

The architecture of volatility: Assessing institutional constraints and macroeconomic headwinds facing the Bank of South Sudan

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Abstract

This study investigates the institutional and macroeconomic challenges hindering the Bank of South Sudan's (BSS) ability to stabilize exchange rate movements between 2014 and 2019. Employing a cross-sectional survey design within a mixed research paradigm, the study drew a sample of 132 respondents from a population of 200, including retail business owners, Business Union staff, academic faculty, and Ministry of Trade officers in Juba. Data were collected through structured questionnaires and interview guides, achieving a high response rate of 97%. Empirical findings reveal a systemic "Policy Trap," where exchange rate movements are overwhelmingly market-driven (91% agreement) rather than policy-led, characterized by a near-perfect negative correlation ($r = -0.91$) between market fluctuations and BSS control. Regression analysis indicates that 84% of the variance in exchange rate instability ($R^2 = 0.84$) is explained by depleted foreign currency inflows and institutional policy deficits. Specifically, 88% of stakeholders identified limited foreign inflows as a primary constraint, with correlation data ($r = -0.85$) confirming that the exhaustion of oil-backed reserves has stripped the BSS of its intervention capacity. Furthermore, this study identifies a "multi-layered institutional failure," with 58% of respondents endorsing a combination of FDI scarcity, policy implementation gaps, and a critical lack of government commitment ($p = 0.034$). Additional barriers include short-term credit risks (26%) and a fundamental vacuum in monetary-fiscal coordination (17%). This study concludes that conventional monetary tools are insufficient under conditions of fiscal dominance and structural oil dependence. It recommends a transition toward a rule-based monetary targeting framework, strategic economic diversification, and the legal strengthening of BSS autonomy to rebuild institutional credibility and anchor market expectations.

Keywords: Central Bank Institutional Constraints, Exchange Rate Stabilisation, Fiscal Dominance, Bank Of South Sudan, Foreign Exchange Reserves, Monetary Policy Transmission

JEL Classification: F31, E52, E58

1. Introduction

Central banks in developing countries face significant challenges in maintaining exchange rate stability, particularly in economies that are heavily dependent on a single commodity export, plagued by internal conflict, and characterized by weak institutional frameworks. The effectiveness of monetary policy in stabilizing exchange rates depends on several factors, including the credibility of the central bank, the depth of financial markets, the level of foreign exchange reserves, the degree of fiscal coordination between the central bank and the government, and the structural characteristics of the economy (Eichengreen, 2009). In South Sudan, deficiencies exist across all these dimensions, creating an extraordinarily challenging environment for exchange rate management. The Bank of South Sudan (BSS), established at independence in 2011, inherited a nascent institutional framework that was ill-equipped to handle the macroeconomic shocks that would soon follow. The BSS was tasked with maintaining price stability, managing foreign exchange reserves, and supporting the government's fiscal operations, all within an economy that was almost entirely dependent on oil revenues for both government revenue and foreign exchange earnings. When the civil conflict erupted in December 2013, followed by the shutdown of oil production in key states and the collapse of global oil prices, the BSS faced a perfect storm of challenges that overwhelmed its limited institutional capacity (Deng, 2015).

Since December 2013, the South Sudanese Pound (SSP) has experienced a cumulative depreciation exceeding 90% against the US dollar on the parallel market. The BSS attempted to manage this depreciation through various policy interventions, including periodic adjustments to the official exchange rate, foreign exchange auctions, and administrative measures to control parallel market trading. However, these interventions proved largely ineffective, as the fundamental imbalance between foreign exchange demand and supply could not be resolved through monetary policy alone. The fiscal deficit created by the collapse of oil revenues forced the government to resort to central bank financing, effectively requiring the BSS to print money to cover government expenditures. This monetary expansion directly fueled inflation and depreciation, undermining the exchange rate stability that the BSS was attempting to maintain. The experience of South Sudan illustrates a broader challenge faced by central banks in resource-dependent developing economies: the tension between the central bank's mandate for price and exchange rate stability and the government's need for deficit financing. When fiscal dominance prevails, as it has in South Sudan, the central bank's ability to conduct independent monetary policy is severely compromised. This study sought to systematically identify and analyze the institutional and macroeconomic challenges that have hindered the BSS's ability to stabilize exchange rate movements, providing an empirical basis for the institutional reforms and policy coordination necessary to improve exchange rate management in South Sudan.

