INTERNATIONAL MONETARY FUND

The Importance and Drivers of Stock-Flow Adjustments

Mali

Peter Kovacs and Luc Tucker

SIP/2023/058

***IMF Selected Issues Papers* are prepared by IMF staff as background documentation for periodic consultations with member countries.** It is based on the information available at the time it was completed on May 9, 2023. This paper is also published separately as IMF Country Report No 23/210.

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The Importance and Drivers of Stock-Flow Adjustments in Mali
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ABSTRACT: Stock-flow adjustments—extra-budgetary and below-the-line operations that do not reflect standard spending and revenue—have added 9 percentage points to the debt-to-GDP ratio in Mali over the past decade. That is just under a third of the total increase in public debt over that period. Despite their importance, there is little understanding of the causes of stock-flow adjustments. A number of actions could be taken to either reduce the occurrence of stock-flow adjustments or to increase transparency and monitoring which would assist fiscal policy decision-making.

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I. Background on Debt Dynamics and Stock-Flow Adjustments in Mali

Public debt in Mali has been trending upwards for some time. The debt to GDP ratio doubled over the past decade to reach 52.5 percent in 2022. The increase in domestic debt was especially striking over that period, rising to 25.2 percent of GDP in 2022 from below 5 percent in 2013. External debt also increased to27.3 percent of GDP in 2022, from 21½ percent. These trends contributed to the shift away from highly concessional multilateral and bilateral borrowing to more expensive and shorter-term market-based debt.

The rise in public debt has been particularly marked over recent years, during which Mali has faced multiple shocks. They include regional and global sanctions, the COVID-19 pandemic and its scarring effects, the fallout of the war in Ukraine as well as increasingly frequent extreme weather events, all of which have amplified longstanding economic and social challenges. Mali has also been affected by domestic problems, including insecurity and political instability.

Part of the rise in public debt in Mali is due to 'Stock-flow adjustments' (SFAs). These SFAs represent any extra-budgetary and below-the-line operations that do not reflect standard spending and revenue. Although they are not captured in the normal budget envelope, they need to be financed. When these SFAs are positive, debt therefore increases at a faster pace than dictated by the fiscal deficit. In such cases, the fiscal deficit does not provide a full representation of a country's financing needs.

II. Possible Causes of Stock-Flow Adjustments

In general, there are several possible reasons for the disconnect between the fiscal deficit and the change in public debt, i.e., the presence of non-zero SFAs. Possible factors include:

- **Differences in institutional coverage** between fiscal accounts and debt statistics.
- **Using cash and accrual accounting simultaneously for different transactions**, which creates a disconnect between the cash-based debt and the accruals-based deficit.
- **Asset valuation effects**, for example, if exchange rate movements create a disconnect between external borrowing and the change in the external debt stock measured in local currency.
- **Changes in financial assets** as a result of privatizations or accumulation/depletion of government deposits.
- **Extra-budgetary and off-budget funds**, which can lead to public borrowing that is outside the central government budget.
- **Contingent liabilities including government guarantees**, which have no equivalent in the fiscal deficit until they are called and generate a financing need. These could include recapitalizations of banks or State-Owned Enterprises.

Understanding the causes of SFAs and reducing their occurrence help to ensure debt sustainability. Data limitations often make this process difficult, however. Since it is often not possible to identify the different drivers of observed SFAs or predict their potential future size, it is difficult for governments to set fiscal policy in a way that ensures debt sustainability.

III. The Size of Stock-Flow Adjustments in Mali and the Impact on Public Debt

SFAs have varied markedly in Mali over the past decade, but they have added to public debt over the period as a whole. In 2014, SFAs amounted to -2.5 percent of GDP. The headline deficit in that year was 2.9 percent of GDP, but the effective fiscal deficit including the SFA was just 0.4 percent of GDP. Conversely, in 2019 and 2020 SFAs were positive, at more than 3 percent of GDP. While the headline deficits were 1.7 percent and 5.4 percent of GDP respectively in those years, the effective fiscal deficits including the SFAs were 5 percent and 8.4 percent of GDP respectively. On average over the past decade, SFAs have been positive, at just under 1 percent of GDP.[1]

While it is not straightforward to identify the causes of SFAs, one potential reason for higher SFAs since 2016 could be the change in the debt database. In some cases, that has meant that disbursements on external loans have been collected and recorded after the year in which the loans are made, which increases the outstanding debt in those later years. This could have been further accentuated if COVID-19 restrictions caused difficulties in communicating with donors and collecting and reporting debt data on time.

