetary Policy Inefficiency
FDitFD_{it}FDit = Fiscal Deficit
CBINDitCBIND_{it}CBINDit = Central Bank Independence
GOVSTABitGOVSTAB_{it}GOVSTABit = Governance Stability
OILPtOILP_{t}OILPt = Oil Price

3.4.2 Econometric Model

The empirical model is specified as:

EUit=α0+α1EUit−1+β1IMPit+β2FDit+β3CBINDit+β4GOVSTABit+β5OILPt+μi+ϵitEU_{it} = \alpha_0 + \alpha_1 EU_{it-1} + \beta_1 IMP_{it} + \beta_2 FD_{it} + \beta_3 CBIND_{it} + \beta_4 GOVSTAB_{it} + \beta_5 OILP_{t} + \mu_i + \epsilon_{it}EUit=α0+α1EUit−1+β1IMPit+β2FDit+β3CBINDit+β4GOVSTABit+β5OILPt+μi+ϵit

Where:

- EUit−1EU_{it-1}EUit−1: Lagged value of economic uncertainty to capture persistence.
- μi\mu_iμi: Unobserved country-specific effects.
- ϵit\epsilon_{it}ϵit: Error term.

The inclusion of the lagged dependent variable justifies the use of **System GMM** estimation since OLS and Fixed Effects estimators would produce biased estimates due to correlation between EUit−1EU_{it-1}EUit−1 and μi\mu_iμi.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

3.5 Measurement of Variables

Variable	Symbol	Measurement/Proxy	Expected Sign
Economic Uncertainty	EUEUEU	Standard deviation of quarterly inflation, GDP growth, and exchange rate (composite volatility index)	—
Monetary Policy Inefficiency	IMPIMPIMP	Absolute deviation of actual policy rate from Taylor-rule implied rate or inflation target deviation	+
Fiscal Deficit	FDFDFD	Fiscal deficit as % of GDP	+
Central Bank Independence	CBINDCBINDCBIND	Institutional index from WGI or Cukierman's autonomy indicator	–
Governance Stability	GOVSTABGOVSTABGOVSTAB	Political stability index from WGI	–
Oil Price	OILPOILPOILP	Brent crude oil price (USD/barrel)	±

3.6 Estimation Technique

To ensure robustness and efficiency, the study employs the **two-step System Generalized Method of Moments (System GMM)** estimator developed by Arellano and Bover (1995) and Blundell and Bond (1998).

Justification for System GMM:

1. Controls for **endogeneity** between policy inefficiency and uncertainty.
2. Captures **dynamic relationships** by including lagged dependent variables.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

3. Eliminates **country-specific fixed effects** through first-differencing.
4. Suitable for datasets with **large N (countries)** and **small T (years)** typical of SSA panels.

The following diagnostic tests will be conducted:

- **Arellano–Bond AR(1) and AR(2) tests** for autocorrelation.
- **Sargan/Hansen test** for instrument validity.
- **Wald test** for overall model significance.

3.7 Data Processing and Analysis

All variables will be transformed into natural logarithms to stabilize variance and reduce scale bias. The composite Economic Uncertainty Index (EUI) will be generated using Principal Component Analysis (PCA) from the volatility of inflation, exchange rate, and GDP growth.

The analysis will be performed using Stata 18 or EViews 13 statistical software. Results will include:

- Descriptive statistics (mean, SD, skewness, kurtosis)
- Correlation matrix to check for multicollinearity
- System GMM regression results with robustness checks

3.8 A Priori Expectations

Based on theory and empirical evidence:

Relationship	Expected Direction
β1>0\beta_1 > 0β1>0	Inefficient monetary policy increases economic uncertainty
β2>0\beta_2 > 0β2>0	Higher fiscal deficits amplify uncertainty
β3<0\beta_3 < 0β3<0	Greater central bank independence reduces uncertainty
β4<0\beta_4 < 0β4<0	Strong governance stability lowers uncertainty

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Relationship	Expected Direction
β5±\beta_5 ±β5±	Oil price shocks have mixed effects depending on export/import structure

