



## Policy Interventions, Credit Vulnerabilities and Financial (In)Stability in the COVID-19 Era and Beyond

### Executive Summary

This brief seeks to highlight how monetary and fiscal policymakers should balance their actions with financial stability considerations. This conversation has become more critical following the effects of COVID-19 on economic and financial indicators globally. The consequent analysis and findings presented herein contribute to the understanding of the intersection of prudential agenda, monetary and fiscal policy formulation, and implementation. Accordingly, the brief offers recommendations on the appropriateness of policies and potential interlinkages in the pursuit of financial stability, alongside the traditional macroeconomic objectives of price stability and economic growth. Similarly, it also points out critical aspects relating to the choice of monetary policy tools and actions when financial stability is a concern.

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### 1. Context and Importance

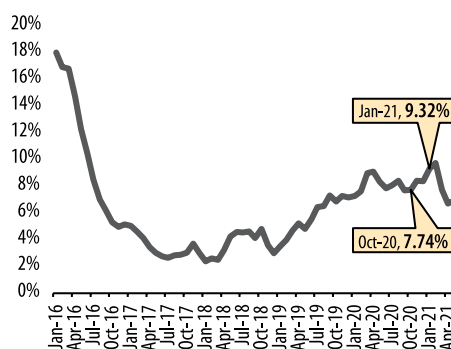
The need for monetary and fiscal authorities to focus on financial stability pursuits in their policymaking has become more critical following global policy responses to the effects of COVID-19 on economies and financial markets globally. Generally, monetary, and fiscal policy interventions are linked with financial stability at two levels – policy tools directly link to key financial variables related to firms/businesses, households, which then secondarily link to financial and/or economic stability. More specifically, the manner in which monetary policy affects financial variables differs -: In the short term, a tightening policy stance may weaken financial stability by (i) reducing household and firms’ earnings, (ii) increasing interest rate burdens, and lastly (iii) reducing asset prices. Defaults and delinquencies in loan repayments may arise from these. However, in the medium term, the effects may very well reverse, as households, firms, and financial institutions adapt their behaviour by reducing leverage and potentially reducing risk-taking behaviour of financial intermediaries.

On the other hand, different fiscal measures, including public debt management, government spending and tax policies, which are generally aimed at economic

activity and higher employment, have the capacity to, directly and indirectly, affect systemic risk and capacity of the financial system to absorb and recover from potential shocks. Consistent, clear and stable tax policies and strategies that are not subject to sudden shocks are essential in maintaining the financial system’s stability. Additionally, higher levels of public debt and related unsustainability concerns may be detrimental to the effectiveness of economic policies to provide the much-needed reprieve during crises. As such, it is important to understand if there are any unintended consequences of either of these policy interventions on financial stability.

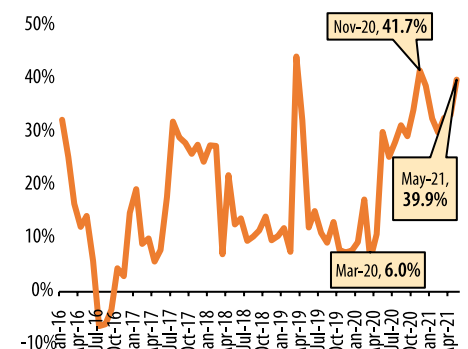
During the COVID-19 era, and against a backdrop of uncertainties, monetary policy easing by the Central Bank of Kenya improved liquidity conditions in the economy and fiscal measures were put in place to stimulate spending and production by households and businesses. The annual growth of the private sector averaged 3.7 percent, 5.8 percent and 8.2 percent in 2018, 2019 and 2020, respectively (Figure 1). The 2020 growth in the private sector credit is considered to have partly benefited from the momentum of the positive impact of the removal of interest rates controls in late 2019 and monetary policy

Figure 1: Y-o-Y Growth in Private Sector Credit



Data Source: Central Bank of Kenya Monetary Statistics

Figure 2: Y-o-Y Growth in Government Credit



easing in early 2020. Credit to the central government (**Figure 2**) accelerated, attributed to the government's increased reliance on domestic sources of finance to fund the widening budget deficit as COVID-19 related spending increased.