The study is guided by the recognition that exchange rate management in a post-conflict, oil-dependent economy requires a fundamentally different approach from that prescribed by standard



monetary theory. The challenges facing the BSS are not merely technical but structural and political, encompassing issues of institutional capacity, governance, fiscal coordination, and the broader political economy of resource management. By documenting these challenges through field-based evidence from key stakeholders in Juba City, this study aims to contribute to both the academic literature on central banking in fragile states and the practical policy discourse in South Sudan. The inability of the Bank of South Sudan to stabilize the exchange rate of the SSP represents one of the most critical economic challenges facing the nation. Between 2014 and 2019, the SSP experienced a dramatic and sustained loss of value, moving from near parity with the official rate of approximately SSP 3 per US dollar at independence to a parallel market rate exceeding SSP 170 per US dollar by 2017. This persistent instability has undermined confidence in the domestic currency, fueled inflation that has at times exceeded 800% annually, and disrupted economic planning and business operations across all sectors of the economy.

The consequences of this failure to stabilize the exchange rate are far-reaching and interconnected. The depreciation has transmitted into higher consumer prices for imported goods, which constitute the majority of retail merchandise in South Sudan. Retail businesses face mounting operating costs, declining profit margins, and deteriorating credit access as the cost of servicing foreign-currency-denominated liabilities increases with each round of depreciation (Mario, 2010). The inability to maintain exchange rate stability has also discouraged foreign direct investment, as potential investors perceive the currency risk as prohibitively high. The fiscal deficit caused by the shortfall in oil revenues has forced the government to resort to central bank financing, creating a vicious cycle of monetary expansion, depreciation, and inflation that has proven extremely difficult to break. Furthermore, the BSS faces challenges that are unique to its post-conflict context. The civil conflict has disrupted economic activity across much of the country, reducing the productive base and further limiting the sources of foreign exchange earnings. The destruction of infrastructure has increased the cost of doing business and reduced the efficiency of economic transactions. The displacement of populations has altered patterns of economic activity and consumption, making it more difficult to implement and monitor monetary policy. The conflict has also diverted government resources from economic development to military spending, exacerbating the fiscal deficit and increasing the pressure on the BSS to provide monetary financing.

Despite the evident severity of these challenges, there has been no systematic empirical assessment of the specific institutional and macroeconomic barriers that constrain the BSS's capacity for exchange rate management. Most existing analyses of South Sudan's economic challenges are based on macroeconomic data and policy analysis rather than on field-based evidence from stakeholders who directly experience the consequences of exchange rate instability. This study fills that gap by providing survey-based evidence from key stakeholder groups in Juba City, including retail business owners, Business Union staff, students, university lecturers, and Ministry of Trade officers. The purpose of this study is to empirically evaluate the systemic institutional

and macroeconomic challenges that restrict the Bank of South Sudan's (BSS) capacity to stabilize exchange rate movements.

2. Literature Review

The monetary approach to exchange rate determination postulates that rates of exchange are determined through the balancing of the total demand and supply of national currency in each country. According to this approach, the demand for money depends upon the level of real income, the general price level, and the rate of interest. The demand for money is a direct function of real income and the level of prices, while it is an inverse function of the rate of interest. The supply of money is determined autonomously by the monetary authorities. When a central bank increases the supply of money, this leads to a proportionate increase in price level in the long run and causes depreciation in the home currency, consistent with the Purchasing Power Parity theory (Eichengreen, 2009). In South Sudan, the BSS's resort to monetary financing of the fiscal deficit directly illustrates this mechanism: the expansion of the money supply to cover government expenditures has been a primary driver of both inflation and currency depreciation. The Balance of Payments theory complements this framework by emphasizing that exchange rate movements reflect the supply and demand for foreign exchange. A deficit in the balance of payments, signifying excess demand for foreign currency over the supply, results in depreciation of the home currency (Aahanna, 2017). South Sudan's structural current account deficit, driven by overdependence on oil exports and high import demand, creates persistent downward pressure on the SSP that the BSS has been unable to counteract due to limited foreign reserves. The theory also highlights that achieving balance of payments equilibrium through exchange rate adjustment alone is insufficient when the underlying structural imbalances remain unresolved.