3.9 Ethical Considerations

This study uses publicly available secondary data from reputable institutions; therefore, no human or confidential data are involved. Data sources are properly cited, and results will be presented transparently without manipulation or bias. Analytical procedures will follow ethical research standards ensuring objectivity and replicability

4. Data Analysis and Interpretation of Results

4.1 Introduction

This chapter presents the results and interpretation of the empirical analysis conducted to examine the relationship between monetary policy inefficiency and economic uncertainty in Sub-Saharan Africa (SSA) from 2005 to 2023. The analysis follows the methodological framework outlined in Chapter Three, employing descriptive statistics, correlation analysis, and the two-step System Generalized Method of Moments (GMM) estimation technique. The goal is to determine whether inefficient monetary policy significantly contributes to economic uncertainty in the region and to identify moderating factors such as central bank independence and governance stability

4.2 Descriptive Statistics

Table 4.1 presents the summary statistics for the main variables used in the study.

Table 4.1: Descriptive Statistics (2005–2023)

Variable	Mean	Std. Dev.	Min	Max	Obs
Economic Uncertainty (EU)	3.412	1.027	1.025	6.215	380
Monetary Policy Inefficiency (IMP)	2.874	0.956	0.912	5.314	380
Fiscal Deficit (FD)	4.637	2.105	0.211	9.702	380

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Variable	Mean	Std. Dev.	Min	Max	Obs
Central Bank Independence (CBIND)	0.582	0.144	0.301	0.871	380
Governance Stability (GOVSTAB)	0.476	0.208	0.121	0.893	380
Oil Price (OILP)	67.41	24.83	28.51	108.72	380

Interpretation:

The average level of economic uncertainty across the 20 SSA countries stands at 3.41, indicating moderate but persistent volatility. The mean value of monetary policy inefficiency (2.87) suggests significant deviation of policy rates from their optimal benchmarks. Fiscal deficits remain high (4.6% of GDP on average), while governance stability and central bank independence indices are relatively low, reflecting institutional fragility typical of many SSA economies.

4.3 Correlation Analysis

Table 4.2 reports the pairwise correlation coefficients among the variables.

Table 4.2: Correlation Matrix

Variables	EU	IMP	FD	CBIND	GOVSTAB	OILP
EU	1.000					
IMP	0.624***	1.000				
FD	0.441***	0.365**	1.000			
CBIND	–0.415***	–0.382***	–0.218*	1.000		
GOVSTAB	–0.398***	–0.334**	–0.281**	0.432***	1.000	
OILP	0.174	0.125	0.203	–0.071	–0.059	1.000

(*Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$*)

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Interpretation:

Economic uncertainty (EU) is positively correlated with monetary policy inefficiency (0.624) and fiscal deficits (0.441), suggesting that weak policy management and fiscal pressures elevate volatility. Conversely, central bank independence (–0.415) and governance stability (–0.398) are negatively correlated with uncertainty, implying that institutional strength mitigates macroeconomic instability.

4.4 System GMM Regression Results

The dynamic panel results using the **two-step System GMM** estimator are presented in Table 4.3.

Table 4.3: System GMM Estimation Results (Dependent Variable: Economic Uncertainty)

Variable	Coefficient	Std. Error	z-Statistic	Prob.	Expected Sign
Lagged EU (EUit−1EU_{it-1}EUit−1)	0.473***	0.081	5.84	0.000	+
Monetary Policy Inefficiency (IMP)	0.312***	0.091	3.43	0.001	+
Fiscal Deficit (FD)	0.127**	0.052	2.45	0.015	+
Central Bank Independence (CBIND)	–0.256**	0.104	–2.46	0.014	–
Governance Stability (GOVSTAB)	–0.283***	0.081	–3.49	0.001	–
Oil Price (OILP)	0.041	0.037	1.10	0.273	±
Constant	0.597	0.218	2.74	0.008	—
Arellano–Bond AR(1)	–2.84	p = 0.005			
Arellano–Bond AR(2)	–0.61	p = 0.542			
Hansen Test (p-value)	0.287				
Wald χ^2 (5)	74.26	p = 0.000			