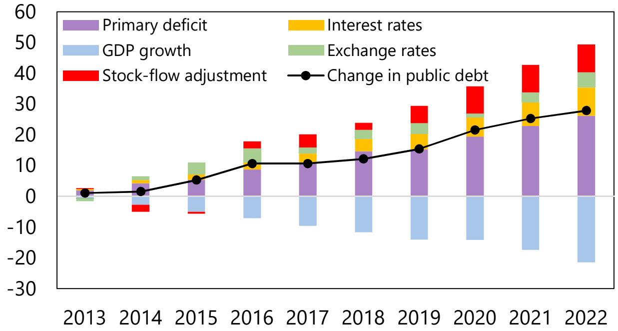
The rise in public debt in Mali has been mostly due to persistent primary fiscal deficits, but the impact of SFAs has also been significant. Of the 28 percentage point increase in the debt-to-GDP ratio over the past decade, SFAs have contributed 9 percentage points, or just under a third (Figure 1). The role of SFAs has been even more significant in recent years. Since 2018, SFAs have contributed 7 percentage points to the 16 percentage point rise in the public debt to GDP ratio, which is more than 40 percent of the total increase.

SFAs have also been large across a number of sub-Saharan African countries and particularly in the WAEMU region. The median SFA averaged 1.1 percent of GDP across sub-Saharan Africa (SSA) over 2013-2019, for example.[2] During the pandemic, the median SFA across SSA was even larger, averaging 1.5 percent of GDP. In the WAEMU region, some countries have reported sizable SFAs, although there is large heterogeneity across countries. In Guinea-Bissau and Senegal, for example, SFAs have added 20 percentage points to public debt ratios over the ten years to 2022, but in Burkina Faso and Niger they have added 5 percentage points or less. Over the WAEMU region as a whole, SFAs have added 13 percentage points to public debt ratios over the period (Figure 2). WAEMU countries with initially higher debt accumulated more SFAs over time, which suggests that if Mali's public debt ratio continues to rise, SFAs could pose a greater risk to the public finances in future.

[1] Other estimates of this historical average cited in the Staff Report and Debt Sustainability Assessment correspond to staff estimates based on previous vintages of the data for the ten years to 2021.

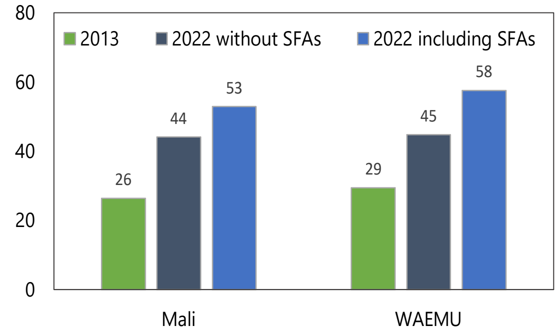
[2] WAEMU Selected Issues Paper (January 19, 2023): Revamping the WAEMU Fiscal Framework.

Figure 1. Contributions to Cumulative Changes in Public Debt as Share of GDP, 2013–22
(Percentage Points)



Source: World Economic Outlook Database and IMF Staff Calculations

Figure 2. The Impact of Stock-Flow Adjustments on Public Debt Between 2013 and 2022
(Percent of GDP)

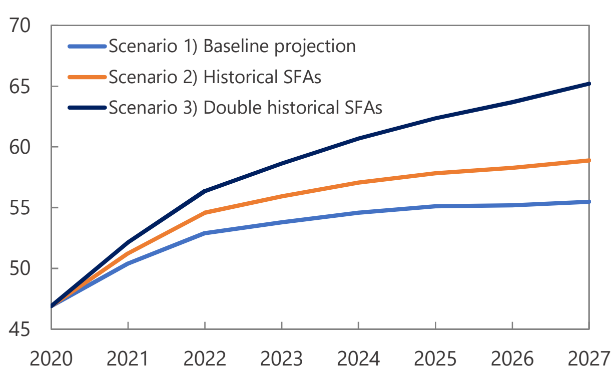


Source: World Economic Outlook Database and IMF Staff Calculations

Debt Dynamics under Alternative Assumptions About stock-flow adjustments. Two scenarios can be used to show the likely path of public debt in Mali if future SFAs are in line with historical averages, or if they are larger than in the past. While the baseline public debt projection for Mali assumes zero SFAs, it is possible to create two alternative scenarios, in which 1) SFAs remain at their historical average (0.9 percent of GDP) and 2) SFAs are double their historical average (1.8 percent of GDP). These scenarios both assume that the fiscal deficit will return to the 3-percent WEAMU ceiling by 2026, in line with the baseline projection.