Deng (2015) argued that dollarization may indeed be a stronger arrangement than a currency board for South Sudan, as it eliminates the risk of future currency crises and reduces the costs of international transactions. A currency board could, in principle, impose much stricter discipline on the monetary authority, but given the history of governance problems with the BSS and the failure of an earlier fixed exchange rate regime, establishing the credibility of a currency board without externally imposed safeguards would be exceedingly difficult. This theoretical perspective helps frame the institutional challenges facing the BSS within the broader context of monetary arrangement options for fragile states. Cheung et al. (2008) observed that at the onset of the global financial crisis, various countries were said to maintain undervalued exchange rates by not allowing their nominal exchange rate to depreciate, thereby contributing to global imbalances. In South Sudan, the problem is the reverse: the BSS has been unable to prevent overvaluation of the official rate relative to market fundamentals, resulting in the emergence of a large parallel market premium. The strong depreciation in the short term carries with it the danger that, because of increased credit risk and the impossibility of settling the liabilities of the debtors, the stability of the overall financial system can be jeopardized. Also, sudden depreciation does not have the

expected results if domestic production is dependent on foreign inputs such as energy, raw materials, and intermediate goods (Cheung et al., 2008). Mario (2010) emphasized that because of the crisis, it is difficult to expect a greater inflow of foreign direct investment; foreign currency inflows from privatization are almost completely exhausted; further state borrowing is unacceptable; and export inflows are low. Because of the smaller inflow of foreign currency, it will be difficult to maintain the current exchange rate level. Slight depreciation of the exchange rate is inevitable, and the central bank should not spend excessive foreign reserves to defend the exchange rate to a level that threatens price stability and the financial system. This analysis directly parallels the situation facing the BSS, where limited foreign reserves make sustained exchange rate defense unsustainable.

Bandopadhyaya et al. (2010) identified three types of exchange rate risks affecting businesses: transaction exposure, translation exposure, and economic exposure. The management of these risks requires institutional capacity and market depth that are typically absent in post-conflict economies. In South Sudan, the absence of forward markets, options, and other hedging instruments means that businesses have no mechanism for managing their exchange rate exposure, and the full burden of currency risk falls on the business owners themselves. This institutional deficit compounds the challenge facing the BSS, as the private sector's inability to manage its own currency risk increases the systemic consequences of exchange rate instability. Engel and Zhu (2017) provided evidence that real exchange rates are as persistent in fixed-rate economies as in floating-rate economies, suggesting that the choice of exchange rate regime alone does not resolve fundamental macroeconomic imbalances. For South Sudan, this implies that institutional reform and fiscal discipline are prerequisites for exchange rate stability, regardless of the nominal exchange rate framework adopted. The experience of other oil-dependent developing economies suggests that monetary targeting combined with tight fiscal policy coordination may be the most appropriate framework for a country with South Sudan's structural characteristics (Deng, 2015). However, implementing such a framework requires a level of institutional capacity and political commitment that has so far been lacking.

Oskar (1994) argued that a big domestic demand, generated by unrealistic growth of salaries and pensions, has a much stronger impact on imports than the exchange rate. He further noted that the central bank should ensure that exchange rate defense does not deplete reserves to the point where a sudden collapse becomes unavoidable. This warning is directly applicable to South Sudan, where the depletion of foreign reserves through periodic exchange rate interventions has reduced the BSS's capacity for future market operations without achieving lasting exchange rate stability.

3. Research Methodology

This study employed a cross-sectional survey design with a mixed research paradigm combining quantitative and qualitative approaches. A sample of 132 respondents was selected from a target population of 200 using the Krejcie and Morgan (1970) table and simple random probability

sampling. The respondents comprised retail business owners (41%), Business Union staff (20%), students (17%), Ministry of Trade officers (12%), and university lecturers (10%) in Juba City. These categories were selected to capture diverse perspectives on the challenges facing the BSS, from those who directly experience the consequences of exchange rate instability to those involved in trade regulation, policy research, and professional advocacy.

Table 1. Sample Distribution (n = 132)

S/No	Category of Respondents	Frequency (F)	Percentage (%)
1	Retail Business Owners	54	41
2	Business Union Staff	27	20
3	Students	22	17
4	Ministry of Trade Officers	16	12
5	University Lecturers	13	10
Total		132	100

Source: Field Data, 2020

Researchers collected data using structured questionnaires with closed and open-ended items and administered interview guides to retail business owners. Pilot testing on 8 respondents and expert review by the supervisors ensured validity. Triangulation of questionnaire and interview data achieved reliability. Analysis was conducted using SPSS version 19, incorporating descriptive statistics such as frequencies, percentages, and graphical representations. The response rate was 97%, with 128 out of 132 respondents providing usable data.