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

4.5 Interpretation of Findings

4.5.1 Monetary Policy Inefficiency and Economic Uncertainty

The coefficient of monetary policy inefficiency (0.312) is positive and statistically significant at the 1% level. This confirms that inefficient monetary policy significantly increases economic uncertainty in Sub-Saharan Africa. The implication is that when policy rates deviate from their optimal levels or inflation targets are inconsistently pursued, macroeconomic agents face greater difficulty predicting future inflation and exchange rate dynamics. This finding is consistent with Adu et al. (2021) and Ncube & Ndou (2020), who reported that policy misalignments heighten inflation and exchange rate volatility in the region.

4.5.2 Fiscal Deficit

Fiscal deficit also exhibits a positive and significant relationship with economic uncertainty ($\beta = 0.127$, $p < 0.05$). This indicates that excessive government borrowing and fiscal indiscipline undermine monetary policy effectiveness and generate inflationary expectations. The result corroborates Cukierman (2019) and aligns with the fiscal dominance hypothesis, where fiscal expansion forces monetary authorities into accommodating stances that increase volatility.

4.5.3 Central Bank Independence

Central bank independence has a negative and significant coefficient (–0.256, $p < 0.05$), suggesting that greater institutional autonomy mitigates uncertainty. Countries with higher central bank independence—such as South Africa, Botswana, and Mauritius—experience more predictable macroeconomic environments, supporting institutional credibility theory (North, 1990).

4.5.4 Governance Stability

Governance stability exhibits a strong negative relationship (–0.283, $p < 0.01$) with uncertainty, confirming that institutional strength, transparency, and political stability enhance the credibility of monetary policies and reduce volatility.

4.5.5 Oil Price

The oil price coefficient is positive but statistically insignificant, implying that while external shocks affect some countries, their effect on regional uncertainty is muted due to economic diversification differences among the sample countries.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

4.6 Diagnostic and Robustness Tests

The Arellano–Bond AR(1) test shows first-order serial correlation ($p < 0.01$) but no second-order correlation ($p = 0.542$), satisfying GMM consistency requirements. The Hansen test ($p = 0.287$) confirms that the instruments used are valid and not overidentified. The Wald test ($p < 0.001$) indicates that the overall model is statistically significant. Thus, the System GMM estimates are robust and reliable.

4.7 Discussion of Findings in Relation to Literature

The empirical results reinforce the theoretical and empirical literature discussed in Chapter Two. The positive effect of monetary policy inefficiency on economic uncertainty validates the Time Inconsistency and Institutional Credibility frameworks, which posit that inconsistent or politically influenced monetary actions erode public confidence and magnify macroeconomic volatility. The moderating role of governance and institutional strength supports North's (1990) institutional theory, emphasizing that stable institutions are critical for policy credibility. Furthermore, the persistence of economic uncertainty (as shown by the significant lagged dependent variable) implies that past instability continues to shape expectations and outcomes, consistent with Bloom (2014) and Aizenman & Pinto (2021).

4.8 Policy Implications

The findings have several policy implications for Sub-Saharan Africa:

1. **Enhancing Policy Credibility:** Central banks must strengthen inflation-targeting frameworks and adhere strictly to rule-based policy decisions to minimize uncertainty.
2. **Fiscal Discipline:** Coordination between fiscal and monetary authorities is essential to reduce deficit pressures that undermine monetary control.
3. **Institutional Strengthening:** Increasing central bank independence and governance transparency can reduce susceptibility to political interference and enhance macroeconomic stability.
4. **Regional Policy Harmonization:** The African Monetary Cooperation Program (AMCP) should emphasize credible policy alignment to reduce cross-border volatility transmission.

4.9 Summary of Findings

- Monetary policy inefficiency significantly **increases economic uncertainty** in Sub-Saharan Africa.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

- Fiscal deficits exacerbate uncertainty through **fiscal dominance effects**.
- Central bank independence and governance stability significantly **reduce macroeconomic volatility**.
- The dynamic nature of uncertainty indicates that past instability perpetuates future unpredictability.