One question arises – what do these facts imply about the financial stability of the banking sector? CBK reported that the capital adequacy ratios for the banking sector in 2020 remained stable, albeit lower than in previous years, which indicated an increased efficiency in capital utilization. However, NPL ratios (that reflect credit risk) deteriorated in 2020 as incomes of households and firms were depressed by the effects of the pandemic and its containment measures. The government policy responses – targeted at shoring up economic activity – increased banking sector liquidity more-than proportionately. The resultant buildup in liquidity in the sector – as literature would describe this scenario, may have amplified vulnerabilities of financial markets and distorted financial stability.

In light of these arguments and facts, the following sub-questions are tackled:

- i) What was the effect of monetary and fiscal policy interventions on banking sector stability?
- ii) What was the role of the credit environment in financial stability's response to the policy interventions?

## 2. Methods and Findings

The results presented in this brief are based on analyses of quarterly banking sector data from March (Q1) 2005 to June (Q2) 2021, on varied measures of financial stability, monetary and fiscal policy measures/tools (both monetary and fiscal), and other macroeconomic variables that influence sector-level stability (business cycle, the consumer price index and the intermediation spread). The analytical approach that was adopted allowed an interpretation of the probabilistic effects of the policies on the financial stability indicators.

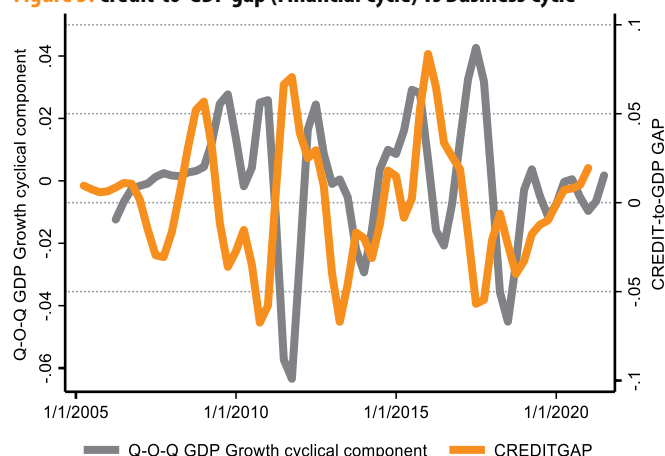
Financial stability measures used are: (i) Asset Quality (Non-Performing Loans to gross loans ratio, capturing credit risk), (ii) Capital Adequacy (Non-Performing Loans to total capital, credit risk), (iii) Volatility of Deposits (liquidity risk) and (iv) Skewness of Deposits (liquidity risk). To capture monetary policy interventions, core policy tools including the Central Bank Rate and the Commercial Bank Reserves ratio are used. To capture fiscal policy interventions, the analysis uses a ratio of government expenditure to total government revenue and grants.

To determine the role of the credit environment in financial stability's response to

the policy interventions, the credit to GDP gap is used to determine the threshold between high and low credit environments. The gap is either positive (high credit environment) or negative (low credit environment) – with a positive gap implying that private sector credit growth exceeds GDP growth, and vice-versa. A disjointed analysis of policy effects in the two credit environments allowed an investigation into the non-linear dynamics between financial stability and policy interventions. Based on these analyses, the brief provides insights on whether positive credit gaps are more benign or can introduce dangerous vulnerabilities that can disrupt the stability of the sector.

To draw inference on the effect of policy interventions - particularly during the pandemic period, the policy shocks imposed in this analysis closely follow the expansionary actions implemented at the time, including a lower Central Bank Rate, lower Reserves ratio, and higher government expenditure and reduced tax revenue. Even so, the results discussed here can be generalised to understand the effects/consequences of expansionary policies implemented in a high or low credit environment. According to **Figure 3**, the pandemic period is characterised as a high credit environment, following the observed trend in the Credit-to-GDP gap.

The main results are presented in **Table 1**, which shows the average (most typical) **Figure 3: Credit-to-GDP gap (Financial Cycle) vs Business Cycle**



response of a financial stability measure to a (one standard deviation) shock in the policy variable. As aforementioned, the response to the policy interventions is assessed in two credit environments defined by the level of the credit-to-GDP gap.