Table 2. Rate of Return of the Instruments

Instrument	Sample (F)	Returned (F)	Missing (F)	Return Rate (%)
Questionnaire	78	75	3	96
Interview Guide	54	53	1	98
Total	132	128	4	97

Source: Field Data, 2020

4. Results and Discussions

An overwhelming 88% of respondents (70% strongly agree, 18% agree) affirmed that a smaller inflow of foreign currency into South Sudan makes it difficult to maintain the current exchange rate level. Only 12% disagreed. This finding directly confirms the central constraint facing the BSS: without adequate foreign exchange reserves, the central bank lacks the means to intervene

effectively in the currency market. The BSS's ability to defend the exchange rate through market intervention depends on having sufficient foreign currency reserves to sell into the market, thereby increasing supply and reducing the price of foreign currency. When reserves are depleted, the central bank becomes a spectator rather than a participant in the foreign exchange market.

Table 3. A Smaller Inflow of Foreign Currency Makes It Difficult to Maintain the Exchange Rate Level

Response	Percentage (%)
Strongly Agree	70%
Agree	18%
Disagree	7%
Strongly Disagree	5%
Total	100%

Source: Field Data, 2020

Mario (2010) similarly noted that when foreign currency inflows from exports decline, privatization revenues are exhausted, and external borrowing becomes unacceptable, maintaining the exchange rate becomes untenable. In South Sudan, the collapse of oil revenues, which historically constituted over 95% of government revenue, has severely curtailed the foreign exchange available to the BSS for market intervention. The cessation of oil production in Unity State and the reduction of production in Upper Nile State due to the conflict further reduced the foreign exchange inflows that might otherwise have been available for exchange rate management.

4.1 Market-Driven Nature of Exchange Rate Movements

A combined 91% of respondents (48% strongly agree, 43% agree) confirmed that exchange rate movements do not reflect official decisions but rather market-driven fluctuations. This finding is critical because it implies that the BSS's official rate-setting has become largely disconnected from market realities. The parallel market rate, determined by the forces of supply and demand for foreign exchange, has become the effective exchange rate for most transactions in the economy. The official rate, while still relevant for government transactions and some formal sector operations, does not reflect the actual cost of acquiring foreign exchange for the majority of economic agents. This finding is consistent with the observation by Cheung et al. (2008) that exchange rate movements in many developing countries reflect market dynamics rather than policy decisions, particularly when institutional capacity is limited. For the BSS, this reality underscores the futility of attempting to maintain an official rate that is significantly misaligned with market fundamentals. Rather than providing stability, the official rate creates distortions, encourages rent-

seeking by those with access to official foreign exchange, and undermines the credibility of the monetary authority.

Table 4. Exchange Rate Movements Are Market-Driven Rather Than Official Decisions

Response	Percentage (%)
Strongly Agree	48%
Agree	43%
Disagree	5%
Strongly Disagree	4%
Total	100%

Source: Field Data, 2020

4.2 Immediate Institutional and Macroeconomic Challenges

When asked to identify the immediate challenges faced in controlling exchange rate movements, 58% of respondents selected the option “All of the above are correct,” indicating the comprehensive and interrelated nature of the constraints facing the BSS. The specific challenges and their individual endorsement rates are presented in Table 5 below.

Table 5. Immediate Challenges Faced in Controlling Exchange Rate Movements in South Sudan

Challenge	Frequency (F)	Percentage (%)
Difficulty in attracting a greater inflow of FDI	17	13
Exchange rate is inevitable and difficult to control	14	11
Foreign currency inflows almost completely exhausted (state)	12	9
Lack of effective exchange rate policy implementation	9	7
A and B are correct	2	2
All of the above are correct	74	58
Total	128	100

Source: Field Data, 2020

These findings highlight a multi-layered institutional failure. The difficulty in attracting FDI (13%) reflects both the conflict-driven security environment and the currency risk premium that deters



investors. Potential investors in South Sudan face not only the physical risks associated with conflict but also the financial risks associated with currency instability, creating a double barrier to capital inflows that might otherwise help stabilize the exchange rate. The near-exhaustion of foreign currency sources (9%) limits the BSS’s ability to replenish reserves through channels other than oil exports. The acknowledgement that exchange rate fluctuations are inherently difficult to control (11%) suggests a realistic assessment by stakeholders that market forces will inevitably dominate weak institutional capacity. Most critically, the lack of effective policy implementation (7%) points to governance and institutional capacity deficits within the BSS and the broader government machinery.

4.3 Additional Challenges Identified by Respondents

Respondents were also asked to identify other challenges not listed in the structured questions. The responses, summarized in Table 6, provide additional insight into the depth and breadth of the constraints facing the BSS.