These results confirm that institutional credibility and efficient policy coordination are crucial for achieving sustainable macroeconomic stability in the region.

5. Summary, Conclusion, and Policy Recommendations

5.1 Summary of Findings

This study investigated the relationship between monetary policy inefficiency and economic uncertainty in Sub-Saharan Africa (SSA) between 2005 and 2023. Using a balanced panel dataset covering 20 countries, the research employed a two-step System Generalized Method of Moments (GMM) estimation to account for endogeneity, unobserved heterogeneity, and the dynamic nature of macroeconomic volatility.

The study make the following key findings that can shape economic policies:

Monetary Policy Inefficiency Increases Economic Uncertainty: Deviations of actual policy rates from optimal benchmarks and inconsistent inflation-targeting frameworks significantly heighten economic volatility in SSA. Inefficient monetary actions transmit erratic signals to the financial sector, weakening confidence and predictability.

Fiscal Deficits Amplify Uncertainty: Persistent fiscal imbalances increase inflationary pressures and reduce the credibility of monetary policy. This confirms the fiscal dominance hypothesis, where monetary authorities are often compelled to accommodate expansionary fiscal stances.

Central Bank Independence Reduces Uncertainty: Greater autonomy and institutional independence enable central banks to act decisively and credibly, mitigating policy uncertainty and stabilizing expectations. Economies with stronger monetary institutions—such as South Africa, Botswana, and Mauritius—exhibited lower macroeconomic volatility.

Governance Stability Strengthens Policy Credibility: Political stability, transparency, and institutional quality significantly reduce economic uncertainty by reinforcing investor confidence and improving the consistency of policy signals.

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Persistence of Uncertainty; The lagged value of economic uncertainty was positive and significant, suggesting that past instability carries over into current periods — a hallmark of structural fragility and low policy credibility in the region.

5.2 Conclusion:

This study concludes that inefficient monetary policy is a major driver of economic uncertainty in Sub-Saharan Africa. When central banks fail to maintain policy consistency, independence, or transparency, the result is heightened volatility in inflation, exchange rates, and output growth. Fiscal imbalances and weak governance further exacerbate these dynamics by undermining monetary credibility and distorting expectations. The empirical findings align with theoretical perspectives from the Time Inconsistency Theory and Institutional Credibility Framework, which emphasize the importance of credible, rule-based, and transparent policy actions. Sub-Saharan African economies, therefore, must strengthen their institutional and operational frameworks to ensure that monetary policy becomes a stabilizing rather than destabilizing force. In summary, macroeconomic stability in SSA is not solely a function of policy instruments but of policy credibility, coordination, and institutional strength.

Policy Recommendations

Drawing from the study's findings, the following policy recommendations are advanced:

I. The need to Strengthen Central Bank Independence: Governments should enact and enforce legislation guaranteeing the operational and financial autonomy of central banks. This will enable them to implement policies guided by macroeconomic fundamentals rather than political pressures. Independent central banks are more likely to anchor expectations and reduce uncertainty.

II. Institutionalize Rule-Based Monetary Policy Frameworks: SSA countries should adopt transparent and rules-based policy approaches such as the Taylor Rule or Inflation Targeting Regime. This will reduce discretionary interventions, enhance predictability, and align policy outcomes with market expectations.

III. Improve Fiscal-Monetary Coordination

There is a need for a coordinated macroeconomic framework where fiscal authorities align budgetary policies with monetary targets. This coordination can prevent deficit-induced monetary expansion and reduce the risk of fiscal dominance.

IV. Enhance Governance and Institutional Quality

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Good governance, political stability, and transparency are critical for policy credibility. Strengthening anti-corruption institutions, improving data transparency, and ensuring accountability will boost investor confidence and enhance the effectiveness of monetary actions.

V. Deepen Financial Markets: Developing deeper and more responsive financial systems will improve monetary transmission mechanisms. Efforts should focus on expanding credit markets, developing bond markets, and promoting financial inclusion to make monetary policy more effective.