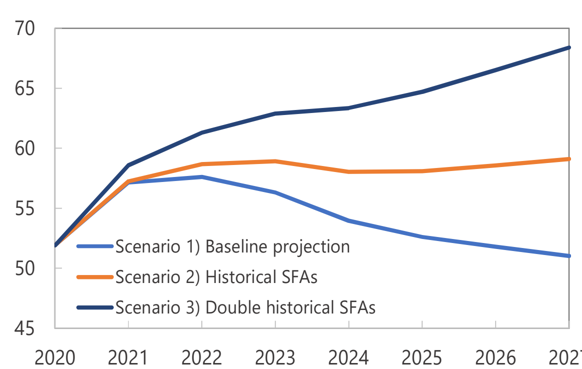
The scenarios demonstrate that SFAs could put public debt on an upward trajectory, both in Mali and across the WAEMU as a whole. Under the first scenario, the debt to GDP ratio in Mali would be 3.5 percentage points higher in 2027 than in the baseline projection, reaching close to 60 percent of GDP (Figure 3). If SFAs were to increase to twice the historical average, debt would be over 65 percent of GDP, close to the 70 percent debt ceiling of the WAEMU region by 2027. Across the WAEMU region as a whole, if SFAs were to be double their historical average the debt to GDP ratio would be expected to rise over the medium term, compared with the baseline forecast where it falls back (Figure 4).

Figure 3. Mali Debt Dynamics Scenarios
(Percent of GDP)



Source: IMF Staff Calculations and projections.

Figure 4. WAEMU Debt Dynamics Scenarios
(Percent of GDP)



Source: IMF Staff Calculations and projections.

IV. Implications and Recommendations

Stock-flow adjustments have contributed significantly to debt accumulation in Mali and other countries in the WAEMU region face similar challenges. Despite their importance, there is little understanding of the causes of SFAs due to data limitations and a lack of systematic monitoring and reporting. Understanding the sources of SFAs and incorporating potential SFAs in fiscal policy decisions is crucial for ensuring debt sustainability.

In addition, given the size of SFAs and heterogeneity across countries in the WAEMU region, the fiscal deficit offers highly incomplete information on fiscal discipline by member countries. A deficit target which only takes into account above-the-line fiscal policy in the region results in an unequal treatment across countries. For example, one country could be deemed to be complying with fiscal rules despite large SFAs, whereas another could be deemed as having failed to meet the rules because they have a larger deficit, but with a smaller SFA, even if those countries see an identical change in their public debt ratios from one year to the next. If SFAs are not monitored and controlled, it could therefore have major implications on the credibility and effectiveness of the WAEMU fiscal rules.

There are several actions that can be taken to reduce the occurrence of SFAs, or improve monitoring:

- ***Authorities should identify and report all drivers of debt accumulation***, including below-the-line and extra-budgetary operations. They should for instance introduce a systematic reconciliation of fiscal and debt accounts, preferably by linking the fiscal- and debt-recording systems.
- ***Accounting standards and practices could be improved and harmonized across the region***. This could include the full, region-wide implementation of GFSM 2001/14, in line with the WAEMU Directive on fiscal statistics. It is important to apply consistent institutional coverage in various transactions above and below the line. The wider use of accrual accounting could also help to ensure that transactions are treated in a consistent way.
- ***Government guarantees and other fiscal risks should be tracked and systematically reported***. This also implies a stronger oversight of State-Owned Enterprises (SOEs), including limitations on quasi-fiscal operations.
- ***SFAs should be accounted for when preparing budgets and medium-term fiscal frameworks***. This would increase the credibility of fiscal strategies.
- ***The authorities need to prevent the accumulation of expenditure arrears*** and prepare settlement plans to reduce past arrears.

Finally, it is important to note that it is not enough to reduce SFAs to achieve debt sustainability in Mali. Since the fiscal deficit is a larger contributor to debt than in other WAEMU countries, significant fiscal consolidation remains critical to put debt on a declining path. Failing to do this would lead to continually increasing debt vulnerabilities.

V. Conclusion

SFAs have added significantly to the increase in Mali's public debt over the past decade, but there remains little understanding or systematic monitoring of their causes. Scenario analysis shows that if SFAs are in line with their past average in Mali and the authorities follow their current fiscal plans, public debt would be expected to increase over the medium term, reaching close to 60 percent of GDP by 2027. A number of actions could be taken to reduce the occurrence of stock-flow adjustments by ensuring that spending is recorded as part of the fiscal deficit wherever possible. Increasing transparency and monitoring would also be beneficial.