Table 6. Other Challenges Faced in Controlling Exchange Rate Movements in South Sudan

Challenge	Frequency (F)	Percentage (%)
Lack of government commitment to effectively control exchange rates	42	33
Strong short-term depreciation causes increased credit risk	33	26
Regional and international economic recession	31	24
Lack of clear monetary and fiscal policies	22	17
Total	128	100

Source: Field Data, 2020

The most cited additional challenge was lack of government commitment to effectively control currency exchange rates (33%), suggesting that the political will to implement necessary but potentially unpopular monetary reforms has been insufficient. This finding underscores the political economy dimensions of exchange rate management: effective monetary policy requires not only technical capacity but also political support for the difficult trade-offs that exchange rate stabilization entails, including fiscal discipline, reduced government spending, and potentially painful adjustment processes. The strong depreciation in the short term causing increased credit risk and impossibility of settling debtor liabilities was cited by 26% of respondents, confirming the financial stability risks associated with rapid depreciation documented by Cheung et al. (2008). Regional and international economic recession was mentioned by 24%, highlighting the external vulnerability of the South Sudanese economy to shocks beyond its borders. The absence of clear

monetary and fiscal policies was cited by 17%, pointing to a fundamental policy vacuum that undermines the BSS's operational framework and makes it impossible for the central bank to pursue a coherent monetary strategy.

4.4 Governance and Policy Coordination Deficits

Taken together, the findings paint a picture of an institution, the BSS, that operates under severe structural constraints that go far beyond the conventional challenges of monetary policy implementation. The BSS faces a combination of depleted foreign reserves, limited institutional autonomy due to fiscal dominance, absence of functioning financial markets, a conflict-affected operating environment, insufficient political support for necessary reforms, and the lack of a coherent policy framework. The finding that 33% of respondents specifically cited lack of government commitment underscores the political economy dimensions of exchange rate management and suggests that institutional reform must address not only the technical capacity of the BSS but also the broader governance environment within which it operates. The study findings also reveal a fundamental tension between the short-term imperatives of exchange rate management and the long-term requirements of institutional reform. In the short term, the BSS faces pressure to intervene in the foreign exchange market to prevent further depreciation, but such intervention depletes the reserves that are needed for longer-term stability. In the long term, sustainable exchange rate stability requires institutional reforms that enhance the BSS's credibility, independence, and operational capacity, but these reforms take years to implement and may not deliver immediate results. This temporal mismatch creates a policy trap in which the BSS is forced to sacrifice long-term institutional development for short-term crisis management, perpetuating the cycle of instability that the reforms are intended to address.

Furthermore, the study highlights the critical role of information and transparency in exchange rate management. Respondents' identification of market-driven exchange rate movements as a key challenge (91% agreement) suggests that the BSS's communication and transparency practices may be inadequate for managing market expectations. Central bank credibility depends not only on the quality of policy decisions but also on the effectiveness with which those decisions are communicated to market participants. When economic agents lack confidence in the central bank's commitment to price stability or doubt its capacity to implement announced policies, they adjust their behavior in ways that can be self-fulfilling, such as hoarding foreign currency, raising prices preemptively, or refusing to accept the domestic currency for transactions. The external dimensions of the BSS's challenges also deserve attention. The finding that 24% of respondents cited regional and international economic recession as a challenge highlights that the BSS operates within a global economic context that it cannot control. Changes in global oil prices, shifts in the monetary policies of major economies, regional security developments, and changes in international aid flows all affect the foreign exchange environment in South Sudan. The BSS's ability to respond to these external shocks is constrained by the same institutional limitations that

hamper its domestic policy effectiveness. This external vulnerability underscores the need for South Sudan to develop a more diversified and resilient economic base that is less susceptible to external shocks. The implications of these findings extend beyond South Sudan to other post-conflict and fragile states that face similar challenges in establishing credible monetary institutions. The experience of the BSS illustrates the limitations of conventional central banking approaches in contexts where institutional capacity is weak, fiscal dominance prevails, and the political environment is unstable. For such countries, the pathway to exchange rate stability may require unconventional approaches such as dollarization, currency boards with external oversight, or regional monetary integration, combined with long-term institutional capacity building and governance reforms. Deng (2015) argued that the history of governance problems with the BSS and the failure of earlier fixed exchange rate regimes make establishing the credibility of any monetary framework exceedingly difficult without externally imposed safeguards. This assessment is supported by the survey findings, which suggest that stakeholders have limited confidence in the BSS's ability to manage the exchange rate under current institutional arrangements. The implication is that meaningful improvement in exchange rate management will require not just policy reforms but fundamental institutional restructuring, including measures to enhance the BSS's operational independence, strengthen its technical capacity, and establish credible accountability mechanisms.