An assessment of financial stability responses to the two monetary policy

**Table 1: Impulse Response Results** (Impulse Variable = Policy Tool; Response Variable = Financial Stability Indicator)

Arrows indicate the direction of the policy effect on the financial stability indicator (▼ indicates reduction, ▲ indicates increase)

Credit Environment	Negative Shock to Central Bank Rate		Negative Shock to Reserves		Positive Shock to Ratio of Government Expenditure to Revenue	
	High	Low	High	Low	High	Low
NPL/Gross Loans	N ►	S ▼	D ▲	D ▲	S ▼	D ▲
NPL/Total Capital	D ▲	S ▼	D ▲	D ▲	S ▼	D ▲
Deposit Skew	S ▲	D ▼	D ▼	S ▲	D ▼	D ▼
Deposits - Relative Volatility	D ▲	S ▼	D ▲	S ▼	D ▲	S ▼

N = Negligible/Null Effect, D = Destabilizing, S = Stabilizing

shocks (CBR and Reserve Requirements) shows that both credit risk indicators are adversely affected in high credit environments. In a low credit environment, however, a lower policy rate is followed by reduced NPL Ratios/credit risk, while a lower reserves ratio is still followed by an increase in the same. A comparison of the original responses to the two policy shocks also shows evidence that the destabilising effects are significantly more pronounced when reserves are lowered. This indicates that this increased funding liquidity may lead to increased bank and borrower risk-taking behaviour when expansionary policy action is facilitated through reduced commercial bank reserve requirements, as compared to when the same is facilitated through the policy rate. An assessment of the response of the relative volatility of deposits shows that both expansionary monetary policy actions increase the relative volatility in a high credit environment (destabilises) but reduces it when credit is low. These results in the two credit environments could be attributed to pronounced (diminished) fluctuations in consumer/spending behaviour by households and firms, in light of an expansionary policy in a high (low) credit environment. The stabilising effect of the expansionary policy in a low credit environment point to more pronounced increase in deposits by households and firms.

The response of the credit risk indicators to fiscal policy interventions shows that an expansionary fiscal stance in an environment of low private sector credit is detrimental to the stability of the banking sector. NPL ratios decline following a similar policy, but only in a high credit environment. This implies that as much as increased government activity/reduced taxes promote economic activity, this does not effectively translate to improved loan quality if private sector credit is already low. This could be attributed to crowding out effects. An analysis of the skew of deposits implies that an expansionary fiscal policy is ultimately followed by a decline in the skew of deposits in both credit environments (introducing liquidity risk concerns). Even so, the same policy stance is associated with more stable deposits in lower credit environments.

### 3. Conclusions and Policy Implications

The purpose of this policy brief and related study has been to inform monetary and fiscal policy formulation and implementation that is cognizant of the pursuit of financial stability agenda in the banking sector. This has been done by investigating the effect of different policy interventions (CBR reduction, lower reserves ratio, higher fiscal spending and tax reliefs) on the aggregate financial stability of the sector and defining the role of the credit environment in the banking sector's response to policy interventions. Following the highlighted results, the brief offers a number of policy recommendations.

“ On the other hand, the response of the credit risk indicators to fiscal policy interventions shows that an expansionary fiscal stance in an environment of low private sector credit is detrimental to the stability of the banking sector.

- First, monetary, and fiscal policies affect credit risk (particularly NPL ratios) and liquidity risk (deposit amounts). This calls the attention of macroeconomic policymakers in recalibrating and interacting their policies with macroprudential considerations.
- Second, the response of financial stability aggregates to the analysed policy interventions varies depending on the credit cycle. The results show that more of the stability indicators respond poorly to expansionary fiscal and monetary policy activity in high credit environment, indicating that this credit environment presents a vulnerability to the sector. As such, policy formulation needs to on-board the role of the credit environment in managing any inadvertent consequences of policy to the stability of the sector.
- Third, in high credit environments, the response of the credit risk indicators to expansionary fiscal policy and monetary policy actions also differs. Expansionary fiscal policy is followed by improvements in the NPL ratios, while the opposite is seen following expansionary monetary policy actions (lower CBR and reserves ratio).
- Fourth, these results highlight a critical aspect relating to the choice of policy tools to deploy particularly when stability considerations are important. In particular, it is established that policy rate reductions are more likely to maintain stability. On the contrary, lowering reserves ratio precedes more pronounced instability in both credit environments, particularly when it comes to credit risk. As such, lower reserves may fulfil the primary mandate of stabilising economic activity fluctuations but present risks to stability.

### Reference

Gillian K., 2022. "COVID-19, Policy Interventions, Credit Growth and Financial (In) Stability". *KBA Working Paper Series (WPS/07/22)*



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