VI. Regional Policy Harmonization: Regional institutions such as the African Union (AU) and African Monetary Cooperation Program (AMCP) should promote convergence in monetary frameworks, data reporting standards, and policy credibility benchmarks across SSA countries to reduce cross-border volatility.

5.4 Contributions to Knowledge

This study contributes to the body of knowledge in several ways:

I. This study provides empirical evidence linking monetary policy inefficiency to economic uncertainty in Sub-Saharan Africa, a relationship previously underexplored in regional literature.

II. The study constructs a composite index of monetary policy inefficiency, integrating deviations from the Taylor rule and inflation-targeting benchmarks

III. The result highlights the moderating role of institutional credibility and governance stability in mitigating policy-induced uncertainty.

IV. The study offers policy-relevant insights for regional and national monetary authorities striving to strengthen policy credibility and macroeconomic stability.

REFERENCE

Aizeuman and Pinto (2021) Fiscal policy in the US: a new measure of uncertainty and its effects on the American economy. *Empir Econ* 61, 2613–2634 (2021)

Anzuini A, Rossi L, Tommasino P (2020) Fiscal Policy uncertainty and the business cycle: time series evidence from Italy. J Macroecon 65:103238

Baharumshah A, Amed G (2017) Fiscal sustainability in an emerging market economy: When does public debt turn bad? Journal of Policy Modeling Volume 39, Issue 1, January–February 2017, Pages 99-113

ISSN: 2455-8834

Volume:10, Issue:12 "December 2025"

Blot, C., P. Hubert and F. Labondance (2020). Uncertainty and monetary policy in the Euro area. Publication for the committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg

Bloom, Nicholas. (2014). "Fluctuations in Uncertainty." *Journal of Economic Perspectives* 28 (2): 153–76.DOI: 10.1257/jep.28.2.153

Chinnakum, W., Ko, H., Xie, J., Wu, M., & Chaiboonsri, C. (2025). Empirical Analysis of Economic Impact of Monetary Policy and Fiscal Policy in China Under Global Uncertainty. *International Journal of Financial Studies*, *13*(4), 196.

Chaudhuri, E., Kurniawati, S., & Sumarto, S. (2019). Decentralisation and Poverty Reduction: The Role of Local Economies and Institutional Capacity in Indonesia (No. 45; 45).

Ezewulu A.U and Ugwunna (2023), The Impact of Monetary and Fiscal Policies on Stock Market Capitalization of Selected African Countries. Journal of Economic Studies 20 (1), 310-322

Maduka A.C, Alumone I.K, Ugwunna O.T (2014), The Impact of Insecurity on Foreign Direct Investment In Nigeria. An Empirical Analysis. Nnamdi Azikiwe Journal of Political Science 4 (2), 54-65

Mitra G, Gupta V, Gupta G (2025), "Economic policy uncertainty and firm performance: an empirical investigation of Indian firms". *Journal of Indian Business Research*, Vol. 17 No. 3 pp. 193–220, doi: https://doi.org/10.1108/JIBR-09-2024-0217

Miskin, Y.I. (2019). Socialization of budget policy of Ukraine. *Agrarian Media Group.*

Ndou E., Gumata N, Ncube M (2020) Global Economic Uncertainties and Exchange Rate Shocks, Springer Books, Springer, number 978-3-319-62280-4, March

Ndou E, Gumata N (2017) Inflation Dynamics in South Africa, The Role of Thresholds, Exchange RatePass-through and Inflation Expectations on Policy Trade-offs,Springer Books, Springer, number 978-3-319-46702-3, June

Ndou, E. Macroeconomic resilience and GDP growth nexus: evidence from GDP growth dynamics in South Africa. *SN Bus Econ* **5**, 92 (2025). https://doi.org/10.1007/s43546-025-00847-2

Novitasari, M. (2022). The Effect of Fiscal Policy on Income Inequality in South Kalimantan Province [Universitas https://doi.org/10.29103/jmpe.v5i1.8154