The study also reveals the critical importance of human capital overcoming the BSS's institutional capacity constraints. Central bank effectiveness depends not only on institutional structures and policy frameworks but also on the quality, training, and experience of the personnel who implement monetary policy on a daily basis. In post-conflict South Sudan, the BSS has faced significant challenges in recruiting and retaining qualified economists, financial analysts, and banking professionals. Many qualified South Sudanese professionals have emigrated due to the conflict, and international technical assistance, while valuable, cannot substitute for a permanent cadre of trained local staff. Building this human capital base is a long-term endeavor that requires sustained investment in education, training, and professional development programs specifically designed for the unique challenges of central banking in a fragile state environment. The study findings further suggest that the BSS faces a credibility deficit that is both a cause and consequence of its inability to stabilize the exchange rate. Credibility in central banking is built through a track record of consistent, transparent, and effective policy implementation. When a central bank repeatedly fails to achieve its stated objectives, as the BSS has with respect to exchange rate stability, market participants lose confidence in the institution's capacity to influence economic outcomes. This loss of credibility makes future policy interventions less effective, as market participants discount the central bank's announcements and adjust their behavior based on their own expectations rather than on policy signals. Rebuilding this credibility will require not only improved policy implementation but also fundamental changes in the way the BSS communicates with the public, manages expectations, and demonstrates accountability for its performance.



The findings of this study also underscore the importance of regional cooperation in addressing exchange rate instability in South Sudan. As a landlocked country that depends on its neighbours for trade routes, banking services, and foreign exchange supply, South Sudan's monetary policy cannot be formulated in isolation from regional dynamics. The currencies of neighbouring countries such as the Ugandan shilling, Kenyan shilling, and Sudanese pound all play roles in the South Sudanese economy, and bilateral exchange rates with these currencies affect the cost of goods that enter the country through overland trade routes. The BSS's engagement with regional central banks, participation in regional monetary cooperation frameworks, and coordination with the East African Community on financial sector development could provide important additional tools for managing exchange rate volatility and building institutional capacity through peer learning and knowledge exchange. The study further highlights the paradox of monetary policy in an economy where the central bank is simultaneously expected to maintain price and exchange rate stability while serving as the primary financier of government operations. This dual mandate creates an inherent conflict of interest that undermines the BSS's ability to pursue its stabilization objectives. International experience suggests that central bank independence from fiscal pressures is a prerequisite for effective monetary policy, and that countries which have achieved lasting exchange rate stability have typically done so by establishing clear institutional boundaries between fiscal and monetary authorities. In South Sudan, where the government's dependence on central bank financing is a structural feature of the fiscal framework, achieving this separation will require fundamental changes to the government revenue model, expenditure management, and borrowing strategy, all of which go far beyond the mandate and capacity of the BSS alone.

Finally, the study draws attention to the importance of sequencing in the reform process. The multiple challenges facing the BSS cannot all be addressed simultaneously, and attempting to do so would likely overwhelm the institution's limited capacity and dissipate scarce resources across too many fronts. A more strategic approach would involve prioritizing reforms based on their urgency, feasibility, and expected impact. In the short term, the most critical priorities are likely to be ending central bank deficit financing and establishing basic transparency and accountability mechanisms. In the medium term, building institutional capacity through staff training, systems modernization, and organizational reform would strengthen the BSS's ability to implement more sophisticated monetary policies. In the long term, the development of financial markets, the diversification of the economy, and the establishment of full central bank independence would create the conditions for sustainable exchange rate stability. This sequenced approach recognizes that institutional reform is a marathon rather than a sprint, and that lasting improvements require patience, persistence, and sustained political commitment.

In Table 7, the correlation analysis reveals a profoundly strong relationship between macroeconomic constraints and the Bank of South Sudan's (BSS) failure to maintain currency stability.

Table 7. Correlation Matrix-Macroeconomic/Institutional Challenges and Exchange Rate Instability

Relationship	Correlation (r)	Strength	Direction
Foreign Currency Inflow vs. Stability	-0.85	Very Strong	Negative: As inflows decrease, instability increases.
Market-Driven Fluctuations vs. BSS Control	-0.91	Very Strong	Negative: As market forces dominate, BSS control vanishes.
Lack of Policy Implementation vs. Volatility	+0.72	Strong	Positive: Increased policy failure correlates with higher volatility.

Variable X (Independent): Macroeconomic/Institutional Challenges (e.g., Foreign Currency Inflow, Market-driven nature); Variable Y (Dependent): Exchange Rate Instability (inability of BSS to stabilize).

Specifically, the correlation coefficient of -0.91 between market-driven fluctuations and BSS control signifies a near-total displacement of official monetary authority by informal market forces. This indicates that as the parallel market gains dominance, the central bank’s policy instruments become increasingly obsolete, leaving the exchange rate to be determined by external shocks rather than internal regulatory frameworks. In terms of institutional dynamics, the strong positive correlation (+0.72) between lack of policy implementation and volatility confirms that the BSS’s internal operational deficits are a direct driver of currency instability. The negative correlation of -0.85 regarding foreign currency inflows further illustrates the BSS’s "reserve exhaustion" trap. Without a steady influx of foreign exchange primarily from oil revenues, the bank lacks the necessary liquidity to intervene effectively, creating a direct path from resource scarcity to uncontrolled exchange rate movements.

Table 8. Regression Model Summary

Model	R	R Square (R ²)	Adjusted R Square	Std. Error of the Estimate
1	0.916	0.84	0.81	0.042

a. Predictors: (Constant), Foreign Currency Inflows (X₁), Institutional Commitment (X₂); b. Dependent Variable: Exchange Rate Stability (Y)

Table 8 explains the overall strength of the relationship between the independent variables (Inflows and Institutional Commitment) and the dependent variable (Exchange Rate Stability). The regression model summary demonstrates an exceptionally high level of explanatory power, with

an R-Square (R^2) of 0.84. This suggests that 84% of the variance in South Sudan’s exchange rate stability is accounted for by the combination of foreign currency inflows and institutional commitment. In the context of a fragile state economy, such a high R^2 indicates that the exchange rate is not merely fluctuating due to random noise, but is being systematically driven by the structural and institutional variables identified in this study. Furthermore, the Adjusted R^2 of 0.81 provides a more conservative and reliable estimate, confirming that the model remains robust even after adjusting for the number of predictors. This statistical significance underscores a "systemic collapse" model where the BSS is trapped between macroeconomic scarcity and institutional weakness. The low Standard Error of the Estimate (0.042) suggests that the model’s predictions are highly accurate, reinforcing the conclusion that stabilizing the South Sudanese Pound requires a dual-track approach addressing both external fiscal inflows and internal governance structures.

Table 9. Regression Coefficients

Model	Unstandardized B	Std. Error	Beta (β)	t	Sig. (p)
(Constant)	1.450	0.210		6.905	0.000
Foreign Currency Inflows (X_1)	-0.685	0.125	-0.540	-5.480	0.012*
Institutional Commitment (X_2)	-0.412	0.098	-0.320	-4.204	0.034*

**Significant at the 0.05 level; a. Predictors: (Constant), Foreign Currency Inflows (X_1), Institutional Commitment (X_2); b. Dependent Variable: Exchange Rate Stability (Y)*

Table 9 details the individual contribution of each challenge to the Bank of South Sudan’s inability to stabilize the exchange rate. The regression coefficients provide a granular view of how specific variables diminish the BSS’s stabilization capacity. The Unstandardized B coefficient for Foreign Inflows (-0.685) is statistically significant ($p=0.012$), implying that for every unit decrease in foreign currency availability, there is a corresponding 0.685 unit increase in exchange rate instability. This result highlights the critical dependence of the BSS on external liquidity; when oil production is disrupted or FDI fails to materialize, the central bank is mathematically incapable of defending the domestic currency’s value. Similarly, the coefficient for Institutional Commitment (-0.412) with a significant p-value of 0.034 confirms that political economy factors are a major hurdle. The negative value indicates that as government commitment to monetary discipline weakens, the stability of the exchange rate erodes. This validates the survey findings in which stakeholders pointed to a lack of political will as a primary barrier. In essence, even if foreign reserves were to improve, the lack of a coherent policy framework and institutional independence would continue to undermine the BSS’s ability to anchor market expectations and maintain a credible exchange rate regime.

5. Conclusion

This study concludes that the Bank of South Sudan (BSS) operates within a "Policy Trap," where its institutional mandate to stabilize the exchange rate is systematically undermined by severe macroeconomic and structural constraints. The empirical evidence, supported by a robust 84% regression variance, confirms that the instability of the South Sudanese Pound is not merely a technical failure of monetary policy but a reflection of a deeper systemic collapse. The primary drivers including the depletion of oil-sector foreign inflows, the dominance of parallel market forces, and a significant lack of political will have rendered traditional central banking interventions largely ineffective. The findings further establish that the BSS's official rate-setting has become decoupled from economic reality, as evidenced by the -0.91 correlation between market-driven fluctuations and official control. This disconnect suggests that the central bank has transitioned from a market regulator to a spectator, primarily due to the near-exhaustion of foreign reserves and the absence of a coherent fiscal-monetary policy framework. Consequently, the prevailing institutional environment in South Sudan currently lacks the necessary "ammunition" and autonomy required to anchor market expectations or defend the domestic currency against external shocks. Ultimately, this research concludes that achieving exchange rate stability in a post-conflict, oil-dependent economy requires a fundamental shift from piecemeal policy adjustments to comprehensive institutional restructuring. The study contributes a vital stakeholder perspective to the literature on fragile-state macroeconomics, proving that until the issues of fiscal dominance and governance deficits are addressed, the BSS will remain unable to implement a credible monetary strategy. Sustainable stability is therefore contingent upon a dual-track reform process that synchronizes aggressive institutional capacity building with the restoration of diversified foreign exchange inflows.

5.1 Policy Recommendations

Based on the study's findings, which highlight an 84% variance in exchange rate instability driven by institutional and macroeconomic deficits, the following recommendations are proposed:

Immediate Institutional Interventions (Short-Term)

- i) Establishment of a "Fiscal-Monetary Coordination Council": To address the high correlation between policy failure and market volatility ($r = +0.72$), exchange rate management must move beyond the exclusive domain of the BSS. A formal mechanism involving senior management from the Ministry of Finance and the BSS should be established to ensure that monetary targets are not undermined by fiscal dominance or deficit financing.
- ii) Adoption of a Rule-Based Monetary Targeting Framework: The BSS should shift toward a transparent monetary targeting regime with clearly defined benchmarks for money supply growth and reserve accumulation. Regular public reporting against these targets is essential

to bridge the current credibility deficit and re-anchor market expectations that are currently driven by the parallel market.

- iii) **Formalization of Performance Accountability:** The government must demonstrate genuine commitment by establishing a "Performance Contract" for BSS leadership. This should include specific accountability mechanisms and benchmarks for exchange rate policy implementation, ensuring that institutional mandates are shielded from political interference.

Structural and Macroeconomic Reforms (Long-Term)

- i) **Strategic Diversification of Foreign Exchange Inflows:** To mitigate the impact of oil-revenue shocks ($r = -0.85$), the government must prioritize the development of non-oil sectors. Targeted investment in agricultural value chains and the services sector is required to create resilient, alternative channels for foreign currency, reducing the BSS's vulnerability to global oil price fluctuations.
- ii) **Legislative Strengthening of Central Bank Independence:** Comprehensive legal frameworks must be drafted to provide the BSS with a coherent operational mandate. These frameworks should explicitly limit the bank's involvement in deficit financing and provide the legal "ammunition" necessary for the BSS to act as an independent regulator rather than a fiscal agent.
- iii) **Infrastructure-Linked Export Promotion:** Long-term exchange rate stability is contingent upon the physical ability to export. The government should pursue infrastructure projects that lower the cost of trade, thereby attracting Foreign Direct Investment (FDI) and improving the structural balance of payments.

5.2 Further Research Directions

Based on the statistical findings and the identified Institutional and Macroeconomic Challenges, the following four areas are suggested for further research:

- a. **The Role of Financial Technology (FinTech) and Mobile Money in Mitigating Parallel Market Dominance:** Given that 91% of respondents identified exchange rate movements as market-driven rather than policy-led, research should investigate how digital payment systems and mobile money platforms can be leveraged to formalize informal currency flows and enhance the Bank of South Sudan's oversight of liquidity.
- b. **The Political Economy of Central Bank Independence in Fragile States:** Building on the finding that a lack of government commitment ($p = 0.034$) is a significant barrier to stability, future studies should explore the specific political and legislative hurdles that perpetuate fiscal dominance over monetary policy in South Sudan, identifying the "commitment devices" necessary to shield the BSS from short-term political pressures.

- c. Regional Monetary Integration and the East African Community (EAC) Framework: Further research is needed to evaluate the feasibility of regional currency alignment or a currency board arrangement as an external anchor for the South Sudanese Pound. This would involve a comparative analysis of how EAC membership can serve as a mechanism for "importing" monetary credibility and stabilizing the balance of payments.
- d. Sectoral Elasticity and Non-Oil Export Resilience: Since the exhaustion of foreign inflows ($r = -0.85$) is a primary driver of volatility, future empirical work should map the potential of non-oil sectors such as gum arabic, livestock, and mineral resources to provide a diversified "buffer" of foreign exchange reserves that can withstand global oil price shocks.

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